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UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, DC 20549

FORM 20-F

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d)

OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended December 31, 2022

Commission file number: 001-14668

COMPANHIA PARANAENSE DE ENERGIA – COPEL

(Exact Name of Registrant as Specified in its Charter)

Energy Company of Paraná
(Translation of Registrant's Name into English)

The Federative Republic of Brazil
(Jurisdiction of Incorporation or Organization)

Rua José Izidoro Biazzetto, 158 – bloco A – 81200-240 Curitiba, Paraná, Brazil
(Address of Principal Executive Offices)

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Rua José Izidoro Biazzetto, 158 – bloco A – CEP 81200-240, Curitiba, Paraná, Brazil
(Name, telephone, e-mail and/or facsimile number and address of company contact person)

Securities registered or to be registered pursuant to Section 12(b) of the Act:

Title of Each Class	Trading Symbol(s)	Name of Each Exchange on Which Registered
Common Shares, without par value	N/A	New York Stock Exchange*
Preferred Class B Shares, without par value	N/A	New York Stock Exchange*
American Depositary Shares (as evidenced by American Depositary Receipts), each representing one Unit consisting of one Common Share and four Preferred Class B Shares of Companhia Paranaense de Energia - COPEL	ELP	New York Stock Exchange

* Not for trading, but only in connection with the listing of American Depositary Shares on the New York Stock Exchange.

Securities registered or to be registered pursuant to Section 12(g) of the Act: None

Securities for which there is a reporting obligation pursuant to Section 15(d) of the Act: None

Indicate the number of outstanding shares of each of the Issuer's classes of capital or common stock as of December 31, 2022:

1,054,090,460 Common Shares, without par value
3,128,000 Class A Preferred Shares, without par value
1,679,335,290 Class B Preferred Shares, without par value

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act.

Yes No

If this report is an annual or transition report, indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934.

Yes No

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports) and (2) has been

subject to such filing requirements for the past 90 days.

Yes No

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files).

Yes No

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or an emerging growth company. See the definitions of “large accelerated filer,” “accelerated filer,” and “emerging growth company” in Rule 12b-2 of the Exchange Act:

Large accelerated filer Accelerated filer
Non-accelerated filer Emerging growth company

If an emerging growth company that prepares its financial statements in accordance with U.S. GAAP, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

†The term “new or revised financial accounting standard” refers to any update issued by the Financial Accounting Standards Board to its Accounting Standards Codification after April 5, 2012.

Indicate by check mark whether the registrant has filed a report on and attestation to its management’s assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (§ 15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report.

If securities are registered pursuant to Section 12(b) of the Act, indicate by check mark whether the financial statements of the registrant included in the filing reflect the correction of an error to previously issued financial statements.

Indicate by check mark whether any of those error corrections are restatements that required a recovery analysis of incentive-based compensation received by any of the registrant’s executive officers during the relevant recovery period pursuant to §240.10D-1(b).

Indicate by check mark which basis of accounting the registrant has used to prepare the financial statements included in this filing:

U.S. GAAP IFRS - International Financial Reporting Standards as Other
issued by the International Accounting Standards Board

If “Other” has been checked in response to the previous question, indicate by check mark which financial statement item the registrant has elected to follow.

Item 17 Item 18

If this is an annual report, indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act).

Yes No

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PRESENTATION OF FINANCIAL AND OTHER INFORMATION

In this annual report, we refer to Companhia Paranaense de Energia – Copel, and, unless the context otherwise requires, its consolidated subsidiaries as “Copel,” the “Company,” “we” or “us.”

References to (i) the “*real*,” “*reais*” or “R\$” are to Brazilian *reais* (plural) and the Brazilian *real* (singular) and (ii) “U.S. dollars,” “dollars” or “US\$” are to United States dollars. We maintain our books and records in *reais*. Certain figures included in this annual report have been subject to rounding adjustments.

Our audited consolidated financial statements as of December 31, 2022 and 2021 and for each of the years ended December 31, 2022, 2021 and 2020 are included in this annual report. We prepared our audited consolidated financial statements included in this annual report in accordance with International Financial Reporting Standards, or “IFRS,” as issued by the International Accounting Standards Board, or “IASB.”

References in this annual report to the “Common Shares,” “Class A Shares” and “Class B Shares” are to our common shares, class A preferred shares, and class B preferred shares, respectively. References to “Units” are to our units each composed of 1 Common Share and 4 Class B Shares. References to “American Depositary Shares” or “ADSs” are to American Depositary Shares, each representing one Unit. Units are listed on “B3” (the São Paulo Stock Exchange or *B3 S.A. – Brasil, Bolsa, Balcão*) and “Latibex” (*Mercado de Valores Latinoamericanos en Euros*). Units ADSs are listed on “NYSE” (the New York Stock Exchange).

Certain terms are defined the first time they are used in this annual report. As used herein, all references to “GW” and “GWh” are to gigawatts and gigawatt hours, respectively, references to “kW” and “kWh” are to kilowatts and kilowatt hours, respectively, references to “MW” and “MWh” are to megawatts and megawatt hours, respectively, and references to “kV” are to kilovolts. These and other technical terms are defined in the “Technical Glossary”.

FORWARD-LOOKING STATEMENTS

This annual report contains forward-looking statements. We may also make written or oral forward-looking statements in our annual report to shareholders, in our offering circulars and prospectuses, in press releases and other written materials and in oral statements made by our officers, directors or employees. These statements are not historical facts and are based on management's current view and estimates of future economic circumstances, industry conditions, company performance and financial results. Forward-looking statements can be identified by the fact that they do not relate only to historical or current facts and may be accompanied by words such as "aim," "anticipate," "believe," "plan," "could," "would," "should," "estimate," "expect," "forecast," "future," "guidance," "intend," "may," "will," "possible," "potential," "predict," "project" or similar words, phrases or expressions, although the absence of any such words or expressions does not mean that a particular statement is not a forward-looking statement. Forward-looking statements speak only as of the date they are made, and we undertake no obligation to update publicly any of them in light of new information or future events.

Forward-looking statements involve only the current view of management and are subject to a number of inherent risks and uncertainties. There is no guarantee that the expected events, trends or results will actually occur. We caution you that a number of important factors could cause actual results to differ materially from those contained in any forward-looking statement. Such factors include, but are not limited to:

- Brazilian political and economic conditions;
- economic conditions in the State of Paraná;
- technical, operational, legal and regulatory conditions related to the provision of electricity services;
- our and the State of Paraná's ability to successfully implement the proposed transaction to disperse our share ownership;
- the outcome of lawsuits against us;
- our ability to obtain financing;
- developments in other emerging market countries;
- changes in, or failure to comply with, governmental regulations;
- competition;
- electricity shortages;
- unfavorable hydrological conditions;
- climate-related developments;
- international economic and political developments;
- the impact of the coronavirus (COVID-19) pandemic;
- the impact of the ongoing conflict in Ukraine and the trade and monetary sanctions that have been imposed in connection with those developments; and
- other factors discussed below under "Item 3. Key Information—Risk Factors."

All forward-looking statements are expressly qualified in their entirety by this cautionary statement, and you should not place undue reliance on any forward-looking statement contained in this annual report.

Item 1. Identity of Directors, Senior Management and Advisers

Not applicable.

Item 2. Offer Statistics and Expected Timetable

Not applicable.

Item 3. Key Information

RISK FACTORS

The following is a summary of the principal risks we face:

- We are controlled by the State of Paraná, the policies and priorities of which directly affect our operations and may conflict with the interests of our investors.
- Disruptions in the operation of, or deterioration of the quality of, our services could have an adverse effect on our business, financial condition and results of operations.
- Failures in dams under our responsibility may cause serious damages to the affected communities, to our results and to our reputation.
- Failures in our cybersecurity controls or unauthorized disclosure of information, as well as failure to comply with existing data privacy and data security laws may adversely affect our business and reputation.
- Our governance, compliance and internal controls may fail to prevent breaches of legal, regulatory, ethical or governance standards.
- The rules for electricity trading and market conditions may affect the sale prices of electricity.
- Our business is subject to risks related to our supply chain which may be substantially and adversely affected by internal or external economic, political, social and natural events, such as pandemics, terrorism acts, border disputes and armed conflicts, among others.
- We are uncertain as to the renewal of certain of our generation and transmission concessions.
- Our operating results depend on prevailing hydrological conditions, which have been volatile recently. The impact of water shortages and resulting measures taken by the government to conserve energy may have a material adverse effect on our business, financial condition and results of operations.
- ANEEL could penalize us for failing to comply with the terms of our concessions or with applicable laws and regulations, and we may not recover the full value of our investment in the event that any of our concessions are terminated.
- We are subject to comprehensive regulation of our business, which fundamentally affects our financial performance.
- The Brazilian Government has significant influence over the Brazilian economy. Brazilian economic and political conditions— and investor perception of these conditions— have a direct impact on our operation.

Risks relating to our Shareholding Structure and the Potential Sale of the State of Paraná's controlling interest

We are controlled by the State of Paraná, the policies and priorities of which directly affect our operations and may conflict with the interests of our investors.

We are controlled by the State of Paraná, which owns 69.7% of our outstanding common voting shares as of the date of this annual report, and whose interests may differ from other shareholders. As a result, the State of Paraná has the power to control all our operations, including the power to elect the majority of the members of our Board of Directors and to determine the outcome of actions that require the approval of common shareholders, including transactions with related parties and corporate reorganizations. The State of Paraná may use its status as our controlling shareholder to promote its public policies or social objectives and not necessarily to meet the objective of improving our business or operating results. In addition, lawsuits involving the State of Paraná may affect its position as a controlling shareholder and, therefore, may affect our capital structure and price of our securities. We cannot guarantee that our corporate

governance policies and structures in place for protection of minority shareholders will be sufficient to fully or effectively address any or all the related risks.

The State of Paraná has proposed to sell part of its equity interests in Copel in a public offering of our common shares and units that results in the dispersion of our share ownership. Failure to implement this proposed transaction may adversely impact the price of our securities and prevent us from renewing certain concessions

In November 2022, a new state legislation approved by the State Congress of the State of Paraná (State Law No. 21,272 of November 24, 2022, or “Copel Disperse Ownership Law”) authorized the State of Paraná to sell part of its equity interests in our share capital and to cease to be our controlling shareholder, pursuant to a secondary public offering of our common shares or units, subject to certain conditions established in the Copel Disperse Ownership Law. The State of Paraná has announced its plan to carry out such offering, aiming to reduce its equity interests in our capital stock, but maintaining at least 15% of our total capital stock, and subject to certain amendments to our bylaws to restrict the exercise of voting rights of any shareholder or group of shareholders to 10% our voting capital, resulting in the dispersion of our share ownership, subject to certain conditions. See “Item 4. Information on the Company—Significant Changes in Our Business—Proposed Dispersion our Share Ownership” for a description of the conditions imposed by the Copel Disperse Ownership Law.

The implementation of the proposed transaction is subject to several risks and uncertainties, including:

- The implementation of the proposed transaction is subject to compliance with all requirements imposed by the Copel Disperse Ownership Law, including the approval of certain amendments to our bylaws, which are subject to certain conditions imposed by the Brazilian Corporations Law (Federal Law no. 6.404 of December 15, 1976).
- The proposed transaction is subject to a number of governmental approvals at the state and federal levels. We cannot guarantee that these approvals will be obtained or the timing for these approvals. Even if these approvals are received, they may be subject to conditions that could adversely impact our operations or that would make the proposed transaction not viable.
- Employees, labor unions, political parties, state and federal prosecutors, civil associations, individuals, minority shareholders, the Federal Government, regulatory agencies and other stakeholders may bring legal proceedings seeking to suspend, delay or prevent the proposed transaction, its financial model, the Copel Disperse Share Ownership Law. If any of these legal proceedings is successful, the proposed transaction may not be implemented or may not be implemented as proposed.
- The State of Paraná is a party to a lawsuit under which a Brazilian financial institution sought to foreclose our shares held by the State. On April 10, 2023, the parties entered into an agreement to settle this dispute. This agreement was ratified by the reporting Justice of the Brazilian Supreme Court (“STF”), who referred the process to the approval of the full court of the STF. There is already a favorable vote of the majority of the Justices, even though the votes may be changed until the court reaches a final decision. If there is a judicial questioning of said agreement before the Supreme Court and if there is a change in understanding capable of reversing the ratified agreement, the implementation of the proposed transaction to disperse our share capital may be impacted. See “Item 3. Key Information—Risk Factors—If the Brazilian Supreme Court does not approve the settlement agreement between the State of Paraná and a Brazilian financial institution that sought to foreclose our shares owned by State of Paraná, our business may be exposed to significant uncertainties”.
- The proposed transaction involves a public offering of our equity securities, subject to market conditions. We cannot guarantee that there will be sufficient demand or that a valuation that is acceptable to the State of Paraná will be obtained.
- Several of our debt financing instruments, including financing agreements with the National Bank for Economic and Social Development (*Banco Nacional de Desenvolvimento Econômico e Social* “BNDES”), and debt securities we issued contain covenants restricting changes in our control or the implementation of the proposed transaction. To avoid the acceleration of the maturity of this debt financing and debt securities, we will be required to obtain the consent from these creditors or holders of securities to amend these instruments or to waive any potential event of default, which may be subject to the payment of fees. We cannot guarantee that these consents will be obtained; if we fail to obtain the required consents, the proposed transaction may not be

implemented, or our entire debt may be accelerated.

- We may incur significant amount of expenses in connection with the proposed transaction, including fees with advisers, independent auditors and others.
- Under applicable Brazilian rules, if we cease to be a state-controlled company, we will be permitted to renew our concessions for certain hydroelectric power plants for 30 years, including for the hydroelectric power plants of Governador Bento Munhoz da Rocha Netto (Foz do Areia), Governador Ney Aminthas de Barros Braga (Segredo) e Governador José Richa (Salto Caxias). The renewal of the Foz do Areia’s concession term, which expires in December 2024 under the terms of the legislation, must occur within 12 months before the end of the concession, upon payment of an award bonus defined by the granting authority, without having to comply with certain burdensome amendments required by the 2013 Concession Renewal Law. If the proposed transaction is not successful, we may not be able to renew some concessions, or may be required to renew them under terms that are not beneficial to us. See “Item 4. Information on the Company—Significant Changes in Our Business—Proposed Dispersion our Share Ownership and Definition of the Concession Granting Bonus for HPP Foz do Areia, HPP Segredo and HPP Salto Caxias”.

We cannot guarantee that the proposed transaction will be successful or that we will cease to be a state-controlled company. If the proposed primary and secondary offering is not successful, the price of our securities may be adversely impacted, and we will not be able to renew our existing concessions for the hydroelectric plants mentioned above, which may adversely impact our business.

The proposed transaction, if successfully implemented, will result in significant changes in the legal regime applicable to our business and our shareholding structure.

If the transaction proposed in the Copel Disperse Ownership Law is implemented, we will no longer be controlled by the State of Paraná, which may have some adverse consequences:

- The proposed transaction is expected to be implemented as a primary and secondary offering of our equity securities. This may result in the dilution of the existing holders of our equity securities.
- In the absence of a controlling shareholder or controlling group, the minimum quorum required by law for certain decisions at shareholders’ meetings may not be reached in respect of certain matters, which could adversely affect our business. We are may also be exposed to shareholder activism, with shareholder groups seeking to cause us to take actions that may not be consistent with our business strategy.
- We may not be able to capture the potential benefits and efficiencies associated with the potential transaction.

If the proposed transaction is implemented as proposed in the Copel Disperse Ownership Law, our bylaws will be amended to limit the voting rights of all shareholders and ADR holders, which could prevent or delay transactions or changes that holders of our shares or ADRs may favor.

If the transaction proposed in the Copel Disperse Ownership Law is implemented, our bylaws will be amended to prevent concentration of more than 10% of our voting shares in the hands of one or a group of shareholders. This may prevent or create difficulties for our equity holders to influence or implement changes in our business or policies. See “Item 4. Information on the Company—Significant Changes in Our Business—Proposed Dispersion our Share Ownership”.

The absence of a single controlling shareholder or group of controlling shareholders may create difficulties for our shareholders to approve certain transactions, because, among other things, the minimum quorum required by law for the approval of certain matters may not be reached. Any sudden and unexpected changes in our management, changes in our corporate policies or strategic direction, takeover attempts or any disputes among shareholders regarding their respective rights may adversely affect our business and results of operations.

Risks Relating to Our Company and our Operations

We are largely dependent upon the economy of the State of Paraná.

The distribution market for most of our sales of electricity is the State of Paraná. Although a more competitive market involving possible sales to customers outside Paraná might develop in the future, our business depends and is expected to continue to depend to a very large extent on the economic conditions of Paraná.

An increase in electricity prices, combined with poor economic performance in the State of Paraná, could affect the ability of some of our distribution customers to pay amounts owed to us. As of December 31, 2022, our overdue receivables in our distribution concession area with Final Customers were R\$526.3 million in the aggregate and our allowance for doubtful accounts related to these receivables was R\$132.1 million. See Note 7 to our audited consolidated financial statements.

In addition, in the event of an economic recession combined with high energy prices, the number of our distribution customers connecting illegally to our distribution grid may increase, which would then reduce our revenue from electricity sales to Final Customers. Energy we lose due to illegal connections is considered a commercial loss (non-technical), and we may incur regulatory penalties if our commercial losses exceed certain established regulatory thresholds calculated by The Brazilian Electricity Regulatory Agency (*Agência Nacional de Energia Elétrica* “ANEEL”). If ANEEL determines that we were not efficient in inspecting and controlling the non-technical losses in the distribution grid, the agency may limit the transfer of such losses to the Final Customers.

Legislative proposals currently under discussion in Congress such as Bill 5325/2019 may change the penalties applicable to concessionaires and limit the inclusion and collection of non-technical losses in the electricity bill to final consumers to a certain quota. In that scenario, concessionaires will no longer be able to charge final consumers for part of the losses that are considered non-technical (such as illegal connections, measurement errors, among others). The passing of the referred bills could adversely affect our financial results.

Disruptions in the operation of, or deterioration of the quality of, our services could have an adverse effect on our business, financial condition and results of operations.

We operate complex electricity generation, transmission and distribution systems and grids, which involves various risks, such as operational setbacks and unexpected interruptions, caused by accidents, breakdown or failure of equipment or processes, performance below expected levels of availability and efficiency of assets, or disasters (such as explosions, fires, natural phenomena, landslides, sabotage, vandalism, and similar events). In addition, operational decisions by authorities responsible for the electricity grid, environment matters, operations and other issues affecting the electricity generation, transmission or distribution could have an adverse effect on the performance and profitability of the operations of our generation, transmission and distribution systems. Our insurance could be insufficient to cover the costs and losses that we may incur as a result of the damages caused to our assets or due to outages.

The revenues that our subsidiaries generate from establishing, operating and maintaining their facilities are related to the availability of equipment and assets, and to the quality of the services (continuity and service in accordance with levels demanded by regulations). Under our concession agreements, we and our subsidiaries are subject to: (i) a reduction of the distributor revenue as a result of the reduction of the so-called “Portion B” allocation in the revenue calculation formula; (ii) a reduction of the Permitted Annual Revenue - APR (*Receita Anual Permitida*, or “RAP”), for the transmission companies; (iii) the effects of the Availability Factor (*Fator de Disponibilidade*, or “FID”) and the offtake guarantee levels for the generation facilities; and (iv) the application of penalties and payment of compensation amounts, depending on the scope, severity and duration of non-availability of the services and equipment. Under Brazilian Law, we are strictly liable for direct and indirect damages resulting from the inadequate supply of electricity such as abrupt interruptions arising from the generation, transmission or distribution systems. Therefore, outages or stoppages in our generation, transmission and distribution facilities, or in substations or grids, may cause a material adverse effect on our business, financial situation and results of operations.

At the end of March 2023, during a scheduled stoppage for inspection, an isolated failure was identified in the upper wear ring of the rotor of a turbine in unit 03 of the Foz do Areia plant, which has a physical unit guarantee of approximately 144.8 average MW. Operations in the respective unit have been suspended, awaiting analysis on the cause of failure and an action plan for its repair. Any financial impacts related to non-generation or any reduction in the physical

guarantee of the plant will be estimated after the conclusion of the repair.

The construction, expansion and operation of our transmission and power generation projects involve significant risks that may have an adverse effect on us.

We are involved in various transmission and generation projects, which is subject to the performance obligations of various third parties over which we have no control. In addition, project development is subject to environmental, engineering and construction risks that can lead to cost overruns, delays and other impediments to timely complete a project within the budget. We cannot assure you that we will be able to (i) obtain all required permits and approvals for our projects, (ii) secure private sector partners for any of our projects, or (iii) obtain adequate financing for our projects or that financing will be available on a non-recourse basis to us. If we are unable to complete a project or such project is delayed, this may decrease our expected financial return from the project, which may lead to impairment. Therefore, our costs may increase or we may fail to achieve the revenues planned in connection with such expansion projects, which may have an adverse effect on our financial condition and results of operations.

We are subject to risks related to social and environmental impacts of our projects.

The construction and operation of our assets may modify the ecosystem, particularly the natural state of the water resources and of the vegetation of the flooded river basin in the case of Hydroelectric Power Plants. Our projects may cause direct and indirect impacts in the local communities, such as housing displacement. They may affect the economic outputs of the local communities, lead to the loss of cultural identity or increase the demand for government services. In these cases, we may be required to implement specific plans to minimize and mitigate those impacts.

Failures in dams under our responsibility may cause serious damages to the affected communities, to our results and to our reputation.

Dams are important infrastructures to our business, and are fundamental components of our Hydroelectric Power Plants for the purposes of diking and storing water, accounting for the majority of our energy generation capacity. However, in any dam, there is an intrinsic risk of ruptures caused by different internal and external factors. Therefore, we are subject to the risk of a dam failure that could have repercussions much greater than just the loss of hydroelectric power generation capacity. A dam failure may result in economic, social, regulatory and environmental damages and potential loss of human life in the communities downstream from the dams, which may have a material adverse effect on our reputation, business, operational results and financial conditions.

We are involved in several lawsuits that could have a material adverse effect on our business if their outcome is unfavorable to us.

We are the defendant in several legal proceedings, mainly relating to civil, administrative, labor and tax claims. The outcome of these proceedings is uncertain and, if determined against us, may result in obligations that could materially affect our results of operations. As of December 31, 2022, our provisions for probable (more likely than not) and reasonably estimated losses were R\$2,037.6 million. For additional information, see “Item 8. Financial Information–A. Consolidated Financial Information–Legal Proceedings.”

We are subject to limitations regarding the amount and use of public sector financing, which could prevent us from obtaining financing and implementing our investment program.

Our current budget anticipates capital expenditures for expansion, modernization, research, infrastructure and environmental projects of R\$2,182.3 million in 2023. As a state-controlled company, we are subject to Brazilian Central Bank Resolution no. 4,995/2022, which limits the exposure of financial institutions to public sector entities and imposes an annual global limit of credit available to public sector entities. We currently exempt from the restrictions imposed by this resolution, as we are not a dependent company, we are listed on B3, and our debt instruments are rated investment grade on a domestic level. However, we cannot guarantee that we will continue to satisfy these requirements or that changes in the applicable resolutions will not impose restrictions in our ability to obtain financing.

Failures in our cybersecurity controls or unauthorized disclosure of information, as well as failure to comply with existing data privacy and data security laws may adversely affect our business and reputation.

We collect, store, process and use various confidential information related to our business and operations. In our ordinary course of business, we also collect and store personal data of our customers in our data centers located at our own premises. We have suffered cyber-attacks in the past leading to the temporary unavailability of part of our systems. Despite our cybersecurity controls, information technology, operation technology and infrastructure, we may be vulnerable to failures whether caused by technical failures, negligence, accident or cyber-attacks. Those failures may result in disclosure or theft of sensitive information, loss of data integrity, misappropriation of funds and disruptions to or interruption in our business operations.

In July 2022, ANEEL Normative Resolution 964/2021 became effective, regulating cyber security rules to the energy industry. Cyber security risks include the risk of interruption in energy supply and the infeasibility of required technical operations. Despite our efforts, the measures adopted by us to prevent and repair cyber security risks and to comply with the described regulation may not be sufficient or effective and we may be subject to service disruption, loss of clients, or temporarily unavailability of essential services or systems.

We are subject to Brazilian laws and regulations relating to data protection and data privacy, mainly the Brazilian Federal Law No. 13,709/2018 (“Brazilian Data Protection Law,” or “LGPD”) that sets forth the legal framework for the processing of personal data and administrative penalties applicable for non-compliance with LGPD. Violations of this statute and related regulations, including leakage of personal data, could result in individual or collective lawsuits against us, the imposition of fines of up to R\$50 million or 2% of the billing of the group in Brazil for infringement, among other civil, administrative and criminal penalties, as well as damage to our reputation, which could have an adverse effect on us and our business, reputation and results of operations.

In February 2023, ANPD Regulation No. 4, which regulates the application of administrative penalties by Brazil’s National Data Protection Authority (ANPD) for non-compliance with LGPD, came into force. The regulation guarantees the proportionality between the severity of the offending agent’s conduct and the sanction to be applied, by defining the criteria for non-pecuniary penalty or the amount of the fines, as appropriate. Following the approval of this regulation, the ANPD is expected to start imposing fines and other administrative penalties on companies that fail to comply with the provisions of the LGPD.

Our governance, compliance and internal controls may fail to prevent breaches of legal, regulatory, ethical or governance standards.

We are subject to breaches of our internal policies and controls relating to anti-corruption, anti-money laundering, securities regulation and related laws and regulations, and to instances of fraudulent behavior, corrupt practices and dishonesty by our directors, officers, employees, contractors or other agents that we may not timely identify or prevent.

Further, we have a large number of contracts with suppliers, with wide distribution and outsourcing of the production chains, and we are not able to control all possible irregularities or to ensure that our selection processes will be sufficient to avoid situations where our suppliers have problems related to compliance with applicable law, sustainability or outsourcing of the production chain under inadequate safety conditions. These risks are increased by the fact that our portfolio includes affiliated companies, such as special purpose companies, some of which we do not hold a controlling interest in.

Although we have an integrity program with timely updates and a process for investigating complaints, our systems may not be effective in all circumstances. Any failure in our capacity to prevent or detect noncompliance with the applicable governance rules or regulatory obligations may cause damages to our reputation or other material adverse effects to our results of operation or financial condition.

The Brazilian Senate is considering Bill 2,896/2022, approved in the House of Representatives in December 2022, whose proposal amends the State Companies Law (Law no. 13,303/2016) to reduce from three years to one month the quarantine for appointment to the Board of Directors and the Executive Board of state-owned and mixed economy companies, applied to a participant in the decision-making structure of a political party or in work linked to organizing, structuring and carrying out an electoral campaign. If approved, this and other changes in the referred law could affect the rules for appointing our officers and board members.

The rules for electricity trading and market conditions may affect the sale prices of electricity.

We perform trading activities through power purchase and sale agreements, mainly in the unregulated electricity market (Free Market), through our generation and trading companies.

Energy trading is affected by changes in the methodology used to calculate energy price in the short-term (*Preço de Liquidação de Diferenças*, or “PLD”). PLD is currently determined by the results of optimization models of operation of the interconnected systems used by the ONS and by Chamber of Commercialization of Electric Energy (*Câmara de Comercialização de Energia Elétrica* or “CCEE”). In such determination, there may be data entry errors or errors in the model, which may lead to an unexpected change of the PLD and possible future republications of the PLD. Any of such events may cause market uncertainty, reduction of liquidity, and financial losses with unexpected price variation. As of January 1, 2021, the PLD is officially calculated for each submarket on an hourly basis, as proposed by the Standing Committee for Analysis of Methodologies and Programs (*Comissão Permanente para Análise de Metodologias e programas Computacionais do Setor Elétrico* or CPAMP), in accordance with the implementation schedule defined by the Ministry of Mines and Energy (*Ministério de Minas e Energia* or “MME”) Ordinance No. 301/2019.

Any change in the energy trading rules related to the increase of restrictions for the entry of new consumers in the Free Market may affect our energy trading business.

Also, excess supply of energy in the market, particularly as a result of new energy projects and incentivized renewable energy projects, including distributed generation projects, may cause a decrease in the energy prices and adversely impact our energy business, with the possibility of effects on electricity sales to final customers, electricity sales to distributors and use of the main distribution and transmission grid.

Our business is subject to risks related to our supply chain which may be substantially and adversely affected by internal or external economic, political, social and natural events, such as pandemics, terrorism acts, border disputes and armed conflicts, among others.

Suppliers, contractors and other third parties may fail to perform existing contracts and obligations, which may unfavorably impact our operations and financial results. Further, being a state-controlled company, we are legally obliged to engage a bidding process for the acquisition of equipment, materials and services, which may not result in the best quality of services, equipment and materials.

The operations of our suppliers and service providers could be substantially and adversely affected by factors and events beyond our control, such as fires, natural disasters, spread of diseases, pandemics, strikes, system failure, terrorist attacks, deforestation, and political or armed conflicts, including the ongoing conflict between Russia and Ukraine, trade sanctions and other similar events, and the developments therein, such as high inflation, volatility in the commodities markets and financial markets, changes in currencies, lack of liquidity in the capital markets, among others. In such a scenario, if the impacted services cannot be replaced or reinstated in the affected region, the supply of electricity to our customers could be impacted or disrupted and our results could be adversely impacted.

We are subject to climate factors and to uncertainties that may adversely impact our operation and results

Our energy generation, transmission and distribution operations are subject to climatic factors and uncertainties related to severe weather events, mainly cyclones, hurricanes, floods, droughts and fires. These events can affect minimum water storage levels in hydroelectric plant reservoirs and lead to the unavailability of our electricity supply systems, resulting in penalties by regulatory bodies, consumer complaints, lawsuits, costs for the restoration of systems, in addition to negatively affecting our results.

Further our wind farms operations are subject to climate factors and to uncertainties related to the speed of wind. The authorizations that govern our power generation activities in wind farms set forth certain performance covenants, which require us to generate minimum amounts of energy on annual and four-year bases in accordance with the energy amounts sold in the correspondent auctions. Non-compliance with such covenants may adversely impact our results.

We are also subject to impacts of uncertainties related to climate change, such as (i) demand for energy; (ii) carbon pricing; and (iii) regulatory requirements to reduce emissions. The potential impacts of such factors are taken into account in business planning and periodically monitored by our Board of Directors.

Our Integrated Risk Management Policy classifies and categorizes climate change effects that may affect our operations and business strategy, leading us to incur financial costs as follows: (i) Physical climate risks - the possibility of the occurrence of losses caused by events associated with frequent and severe weather events (acute) or long-term environmental changes (chronic), which may be related to changes in weather patterns; and (ii) Transition climate risks - the possibility of the occurrence of losses caused by events associated with the process of transition to a low-carbon economy, in which the emission of greenhouse gases is reduced or offset and the natural mechanisms for capturing these gases are preserved.

In the last few years there have been critical climate events, which lead us to promote research regarding future climate scenarios resulting from global warming in hydraulic generation assets (until 2100) and distribution assets (until 2050). If we fail to properly identify and incorporate the risks associated with climate change into our risk framework, to adequately measure, manage and disclose the various financial and operational risks that may result from climate change, or if we fail to adapt our strategy and business model to a changing regulatory and market environment, we could face a material adverse impact on our business growth rates, competitiveness, profitability, capital requirements and financial condition.

Failure to comply with ESG guidelines can adversely affect our operations, results and reputation

Our ESG-related practices are evolving and may include commitments to meet standards or deadlines of enhanced social, governance and sustainable practices, as well as to incorporate sustainability into our business. Failure to meet corporate ESG guidelines or commitments could cause us financial and operational losses, and reputational damage.

We may acquire other companies in the electric sector or new energy concessions, as we already did in the past, which may increase our financial leverage and adversely affect our consolidated performance

We constantly prospect for businesses that are related to our corporate purpose and aligned with our strategic plan. To expand our business, we may participate in auctions for the construction and operation of new power generation and transmission ventures, as well as invest in other companies from the energy sector, as we have done in the past. These acquisitions can increase our financial leverage or reduce our profits. In addition, the integration of the new businesses may not result in the synergy we expect in terms of efficiency gains and economies of scale for our operations, which may adversely affect our operational and financial performance.

Labor disputes may disrupt our operations from time to time

Our employees are represented by unions. Disagreements regarding issues related to divestitures, changes to our business strategy, and reductions in the professional staff may lead to employee reactions. Strikes, work interruptions, or other forms of protests in any of our major suppliers or contractors or at their facilities may undermine our ability to complete relevant projects on time, negatively impacting our results of operations, and affect our ability to achieve long-term strategic goals.

Our shares held by the State of Parana were granted as collateral in a lawsuit between the State of Parana and a Brazilian financial institution, and the release of these shares is subject to the conclusion of the voting session of the full court of the Brazilian Supreme Court that analyses a settlement agreement between the parties, which has been approved by the reporting Justice and received favorable votes by the majority of the Justices

The State of Paraná is a party to a longstanding litigation where a Brazilian financial institution sought to foreclose our shares owned by the State of Paraná. On April 10, 2023, the financial institution and the State of Paraná entered into an agreement to settle this dispute. This settlement agreement was ratified by the reporting Justice, who forwarded the process for approval to the full court of the Supreme Court. There is already a favorable vote of the majority of the Justices. If there is a change of understanding in the Supreme Court, capable of reversing the ratified agreement, with the approval of the majority of its Justices, the implementation of the proposed transaction to disperse our share capital may be impacted.

Risks Relating to the Brazilian Electricity Sector and Other Sectors that We Operate

We are uncertain as to the renewal of certain of our generation and transmission concessions.

Under Federal Law No. 12,783/2013, or the “2013 Concession Renewal Law,” we may only renew our concessions that were in effect as of 1995 (and, in the case of generation facilities, generation concession contracts entered into prior to 2003) for an additional 30-year period (or an additional 20-year period in the case of thermal plants), if we agree to amend the terms of the concession contract to reflect certain new terms and conditions imposed by the 2013 Concession Renewal Law, which vary depending on whether the concession is for generation, transmission or distribution. If we do not agree to amend the concession contract to reflect these new conditions, the concession contract cannot be renewed and will be subject to a competitive bidding process upon its expiration, which we might not win. If we do not renew our generation and transmission concessions or if they are renewed under less favorable conditions, our financial condition and results of operations could be materially adversely affected. For more information, see “Item 4. Information on the Company—The Brazilian Electric Power Industry—Concessions.”

Under the Decree No. 9,271 of January 25, 2018, as amended, generation concessions may be renewed for an additional 30-year period, upon authorization by the granting authority and payment of an award bonus, if the state-controlled concessionaire is privatized. So, if we cease to be a state-controlled company, we will be permitted to renew our concessions for certain hydroelectric power plants, particularly for HPPs Foz do Areia, Segredo, and Salto Caxias, which are expected to expire in 2024, 2032 and 2033, respectively. In this context, we are currently evaluating capital raising alternatives aiming for payment of this award bonus, including a primary offering of our equity securities. However, we cannot guarantee that the proposed dispersion of our share ownership will be successful or that we will be able to obtain funds for renewing these concessions, which may have a material and adverse impact in our business.

Our operating results depend on prevailing hydrological conditions, which have been volatile recently. The impact of water shortages and resulting measures taken by the government to conserve energy may have a material adverse effect on our business, financial condition and results of operations.

We are dependent on the prevailing hydrological conditions throughout Brazil and in the geographic region in which we operate. According to data from ANEEL, approximately 53.9% of Brazil’s installed capacity currently comes from hydroelectric generation facilities. Hydrological conditions in our region, and Brazil in general, are frequently subject to changes because of non-cyclical deviations in average rainfall.

In previous periods of low rainfall, the Brazilian government reacted to poor hydrological conditions by seeking to reduce the consumption of electricity by Final Customers by several means, from general campaigns to reduce energy consumption to rationing programs. The effect of campaigns to reduce energy consumption is not predictable, making it difficult for our distribution business to accurately estimate the volume of energy it needs to purchase for sale to Final Customers. In case of mandatory rationing program, our distribution business would be adversely affected because its revenues are partially based on the volume of electricity it provides through our distribution grid to Final Customers.

With respect to our generation business, in order to compensate for poor hydrological conditions and to maintain adequate water levels in reservoirs, the ONS may order the reduction of generation from Hydroelectric Power Plants, which would be partially compensated by increased generation by Thermoelectric Plants. This mechanism for replacing hydroelectric production with thermoelectric production may not provide all of the energy we need to fulfill our obligations under existing energy supply contracts. To compensate for this deficit, our generation business can be required to purchase energy in the Spot Market, typically at higher prices, and we would not be able to pass on these increased costs. This mechanism impacts all generation companies in Brazil regardless of whether the geographical region in which a specific generator is located is experiencing low rainfall and could have a material adverse effect on our generation business.

In addition, in an extreme scenario, given the increased presence of thermal generation in the national electric matrix, if a shortage of natural gas were to occur, this would increase the general demand for hydroelectric energy in the market and therefore increase the risk that a rationing program would be instated.

Regarding our energy trading business, the effect of volatility in hydrological conditions is the increase of the variation of energy price, which in turn increases the Spot Market volatility, thus affecting our operating results. Spot price (PLD) is determined by the results of optimization models of operation of the interconnected systems used by the ONS and by CCEE. The energy average prices in the short term (“spot”) are calculated by CCEE every hour and are set for each region.

When there is great availability of hydrological resources, the spot price tends to remain at lower levels, which

may not be enough to (i) cover the generation costs of this very same energy (when related to our generation business) and (ii) cover the cost of the power purchase and sale agreement in our energy trading business. In this scenario, long-term energy prices may also be impacted and remain at lower levels, which may reduce our margins or not be enough to cover the generation costs of this very same energy. Conversely, if hydrological availability is affected, spot prices tend to increase significantly, in addition to occasionally impacting the Generation Scaling Factor (“GSF”), which may adversely impact our costs of energy purchases, as the price set forth in power purchase and sale agreements may not be sufficient.

ANEEL could penalize us for failing to comply with the terms of our concessions or with applicable laws and regulations, and we may not recover the full value of our investment in the event that any of our concessions are terminated.

Our concessions are for terms of 20 to 35 years and may be extended if certain conditions are met. In the event that we fail to comply with any term of our concessions or applicable law or regulation, ANEEL may impose penalties on us, which may include warnings, the imposition of potentially substantial fines and restrictions on our operations, among others. ANEEL may also terminate our concessions prior to the expiration of their terms if we fail to comply with their provisions or if they determine that terminating our concessions would be in the public interest, through a forfeiture or expropriation proceeding. In particular, our renewed distribution concession agreement contains both quality and financial metrics that become more restrictive over time, and that we must meet to ensure that our distribution concession agreement is not terminated. If ANEEL terminates any of our concessions before its expiration, we would not be able to operate the segment(s) of our business that had been authorized by the concession. Furthermore, any compensation that we may receive from the Brazilian government for the unamortized portion of our investment may not be sufficient for us to recover the full value of our investment. The early termination or non-renewal of any of our concessions or the imposition of severe fines or penalties by ANEEL could have a material adverse effect on our financial condition and results of operations. See “Item 4. Information on the Company—The Brazilian Electric Power Industry—Concessions.”

We are subject to comprehensive regulation of our business, which fundamentally affects our financial performance.

Our business is subject to extensive regulation by various Brazilian legal and regulatory authorities, particularly the MME and ANEEL, which regulate and oversee various aspects of our business and approve our tariffs. Changes to the laws and regulations governing our operations, which have occurred in the past, could adversely affect our financial condition and results of operations.

For example, the tariffs that we charge for sale of electricity to Captive Customers are determined pursuant to a concession agreement with the Brazilian government through ANEEL. The tariff rates we charge our customers are determined pursuant to a concession agreement and in accordance with ANEEL’s regulation. In addition, ANEEL’s decisions relating to our tariffs may be contested by public authorities or by our customers. Administrative and judicial decisions resulting from these challenges may modify ANEEL’s decisions in a manner that is unfavorable to us, which may adversely affect our financial condition and results of operations.

If any further regulations or new laws are passed by the Brazilian government to lower electricity prices, these new laws and regulations could have a material adverse effect on our results of operations.

Certain customers in our distribution concession area may cease to purchase energy from our distribution business.

Our distribution business generates a large portion of its revenues by selling energy that it purchases from generation companies. Large electricity customers within the geographic area of our concession that meet certain regulatory requirements may qualify as free customers (“Free Customers”). A Free Customer in our distribution concession area is entitled to purchase energy directly from generation and energy trading companies rather than through our distribution business, in which case that Free Customer would cease to pay our distribution business for that energy that we previously supplied.

In addition, ANEEL has issued regulations related to micro and mini distributed generation, which facilitates the purchase or lease of power generation equipment by customers, especially solar photovoltaic modules, to produce energy for their own consumption. Such regulation was revised following the adoption of a new legal framework for distributed generation in Brazil (Federal Law No. 14,300/2022). The legislation was recently regulated by ANEEL’s Normative Resolution No. 1059/2023.

If the number of customers with micro and mini distributed generation within the geographic area of our concession increases, our revenues and results of operations could also be adversely affected.

We generate a portion of our operating revenues from Free Customers who may seek other energy suppliers upon the expiration of their contracts with us.

As of December 31, 2022, we had 1,491 Free Customers, representing approximately 10.4% of our consolidated operating revenues and approximately 16.7% of the total volume of electricity sold by us. As of December 31, 2022, our energy trading company had 1,490 Free Customers, representing approximately 10.4% of our consolidated operating revenues and approximately 16.7% of the total volume of electricity we sold in 2022. Copel GeT had 1 Free Customer on December 31, 2022. The volume of electricity sold to Free Customers in 2022 was not significant to the consolidated operating revenues of Copel GeT. Such Free Customers may seek other energy suppliers upon the expiration of their contracts with us. Additionally, it is possible that our large industrial clients could be authorized by ANEEL to generate electric energy for their own consumption or sale to other parties, in which case they may obtain an authorization or concession for the generation of electric power in a given area, which could adversely affect our results of operations.

We may be forced to purchase or sell energy in the Spot Market at higher or lower prices and we may not be entitled to pass on any increased costs or incurred losses to our Final Customers in a timely manner, or at all.

Under the New Industry Model Law, electric energy distributors, including us, must contract, through public bids conducted by ANEEL, 100% of the forecasted electric energy demand for their respective distribution concession areas. The auctions in which the distributors are allowed to purchase energy are held up to seven years prior to the actual delivery of electric energy. We cannot guarantee that our forecasts for energy demand in our distribution concession area will be accurate. If our forecasts fall short of actual electricity demand, or if we are unable to purchase energy through the regulated market due to lack of energy supply in the market, or if a generation company fails to deliver energy that was previously contracted, we may be forced to make up for the shortfall by entering into short-term agreements to purchase electricity in the Spot Market where we may pay significantly more for energy without being able to pass on these increased costs to our Final Customers. In addition, if we underestimate our distribution energy needs, we may be subject to penalties imposed by the CCEE. Moreover, if our forecasts surpass actual demand by more than the allowed margin (105% of actual demand), including where demand is depressed due to government campaigns in response to poor hydrological conditions or due to reduced economic activity, we may not be able to pass on to our Final Customers the cost of the excess energy that we acquire.

We are subject to a counterparty's credit risk in agreements entered into with Copel Comercialização (Copel Mercado Livre) and in case of default, we may have to sell or purchase energy at a different base price.

Copel Comercialização is subject to a counterparty's credit risk. When Copel Comercialização sells energy, the counterparties to power purchase agreements may default on their contractual obligations, which may cause Copel Comercialização to sell energy at a different base price. In cases where we purchase energy, whether from energy generation projects, in operation or under construction, or even from energy trading, the selling counterparties may also default on the relevant contracts, and, consequently, Copel Comercialização may have to buy energy at a different base price and be subject to regulatory penalties imposed by CCEE due to insufficient contractual guarantees. Our credit analyses and the guarantees or collateral provided by our counterparties in connection with the power purchase and sale agreements may not be sufficient to cover losses we suffer if our counterparties fail to comply with their payment obligation or with their obligation to deliver energy, which may adversely affect our results.

We are subject to the risk of exchange rate variation in connection with energy and import and sale of natural gas.

Our subsidiary Copel Comercialização (Copel Mercado Livre) has obtained authorization from the Ministry of Mines and Energy ("MME") to import energy from Argentina and Uruguay. In addition, Copel Comercialização has authorizations granted by the National Agency of Petroleum, Natural Gas and Biofuels (ANP) for the activities of (i) loading of natural gas; (ii) commercialization of natural gas; (iii) foreign trade agent. In this sense, we will be exposed to exchange rate fluctuation in connection with any such energy import, as well as risk of exchange rate variation for the natural gas market, considering that part of these transactions may be carried out in foreign currencies.

We are subject to unrealized losses or net gains arising out from the mark-to-market of the purchase and sale of energy contracts, which may expose us to the risk of future energy prices.

Our subsidiary Copel Comercialização (Copel Mercado Livre) negotiates energy purchase and sale transactions, and part of these trades are classified as derivative financial instruments measured at fair value through its results. Unrealized net losses or gains resulting from the mark-to-market of these contracts (difference between contracted prices and market prices) are recognized in the results of the fiscal year. This activity may expose our results to the fluctuations of future energy prices.

Our equipment, facilities and operations are subject to numerous environmental and health regulations, which may become more stringent in the future and may result in increased liabilities and increased capital expenditures.

Our distribution, transmission and generation activities are subject to comprehensive federal, state and local legislation, as well as supervision by Brazilian governmental agencies that are responsible for the implementation of environmental and health laws and policies. These agencies could take enforcement action against us for our failure to comply with their regulations and with requirements established for the maintenance of our environmental licenses. These actions could result in, among other things, the imposition of fines, embargoes and revocation of licenses, which could have a material adverse effect on our financial condition and results of operations. It is also possible that enhanced environmental and health regulations will force us to allocate capital towards compliance, and consequently, divert funds away from planned investments. Such a diversion could have a material adverse effect on our financial condition and results of operations.

We are strictly liable for any damages resulting from inadequate provision of electricity services and our insurance policies may not fully cover such damages.

We are strictly liable under Brazilian law for damages resulting from the inadequate provision of electricity distribution services. In addition, our distribution, transmission and generation utilities may be held liable for damages caused to others as a result of interruptions or disturbances arising from the Brazilian generation, transmission or distribution systems, whenever these interruptions or disturbances are not attributed to an identifiable member of ONS. We cannot assure you that our insurance policies will fully cover damages resulting from inadequate rendering of electricity services, which may have an adverse effect on us.

We control Compagas, a company that operates a gas distribution business, and we are consequently exposed to risks inherent to this sector.

We control a business in the gas distribution sector, which is operated by Companhia Paranaense de Gás – “Compagas.” This company is entitled to exclusive rights to distribute piped gas in the State of Paraná. The users are Thermoelectric Plants, cogeneration plants, gas stations, among other companies and residential consumers (captive consumers).

Businesses in the gas distribution sector are subject to a broad set of risks inherent to its operation, including among the main ones:

- Regulatory instability,
- Shortage of natural gas,
- Depending on a single supplier in Brazil,
- Operational failures and accidents in distribution,
- Performance of outsourced service providers,
- Changes in federal and state legislation, in particular due the opening of the gas market and consequent increase in competition, and
- Alternative energy sources.

As a result of these uncertainties, there is no guarantee that the purposes of our gas distribution business will be

achieved, which may have an adverse effect on our results of operations and our business.

We cannot assure the speed of our innovation capacity and our responses in view of the changes the energy sector has been going through as a result of technology advances.

The electric energy sector has been going through changes driven by (i) the decentralization of the power generation systems; (ii) advances in energy storage technologies; (iii) dissemination of digital technologies that improve the efficiency of energy generation, transmission and consumption; (iv) increase of renewable energy sources, such as wind and solar energy; and (v) a tendency of reducing carbon footprints in the energy system, as part of the global efforts to mitigate the effects of climate change. These changes present many challenges and we may not be able to keep up with the effects of the increasing adoption of digital technologies in the electric energy sector and the significant potential of new technology solutions (both with respect to the improvement of processes and services provided to consumers and with respect to the development of new products that may lead to higher productivity gains, more affordable prices, higher competition and the creation of new markets). Investments in research and development may contribute to mitigate the risks related to the transformations of the energy sector and create new opportunities.

We are the controlling shareholder of a thermoelectric power plant in the process of divestment

We own 81.2% of UEG Araucária S.A. (UEGA), an entity that operates the Araucária Thermoelectric Plant (UTE Araucária - 484 MW), which is available to the National Electric System (SIN) to operate in the “merchant mode,” a request for dispatch from the National System Operator (ONS). A plant operating in the merchant mode has no long-term contract and depends on ONS’ decision to operate, which, in turn, considers technical, mainly hydrological, and price aspects to decide for the dispatch of the Araucária TPP. Thus, the plant’s operation is highly dependent on the conditions of the Brazilian energy market, especially hydrological conditions. In 2021 the plant sold 2,196 GWh of energy, while in 2022 the plant sold 238 GWh of energy. There is no assurance that the plant will operate in this or the next years, which may adversely affect UEGA’s results.

In November 2022, our board of directors requested studies for a potential divestment of our ownership interest in UEGA, and the potential divestment is inserted in the process of decarbonization of our generation matrix, according to our Strategic Planning - Vision 2030. We hold a direct and indirect interest of 81.2% in the total and voting capital stock of the company and have announced the intention to sell our participation jointly with our partner, Petróleos Brasileiros S.A. (Petrobras), which holds the remaining 18.8% of the shares. In February 2023, we entered the non-binding proposal phase relating to the sale of all shares in UEGA. We cannot assure you that we will be able to divest from UEGA. The failure to divest from UEGA or the terms of the divestment may diversely impact our financial results and our ability to implement the decarbonization of our generation matrix.

We cannot guarantee that the decarbonization process of our generation matrix will be implemented according to our Strategic Planning - Vision 2030

We cannot guarantee that the process of decarbonization of our generation portfolio involving the divestment of: (i) UEGA; (ii) the concession of UTE Figueira, which has already gone through a modernization process to improve its energy efficiency and the reduction of atmospheric emissions of pollutants; and (iii) Compagas, which operates a gas distribution business will be successfully implemented, and that we will be able to meet the goals in our Strategic Planning – Vision 2030, which could impact our business and financial results.

Risks Relating to Brazil

The Brazilian Government has significant influence over the Brazilian economy. Brazilian economic and political conditions— and investor perception of these conditions— have a direct impact on our operation.

Historically, the country’s political situation has influenced the performance of the Brazilian economy, and political crises have affected the confidence of investors and the public, which resulted in economic deceleration, the downgrading of credit ratings of the Brazilian government and Brazilian issuers, and heightened volatility in the securities issued abroad by Brazilian companies.

Additionally, the Brazilian government has exercised, and continues to exercise, significant influence over the Brazilian economy and often changes monetary, fiscal, credit, exchange and other policies to influence Brazil’s economy.

Our business, financial condition, results of operations and prospects may be adversely affected by changes in government policies, as well as other factors including, without limitation:

- exchange rate movements and volatility;
- inflation and changes in interest rates;
- exchange control policies;
- fiscal policy and changes in tax laws;
- other political, diplomatic, social and economic developments that may affect Brazil or the international markets;
- controls on capital flows; and/or
- limitation on foreign trade.

In the last few years, Brazil faced adverse fiscal developments and political instability. Brazilian GDP grew by 2.9% in 2022, grew by 5.0% in 2021 and decreased by 4.1% in 2020. Unemployment rate was 9.3% in 2022, 11.1% in 2021 and 13.5% in 2020. Inflation, as reported by the consumer price index (IPCA), was 5.79% in 2022, 10.06% in 2021 and 4.52% in 2020. The Brazilian Central Bank's base interest rate (SELIC) was 13.75% on December 31, 2022, 9.25% on December 31, 2021 and 2.0% on December 31, 2020. Considering the accumulated amount for the first three months of 2023, the SELIC rate was 3.21%. Future economic, social and political developments in Brazil may impair our business, financial condition or results of operations, or cause the market value of our securities to decline.

Changes in, or uncertainties regarding the implementation of, the policies above, might generate or contribute to uncertainties in the Brazilian economy. This would increase the volatility of the domestic capital market and the value of Brazilian securities traded abroad, and adversely affect our business, results of operations and financial condition.

Moreover, taking into account the Brazilian presidential system of government, and the considerable influence of the executive power, it is not possible to predict whether the present government have an adverse effect on the Brazilian economy, and consequently on our business.

Political, economic and social events, as well as the perception of risk in Brazil, may affect the market prices of securities in Brazil, including our equity securities.

The Brazilian securities market is influenced by political economic and market conditions in Brazil.

Following the results of the presidential elections held in Brazil in October 2022, there were public demonstrations and protests. On January 8, 2023, protesters stormed government buildings in Brasilia, the country's capital, including the Congress, the Brazilian Supreme Court (*Supremo Tribunal Federal*, or "STF") and the Presidential Palace, which prompted the STF to order participants and certain politicians to be imprisoned and resulted in new investigations. Such events raised concerns in the market about the social and political risks in Brazil. Concurrently, there were vandalism acts affecting transmission towers operated by other Brazilian companies. In March 2023, there were vandalism acts against public and private buildings, public transport and public vehicles in the State of Rio Grande do Norte. We were not directly affected by such acts and demonstrations but similar events could adversely affect our business and operations.

Recent events in 2023 in the Brazilian capital market related to the accounting records identified in the financial statements of the retail sector led investors and lenders to be more cautious and selective in granting credit, widened banking spreads, and reduced investors' confidence in Brazilian companies. Such events may adversely affect the price of Brazilian companies' securities and the restrict the availability of credit in the Brazilian market, which may adversely affect us and our counterparties, suppliers, service providers and business partners.

The Brazilian Senate is considering Bill 2,896/2022, approved in the House of Representatives in December 2022, whose proposal amends the State Companies Law (Law no. 13,306/2016) and reduces, from three years to one

month, the quarantine for appointment to the Board of Directors and the Executive Board of state-owned and mixed economy companies, applied to a participant in the decision-making structure of a political party or in work linked to organizing, structuring and carrying out an electoral campaign. If approved, this and other changes in the referred law could affect the rules for appointing officers and board members.

Inflation and governmental measures to curb inflation, particularly increases in interest rates, may contribute to economic uncertainty in Brazil, and could reduce our margins, results and the market price of the ADSs.

Brazil has in the past experienced extremely high rates of inflation. Brazil's annual inflation rate, measured in accordance with the variation of the Índice Geral de Preços - Disponibilidade Interna ("IGP-DI") index, were 5.03% in the year 2022, 17.7% in the year 2021 and 23.1% in the year 2020. The Brazilian government has in the past taken measures to combat inflation, such as raising the basic Selic interest rate to elevated levels, and public speculation about possible future government actions has had significant negative effects on the Brazilian economy. Although our concession contracts provide for annual adjustments based on inflation indexes, if Brazil experiences substantial inflation in the future, and the Brazilian government adopts inflation control policies similar to those adopted in the past, our costs may increase faster than our revenues, our operating and net margins may decrease and, if investor confidence lags, the price of the ADSs may fall. As a significant part of our debt is subject to the CDI rate or to inflation adjustment based on the IPCA index, any increase in inflation or interest rates results in an increase in our financial expenses. Higher interest rates also adversely impact the terms of our new financings. Inflationary pressures may also curtail our ability to access foreign financial markets and could lead to further government intervention in the economy, including the introduction of government policies that may adversely affect the overall performance of the Brazilian economy.

Negative developments in other countries, especially those in the United States and in developing countries, may negatively impact foreign investment in Brazil and the country's economic growth.

The perception of risk in other countries, including the United States, China, the European Union and emerging countries such as Russia may also adversely impact the price of our equity securities. Investors' reaction to events in other countries may have a material adverse effect on the market value of Brazilian securities, especially those listed on the stock exchange. Crises in the United States, China, the European Union or emerging countries may reduce investor interest in Brazilian companies, including us. The crises involving regional banks in the United States in early March 2023 contributed to lowering the expectation for growth in the economic activity in the United States, with potential effects over other economies, including the Brazilian economy. For example, the prices of stocks listed on the B3 have historically been affected by fluctuations in U.S. interest rates, as well as by variations in the main U.S. stock indexes. Events in other countries and capital markets may adversely affect the market price of our shares to the extent that they may in the future hinder or prevent access to capital markets and financing of investments on acceptable terms.

International investors generally consider Brazil to be an emerging market. Historically, adverse developments in the economies of emerging markets have resulted in investors' perception of greater risk from investments in such markets. Such perceptions regarding emerging market countries have significantly affected the market value of securities of Brazilian issuers. Furthermore, although economic conditions are different in each country, investors' reactions to developments in one country can impact the prices of securities in other countries, including those in Brazil, and this may diminish investors' interest in securities of Brazilian issuers, including ours.

Geopolitical risks external to the market in which we operate and military hostilities, including the ongoing conflict between Russia and Ukraine, as well as economic sanctions imposed as a result of such conflicts, may adversely impact our business.

We are subject to external risks related to our operations and to our supply chain. Global markets are experiencing volatility following the escalation of geopolitical tensions, in particular in connection with the military conflict between Russia and Ukraine. Economic sanctions imposed by the United States, the European Union, the United Kingdom and other countries as a direct consequence of this conflict may impact supply chains, lead to market disruptions, including significant volatility in commodity prices and in the global financial system, including through credit and capital markets instability. These factors could adversely impact our business and increase our costs and expenses and consequently impact our financial condition or results of operations.

The escalation of the Russia-Ukraine conflict may increase geopolitical tensions around the world and cause further disruption to international trade, industrial supply chains and transport, increase market price volatility, with

particular impact on the energy sector, as well as raise regulatory and contractual uncertainty, which may adversely affect our business.

Our financial and operating performance may be adversely affected by epidemics, natural disasters and other catastrophes impacting Brazilian biodiversity, society and economy.

Since the outbreak of COVID-19, we have taken steps and implemented health and safety policies and protocols with the goal to mitigate the effects and protect our employees, businesses and communities around our operations from the threats posed by the pandemic.

The outbreak of new epidemics, natural disasters and other catastrophes, such as the outbreak of COVID-19, on a regional or global scale, may result, at different levels, result in drop in consumption in the commercial and industrial segments, as well as sporadic volatility in the international and/or Brazilian markets, the adoption of governmental and private measures, including restrictions, as a whole or in part, on the circulation and transportation of persons, goods and services and consequently, in the total or partial closure of private establishments and public offices, interruptions to the supply chain, and increased intervention in economies.

These events may have a negative and significant effect on the world economy and on Brazil's economy, and include or may include reduction in the level of economic activity; currency devaluation and volatility; increase in the fiscal deficit and public investment constraints; delays in judicial, arbitral and/or administrative proceedings; imposition, even if only temporarily, of a more onerous tax treatment of our business activities; decrease in the liquidity available in the international and/or Brazilian market; and volatility in the price of raw materials and other inputs, among other effects.

The occurrence of any of these events and their duration may impact the liquidity and market value of our shares and Units and generate negative impacts on the business. We cannot guarantee that regional and/or global outbreaks of communicable diseases will not occur, and if they do occur, we cannot assure that we will be able to prevent a negative impact on our business, operations and financial results.

Fluctuations in currency exchange rates and the devaluation of the real may adversely affect our net income and cash flow.

The Brazilian currency has been devalued periodically in the past in relation to the U.S. dollar and other foreign currencies. As of December 31, 2021, the *Real* vs. U.S. dollar exchange rate was R\$5.58 to US\$1.00, depreciating 7.51% against the U.S. Dollar, compared to December 31, 2020. As of December 31, 2022, the *Real* vs. U.S. dollar exchange rate was R\$5.22 to US\$1.00, depreciating 6.45% against the U.S. Dollar, compared to December 31, 2021. As of April 03, 2023, the *Real* vs. U.S. dollar exchange rate was R\$5.06 to US\$1.00, which represents a 3.07% decrease as compared to the selling rate of R\$5.22 to US\$1.00 on December 31, 2022. Depreciation of the *Real* increases the cost of purchasing electricity from the Itaipu – a hydroelectric facility, one of our major suppliers, which adjusts its electricity prices based in part on its U.S. dollar costs. Indeed, depreciation generally curtails access to international capital markets and may prompt government intervention. It also reduces the U.S. dollar value of our dividends and the U.S. dollar equivalent of the market price of our ADSs.

Changes in Brazilian tax policies may have an adverse effect on us and our shareholders.

The Brazilian government has in the past changed its tax policies in ways that affected the electricity sector, and it may do so again in the future. These changes include increases in the tax rates affecting energy companies and, occasionally, the collection of temporary taxes related to specific governmental purposes. If we are unable to adjust our tariffs accordingly, we may be adversely affected.

The Brazilian Government is discussing potential proposals of tax reform aiming at: (a) imposing dividends taxation; and (b) altering indirect taxation, especially regarding the creation of Value Added Tax centralizing and replacing certain taxes on consumption (e.g., PIS and COFINS contributions, IPI, ICMS and ISS). We formalized a work group to assess the impacts and risks that this change may have on our financial results. The group concluded that the impacts for us will likely be low, considering that the market in which we operate has regulated tariffs and bilateral contracts, which are expected to rebalance prices in the event of new taxes. However, we estimate CBS could lead to a tariff increase for the Final Customers of our distribution concession, due to the increase in the tax rate. Our shareholders

could also be affected, in case of higher taxation of dividends.

In February 2023, the STF issued a decision recognizing the possibility of reverting final and unappealable decisions issued by Brazilian courts on tax matters, in case the STF subsequently changes its interpretation with respect to such matters. Although the impact of such decision is not material to our business, the issuance of similar court rulings with immediate effects on tax matters decided in final and unappealable decisions may impact our business in the future. This may expose us to immediate obligations to pay taxes in case the STF changes its positions on tax matters involving our business.

Risks Relating to the Units ADSs

ADSs holders may not have all the rights of our shareholders, and may be unable to exercise voting rights or preemptive rights relating to the shares underlying their Units.

Our bylaws provide for the issuance of Units, each consisting of four Preferred Class B Shares and one Common Share. A holder of Units has the right to request, at any time, the cancellation of the Units and the consequent delivery of the respective deposited shares to the depository financial institution, in compliance with the terms, rules and procedures established by our Board of Directors.

Holders of Preferred Shares do not have the same voting rights attributed to holders of Common Shares by Brazilian law or our bylaws, and thus only the 1 Common Share in each Unit that underlie ADSs has full voting rights. Moreover, the rights of ADS holders may be subject to certain limitations provided in the deposit agreement or by the securities intermediaries through which ADS holders hold their securities.

- Although ADS holders are permitted to vote at shareholders' meetings, there are procedural steps involved in the process that create practical limitations on the ability of ADS holders to vote. In the case of adoption of multiple voting for election of members of the Board of Directors, holders of ADSs may not have the same rights and may not be subject to the same rules as holders of common shares or units in the Brazilian securities market. In accordance with the Deposit Agreement, we will provide the notice to the Depository, which will in turn mail to holders of ADSs the notice of such meeting and a statement as to the manner in which instructions may be given by holders. To exercise their voting rights, ADS holders must then instruct the Depository how to vote their shares. Because of this extra procedural step involving the Depository, the process for exercising voting rights will take longer for ADS holders than for direct holders of Class B Shares or Common Shares. ADSs for which the Depository does not receive timely voting instructions will not be voted.
- The holders of the Common Shares, Class B Shares or Units may have fewer and less well-defined rights to protect your interests in connection with actions taken by our Board of Directors or the controlling shareholder than under the laws of the United States and certain other jurisdictions outside Brazil. Although Brazilian law imposes restrictions on insider trading and price manipulation, the Brazilian securities markets are not as highly supervised as the United States securities markets or markets in certain other jurisdictions outside Brazil.
- The ability of ADS holders to exercise preemptive rights is not assured, particularly if the applicable law in the holder's jurisdiction (for example, the Securities Act in the United States) requires that either a registration statement be effective or an exemption from registration be available with respect to those rights, as is in the case in the United States. We are not obligated to extend the offer of preemptive rights to holders of ADSs, to file a registration statement in the United States, and we cannot assure that we will file any such registration statement. Accordingly, ADS holders may receive only the net proceeds from the sale of their preemptive rights by the Depository or, if the preemptive rights cannot be sold, they will be allowed to lapse. If they are unable to participate in rights offerings, their holdings may also be diluted.
- ADS holders may not receive dividend payments if we incur net losses or our net profit does not reach certain levels. Under Brazilian Corporate Law and our by-laws, we must pay our shareholders a mandatory distribution equal to at least 25% of our adjusted net profit for the preceding fiscal year, with holders of preferred shares having priority of payment. According to our bylaws, Class A Shares and Class B Shares

are entitled to receive annual, non-cumulative minimum dividends, which dividend per share shall be at least 10% higher than the dividends per share paid to the holders of the Common Shares. Class A Shares have a dividend priority over the Class B Shares to receive a minimum dividend equal to 10% of the total share capital represented by the Class A Shares outstanding at the end of the fiscal year in respect of which the dividends have been declared, and Class B Shares have a dividend priority over the Common Shares. Units are entitled to dividends equal to their underlying shares. In the event that we are unable to declare dividends, our management may nevertheless decide to defer payment of dividends or, in limited circumstances, not to declare dividends at all. We cannot make dividend payments from our legal reserve and capital reserve accounts.

Sales of a substantial number of shares, Units or ADSs, or the perception that such sales might take place, could adversely affect the prevailing market price of our shares or Units and ADSs.

As a consequence of the issuance of new shares, Units or ADSs, sales of shares, Units or ADSs by existing investors, or the perception that such a sale might occur, the market price of our shares, Units and ADSs may decrease significantly.

Future equity issuances may dilute the holdings of current holders of our shares, Units or ADSs and could materially affect the market price for those securities.

We may in the future decide to offer additional equity to raise capital or for other purposes. Any such future equity offering could reduce the proportionate ownership and interests of holders of our shares, Units and ADSs, as well as our earnings and net equity value per share, Unit or ADS. Any offering of shares, Unit and ADSs by us or our main shareholders, or a perception that any such offering is imminent, could have an adverse effect on the market price of these securities.

Holders of our ADSs may be unable to enforce judgments against our directors or officers.

All of our directors and officers named in this annual report reside in Brazil. Substantially all of our assets, as well as the assets of these persons, are located in Brazil. As a result, it may not be possible for holders of our ADSs to effect service of process upon us or our directors and officers within the United States or other jurisdictions outside Brazil, attach their assets or enforce against us or our directors and officers judgments obtained in the United States or other jurisdictions outside of Brazil. Because judgments of U.S. courts for civil liabilities based upon the U.S. federal securities laws may only be enforced in Brazil if certain requirements are met, holders of ADSs may face greater difficulties in protecting their interest in actions against us or our directors and officers than would shareholders of a corporation incorporated in a state or other jurisdiction of the United States.

Judgments of Brazilian courts with respect to our shares or Units will be payable only in reais.

If proceedings are brought in the courts of Brazil seeking to enforce our obligations in respect of our shares or Units, we will not be required to discharge any such obligations in a currency other than Reais (R\$). Under Brazilian exchange control limitations, an obligation in Brazil to pay amounts denominated in a currency other than reais (R\$) may only be satisfied in Brazilian currency at the exchange rate, as determined by the Brazilian Central Bank, in effect on the date the judgment is obtained, and any such amounts are then adjusted to reflect exchange rate variations through the effective payment date. The then prevailing exchange rate may not afford non Brazilian investors with full compensation for any claim arising out of, or related to, our obligations under our shares or Units.

If you exchange your ADSs for Units, you risk increased taxes and the inability to remit foreign currency abroad.

Brazilian law requires that parties obtain a registration before the Brazilian Central Bank in order to be allowed to remit foreign currencies, including U.S. dollars, abroad. For the ADSs, the Brazilian custodian for the Units has obtained the necessary certificate from the Brazilian Central Bank for the payment of dividends or other cash distributions relating to the preferred shares and Units or upon the disposition of the preferred shares or Units. If you exchange your ADSs for the underlying Units, however, you must obtain your own certificate of registration or register in accordance with Brazilian Central Bank and CVM rules in order to obtain and remit U.S. dollars abroad upon the disposition of the Units or distributions relating to their underlying shares. If you do not obtain a certificate of registration, you may not be able to remit U.S. dollars or other currencies abroad and may be subject to less favorable tax treatment on gains with

respect to the Units. Pursuant to Brazilian Central Bank rules, obtaining this registration requires exchange transactions, which are subject to taxes in Brazil. For more information, see “Item 10. Additional Information—Taxation—Brazilian Tax Considerations—Other Brazilian Taxes.” If you attempt to obtain your own registration, you may incur expenses or suffer delays in the application process, which could delay your ability to receive dividends or distributions relating to the shares underlying the Units or the return of your capital in a timely manner. The custodian’s registration before the Brazilian Central Bank and any certificate of foreign capital registration you obtain may be affected by future legislative changes. Additional restrictions may be imposed in the future on the disposition of the underlying Units or the repatriation of the proceeds from disposition.

The Brazilian government may impose exchange controls and restrictions on remittances abroad which may adversely affect your ability to convert funds in reais into other currencies and to remit other currencies abroad.

In the past, the Brazilian government has imposed restrictions on the remittance to foreign investors of the proceeds of their investments in Brazil and the conversion of Brazilian currency into foreign currencies. The Brazilian government could again choose to impose this type of restriction if, among other things, there is deterioration in Brazilian foreign currency reserves or a shift in Brazil’s exchange rate policy. Reintroduction of these restrictions would hinder or prevent your ability to convert dividends, distributions or the proceeds from any sale of Units, as the case may be, from *reais* into U.S. dollars or other currencies and to remit those funds abroad. We cannot assure you that the Brazilian government will not take similar measures in the future.

The relative volatility and illiquidity of the Brazilian securities markets may impair your ability to sell the Units underlying the ADSs.

The Brazilian securities markets are substantially smaller, less liquid, more concentrated and more volatile than major securities markets in the United States and certain other jurisdictions outside Brazil, and are not as highly regulated or supervised as some of these other markets. The illiquidity and relatively small market capitalization of the Brazilian equity markets may cause the market price of securities of Brazilian companies, including our ADSs, Units, Common Shares and Class B Shares, to fluctuate in both the domestic and international markets, and may substantially limit your ability to sell the Units underlying your ADSs at a price and time at which you wish to do so. Our capital stock is currently composed of different types of equity securities (Common Shares, Class A Shares, Class B Shares, Units and ADSs), which further contributes to a reduced liquidity.

Changes in Brazilian tax laws may have an adverse impact on the taxes applicable to a disposition of our shares, Units or ADS.

Law No. 10,833 of December 29, 2003, provides that the disposition of assets located in Brazil by a non-resident to either a Brazilian resident or a non-resident is subject to taxation in Brazil, regardless of whether the disposition occurs outside or within Brazil. This provision results in the imposition of income tax on the gains arising from a disposition of our common or preferred shares by a nonresident of Brazil to another non-resident of Brazil. There is no judicial guidance as to the application of Law No. 10,833 and, accordingly, we are unable to predict whether Brazilian courts may decide that it applies to dispositions of our ADS between nonresidents of Brazil. However, in the event that the disposition of assets is interpreted to include a disposition of our ADS, this tax law would accordingly result in the imposition of withholding taxes on the disposition of our ADS by a non-resident of Brazil to another non-resident of Brazil.

Item 4. Information on the Company

THE COMPANY

We engage in the generation, transmission, distribution and sale of electricity mainly in the Brazilian State of Paraná, pursuant to concessions granted by ANEEL, the Brazilian regulatory agency for the electricity sector. While our activities are more concentrated in the Brazilian State of Paraná, we also operate in ten different Brazilian states through our generation and transmission businesses.

As of December 31, 2022, we generated electricity from 18 hydroelectric plants, 34 wind plants and one Thermoelectric Plant, for a total installed capacity of 5,758 MW, of which approximately 99.7% was derived from renewable sources. Including the installed capacity of generation companies in which we have an equity interest, our total installed capacity was 6,705 MW. On January 30, 2023, we completed the acquisition of the Aventura and Santa Rosa & Mundo Novo Wind Complexes, which increased our total installed capacity to 6,966 MW. Our electric power business is subject to comprehensive regulation by ANEEL.

We hold concessions to distribute electricity in 394 of the 399 municipalities in the State of Paraná and in the municipality of Porto União in the State of Santa Catarina. As of December 31, 2022, we owned and operated 3,705 km of transmission lines and 208,133 km of distribution lines, constituting one of the largest distribution grids in Brazil. Below is the distribution of electricity supply in 2022 by consumption class, including free customers:

- 38.7% was to industrial customers;
- 26.0% was to residential customers;
- 19.8% was to commercial customers; and
- 15.5% was to rural and other customers.

Key elements of our business strategy are:

- Maximize our value through sustainable growth, profitability, adequate indebtedness levels and shareholder remuneration.
- Seek to be a reference in customer satisfaction.
- Seek profitable opportunities related to new businesses and services in the energy sector.
- Promote and ensure adherence to best ESG, risk management and compliance practices.
- Manage an integrated and strategic energy portfolio, including strategic partnerships and maximizing synergies and profitability.
- Divest from non-strategic assets.
- Pursue excellence in business processes.
- Promote people-focused management, strengthening team engagement and reinforcing the culture of meritocracy.
- Seek greater protagonism in our interaction with regulators and institutions.
- Consolidate a culture focused on safety, health and quality of life.
- Adopt new technologies to optimize our business and continually raise cybersecurity levels.

- Encourage innovation as a lever for growth, increased customer satisfaction and loyalty, and process improvement.

Our revenues for each of the last three fiscal years by activity are described in “Item 5. Operating and Financial Review and Prospects — Results of operations for the years ended December 31, 2022, 2021 and 2020.”

Historical Background

We were formed in 1954 by the State of Paraná to engage in the generation, transmission and distribution of electricity, as part of a plan to bring the electric energy sector under state control. We acquired the principal private power companies located in the State of Paraná in the early 1970s. From 1970 to 1977, we significantly expanded our transmission and distribution grid and worked to increase the connectivity of our grid to grids in other Brazilian states. In 1979, a change in state law permitted us to extend our generating activities to include production from sources other than hydroelectric and thermal power plants.

Currently, we are the largest energy company in the State of Paraná. We are a corporation incorporated and existing under the laws of Brazil, with the legal name Companhia Paranaense de Energia – Copel. Our head offices are located at Rua José Izidoro Biazetto, 158 – Bloco A - CEP 81200-240, Curitiba, Paraná, Brazil. Our telephone number at the head office is +55 (41) 3331-4011. Our website is www.copel.com and any filings we make electronically with the SEC will be available to the public over the Internet at the SEC’s website. The commercial name of each of our businesses is provided as follows.

Relationship with the State of Paraná

As of December 31, 2022, the State of Paraná owned 69.7% of our Common Shares and, consequently, has the ability to control the election of the majority of the members of our Board of Directors, members of our Supervisory Board, the appointment of senior management and our direction, future operations and business strategy.

Corporate Structure

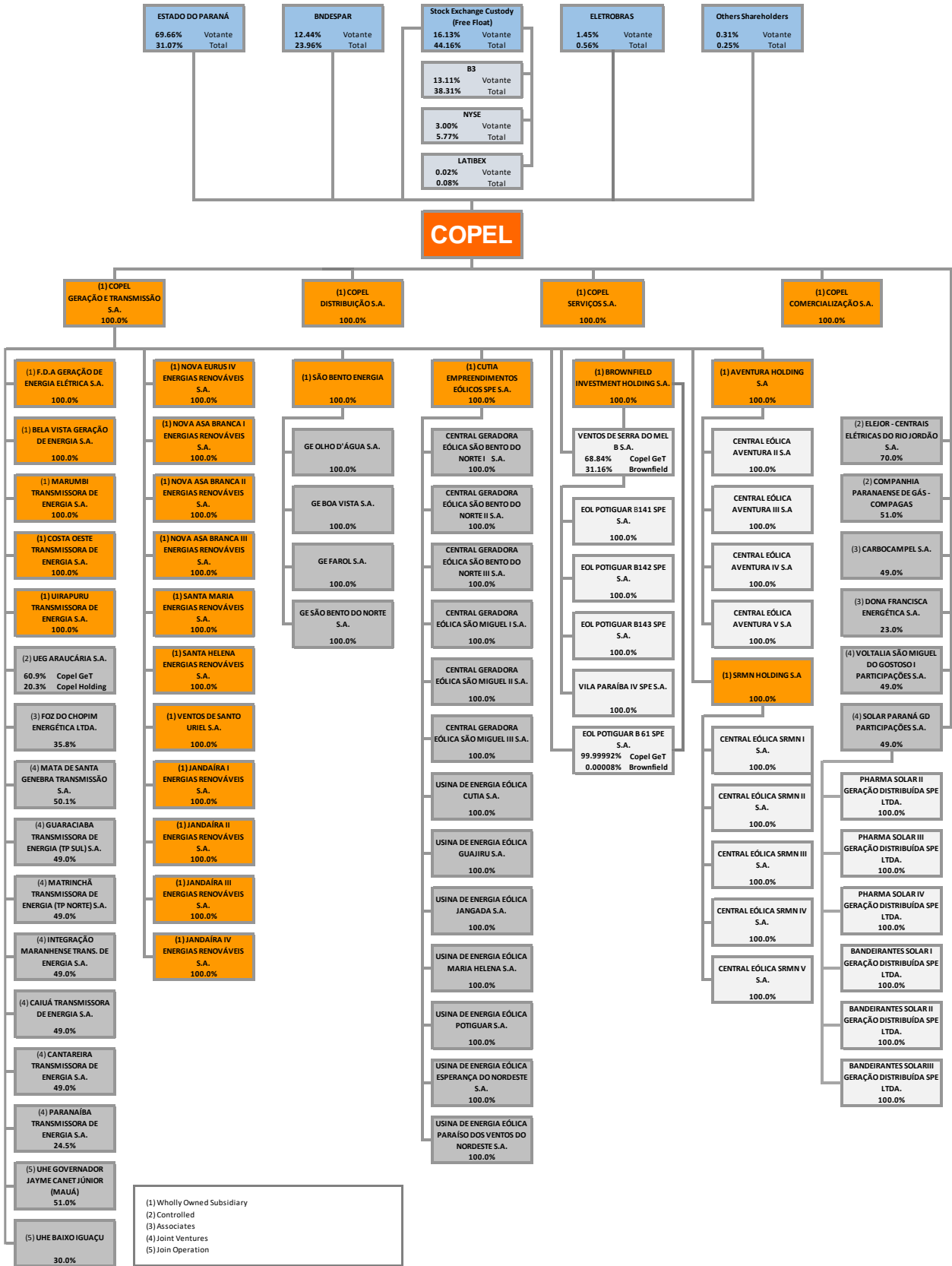
Prior to 2001, we operated as a single corporation engaged in the generation, transmission and distribution of electricity and in certain related activities. In compliance with the new regulatory regime, we transferred our operations to four wholly owned subsidiaries (one each for generation, transmission, distribution and telecommunications) and our investments in other companies to a fifth wholly owned subsidiary. This corporate restructuring was completed in July 2001.

- In 2007, we divided the assets of our transmission business (“Copel Transmissão S.A.”) between our distribution business (“Copel Distribuição S.A.”) and our generation business (“Copel Geração S.A.,” renamed to “Copel Geração e Transmissão S.A.” or “Copel GeT”).
- In 2016, we changed the corporate name of Copel Participações S.A. to Copel Comercialização S.A. and its corporate purpose to the sale of energy and rendering of related services in order to strength our positioning in the energy trading market and to allow greater efficiency in the sale of energy.
- In 2017, to optimize the management of operating activities, we carried out an organizational restructuring of our wholly owned subsidiary Copel Renováveis S.A., whose activities were absorbed by Copel GeT.
- In 2018, Copel GeT entered into a Share Exchange Agreement with Eletrosul with respect to the joint ventures Costa Oeste Transmissora de Energia S.A. (51% - Copel GeT and 49% - Eletrosul), Marumbi Transmissora de Energia S.A. (80% - Copel GeT and 20% - Eletrosul) and Transmissora Sul Brasileira de Energia S.A. (20% - Copel GeT and 80% - Eletrosul). As a result, Copel GeT acquired 100% in the joint ventures Costa Oeste and Marumbi, and Eletrosul acquired 100% in Transmissora Sul Brasileira.
- In 2019, Copel GeT acquired 100% of SPE Uirapuru Transmissora de Energia S.A. from Centrais Elétricas Brasileiras S.A. and Fundação Eletrosul de Previdência e Assistencial Social - Elos.

- In 2019, Copel GeT, through a consortium with its subsidiary Cutia Empreendimentos Eólicos, participated in the A-6 new energy generation auction and sold 14.4 average MW of the Jandaíra Wind Complex. The Jandaíra Wind Complex, with 90.1 MW of installed capacity and 46.9 average MW of Assured Energy, was built in the Northeastern state of Rio Grande do Norte, a region where we have other wind generation assets. The project came into operation, in a staggered manner, in 2022, with entry into commercial operation anticipated by more than two years.
- In March 2020, Copel GeT, with the objective of renewing for 30 years the concession of HPP Foz do Areia, whose term, considering the GSF renegotiation, expires on December 21, 2024, filed with the Ministry of Mines and Energy its request for the classification of its special purpose company SPC FDA Geração de Energia Elétrica SA, holder of the concession, under the terms of Federal Decree no. 9,271/2018, amended by Federal Decree No. 10,135/2019 and No. 10,893/2021, which allows this renewal associated with the privatization of the concession holder, within 12 months of the end of the term. On December 23, 2022, Decree No. 9,271 was further amended by Decree No. 11,307, to also enable the renewal of grants by privatizing a holder through a public offering of shares. This alternative is in line with the intention of the controlling shareholder to transform us into a company with dispersed capital and without a controlling shareholder, informed in our Material Fact 06/2022, and with the full renewal of the concession of our plants (HPP Foz do Areia, HPP Segredo and HPP Caxias), with the maintenance of 100% of participation, including eventual public offer of primary distribution of our shares and/or Units aiming at the payment of the grant bonus, informed in our Material Fact 07/2022.
- On August 3, 2021, we conclude the sale of our entire equity interest in Copel Telecomunicações S.A. (Copel Telecom), responsible for our telecommunication activities, to Bordeaux Multi-Strategic Investment Fund – *Bordeaux Fundo de Investimentos em Participações Multiestratégia*, for a purchase price of R\$2.5 billion. The sale was made following an auction we conducted at B3 in November 2020.
- On November 30, 2021, we completed the acquisition of the Vilas Wind Power Complex (or “Vilas Complex”) with an enterprise value of R\$1.1 billion. As the project is partially financed by Banco do Nordeste (“BNB”), under a long-term loan agreement with final maturity in 2040, the total amount paid by us in the acquisition was R\$ 597.7 million.
- We currently have four wholly-owned subsidiaries: Copel Geração e Transmissão S.A., Copel Distribuição S.A., Copel Comercialização S.A. (Copel Mercado Livre) and Copel Serviços S.A. We currently hold 100% shareholding stake in several Special Purpose Companies (SPC). The current organization of the group is as described as follows. All of our subsidiaries are incorporated in the Federative Republic of Brazil and subject to the Brazilian law.

ORGANIZATION CHART - EQUITY OWNERSHIP

AS OF MARCH 31, 2023



SIGNIFICANT CHANGES IN OUR BUSINESS

Proposed Dispersion our Share Ownership

In November 2022, a new state legislation approved by the State Congress of the State of Paraná (State Law No. 21,272 of November 24, 2022, or “Copel Disperse Ownership Law”) authorized the State of Paraná to sell part of its equity interests in our share capital by means of public offering of our common shares or units. The State of Paraná has announced its plan to carry out a secondary public offering, aiming to reduce its equity interests in us maintaining at least 15% of our total capital stock and 10% our voting capital and to transform us into a corporation with disperse share ownership, subject to certain conditions.

If the proposed transaction is successful and we cease to be a state-controlled company, we will be permitted to renew our concessions for certain hydroelectric power plants, particularly for HPPs Foz do Areia, Segredo and Salto Caxias, which are expected to expire in 2024, 2032 and 2033, respectively. In this context, we are currently evaluating capital raising alternatives aiming for payment of this award bonus, including a primary offering of our equity securities. However, we cannot guarantee that this proposed transaction will be successful or that we will be able to obtain funds for renewing these concessions, which may have a material and adverse impact in our business.

The Copel Disperse Ownership law conditions the proposed transaction to the approval by our shareholders of certain amendments to our bylaws, to:

- Prevent (a) that a shareholder or group of shareholders own more than 10% of our common voting shares, and (b) any shareholders’ agreements or similar arrangements for the joint exercise of voting rights, except if representing less than 10% of our voting capital in aggregate.
- Require that (a) our headquarters continue to be located in the State of Paraná and (b) our corporate name remains the same.
- Create a new class of preferred shares to be exclusively owned by the State of Paraná, which will give the State of Paraná powers to (a) as long as the State owns at least 10% of our corporate capital, veto any proposals of shareholder resolutions to change the restrictions described above, and (b) authorize our directors to approve and implement the annual investment plan for Copel Distribuição, under certain conditions.

The proposed transaction is expected to be implemented as a primary and secondary offering of our common shares and ADRs, subject to market conditions, and is subject to governmental approvals at the state and federal levels.

On January 31, 2023, our Board of Directors approved the engagement of external advisors to structure the potential public offering of shares and/or ADRs (pursuant to Notice to Market 01/23).

We cannot guarantee that the proposed transaction will be successful or that we will cease to be a state-controlled company. The implementation of the proposed transaction is also subject to several risks and uncertainties, including, without limitation, the risks described in “Forward-Looking Statements” and “Item 3. Key Information—Risk Factors.”

Acquisition of the Wind Complex Aventura and Santa Rosa & Mundo Novo

On January 30, 2023, our wholly owned subsidiary Copel GeT concluded the acquisition of 100% of the Santa Rosa & Mundo Novo (SRMN) and Aventura Wind Power Complexes (“Wind Power Complexes”) from EDP Renováveis Brasil S/A., totaling 260.4 MW of installed capacity. The acquisition is part of our strategy of growth in renewable energy, expands the diversification of the generation matrix and is fully adherent to its Investment Policy. The enterprise value of the Wind Power Complexes was R\$ 1,760.6 million. For more information, see explanatory note 40.1 to our financial statements.

Renewal of Compagas’ concession contract

On December 27, 2022, Compagas entered into an amendment of its concession agreement for public services

of canalized gas supply, with distribution exclusivity, in the State of Paraná and other related activities. The renewal of the concession occurred upon payment of an award bonus, in favor of the State of Paraná, in the amount of R\$ 508 million, through offsetting of concessionaire credits referring to the previous service concession arrangement in the amount of R\$98,000 and financial disbursement of R\$410,000, and reflects the following terms:

- The term of the concession was extended for an additional 30-year period.
- Adopt a the price-cap regulatory model (cap tariff), replacing the current cost plus model; Remuneration based on the weighted average cost of capital (WACC), initially 9.125% p.a..
- Initial Net Regulatory Remuneration Base (BRRL) of R\$ 647.8 million (includes assets not amortized in the current concession on the base date of December 31, 2021 and the grantor bonus, compensated with regulatory liabilities).
- Grantor Bonus of R\$ 508.0 million in favor of the State of Paraná.
- Total estimated capex of R\$ 2.5 billion to be realized over 30 (thirty) years.
- Tariff adjustment based on variations of the Broad National Consumer Price Index (IPCA).
- Indicative plan includes the internalization in the 10 mesoregions of the State of Paraná; Concession expires on July 6, 2054.

Disinvestment in UEGA

Our board of directors, in a meeting held on November 4, 2022, approved the deepening of studies for a potential divestment of Copel Group's ownership interest in UEG Araucária S.A. (UEGA). These studies for potential divestment are part of the process of decarbonization of the Copel Group's generation portfolio and are in line with our Corporate Strategic Planning - Vision 2030, strengthening the pillars for the perpetuity and sustainable growth of the business.

We hold a direct and indirect interest of 81.2% in the total and voting capital stock of the company and have announced the intention to sell our participation jointly with our partner, Petrobras, which holds the remaining 18.8% of the shares. In February 2023, we entered the non-binding proposal phase relating to the sale of all shares in UEGA.

Commercial operation of the Jandaíra Wind Complex

In October 2022, we achieved commercial operation of the first wind turbines of the Jandaíra Wind Complex, located in the municipality of Jandaíra, in the state of Rio Grande do Norte. The complex is composed of four wind farms, totaling 90.1 MW of installed capacity, and was fully operational by the end of 2022. The entry into operation of the complex occurred more than two years before the beginning of the deadline for delivery of the contracted supply.

Definition of the Concession Granting Bonus for HPP Foz do Areia, HPP Segredo and HPP Salto Caxias

In view of the proposed transaction for dispersion of our corporate capital in the second half of 2023, we have requested to the MME the full renewal of our concessions of HPP Foz do Areia, HPP Segredo and HPP Caxias for 30 years, considering a possible public offering of primary distribution of shares and/or Units issued by us. The granting authority, through Interministerial Ordinance MME/MF No. 01, of March 30, 2023, established the concession granting bonus for the set of plants in the amount of R\$ 3,719 million, to be paid within 20 days of the signing of the new contract. The granting bonus is still subject to the approval of the Federal Court of Audits ("TCU").

Impacts of the Enactment of Federal Law 14,385/2022 on 2022 Results

Our subsidiary Copel Distribuição S.A. ("Copel DIS"), with the support of its legal advisors, recognized a "Provision for the Allocation of PIS and COFINS credits" account to record the impacts of Federal Law 14,385/2022, which negatively affected our net income in 2022, in the amount of R\$1,202.5 million, with no immediate cash effect. This law, despite the lack of regulation, defines the destination of mandatory tax amounts that were collected in excess by the providers of the public electric energy distribution service in the country, due to the collection of PIS/COFINS on ICMS, recognized by the judiciary as undue. Based on a final and unappealable decision in a lawsuit filed in 2009, Copel DIS was granted the right to exclude the full amount of ICMS from the PIS/COFINS tax base. Since then, Copel DIS has already passed on to consumers, through reductions in tariff adjustments approved by ANEEL, in the amount of R\$2,295.1 million. This provision, based on the risk assessment carried out by our management and supported by the opinions of

legal advisors, refers for the period comprising the 11th and the 16th year from the date of the final and unappealable decision of the lawsuit, exacerbating the prescription and decay period. For more information, see note 12.2.1 to our audited consolidated financial statements.

BUSINESS

In the past, our generation and distribution businesses were integrated, and we sold most of the electricity we generated to the customers of our distribution business. This changed as a result of the implementation of the New Industry Model Law, enacted in 2004. Today, open auctions on the regulated market are one of the primary channels by which our distribution business purchases energy to resell to Captive Customers and one of the channels by which our generation business generates revenues. Our generation business sells energy to our distribution business only through auctions in the regulated market. Moreover, our distribution business, like other certain Brazilian distribution companies, is also required to purchase energy from the hydroelectric facility of Itaipu, in an amount determined by the Brazilian government based on our proportionate share in the Brazilian electricity market. For more information, see “Item 4. Information on the Company—The Brazilian Electric Power Industry.”

The following table shows, for the last three years, the total electricity (i) we generated through entities in which we hold a 100.0% shareholding stake and the 51.0% and 30.0% of energy generated by Mauá and Baixo Iguaçu Hydroelectric Plants respectively (corresponding to the interest we hold in each of these assets), (ii) we purchased, broken down by the total amount of electricity generated and purchased by Copel Geração e Transmissão and our wind farm generation facilities described below (“Wind Farms”) and (iii) the total amount of electricity purchased by Copel Distribuição and Copel Comercialização (Copel Mercado Livre).

	Year ended December 31,		
	2022	2021	2020
(GWh)			
Copel Geração e Transmissão⁽¹⁾			
Electricity generated ⁽²⁾	21,999	14,587	10,115
Electricity purchased from Copel Comercialização.....	1,208	3,423	487
Electricity purchased from others.....	134	183	147
Electricity purchased from Spot Market – CCEE	-	240	-
Electricity received from the Interconnected System	1,721	1,198	5,878
Total electricity generated and purchased by Copel Geração e Transmissão.....	25,062	19,633	16,627
Wind Farms^{(1) (3)}			
Electricity generated ⁽²⁾	2,724	2,466	2,116
Electricity purchased from others.....	114	104	29
Total electricity generated and purchased by Wind Farms	2,838	2,570	2,145
Copel Distribuição			
Electricity purchased from Itaipu ⁽⁴⁾	5,271	5,435	5,498
Electricity purchased from Auction – CCEAR – affiliates ..	155	154	154
Electricity purchased from Auction – CCEAR – other.....	12,354	12,215	11,579
Electricity purchased from Mechanism for Compensation of Surpluses and Deficits of New Energy (MCSD-EN))	392	178	785
Electricity purchased from Spot Market – CCEE	-	-	536
Electricity purchased from others.....	7,270	7,356	7,571
Total electricity purchased by Copel Distribuição.....	25,442	25,338	26,123
Copel Comercialização			
Electricity purchased from Copel Geração e Transmissão ..	14,328	13,033	7,247
Electricity purchased from others.....	10,447	10,147	5,105
Electricity purchased from Spot Market – CCEE.....	12	12	97
Total electricity purchased by Copel Comercialização ..	24,817	23,192	12,449
Total electricity generated and purchased by Copel Geração e Transmissão, Copel Distribuição, Wind Farms and Copel Comercialização	62,468	54,019	49,399

- (1) We adopt the criteria set forth by the CCEE to determine the energy flows in sale and purchase transactions.
- (2) Includes the electrical losses of wiring and interconnecting station and technical losses by delivering energy to the Interconnected System.
- (3) Electricity generated and purchased by our wind farm generation facilities which were under the supervision of Copel Renováveis until 2015. In December 2015, Copel Geração e Transmissão became responsible for the operation of these facilities.
- (4) Distribution companies operating under concessions in the Midwest, South and Southeast regions of Brazil purchase electricity generated by Itaipu.

The following table shows the total electricity we sold to Free Customers, Captive Customers, distributors, energy traders and other utilities service providers in the south of Brazil through the Interconnected Transmission System in the last three years.

	Year ended December 31,		
	2022	2021	2020
(GWh)			
Copel Geração e Transmissão⁽¹⁾			
Electricity delivered to Free Customers	0	1,298	3,369
Electricity delivered to Bilateral Agreements (Copel Comercialização)	13,955	12,979	7,238
Electricity delivered to Bilateral Agreements.....	259	717	2,946
Electricity delivered under auction – CCEAR affiliates ⁽²⁾	123	122	123
Electricity delivered under auction – CCEAR – other ⁽²⁾	2,215	2,215	2,221
Electricity delivered to Spot Market – CCEE ⁽²⁾	852	(337)	-
Electricity delivered to the Interconnected System.....	7,658	2,639	-
Total electricity delivered by Copel Geração e Transmissão.....	25,062	19,633	15,897
Wind Farms⁽¹⁾			
Electricity delivered under auction – CCEAR – affiliates	32	32	31
Electricity delivered to Bilateral Agreements	856	82	37
Electricity delivered under auction – CCEAR – other	1,286	1,289	1,292
Electricity delivered under auction – CER – other	916	916	918
Electricity delivered to Spot Market – CCEE ⁽²⁾	63	132	-
Total electricity delivered by Wind Farms.....	3,153	2,451	2,278
Copel Distribuição			
Electricity delivered to Captive Customers	19,371	19,312	19,180
Electricity delivered to distributors in the State of Paraná	91	86	76
CCEE ⁽³⁾	4,010	3,157	3,787
Total electricity delivered by Copel Distribuição...	23,472	22,555	23,043
Copel Comercialização			
Electricity delivered to Free Customers	11,498	8,239	4,620
Electricity delivered to Bilateral Agreements (Copel GeT)	1,208	3,535	516
Electricity delivered to Bilateral Agreements	11,949	11,337	6,984
Electricity delivered to Spot Market – CCEE	162	81	330
Total electricity delivered by Copel Comercialização	24,817	23,192	12,449
Total⁽⁴⁾	76,504	68,098	53,668

- (1) We adopt the criteria set forth by the CCEE to determine the energy flows in sale and purchase transactions.

- (2) Amounts from the Spot Market indicated as less than zero (negative numbers) are not considered as electricity sold nor as electricity delivered in the MRE.
- (3) Includes the Spot Market, MCS D EN and MVE.
- (4) Considers transactions between group companies.

Generation

As of December 31, 2022, the total installed capacity of all the generation assets in which we hold equity or the rights under concessions was 6,706 MW. On January 30, 2023, we completed the acquisition of the Aventura and Santa Rosa & Mundo Novo Wind Complexes, which increased our total installed capacity to 6,966 MW. Considering only the entities that we operate (solely or under consortium), including 100% of the energy produced by those in which we hold a 100.0% shareholding stake and 51.0% and 30.0% of the energy generated by Mauá and Baixo Iguaçu Hydroelectric Plants, respectively (corresponding to the interest we hold in each of these assets), we operated and sold energy through 20 hydroelectric plants, 34 wind plants and one Thermoelectric Plant, with a total installed capacity of 6,047 MW. Our Assured Energy totaled 2,726 average MW in 2022. Our generation varies yearly because of hydrological conditions and other factors. We generated 25,299 GWh in 2022, 17,606 GWh in 2021, 12,665 GWh in 2020, 19,812 GWh in 2019 and 19,935 GWh in 2018.

The generation of electrical energy at our power plants is supervised, coordinated and operated by our Generation and Transmission Operation Center in the city of Curitiba. This operation center is responsible for coordinating the operations related to major part of our total installed capacity, including some of the plants in which we hold only partial ownership interests.

In 2021 ANEEL granted us the extension of concession of the following power plants to compensate for the assumption of non-hydrological risks (provided in the Energy Reallocation Mechanism or MRE adopted by the government under Law nº 14,052/2020):

Power Plant	Concession extension (days)	Authorization
Apucarantina	472	Resolution No. 12,255/2022
Capivari Cachoeira.....	2,555	Resolution No. 12,255/2022
Cavernoso	898	Resolution No. 11,345/2022
Cavernoso 2	1,742	Resolution No. 11,345/2022
Chamine	717	Resolution No. 11,345/2022
Colíder	13	Resolution No. 12,255/2022
Derivação Do Rio Jordão	949	Resolution No. 12,255/2022
Foz do Areia.....	461	Resolution No. 11,345/2022
Guaricana	705	Resolution No. 11,345/2022
Mauá	1,789	Resolution No. 11,345/2022
Salto Caxias	1,051	Resolution No. 11,345/2022
Sao Jorge.....	598	Resolution No. 12,255/2022
Segredo	1,045	Resolution No. 11,345/2022
Uhe Baixo Iguaçu.....	34	Resolution No. 11,345/2022
Fundão	1,110	Resolution No. 11,345/2022
Santa Clara.....	1,078	Resolution No. 11,345/2022
Dona Francisca*.....	1,485	Resolution No. 11,132/2022
Arturo Andreoli*.....	844	Not published

* Associates

Hydroelectric Generation Facilities

The following table sets forth certain information related to our main hydroelectric plants in operation during 2022:

Plant	Installed capacity (MW)	Assured energy (1) (Average MW)	Placed in service	Concession expires
Foz do Areia.....	1,676.0	604.3	1980	December 2024
Segredo	1,260.0	578.5	1992	September 2032
Salto Caxias	1,240.0	605.6	1999	March 2033
Capivari Cachoeira	260.0	109.0	1972	January 2053
Mauá	184.1 ⁽²⁾	100.8	2012	May 2047
Baixo Iguaçu	105.1 ⁽³⁾	51.2	2019	December 2049
Colíder	300.0	178.1	2019	January 2046
Others.....	132.5	77.1	N/A	N/A

⁽¹⁾ Values used to determine volumes committed for sale. Starting in 2023, the Assured Energy for the following plants will decrease pursuant to Directive PRT709/2022: Foz do Areia (575.3 avg MW), Segredo (558.3 avg MW), Capivari Cachoeira (103.6 avg MW), Mauá (96.14 avg MW).

⁽²⁾ Corresponds to 51.0% of the installed capacity of the plant (361.1 MW), corresponding to the interest we hold in this plant, as we operate this plant through a consortium.

⁽³⁾ Corresponds to 30.0% of the installed capacity of the plant (350.2 MW), corresponding to the interest we hold in this plant, as we operate this plant through a consortium.

Governador Bento Munhoz da Rocha Netto (HPP Foz do Areia). The HPP Foz do Areia is located on the Iguaçu River, approximately 350 kilometers southwest of the city of Curitiba. This plant is fully operational. However, on March 2023, during a scheduled inspection stoppage, an isolated malfunction was identified in the upper wear ring of the rotor of a turbine of unit 03 of the plant, causing operations to be fully suspended until the malfunction can be properly fixed. HPP Foz de Areia has a physical guarantee of approximately 144.8 average MW. Possible financial impacts related to suspension of operations and or any reduction in the plant's physical guarantee are still being estimated.

The concession of this plant, originally granted to Copel GeT under the terms of Concession Agreement No. 045/1999, is set to expire on December 21, 2024. After that, Copel Get could request the renewal of the concession for 30 years, either (i) through the amendment of certain concession terms and inclusion under the quota regime (Law No. 12,783/2013) or (ii) by means of the privatization of the concessionaire, through a bidding process for the sale of the concessionaire's shareholding control, including by means of a public offering of shares, within 12 months from the end of the concession term (Federal Decree No. 9,271/2018, amended by Federal Decree No. 10,893/2021 and by Federal Decree No. 11,307/2022).

Based on our internal assessment, we concluded that the sale of the concessionaire's shareholding control would be more advantageous to us than the renewal upon inclusion in the quota regime. It would also be more beneficial than the alternative of not expressing interest in the renewal at all, case in which the government would carry out a bidding process for a new concession and we would face the risk of loss of the concession at no additional consideration.

- In 2020, Copel GeT transferred the concession and plant's assets to a special purpose company, SPC F.D.A. Geração de Energia Elétrica S.A. (as approved by ANEEL Resolution No. 8,578/2020), and formally manifested the intention of selling the shares of SPC F.D.A. filed with the Ministry of Mines and Energy its manifestation of intention to obtain a new Concession grant, for 30 (thirty) years from its execution, associated with the sale of FDA control, pursuant to Decree No. 9,271/2018 (amended by Decree No. 10,893/2021 and by Decree No. 11,307/2022).
- On February 4, 2021, the Ministry of Mines and Energy published Ordinance No. 516/2021, which establishes the Assured Energy of HPP Foz do Areia at 596.0 average MW to be in force for the new concession agreement to be granted. On March 8, 2022, the ANEEL approved the draft of the new concession agreement.
- On August 12, 2022, the Ministry of Mines and Energy published Ordinance No. 1,544/2022, which changed the Assured Energy for HPP Foz do Areia to 571.7 average MW, from the date of the new concession agreement.
- On October 19, 2022, the Ministry of Mines and Energy published Ordinance No 02/2022, which established the minimum award bonus for the HPP Foz do Areia in R\$ 1,830.5 million.

- On October 30, 2022, the Ministry of Mines and Energy published Ordinance No. 698/2022, establishing certain additional conditions for the renewal of the concession and requiring that SPC FDA prepare certain technical and economic feasibility studies to identify the optimum operation for HPP Foz do Areia, within 36 months from the date of the concession agreement, and to implement, if economically feasible, such optimum operation within 96 months from the date of the concession agreement.
- On February 15, 2023, the TCU deliberated on the analysis of the technical, economic-financial and environmental feasibility studies for the privatization of the Governador Bento Munhoz da Rocha Netto power plant, and decided to inform the MME and ANEEL that there are no obstacles to the continuity of the bidding process.
- On December 23, 2022, Decree No. 9,271 was amended by Decree No. 11,307, to also enable the renewal of the concession for 30 years by the sale of corporate control through a public offering of shares. This alternative is in line with the intention of the controlling shareholder to transform us into a company with dispersed capital and without a controlling shareholder (Material Fact 06/2022), and with the carrying out of studies for the full renewal of the concession of our plants, with the maintenance of 100% of participation, including eventual public offer of primary distribution of our shares and/or ADRs aiming at the payment of the grant bonus (Material Fact 07/2022). If the dispersion of our corporate capital is not implemented, the alternative of alienating FDA control will be once again considered.

Governador Ney Aminthas de Barros Braga (HPP Segredo) and Governador José Richa (HPP Salto Caxias).

The HPP Segredo is located on the Iguaçú River, approximately 370 kilometers southwest of the city of Curitiba. The HPP Salto Caxias is located on the Iguaçú River, approximately 600 kilometers southwest of the city of Curitiba.

In view of the proposed transaction for dispersion of our corporate capital in the second half of 2023, we have requested to the MME the full renewal of our concessions of HPP Foz do Areia, HPP Segredo and HPP Caxias for 30 years, considering a possible public offering of primary distribution of shares and/or Units issued by us. The granting authority, through Interministerial Ordinance MME/MF No. 01, of March 30, 2023, established the granting value of the concession for the set of plants in the amount of R\$ 3,719 million, to be paid within 20 days of the signing of the new contract. The granting value is still subject to the approval of the TCU.

Governador Pedro Viriato Parigot de Souza (HPP Capivari Cachoeira). The HPP Capivari Cachoeira is the largest underground hydroelectric plant in Southern Brazil. The reservoir is located on the Capivari River, approximately 50 kilometers north of the city of Curitiba, and the power station is located on the Cachoeira River, approximately 15 kilometers from the reservoir.

Our former concession agreement for the HPP Capivari Cachoeira expired on July 7, 2015. As a result of new auction in which we were the winning bidder, on January 5, 2016, Copel GeT executed a new concession agreement with ANEEL to continue to operate this plant under an operation and maintenance regime until January 5, 2046. We paid R\$574.8 million as signing bonus for this concession and we received an annual generation revenue (AGR) of R\$144.1 million from January 5, 2016 to December 31, 2016. This AGR is subject to an annual tariff adjustment. In July 2017, the AGR was adjusted to R\$114.1 million for the period from July 2017 to June 2018, and in 2018 the AGR was adjusted to R\$119.2 million for the period from July 2018 to June 2019. In 2019 the AGR was adjusted to R\$123.7 million for the period from July 2019 to June 2020. In 2020 the AGR was adjusted to R\$127.9 million for the period from July 2020 to June 2021. In 2021, the AGR was adjusted to R\$139.7 million for the period from July 2021 to July 2022 under the terms of ANEEL Resolution No. 2,902/2021. In 2022, the AGR was adjusted to R\$155.9 million for the period from July 2022 to June 2023 under the terms of ANEEL Resolution No. 3,608/2022.

The HPP Capivari Cachoeira has 260.0MW of installed capacity and Assured Energy of 954.8 GWh/year. Since January 1, 2017, 70.0% of the energy generated by this plant has been allocated in quotas to the regulated market. Copel GeT will no longer bear the hydrological risk for the energy allocated in quotas under the MRE associated with the HPP Capivari Cachoeira until January 5th, 2046. From this date until January 3rd, 2053, the power plant will operate entirely in the Free Market.

Mauá. The Jayme Canet Júnior Hydroelectric Power Plant (HPP Mauá) is located on the Tibagi River, in the

State of Paraná. It was constructed between 2008 and 2012 by Consórcio Energético Cruzeiro do Sul, in which we hold a 51.0% interest and CGT Eletrosul holds the remaining 49.0%. The facility is located approximately 250 kilometers from Curitiba, in the Municipality of Telêmaco Borba.

Colíder. HPP Colíder has an installed capacity of 300.0 MW and it is located on the Teles Pires River, in the State of Mato Grosso, between the municipalities of Nova Canaã do Norte and Itaúba, with the municipalities of Colíder and Cláudia are also affected by the reservoir. The construction of the plant began in 2011 and the work was totally concluded in 2019. The first Generating Unit entered commercial operation on March 9, 2019 and the last unit started operating on December 21, 2019.

Baixo Iguaçu. HPP Baixo Iguaçu has an installed capacity of 350.2 MW and is located on the Iguaçu River, in the municipalities of Capanema, Capitão Leonidas Marques, Planalto, Realeza and Nova Prata do Iguaçu, State of Paraná. Baixo Iguaçu HPP is the last large energy project planned for the main Iguaçu and it is located around 30 km downstream from the HPP Salto Caxias. It was constructed by a consortium in which Copel GeT holds a 30% interest and Geração Céu Azul S.A. holds the remaining 70.0%. This power plant became fully operational on April 10, 2019. In addition to our generation facilities, we have ownership interests in several other hydroelectric generation companies as detailed below.

Bela Vista. The SHP Bela Vista has 29.8 MW of installed capacity and 18.6 average MW of Assured Energy and is under construction in the Chopim river, in the São João and Verê municipalities, located in the southwest of the State of Paraná. The energy sales agreement will be effective as of January 1, 2024, for a 30-year term and will be subject to an annual adjustment by the IPCA. The construction of this unit started in the first half of 2019 and the third power generation unit began operations on August 12, 2021, totaling 29.3 MW in commercial operation (corresponding to 98.3% of the plant's total capacity). The remaining unit with complementary capacity of 0.5 MW is expected to be fully implemented in 2023. We were able to achieve the commercial operation of the project almost two and a half years earlier than contemplated under the contracted supply term, which will allow all the energy produced by SHP Bela Vista until December 2023 to be sold in the Free Market ("ACL").

Between 2004 and 2010, we were required by law to retain a majority of the voting shares of any company in which we obtained an ownership interest. Starting in 2010, it became possible for us to hold non-controlling interests in companies.

The following table sets forth information regarding the hydroelectric generation plants in which we had a partial equity interest as of December 31, 2022:

Plant	Installed capacity	Assured energy ⁽¹⁾	Placed in service	Our ownership	Concession Expires
	(MW)	(Average MW)		(%)	
Elejor Facility			August 2005		May and June 2040
(Santa Clara, Santa Clara I, Fundão and Fundão I).....	246.41	137.9	June 2006	70.0	December 2032
Dona Francisca.....	125.0	75.9	February 2001	23.0	September 2037
SHP Arturo Andreoli					
(Foz do Chopim).....	29.1	20.4	October 2001	35.8	August 2032
UHE Baixo Iguaçu.....	350.2	172.4	April 2019	30.0	November 2049

⁽¹⁾ Starting in 2023, the Assured Energy for the following plants will be decreased pursuant to Directive PRT709/2022: Santa Clara e Fundão (133.0 avg MW) and Dona Francisca (72.5 avg MW).

Elejor Facility. The Elejor Facility consists of the Santa Clara and Fundão Hydroelectric Power Plants, both of which are located on the Jordão River in the State of Paraná. The aggregate total installed capacity of the units is 246.41 MW, which includes two smaller hydroelectric generation units installed in the same location. Elejor signed a concession agreement with a term of 35 years for the Santa Clara and Fundão plants in October 2001. As of December 31, 2022, we own 70.0% of the common shares of Elejor, and Paineira Participações owns the remaining 30.0%.

Elejor is required to make monthly payments to the Brazilian government for the use of hydroelectric resources,

which in 2001 totaled R\$19.0 million. This amount is adjusted on an annual basis by the IGP-M Index.

We had a power purchase agreement with Elejor, which provides that we will purchase all of the energy produced by the Santa Clara and Fundão facilities at a set rate until April 2019, to be adjusted annually in accordance with the IGP-M Index. This agreement was terminated, there was no renewal and Elejor is selling the energy in the Free Market. In 2022, Elejor's net revenues and loss were R\$194.1 million and R\$0.7 million, respectively, while in 2021 its net revenues and losses were R\$171.3 million and R\$54.4 million, respectively.

Dona Francisca. We own 23.03 % of the common shares of Dona Francisca Energética S.A. ("DFESA"). The other shareholders are Gerdau S.A. with a 51.82% interest, Celesc S.A. with a 23.03% interest and Statkraft S.A. with a 2.12% interest. DFESA Hydroelectric Power Plant is located on the Jacuí River in the State of Rio Grande do Sul. The plant began full operations in 2001. In April 2015, we signed a new ten year power purchase agreement with DFESA, valued at R\$17.0 million annually, under which we purchase 23.03% of DFESA's Assured Energy (proportional to our stake).

In 2022, DFESA's net revenues and net profits were R\$ 66.2 million and R\$ 24.5 million, respectively, while in 2021 its net revenues and net profits were R\$66.8 million and R\$37.2 million, respectively.

SHP Arturo Andreoli ("Foz do Chopim" Hydroelectric Plant). The Foz do Chopim Hydroelectric Plant is located on the Chopim River in the State of Paraná. We own 35.8% of the common shares of Foz do Chopim Energética Ltda., the entity that owns the Foz do Chopim Hydroelectric Plant. Silea Participações Ltda. owns the remaining 64.2%. The operation and maintenance of Foz do Chopim Hydroelectric Plant is performed by Copel Geração e Transmissão S.A. Energy supply agreements were executed at an Average Tariff of R\$220.07/MWh. Foz do Chopim Energética Ltda. also had the authorization to operate Bela Vista SHP, a hydroelectric power plant that is located on the same river and has similar capacity, which was transferred to Bela Vista Geração de Energia S.A. ("Bela Vista Geração"), through the ANEEL's Authorizing Resolution no. 7,802/2019. In 2022, Foz do Chopim's net revenues and net profits were R\$ 77.8 million and R\$ 56.9 million, respectively, while in 2021 its net revenues and net profits were R\$60.9 million and R\$46.4 million, respectively.

Wind Farm Generation Facilities

Since 2013 we have been expanding our energy generation capacity and diversifying our energy matrix through the development of renewable energy sources, like the construction and acquisition of wind farms in the State of Rio Grande do Norte. The following table sets forth certain information relating to our wind farm plants in operation as of December 31, 2022:

Plant	Installed capacity (MW)	Assured Energy (Average MW)	Placed in Service	Concession Expires
São Bento Energia⁽¹⁾	94.0	38.1		
Boa Vista	14.0	5.2	February 2015	April 2046
Olho d'Água	30.0	12.8	February 2015	June 2046
São Bento do Norte	30.0	11.3	February 2015	May 2046
Farol	20.0	8.8	February 2015	April 2046
Palmas	2.5	0.4	November 1999	September 2029
Copel Brisa Potiguar Wind Complex⁽²⁾	183.6	89.4		
Asa Branca I	27.0	12.1	August 2015	April 2046
Asa Branca II	27.0	11.9	September 2015	May 2046
Asa Branca III	27.0	12.3	September 2015	May 2046
Eurus IV	27.0	12.4	August 2015	April 2046
Santa Maria	29.7	15.7	April 2015	May 2047
Santa Helena	29.7	16.0	May 2015	April 2047
Ventos de Santo Uriel	16.2	9.0	May 2015	April 2047
Voltália São Miguel do Gostoso I⁽³⁾	108.5	57.1		

Plant	Installed capacity (MW)	Assured Energy (Average MW)	Placed in Service	Concession
				Expires
Carnaúbas.....	27.0	13.1	June 2015	April 2047
Reduto.....	27.0	14.4	June 2015	April 2047
Santo Cristo.....	27.5	15.3	June 2015	April 2047
São João.....	27.0	14.3	June 2015	March 2047
Cutia Empreendimentos Eólicos⁽⁴⁾	180.6	71.4		
Dreen Cutia.....	23.1	9.6	December 2018	January 2042
Dreen Guajiru.....	21.0	8.3	December 2018	January 2042
Esperança do Nordeste.....	27.3	9.1	December 2018	May 2050
GE Jangada.....	27.3	10.3	December 2018	January 2042
GE Maria Helena.....	27.3	12.0	December 2018	January 2042
GE Paraíso dos Ventos do Nordeste.....	27.3	10.6	January 2019	May 2050
Potiguar.....	27.3	11.5	December 2018	May 2050
Bento Miguel	132.3	58.7		
São Bento do Norte I.....	23.1	10.1	January 2019	August 2050
São Bento do Norte II.....	23.1	10.8	January 2019	August 2050
São Bento do Norte III.....	23.1	10.2	April 2019	August 2050
São Miguel I.....	21.0	9.3	February 2019	August 2050
São Miguel II.....	21.0	9.1	February 2019	August 2050
São Miguel III.....	21.0	9.2	February 2019	August 2050
Vilas Complex⁽⁴⁾	186.7	98.6		
Vila Maranhão I.....	31.95	17.8	February 2021	January 2054
Vila Maranhão II.....	31.95	17.8	March 2021	January 2054
Vila Maranhão III.....	31.95	16.6	September 2020	January 2054
Vila Ceará I.....	31.95	17.8	December 2020	January 2054
Ventos de Vila Mato Grosso I.....	58.9	28.6	June 2021	December 2054
Aventura⁽⁵⁾	105.0	65.0		
Aventura II.....	21.0	13.1	July 2021	June 2053
Aventura III.....	25.2	15.5	July 2021	June 2053
Aventura IV.....	29.4	18.5	July 2021	June 2053
Aventura V.....	29.4	17.9	July 2021	June 2053
Santa Rosa e Mundo Novo⁽⁵⁾	155.4	92.8		
Santa Rosa e Mundo Novo I.....	33.6	17.3	February 2022	June 2053
Santa Rosa e Mundo Novo II.....	29.4	17.2	December 2021	June 2053
Santa Rosa e Mundo Novo III.....	33.6	21.5	January 2022	June 2053
Santa Rosa e Mundo Novo IV.....	33.6	21.0	January 2022	June 2053
Santa Rosa e Mundo Novo V.....	25.2	15.8	December 2021	June 2053
Jandaíra	90.09	46.9		
Jandaíra I.....	10.39	5.6	November 2022	April 2055
Jandaíra II.....	24.26	12.3	October 2022	April 2055
Jandaíra III.....	27.72	14.8	November 2022	April 2055
Jandaíra IV.....	27.72	14.2	October 2022	April 2055

(1) Pursuant to Directive (*Portaria*) No. 360 of September 30, 2020, the projects that are part of the São Bento Energia wind complex had their Assured Energy altered as of January 1, 2021, as follows: Boa Vista (from 6.3 MW to 5.2MW), Olho d'Água (from 15.3 MW to 12.8MW), São Bento do Norte (from 14.6MW to 11.3MW) and Farol (from 10.1MW to 8.8MW).

(2) Pursuant to Directive (*Portaria*) No. 360 of September 30, 2020, certain the projects that are part of the Copel Brisa Potiguar wind complex had their Assured Energy altered as of January 1, 2021, as follows: Asa Branca I (from 14.2MW to 12.1MW), Asa Branca II (from 14.3 MW to 11.9MW), Asa Branca III (from 14.5MW to 12.3MW) and Eurus IV (from 14.7MW to 12.4MW).

(3) We have a 49.0% interest in Voltália São Miguel do Gostoso.

(4) In November 2021, we acquired the Operations of the Vilas Complex.

⁽⁵⁾ In January 2023, we acquired the Operations of the Aventura Complex and Santa Rosa e Mundo Novo Complex.

São Bento Energia. In February 2015, the four wind farms (Boa Vista, Olho d'Água, São Bento do Norte and Farol) which are part of the São Bento Wind Farm Complex, located in the State of Rio Grande do Norte, began operations. With an installed capacity of 94 MW and Assured Energy of 38.1 average MW. In August 2010, 43.7 average MW was sold to fifteen distribution concessionaires in ANEEL public auctions at a weighted average price of R\$134.49/MWh (annually adjusted by IPCA index). The energy generated by these wind farms is sold through 20-year term contracts.

Copel Brisa Potiguar Wind Complex. In September 2015, we concluded the implementation of the Brisa Potiguar Wind Complex with an installed capacity 183.6 MW and Assured Energy of 89.4 average MW. An Assured Energy of 57.7 average MW (from Asa Branca I, Asa Branca II, Asa Branca III and Eurus IV wind farms) was committed under contract to electric power distributors in the alternative energy auction in August 2010 at a weighted average price of R\$135.40/MWh (adjusted annually by IPCA inflation index) and an Assured Energy of 40.7 average MW (from WPPs Santa Helena, Santa Maria and Ventos de Santo Uriel) was committed under contract in the 6th Reserve Energy Auction held in August 2011 at a weighted average price of R\$101.81/MWh (annually adjusted by the IPCA inflation index). The energy to be generated was sold through 20-year term contracts with payments beginning in April 2015.

Voltália São Miguel do Gostoso I. In June 2014, we acquired a 49.0% interest in the São Miguel do Gostoso I Wind Farm Complex, in the State of Rio Grande do Norte. The São Miguel do Gostoso wind farm complex has 108.0 MW of installed capacity and Assured Energy of 57.1 average MW, and its energy was sold in the 4th Reserve Energy Auction at an average price of R\$98.92/MWh through 20-year term contracts. In April 2015, we concluded the construction of this wind farm complex and ANEEL, in July and August 2015, classified it as ready for commercial operation. This wind farm complex began production in June 2017 after completion of the necessary transmission lines.

Cutia. Cutia Empreendimentos Eólicos, which is our largest wind farm business, is divided into two large complexes totaling 312.9 MW of installed capacity: (a) Cutia Complex, composed of seven wind farms (Guajiru, Jangada, Potiguar, Cutia, Maria Helena, Esperança do Nordeste and Paraíso dos Ventos do Nordeste), with a total installed capacity of 180.6 MW, 71.4 average MW of Assured Energy and located in the State of Rio Grande do Norte; and (b) Bento Miguel Complex, composed of six wind farms (São Bento do Norte I, São Bento do Norte II, São Bento do Norte III, São Miguel I, São Miguel II and São Miguel III) with 132.3 MW of total installed capacity, 58.7 average MW of Assured Energy and located in the State of Rio Grande do Norte, in the same region of other wind farm complexes that belong to us. On October 31, 2014, at the 6th Reserve Energy Auction, we sold 71.2 average MW from the Cutia Complex for R\$144.00/MWh (maximum auction price). In addition, at the 20th New Energy Auction (A-5), held on November 28, 2014, we sold 54.8 average MW from the six Bento Miguel wind farms for R\$142.03/MWh, through Availability Agreements with a 20-year term.

Vilas Complex. In November 2021, we acquired 100% of the Vilas Complex, located in the state of Rio Grande do Norte, from Voltalia Energia do Brasil Ltda (“Voltalia”). The Vilas Complex has 186.7 MW of installed capacity and 98.6 average MWm of Assured Energy. The Vilas Complex sold 32.7 average MW at the 28th New Energy Auction at the price of R\$93.00/MWh, with supply beginning in 2024, and 3.3 average MW at the 29th New Energy Auction at the price of R\$79.92/MWh, with supply beginning in 2023. The energy contracts are valid for 20 years. The Vilas Complex is fully operational.

Jandaíra Complex. In November 2022, the four wind farms (Jandaíra I, Jandaíra II, Jandaíra III and Jandaíra IV), located in the State of Rio Grande do Norte, with an installed capacity of 90.09 MW and Assured Energy of 46.2 average MW, began operations. In October 2019, 14.4 average MW was sold to nine distribution concessionaires in a A-6 New Energy Auction at a weighted average price of R\$98.00/MWh (annually adjusted by IPCA index). The energy generated by these wind farms is sold through 20-year term contracts.

Aventura Complex. In January 2023, we acquired 100% of the Aventura Complex, located in the state of Rio Grande do Norte, from EDP Renováveis S.A. (“EDPR”). The Aventura Complex has 105 MW of installed capacity and 65 average MWm of Assured Energy. The Aventura Complex sold 53.6 average MW at the 26th New Energy Auction at the price of R\$97.00/MWh, with supply beginning in 2023. The energy contracts are valid for 20 years. The Aventura Complex is fully operational.

Santa Rosa e Mundo Novo Complex. In January 2023, we acquired 100% of the Santa Rosa e Mundo Novo

Complex, located in the state of Rio Grande do Norte, from EDP Renováveis S.A. (“EDPR”). The Santa Rosa e Mundo Novo Complex has 155.4 MW of installed capacity and 92.8 average MWm of Assured Energy. The Santa Rosa e Mundo Novo Complex sold 67.1 average MW at the 26th New Energy Auction at the price of R\$99.00/MWh, with supply beginning in 2023. The energy contracts are valid for 20 years. The Santa Rosa e Mundo Novo Complex is fully operational.

Thermoelectric Generation Facilities

The following table sets forth certain information about our Thermoelectric Plants in operation as of December 31, 2022:

Plant	Installed capacity (MW)	Assured energy (Average MW)	Placed in service	Our ownership (%)	Concession/ authorization expires
TPP Araucária.....	484.2	365.2 ⁽¹⁾	September 2002	81.2 ⁽²⁾	December 2029
TPP Figueira	20.0	17.7	April 1963	100.0	March 2019 ⁽³⁾

⁽¹⁾ The annual Assured Energy of thermal plants such as Araucária varies depending on the price of natural gas, according to criteria established by the MME.

⁽²⁾ Held 20.3% by Copel and 60.9% by Copel GeT.

⁽³⁾ We are currently waiting for the granting authority to amend our concession agreement with respect to TPP Figueira, extending the concession of the Thermoelectric Plant for another 20 years, pursuant to the applicable law.

Araucária. We have an 81.2% interest in UEG Araucária Ltda., which owns the Araucária Thermoelectric Plant, a combined cycle natural gas thermoelectric plant, one of the most efficient in Brazil, with 484.2 MW of installed capacity, located in the state of Paraná.

UEG Araucária has a gas supply contract with Petróleo Brasileiro S.A - Petrobras, valid until December 31, 2023, which provides for the delivery of up to 2,150,000 cubic meters of natural gas per day, without take-or-pay clauses. As a result, TPP Araucária will remain available to the National Interconnected System - SIN and, therefore, may be dispatched at the discretion of ONS. Since UEG Araucária does not have any Energy Sale Contracts in force, the energy produced by the plant, when dispatched by the ONS, is paid out on the CCEE Spot Market.

Since March 2020, as part of the exceptional measures adopted by the Electric Sector Monitoring Committee (“CMSE”) for the recovery of hydroelectric reservoirs in the southern region of the country, TPP Araucária may be dispatched by the ONS with energy priced based on the Unit Variable Cost - CVU, approved by ANEEL. During 2020 and 2021, MME Ordinances authorized, on an exceptional and temporary basis, the inclusion of fixed costs in the plant’s CVU. Thus, TPP Araucária ended those years with its annual fixed costs duly remunerated.

UEG Araucária also signed an amendment to the Transfer of Energy Credits agreement with Petrobras, with the same duration as the gas supply contract, which allows the plant to be activated at the request of the gas supplier, on a weekly basis. In this context, the energy produced is not priced by the CVU, but by the amount agreed between the parties, taking into account, among other factors, market opportunities and margins considered adequate for the operation of the plant to recover part of its fixed costs.

Figueira. The Figueira plant is located in the city of Figueira, in the northeast of the state of Paraná (where the main coal basin of Paraná is located). In December 2022, the process of modernization of this plan was concluded, which consisted of replacing equipment to increase efficiency, reduce emissions of gases and particles resulting from the burning of coal and comply with applicable environmental legislation.

The plant now has the installed capacity of 20.0 MW with one Generating Unit and the Assured Energy of 17.7 average MW, calculated according to and in compliance with Normative Resolution No. 801/2017, which defines a minimum efficiency of 25% for installations with installed capacity up to 50.0 MW.

Expansion and Maintenance of Generating Capacity

We expect to spend R\$171.2 million in 2023 to expand and maintain our generation capacity, including

participation in new businesses, of which R\$45.9 million will be invested in hydroelectric plants and R\$52.9 million will be invested in our wind farms. The remaining amount will be spent on small hydroelectric power plants and other projects.

Wind Farm Projects

The following table presents information about the wind complexes we acquired in January 2023, the Santa Rosa & Mundo Novo (SRMN) and Aventura wind complexes, previously owned by EDP Renováveis Brasil S/A. and totaling 260.4 MW of installed capacity. The acquisition is part of our strategy for growth in renewable energy, expands the diversification of the generation portfolio and is fully in line with its Investment Policy.

The total transaction value (enterprise value) was R\$ 1,760 million. Copel GeT has obtained a long-term financing, with final maturity in 2043, with Banco do Nordeste (BNB) for the project, with rates of IPCA + 2.19% p.a. (Aventura Complex) and IPCA + 1.98% p.a. (Santa Rosa & Mundo Novo Complex). For more information, see explanatory note 40.1 to our financial statements.

About 76.5% of the energy of the enterprise was commercialized in the regulated environment (ACR) with supply beginning in 2023. In addition, about 13.7% of the total energy generated is commercialized in the free environment (ACL), leaving about 9.8% for new contracts.

Wind Farms	Installed Capacity (MW) ⁽¹⁾	Assured Energy (MWmed)	Commercial Operation	Energy Trade - Regulated Contracting Environment (ACR)					
				Auction	Quantity (MWmed)	Price (R\$/MWh) ⁽²⁾	Start of Supply	End of Supply	End of Authorization
Aventura II	105	65	Operational since July 21	A-6 2017	53.6	128.29	Jan/23	Dec/42	2053
Aventura III									
Aventura IV									
Aventura V									
SRMN I									
SRMN II	155.4	92.8	Operational since Dec/21 - Feb/22	A-6 2017	67.1	130.94	Jan/23	Dec/42	2053
SRMN III									
SRMN IV									
SRMN V									
SRMN V									
Total/Average	260.4	157.8	-		120.7	129.76			

⁽¹⁾ Total of 62 wind turbines used in the project, manufacturer Vestas model V 150.

⁽²⁾ Base date Jan/2023.

Development Projects

We are involved in various initiatives to study the technical, economic and environmental feasibility of certain hydroelectric, wind, solar photovoltaic and thermoelectric generation projects.

In 2022, we improved our governance in relation to the development of projects by introducing an Investment and Innovation Committee, as an advisory body to the Board of Directors, and approving our Investment Policy, which establishes the criteria for the selection, prioritization, evaluation, approval and monitoring of investments.

The following table sets forth information regarding our proposed generation projects that are considered feasible under a technical, economic, social, environmental and land-related perspective pursuant to the above-mentioned studies.

Proposed Projects ⁽¹⁾	Estimated Installed Capacity	Estimated Assured Energy	Our Ownership
	(MW)	(Average MW)	(%)
HPP São Jerônimo	330.0	178.1	41.2
HPP Salto Grande	49.0	25.3	100.0
SHP Salto Alemã	29.8	18.4	19.0
TOTAL	408.8	221.8	-

⁽¹⁾ Does not include other proposed projects whose technical, economic, social, environmental and land-related feasibility is still under analysis.

We are also a member of Consortium Geração Luz Paranaense – CGLP, which was granted with exploration rights related to the following projects: (i) SHP Foz do Curucaca, (ii) SHP Salto Alemã, (iii) SHP Alto Chopim and (iv) SHP Rancho Grande. After obtaining the applicable authorization from ANEEL and evaluating the hydraulic potential of each project, the consortium decided to carry out the studies only with respect to SHP Salto Alemã and SHP Foz do Curucaca and to return the exploration rights for SHP Alto Chopim and SHP Rancho Grande projects to ANEEL. The basic designs of SHP Salto Alemã and of SHP Foz do Curucaca had already been approved by ANEEL and the environmental studies related to SHP Salto Alemã were registered in the competent entity (*IAT – Instituto Água e Terra do Paraná* or “*IAT*”) for analysis.

Since 2018, we have the rights of the HPP Salto Grande, located in the Chopim River in the state of Paraná. The environmental studies related to this project were registered with IAT for analysis in February 2020 and the basic design was approved by ANEEL in November 2020.

We are advancing in the development of pipeline in renewable projects, with emphasis on hydraulic, wind and solar projects. The renewable projects developed will focus on free market, especially the new costumers arising from the opening of the market. However, we also looking for the energy auctions planned for 2023 in Brazil, we intend to bid for concessions to construct and operate new hydroelectric and solar photovoltaic plants or wind farms in power auctions in the regulated market for new generation projects. We will also conduct studies of new hydroelectric power plants. For instance, we have partnered with *BE - Empresa de Estudos Energéticos S.A.*, *Minas PCH S.A.* and *SILEA Participações Ltda.* to develop studies in the lower region of the Chopim River, which may lead to the development of another four (4) hydroelectric projects. We are also looking at opportunities to acquire greenfield and brownfield wind and solar energy projects. We expect to conduct new studies of wind and solar energy projects in Brazil in 2023.

Other renewable energy projects under study or development include the use of municipal solid waste in power generation, biomethane and and green hydrogen. For instance, since 2017, we have conducted solarimetric measurements in two solarimetric stations located in areas leased by Copel Brisa Potiguar. The development of this solar project is ready to advance to the next phase (implementation), subject to the opening of availability for connection with our transmission system.

We are also developing studies for the implementation / acquisition of projects related to Generation Distribution, Energy Efficiency, Biomass and Biogas. In addition to energy generation projects, investment opportunities in new energy transmission assets whose concession will be auctioned by the Brazilian government or existing assets that have synergy with our current portfolio are also being studied.

With regards to innovation, in 2021, we launched our Open Innovation program (“Copel Volt”). Copel Voltt adds a business component to our strategic vision with the goal to bring us closer to the startup ecosystem, upon the improvement of internal processes and the development of new businesses and services. The first edition of the program ended in May 2022. We are evaluating the results and the next steps of the program. One of the outcomes was the structuring and launch of the second edition of the program, the Copel Volt New Journey 2022/2023, with more than 300 applications were received (in progress), as well as the vehicle for investment in startups through a Corporate Venture Capital (CVC) where we are the sole shareholder of an investment fund of R\$ 150.0 million.

With respect to Distributed Generation, we are developing solar projects in Paraná relating to energy compensation of State of Paraná’s clients involving 50 MW with access asked to Copel Distribuição S.A, which shall be implemented in 2023. We are also planning add 2MW at Solar Paraná portfolio (of which we have a 49% share), which already have 3MW in operation.

Transmission and Distribution

General

Electricity is transferred from power plants to customers through transmission and distribution systems. Transmission is the bulk transfer of electricity from generating facilities to the distribution system by means of the Interconnected Transmission System, in tension greater than or equal to 230 kV. Distribution is the transfer of electricity

to Final Customers, in tension lesser or equal to 138 kV.

The following table sets forth certain information concerning our transmission and distribution grids on the dates presented.

	2022	2021	2020
Transmission lines (km):			
230 kV and 500 kV	3,698	3,630.8	3,443.0
138 kV	7.2	7.2	7.2
Distribution lines (km):			
230 kV	-	-	-
138 kV	6,652	6,513.5	6,457
69 kV	767	755.4	755
34.5 kV	89,356	87,744.0	86,489
13.8 kV	111,358	109,943.8	108,384
Transformer capacity (MVA):			
Transmission and distribution substations (69 kV – 500 kV) ⁽¹⁾	27,391.0	25,032.1	24,518.0
Generation (step up) substations.....	6,691.0	6,691.0	6,691.0
Distribution substations (34.5 kV)	1,646.0	1,624.5	1,594.2
Distribution transformers	15,138	14,621.8	14,180.8
Total energy losses ^{(2) (3)}	7.6%	7.7%	7.8%

⁽¹⁾ This figure includes transformers with primary tensions of 69 kV and 138 kV which belong to Copel Distribuição but are implemented in 230 kV and 525 kV substations, which belong to Copel Geração e Transmissão.

⁽²⁾ Percentage of losses on the energy injected in the distributor (technical and non-technical losses on injected energy). Does not consider losses in the basic grid.

⁽³⁾ We note that percentages measured until 2016 and reported in our previous reports reflected the amounts of physical losses (Technical), commercial losses (Non-Technical) and losses on the basic grid (allocation of agreements on the gravity center of the submarket) of Copel Distribuição, as well as the losses related to the allocation of agreements of Copel GeT. Those percentages were calculated taking into account the total of power purchased and sale agreements entered into by both Copel Distribuição and Copel GeT. For a better representation and comparison of the percentage of losses, we considered the percentage obtained by dividing the total amount of technical and non-technical losses by the energy injected into the Copel Distribuição's grid. This percentage may be compared to other companies and has a more accurate physical meaning as it utilizes the database of measured data and not information taken from agreements of the period being analyzed.

Transmission

Our transmission system consists of all our assets of 230 kV and greater and a small portion of our 138 kV assets, which are used to transmit the electricity we generate and the energy we receive from other sources. In addition to using our transmission lines to provide energy to customers in the State of Paraná, we also transmit energy through the Interconnected Transmission System. Two companies owned by the Brazilian government, Companhia de Geração e Transmissão de Energia Elétrica do Sul do Brasil – CGT Eletrosul and Furnas, also maintain significant transmission systems in the State of Paraná. Furnas is responsible for the transmission of electricity from Itaipu, while CGT Eletrosul's transmission system links the states in the south of Brazil. We, like all other companies that own transmission facilities, are required to allow third party access to its transmission facilities in exchange for compensation at a level set by ANEEL.

Currently, we carry out the operation and maintenance of 3,705 km of transmission lines, forty one (41) substations in the State of Paraná and two (2) substations in the State of São Paulo. In addition, we have partnerships with other companies to operate 5,980 km of transmission lines and eight (8) substations through special purpose companies (SPCs).

The table below sets forth information regarding our transmission assets in operation in December 31, 2022:

Subsidiary / SPC	Transmission Lines	TL Extension(km) ⁽⁴⁾	Number of Substations	Concession Expiration Date	Our Ownership	APR ⁽¹⁾ (R\$million)
COPEL GeT	Main Transmission Concession ⁽¹⁾	2,129	33	January 2043	100.0%	524.4
COPEL GeT	TL Bateias - Jaguariaiva	138	-	August 2031	100.0%	17.6
COPEL GeT	TL Bateias - Pilarzinho	32	-	March 2038	100.0%	3.4
COPEL GeT	TL Foz - Cascavel Oeste	117	-	November 2039	100.0%	15.4
COPEL GeT	Cerquilha III Substation	-	1	October 2040	100.0%	41.9
COPEL GeT	TL Londrina – Figueira C2 Foz do Chopim – Salto Osório	102	-	August 2042	100.0%	6.7
COPEL GeT	TL Assis – Paraguaçu Paulista C1 and C2 Paraguaçu Paulista II Substation	83	1	February 2043	100.0%	7.5
COPEL GeT	Curitiba Norte Substation TL Bateias – Curitiba Norte	31	1	January 2044	100.0%	11.8
COPEL GeT	Realeza Sul Substation TL Foz do Chopim- Realeza Sul	52	1	September 2044	100.0%	12.4
COPEL GeT	TL Assis – Londrina	122	-	September 2044	100.0%	12.5
COPEL GeT	TL Araraquara II – Taubaté	334	-	October 2040	100.0%	26.1
COPEL GeT	TL Baixo Iguaçu – Realeza TL Baixo Iguaçu – Cascavel Oeste TL Curitiba Centro – Uberaba TL Curitiba Leste – Blumenau Medianeira Norte Substation Curitiba Centro Substation Andirá Leste Substation Baixo Iguaçu Substation	255	4	April 2046	100%	148.9
Uirapuru (Copel GeT – 100%) ⁽²⁾	TL Ivaiporã - Londrina	122	-	March 2035	100%	28.2
Costa Oeste (Copel GeT – 100%)	LT Cascavel Oeste - Cascavel Norte TL Cascavel Norte - Umuarama Sul Umuarama Sul Substation	159	1	January 2042	100%	18.3
Marumbi (Copel GeT – 100%)	TL Curitiba – Curitiba Leste Curitiba Leste Substation	29	1	May 2042	100%	26.2
Subtotal Copel GeT		3,705	43			901.3
Caiuá Transmissora	TL Guafrá - Umuarama Sul TL Cascavel Norte - Cascavel Oeste Santa Quitéria Substation / Cascavel Norte Substation	142	2	May 2042	49.0% ⁽³⁾	15.8
Integração Maranhense	TL Açailândia-Miranda II	365	-	May 2042	49.0% ⁽³⁾	23.7
Matrinchã	TL Paranaíta - Ribeirãozinho	2,033	4	May 2042	49.0% ⁽³⁾	128.7

Subsidiary / SPC	Transmission Lines	TL Extension(km) ⁽⁴⁾	Number of Substations	Concession Expiration Date	Our Ownership	APR ⁽¹⁾ (R\$million)
Guaraciaba	TL Ribeirãozinho - Marimbondo	930	1	May 2042	49.0% ⁽³⁾	64.1
Paranaíba	TL Barreiras II - Pirapora II	967	-	May 2043	24.5% ⁽³⁾	42.8
Cantareira	TL Estreito – Fernão Dias	656	-	September 2044	49.0% ⁽³⁾	65.5
Mata de Santa Genebra	TL Araraquara II - - Itatiba TL Araraquara 2 - Fernão Dias– TL Bateias - Itatiba	887	1	May 2044	50.1% ⁽³⁾	150.4
Subtotal SPCs		5,980	8			490.9
Total		9,685	51			1.392.2

⁽¹⁾ Our main transmission concessions encompass several transmission lines. Proportionate to our stake in the enterprise. Amounts relating to the 2022/2023 cycle (pursuant to REH 3.067/2022), without taking into account the adjustment parcel (PA). Considers assets that were operational on December 20, 2022.

⁽²⁾ In March 2019, Copel GeT signed a purchase and sale agreement with Centrais Elétricas Brasileiras SA and Fundação Eletrosul de Previdência e Assistencial Social - Elos to transfer 100% of shares issued by SPE Uirapuru Transmissora de Energia S.A. In June 2019 Copel GeT took over the stake control of the company.

⁽³⁾ Refers to the equity interest held by Copel Geração e Transmissão.

⁽⁴⁾ Considers double circuits.

Expansion and Maintenance of Transmission Facilities

The construction of new transmission facilities of 230 kV and higher must be awarded in a bidding process or otherwise authorized by ANEEL. We are permitted by ANEEL to make minor improvements to some of the existing 230 kV and 500 kV facilities.

In November 2013, SPC Mata de Santa Genebra Transmissora, a strategic partnership between us (50.1%) and Furnas (49.9%), won the right to build and operate 847 km of transmission lines and three substations in the States of Paraná and São Paulo. The construction schedule of the Mata de Santa Genebra project was affected by successive vandalism events, which resulted in the collapse of towers and theft of aluminum cables in transmission lines already installed and commissioned, in different sections of the project. On November 11, 2020, the LT 440 kV Fernão Dias / Taubaté, the last asset of the SPC Mata de Santa Genebra project, began its commercial operation. With the completion of these steps, the SPC Mata de Santa Genebra became fully operational. The project has an APR of R\$300.3 million, of which R\$150.4 million are related to our stake (considering the 2022-2023 tariff adjustment cycle).

In November 2015, Copel GeT won ANEEL's public auction No. 005/2015 for the construction and operation of 188 km of transmission lines in the States of Paraná and Santa Catarina, and three (3) substations in the State of Paraná, with a total capacity of 900 MVA. With an APR of R\$148.9 million, the corresponding concession agreement was signed in April 2016, and the remaining facility which was still under construction, the transmission line Curitiba Leste - Blumenau, become operational in April 1, 2021. This facility has an APR of R\$47.6 million, approved for 2022-2023 tariff adjustment cycle.

Distribution

Our distribution system consists of a widespread grid of overhead lines and substations with voltages up to 138 kV assets. Higher Voltage electricity is supplied to bigger industrial and commercial customers and lower voltage electricity is supplied to residential, small industrial, and commercial customers in addition to other customers. As of December 31, 2022, we provided electricity in a geographic area encompassing approximately 97% of the State of Paraná and served 5.0 million customers.

Our distribution grid includes 208,133 km of distribution lines, 462,584 distribution transformers and 236 distribution substations of 34.5 kV, 36 substations of 69 kV and 117 substations of 138 kV. During 2022, 84,947 new captive customers were connected to our grid, including customers connected through the rural and urban electrification programs. We are continuing to implement compact grid design distribution lines in urban areas with large concentration of trees in the vicinity of the distribution grid.

We have three (3) captive customers that are directly supplied with energy at a high voltage (69 kV and above) through connections to our distribution lines. The volume of energy commercialized for these customers was 41,628 MWh in 2022.

We are also responsible for expanding the 138 kV and 69 kV distribution grid within our concession area to meet any future demand growth.

On October 16, 2019 Copel Distribuição launched a program to modernize its distribution grid called “Transformation Program” (*Programa Transformação*). The Transformation Program is comprised of three projects: “Total Reliability” (Confiabilidade Total), “Three-phase Paraná” (Paraná Trifásico) and “Smart Grid Copel.” The goal is to improve infrastructure, particularly in rural areas, in order to enhance quality of energy supply and reduce supply restoration period in case of power outages. With investments of up to R\$3.9 billion until 2025, which shall compose the Regulatory Remuneration Base, the Transformation Program involves the construction of approximately twenty-five 25,000 kilometers of power grids, 6,000 new automated power connections and the setting up of smart grid technology in the State of Paraná. The Smart Grid Project deals with the implementation of a communication network for distribution automation equipment and for smart meters. In addition, computer systems for efficient management of this communication network are included in this project. The “Transformation Program” project reached by December 2022, 10,506 km of power grids, and 4,510 new automated power connections. Furthermore, the smart grid project, reaches more than 432,000 consumers were impacted.

Performance of the Distribution System

Total losses are commonly divided into a technical and non-technical component. Technical losses are inherent to the transportation of electricity and consist mainly of power dissipation in the line grid. Non-technical (or commercial) losses are caused by actions external to the power system (for instance, electricity theft). Since total losses are comprised of both technical and non-technical parcels, the latter is easily calculated as the difference between total losses and the estimated technical losses inherent to the system.

Total losses in our distribution system are segmented between (i) losses in the basic grid (tension equal to or greater than 230kV), which are external to our distribution grid and have a technical cause, and (ii) losses in the distribution grid (internal to our distribution grid), which are usually caused by both technical and non-technical reasons.

Losses in the basic grid are calculated monthly by the CCEE as the difference between the total generation and the energy effectively delivered to the distribution grids. The total losses from our distribution grid are calculated as the difference between the energy allocated to the system and the energy supplied to the customers.

Our total energy distribution losses (including transmission system, technical and commercial losses) totaled 9.0% of the total energy amount available in 2022, being (i) 1.4% related to losses in the basic grid, (ii) 5.7% of technical losses and (iii) 1.9% of non-technical losses.

ANEEL grants the transfer of all energy losses to the Final Customers when the real losses are less than regulatory losses. The calculation is made within the regulatory period, that is different from a civil year, and thereby we will know the result just in the next tariff adjustment, in June 2023. But our simulation indicates that in the civil year, from January through December 2022, we will have all losses transferred to the Final Customers.

Furthermore, ANEEL requires distributors to observe certain standards for “energy supply continuity,” namely (i) duration of outages per customer per year or DEC – *Duração Equivalente de Interrupção por Unidade Consumidora* and (ii) frequency of outages per customer per year or FEC – *Frequência Equivalente de Interrupção por Unidade Consumidora*. Information regarding the duration and frequency of outages for our customers is set forth in the following chart for the years indicated.

Quality of supply indicator	2022	2021	2020	2019	2018
DEC – Duration of outages per customer per year (in hours).....	7h59	7h13min	7h50min	09h07min	10h19min
FEC – Frequency of outages per customer per year (number of outages)	5.29	4.83	5.61	6.02	6.22

We comply with the quality indicators defined by ANEEL for 2022, which penalizes power outages in excess

of an average number of hours per customer, in each case calculated on an annual basis. These limits vary depending on the geographic region, and the average limit established by ANEEL for our distribution company was 9 hours and 11 minutes of outages per customer per year, and a total of 6.8 outages per customer per year. Failure to comply with these predetermined standards with a Final Customer results in a reduction of the amount we can charge such Final Customer in future periods.

In addition, quality target indicators are taken into consideration by ANEEL during distribution concession renewal proceedings, and also influence ANEEL’s calculation of our tariff adjustments. For more information, see “–Concessions–Distribution Concessions” and “–The Brazilian Electric Power Industry–Distribution Tariffs.”

Purchases for the captive market

The following table contains information concerning volume, cost and Average Tariff for the main sources of the electricity we purchased for the captive market in the last three years.

Source	2022	2021	2020
Itaipu			
Volume (GWh)	5,272	5,435	5,498
Cost (R\$millions).....	1,461.0	1,787.7	1,766.1
Average Tariff (R\$/MWh)	227.12	328.92	321.23
Angra			
Volume (GWh)	928	976	968
Cost (R\$millions).....	317.4	224.7	268.8
Average Tariff (R\$/MWh)	342.03	230.23	277.89
CCGF			
Volume (GWh)	5,901	5,916	6,136
Cost (R\$millions).....	755.2	686.3	669.9
Average Tariff (R\$/MWh)	127.98	116.10	109.18
Auctions in the regulated market			
Volume (GWh) ⁽¹⁾	12,354	12,216	11,579
Cost (R\$millions) ⁽²⁾	2,465.9	2,961.4	2,169.3
Average Tariff (R\$/MWh)	199.60	242.42	187.34

⁽¹⁾ These numbers do not include assignments related to MCSD-EN and MVE.

⁽²⁾ These numbers do not include short-term energy purchased through the CCEE.

Itaipu

We purchased 5,272 GWh of electricity from Itaipu in 2022, which constituted 8.4% of our total available electricity in 2022 and 20.7% of Copel Distribuição’s total available electricity in 2022. Our purchases represented approximately 7.5% of Itaipu’s total production. Distribution companies operating under concessions in the midwest, south and southeast regions of Brazil are required by law to purchase Brazil’s portion of the energy generated by Itaipu in a proportion that correlates with the volume of electricity that they provide to customers. The rates at which these companies are required to purchase Itaipu’s energy are fixed to cover Itaipu’s operating expenses and payments of principal and interest on Itaipu’s U.S. dollar-denominated borrowings, as well as the cost of transmitting the power to their concession areas. These rates are denominated in U.S. dollars and have been set for 2022 at US\$16.19 per kW.

In 2022, we paid an Average Tariff of R\$227.12/MWh for energy from Itaipu, compared to R\$328.81/MWh in 2021. These figures do not include the transmission tariff that distribution companies must pay for the transmission of energy from Itaipu.

ANGRA

Because Eletronuclear renewed the generation concession of Angra under the 2013 Concession Renewal Law, the energy generated by Angra is no longer sold in auctions in the regulated market. Rather, under the 2013 Concession

Renewal Law, this energy is sold to distributors in accordance with the quota system established by said law. For more information, see “Item 4. Information on the Company—The Brazilian Electric Power Industry.” As a result, Copel Distribuição was legally required to purchase 928 GWh from Angra in 2022, 976 GWh in 2021 and 968 GWh in 2020.

Assured Energy Quota Contract – CCGF

Under the 2013 Concession Renewal Law, certain generation concessionaires renewed their concession contracts, and therefore these concessionaires no longer sell the energy produced by these generation facilities at auctions in the regulated market. Rather, this energy is sold to distribution companies in accordance with the quota system established by the 2013 Concession Renewal Law. For more information, see “Item 4. Information on the Company—The Brazilian Electric Power Industry.” Copel Distribuição is obligated to purchase energy from these generation concessionaires that have renewed generation concessions under this quota system. Copel Distribuição was legally required to purchase 5,901 GWh in CCGF contracts in 2022, 5,916 GWh in 2021 and 6,136 GWh in 2020.

Auctions in the Regulated Market

In 2022, we purchased 12,354 GWh of thermoelectric and hydroelectric energy through auctions in the regulated market. This energy represents 48.6% of the total electricity purchased by the Copel Distribuição. For more information on the regulated market and the Free Market, see “Item 4. Information on the Company—The Brazilian Electric Power Industry.”

Sales to Captive Customers

During 2022, we supplied approximately 82.5% of the energy distributed directly to Captive Customers in the State of Paraná. Our concession area includes nearly 5.0 million customers located in the State of Paraná and in one municipality in the State of Santa Catarina, located in the south of the State of Paraná. During 2022, the total power consumption of our Captive Customers was 19,370 GWh, a 0.3% increase as compared to 19,312 GWh during 2021.

Categories of purchaser	2022	2021	2020
(GWh)			
Industrial customers	2,102	2,275	2,314
Residential	8,212	8,068	7,910
Commercial.....	4,295	4,149	4,172
Rural	2,357	2,461	2,451
Other ⁽¹⁾	2,404	2,359	2,333
Total⁽²⁾	19,370	19,312	19,180

⁽¹⁾ Includes public services such as street lighting, electricity supply for municipalities and other governmental agencies, as well as our own consumption.

⁽²⁾ Total GWh does not include our energy losses.

Sales to Free Customers

We operate in the ACL through our wholly owned subsidiaries Copel Geração e Transmissão and Copel Comercialização (Copel Mercado Livre). As of December 31, 2022, we had 1,491 Free Customers (of which 1,490 were customers of our energy trading company and 1 of Copel GeT), representing approximately 10.4% of our consolidated operating revenue and approximately 16.7% of the total quantity of electricity sold by us. During 2022, the total power consumption of our Free Customers was 11,498 GWh, a 20.6% increase as compared to 9,537 GWh during 2021.

Categories of purchaser	2022	2021	2020
(GWh)			
Industrial customers	9,402	8,176	7,308
Commercial.....	2,096	1,360	680
Total	11,498	9,537	7,989

The following table sets forth the number of our Final Customers, considering both Captive and Free Customers,

in each category as of December 31, 2022.

Category	Number of Final Customers
Industrial	69,712
Residential	4,127,292
Commercial.....	430,359
Rural	331,938
Other ⁽¹⁾	53,745
Total	5,013,046

⁽¹⁾ Includes street lighting, as well as electricity for municipalities and other governmental agencies, public services and own consumption.

Industrial and commercial customers accounted for approximately 8.4% and 16.9%, respectively, of our total revenues from energy sales to Final Customers of Captive Market during 2022. In 2022, 30.2% of our total revenues from energy sales were from residential customers.

Tariffs

Retail Tariffs. We classify our customers in two groups (“Group A Customers” and “Group B Customers”), based on the voltage level at which electricity is supplied to them and on whether they are considered as industrial, commercial, residential or rural customers. Each customer falls within a certain tariff level defined by law and based on the customer’s classification, although some flexibility is available according to the nature of each customer’s demand. Under Brazilian regulation, low voltage customers such as residential customers (other than Low-income Residential Customers, as defined as follows) pay the highest tariff rates, followed by 13.8 kV and 34.5 kV voltage customers (usually commercial customers), and 69 kV and 138 kV voltage customers (usually industrial customers).

Group A Customers receive electricity at 2.3 kV or higher and the tariffs applied to them are based on the actual voltage level at which energy is supplied and the time of day the energy is supplied. Tariffs are comprised of two components: a “capacity charge” and an “energy charge.” The capacity charge, expressed in *reais* per kW, is based on the higher of (i) contracted firm capacity and (ii) power capacity actually used. The energy charge, expressed in *reais* per MWh, is based on the amount of electricity actually consumed as evidenced by our metering.

Group B Customers receive electricity at less than 2.3 kV, and the tariffs applied to them are comprised solely of an energy charge and are based on the classification of the customer.

ANEEL restates our tariffs annually, usually in June. For more information about the distribution tariff adjustments that have been made by ANEEL in recent years, see “Item 5. Operating and Financial Review and Prospects—Overview—Rates and Prices.”

The following table sets forth the Average Tariffs for each category of Final Customer.

Tariffs ⁽¹⁾	2022	2021	2020
(R\$/MWh)			
Industrial	506.44	540.97	487.41
Residential	530.23	530.98	498.82
Commercial.....	598.00	629.62	574.57
Rural	570.28	589.41	489.57
Other customers	407.55	401.34	356.03
Retail supply average tariff	583.46	592.17	537.81

⁽¹⁾ (i) Considers December as the reference month; (ii) Net revenue from “electricity sales to final customers” and “Use of the main distribution and transmission grid”; and (iii) Does not consider tariff flags.

Low-income Residential Customers. Under Brazilian law, we are required to provide low level rates to certain low-income residential customers (“Low-income Residential Customers”). In December 2022, we served approximately 575,136 low-income residential customers. For servicing these customers, in 2022 we received an R\$151.6 million

compensation from the Brazilian government, which was approved by ANEEL.

The following table sets forth the current minimum discount rates approved by ANEEL for each category of Low-income Residential Customer.

Consumption	Discount from base tariff
Up to 30 kWh per month.....	65%
From 31 to 100 kWh per month.....	40%
From 101 to 220 kWh per month.....	10%

Special Customers. A customer of our distribution business that consumes at least 500 kW (a “Special Customer”) may choose its energy supplier if that supplier derives its energy from alternative sources, such as small hydroelectric plants, wind plants or biomass plants. A Special Customer that chooses to purchase energy from a supplier other than Copel Geração e Transmissão continues to use our distribution grid and to pay our distribution tariff. However, as an incentive for Special Customers to purchase from alternative sources, we are required to reduce the tariff paid by Special Customers by 50%. This discount is subsidized by the Brazilian government, and therefore does not impact the revenues of our distribution business.

Transmission Tariffs. A transmission concessionaire is entitled to annual revenues based on the transmission grid it owns and operates. These revenues are annually readjusted according to criteria stipulated in the concession contract. We are directly a party to twelve (12) transmission concession contracts in operation. Not all of the transmission concession contracts employ the same revenue model, 2.1% of our transmission revenues are updated on an annual basis by the IGP-M and the other 97.9% are subject to the tariff review process.

The first periodic revision related to our Main Transmission Concession scheduled for 2005 was only carried out in 2007, at which point ANEEL reduced the tariffs by 15.08%. This adjustment was applied retroactively to July 2005, and was passed on to our Final Customers until June 2009. In addition, in July 2010 pursuant to a second periodic revision of our principal concession, ANEEL granted provisional approval of a reduction in our transmission tariff by 22.88%, applied to the revenues of new installations in the Interconnected Transmission System, and applied retroactively from July 1, 2009 onward. In June 2011, ANEEL reviewed the figures of the second periodic revision and reduced the annual revenues by 19.94%. The remainder of our annual revenues was subject to adjustment by IGP-M or IPCA, as applicable.

By late 2012, we decided to anticipate the extension of our main transmission concession agreement (corresponding to 78% of our transmission lines then in operation) that would expire in 2015, pursuant to the new rules of the 2013 Concession Renewal Law. In December 2012, we executed the Third Addendum to the Concession Agreement 060/2001, extending this transmission concession agreement until December 31, 2042. In order to adjust these assets’ annual permitted revenue to the new rules of 2013 Concession Renewal Law, ANEEL reduced the transmission tariffs we charged by 61.9%.

Of all our transmission concessions in operational stage, our main transmission concession (which involves our main transmission facilities) accounted for about 71% of our gross transmission revenues in 2019. In addition, we have ten (10) concession agreements for transmission lines and substations in operation and one (1) partially in operation, which correspond to an aggregate of 29% of our transmission revenues. The amount of revenues we are entitled to receive pursuant to one (1) of these contracts is updated on an annual basis by the IGP-M and is not subject to the tariff review process, but, pursuant to the terms set forth in this agreement, our revenues were reduced by 50% starting in June 2018. Other ten (10) agreements revenues are subject to the tariff review process and adjustments by the IPCA.

In relation to our main concession agreement, on April 22, 2016, Ordinance No. 120/2016 of the Ministry of Mines and Energy determined that the amounts ratified by ANEEL related to the non-depreciated transmission assets existing on May 31, 2000 (Basic Grid Existing System “RBSE”) should be incorporated to the Regulatory Remuneration Base, and that their cost of capital should be added to APR. The Ordinance also determined that the cost of capital would be composed of compensation and depreciation installments, plus related taxes, and recognized as of the 2017 tariff revision process, with adjustments and revisions in accordance with contractual conditions.

Also pursuant to the above mentioned Ordinance, the cost of capital not incorporated between the concessions' extensions and the 2017 tariff revision process should be restated at the real cost of own capital of the transmission segment defined by ANEEL (10.4%) and, after the tariff revision process, it should be remunerated at the Weighted Average Cost of Capital (WACC) of 6.6%, also defined by that agency.

On May 9, 2017, ANEEL approved the result of the inspection of the appraisal report of the transmission assets existing on May 31, 2000 (RBSE and Other Transmission Facilities - RPC) related to our main transmission concession agreement. The Agency recognized the amount of R\$667.6 million as the net value of the assets for the purposes of indemnification as of December 31, 2012. As of December 31, 2017, the net value of those assets for the purposes of indemnification amounted to R\$1,418.4 million.

On June 27, 2017, ANEEL approved the Annual Permitted Revenue (*Receita Anual Permitida*, or APR) of the transmission assets of Copel GeT for the 2017/2018 cycle, including the commencement of receipt of the RBSE indemnification of our main transmission concession agreement.

In 2017(i) our main transmission concession agreement was adjusted by the IPCA and by the portion related the commencement of receipt of the RBSE indemnification (average increase of 151.3%) (ii) one of our transmission concession agreements was adjusted by the IPCA and improvements to the system were approved by ANEEL (average increase of 3.7%), (iii) six transmission concession agreements were adjusted by the IPCA (3.6%), (iv) one transmission concession agreement was adjusted by the IGP-M (1.6%), and (v) one transmission agreement became operational in August 2017, adding R\$18.9 million of annual permitted revenues. As a result, the annual permitted revenues for the 2017/2018 cycle for our transmission assets reflected an increase of 121.2% over our annual permitted revenues for the 2016/2017 cycle.

In June 2018, ANEEL approved the APR for the 2018/2019 cycle, considering (i) an adjustment of relevant amounts by the IGP-M and IPCA indexes, and (ii) the expansion of our transmission system with upgrades and revenues from other works classified as improvement measures.

Compared to our total APR for the 2017/2018 cycle, the APR of our main concession for the 2018/2019 cycle was reduced by 8.1%, as a result of the correction of a prior calculation made by ANEEL, which take into account certain financial and economic portions of unamortized and unrepaired assets related to the RBSE when determining the assets of the Regulatory Remuneration Base in the prior cycle.

The APR of concession No. 075/2001 was reduced by approximately 30.5%, as a result of a 50% reduction of the APR starting at the 16th anniversary of commercial operation, which occurred during the 2018/2019 cycle. Two of our concession agreements (022/2012 and 002/2013) were subject to a periodic review, which resulted in a lower APR in connection with increasing revenues related to upgrade works.

In June 2019, ANEEL approved the APR for the 2019/2020 cycle, considering (i) an adjustment of relevant amounts by the IGP-M and IPCA indexes, and (ii) the expansion of our transmission system with upgrade works and revenues from other works classified as improvement measures.

In 2020, in the scope of the tariff review process for the contracts extended under Law No. 12,783/2013, holders of assets belonging to RBSE had their review ratified in June 2020 despite originally being scheduled for 2018, due to a two-year delay and the retroactive effects of REN 880/2020 on the 2018 tariff year. For us, this process was ratified through Homologation Resolution No. 2,715/2020 for concession agreement No. 060/2001, granted to Copel GeT. During review process, ANEEL decided that starting on the 2020/2021 cycle, the remuneration portion of the RBSE would be calculated by the cost of equity ("KE") as provided for in Ordinance MME No. 120/2016. The value not received during the three previous cycles (2017-2020) will be incorporated into the next three cycles (2020-2023) by the means of an Adjustment Installment (*Parcela de Ajuste*).

In view of the strong tariff impact of the increased risk of default in the electricity sector caused by the COVID-19 pandemic, on April 22, 2021, ANEEL changed the timeline for the payment of the financial component of the RBSE/RPC for 8 years and gradually for all the transmission concession agreements renewed under the terms of Law No. 12,783/2013. The new rule was approved by Resolution No. 2,847, of 04.22.2021, which changed the result of the periodic review of the APR, ratified in 2020, associated with Concession Agreement No. 060/2001.

Additionally, by means of Homologation Resolution No. 2,725/2020, ANEEL established the readjustment of APRs for electric energy transmission assets for the 2020-2021 cycle, effective from July 1, 2020 until June 30, 2021. According to this resolution, Copel GeT's transmission asset APRs for the 2020-2021 cycle were R\$777.2 million, of which R\$703.4 million correspond to the revenue of operational assets. Considering the homologated APRs for the Special Purpose Companies (Sociedades de Propósito Específicos) in which Copel GeT has 100%, APR for the cycle were R\$773.2. With the others in which it has equity ownership, the total consolidated value for Copel GeT is R\$1,146.0 million. Along with beginning of commercial operations of Mata de Santa Genebra assets in its totality in 2020, GeT's total consolidated value is R\$1,161.2 million.

On July 13, 2021, ANEEL readjusted the APRs for electric energy transmission assets for the cycle from July 1, 2021 to June 30, 2022 through Resolutions 2,895/2021 and 2,959/2021. Copel GeT's transmission assets APR was set at R\$792.2 million of assets in operation. Considering the APRs approved for the Special Purpose Companies 100% owned by Copel Geração e Transmissão, the total consolidated amount reached R\$1,220.1 million.

On July 14, 2022, ANEEL, through Ratifying Resolution No. 3067/2022, established the readjustment of the Allowed Annual Revenues ("RAP") for electric power transmission concessionaires for the 2022-2023 cycle, effective from from July 1, 2022 to June 30, 2023. According to the resolution, the RAP of the transmission concessions of Copel Geração e Transmissão for the 2022/2023 cycle is R\$ 849.2 million, of which R\$ 824 .2 million correspond to the RAP of assets in operation. Also, considering the approved RAP for the SPCs in which Copel Geração e Transmissão has a 100% shareholding, the total RAP value is R\$921.9 million, of which R\$896.9 million correspond to the RAP of assets in operation. Throughout 2022, some reinforcements authorized by Aneel for Concession Contracts 060/2001 and 006/2008 were considered and, therefore, the RAP of assets in operation was increase to R\$ 901.3 million.

The table below shows our APR (R\$million) for the last three cycles of transmission lines over which we hold a 100% ownership in December 31, 2022:

Contract	Transmission Line / Substation	Jul. 2022	Jul. 2021	Jul. 2020
		Jun.2023	Jun.2022	Jun. 2021
		APR (R\$million)		
060/2001	Main Transmission Concession ⁽¹⁾	524.4	459.4	505.4
075/2001	Bateias – Jaguariava	17.6	15.9	11.6
006/2008	Bateias – Pilarzinho	3.4	1.2	1.1
027/2009	Foz do Iguaçu - Cascavel Oeste	15.4	13.8	12.7
015/2010	Cerquillo III	6.7	6.0	5.2
022/2012	Foz do Chopim – Salto Osório			
	Londrina – Figueira C2	7.5	6.7	6.2
002/2013	Assis — Paraguaçu Paulista II C1 and C2			
	SE Paraguaçu Paulista II	11.8	10.5	9.7
005/2014	Bateias - Curitiba Norte			
	SE Curitiba Norte	12.4	11.1	10.2
021/2014	Foz do Chopim - Realeza ⁽²⁾	12.5	11.2	8.0
022/2014	Assis – Londrina ⁽³⁾	26.1	23.3	20.8
010/2010	Araraquara 2 – Taubaté ⁽⁴⁾	41.9	37.5	32.0
006/2016	TL Baixo Iguaçu - Realeza;			
	TL Baixo Iguaçu - Cascavel Oeste;			
	TL Uberaba - Curitiba Centro;			
	TL Curitiba Leste - Blumenau;			
	SE Medianeira;			
	SE Curitiba Centro;			
	SE Andirá leste;			
	SE Baixo Iguaçu;			
	Demais Seccionamentos	148.9	133.3	80.5
002/2005	Uirapuru ⁽⁵⁾	28.2	26.0	37.1

Contract	Transmission Line / Substation	Jul. 2022	Jul. 2021	Jul. 2020
		Jun.2023	Jun.2022	Jun. 2021
APR (R\$million)				
001/2012	Costa Oeste ⁽⁶⁾	18.3	14.8	12.8
008/2012	Marumbi ⁽⁶⁾	26.2	21.5	19.9
Total		901.3	792.2	773.2

- (1) Our main transmission concessions encompass several transmission lines.
(2) This transmission line became operational in January 2017.
(3) This transmission line became operational in August 2017.
(4) This transmission line became operational in July 2018.
(5) In June 2019, Copel Geração e Transmissão S.A. became the owner of 100% of the project.
(6) In August 2018, Copel Geração e Transmissão S.A. became the owner of 100% of the project.

Other Businesses

Gas

Gas Distribution

The concession for piped gas distribution services, granted to Compagas on July 6, 1994, was renewed in 2022, by the Government of the State of Paraná, for an additional 30 years starting July 6, 2024, and valid until July 6, 2054. As a result of the early renewal, we came under a new contract that altered the concession's tariff structure from a tariff based on the cost of production (cost plus) to a tariff defined on the basis of a price-cap, which foresees investments and actions that will allow us to bring natural gas to an increasing number of people in Paraná, with efficiency, safety, competitiveness, and innovation. Our corporate purpose is to provide piped gas distribution services to meet consumer demand in the industrial, commercial, residential, institutional, transportation, and other segments that may require the service in compliance with the legal provisions and in accordance with paragraph 2 of Article 25 of the Federal Constitution.

The gas concession agreement provides that the investments made by Compagas were to be recovered through the collection of tariffs paid by the end users of the public service and the possible remaining part should be indemnified by the granting authority, the State of Paraná, at the end of the concession.

For the new concession period, over R\$ 2.5 billion investments are foreseen, in addition to the connection of over 60 thousand new users and the implementation of new pipelines. We will also allocate resources to the technological area and to the inclusion of biomethane in the supply matrix, with a focus on delivering clean energy and reinforcing our commitment to sustainability goals.

The activity of distributing piped gas in the State of Paraná is regulated by the Regulatory Agency for Delegated Public Services of Paraná (AGEPAR), which is responsible, among others, for overseeing the distribution service and approving tariff adjustments and revisions.

Compagas covered 864 kilometers in 2022, an increase of 1.4% compared to 852 kilometers covered in 2021. Compagas's net revenues were R\$1,297.0 million, an increase of 65.6%, compared to 2021 (R\$783.3 million), and its net income was R\$179.2 million, an increase of 79.9% compared to 2021. Compagas' customers include industries, gas stations, other businesses, residences and Araucária Thermoelectric plant. Compagas is focusing its business strategy on increasing the volume of gas it distributes to customers by marketing the benefits of substituting oil and other fuels by gas as a mean of achieving greater energy efficiency. Compagas' customer base increased 3.2%, to 53,009 customers in 2022 from 51,000 in 2021. Compagas registered an increase of 6.2% in the average daily volume of natural gas distributed to Final Customers, to 948,295 cubic meters per day in 2022 compared to 893,203 cubic meters per day in 2021 (not including the volume of gas supplied to Araucária Thermoelectric Plant). In addition, Compagas makes its distribution grid available to transport natural gas to Araucária TPP. The volume of natural gas supplied from Petrobras and distributed by Compagas to Araucária TPP, was 137,070 cubic meters per day in 2022, compared to 1,212,597 cubic meters per day in 2021.

As of December 31, 2022, we held a controlling stake (51%) of the capital stock of Compagas and consolidated this equity interest in our financial statements. The minority shareholders of Compagas are Commit and Mitsui Gás, each of which owns 24.5% of the capital stock of Compagas.

Gas Exploration

In the 12th bidding round of National Petroleum Agency (*Agência Nacional do Petróleo* “ANP”), held at the end of 2013, the consortium formed by us (30%), Bayar Participações (30%), Tucumann Engenharia (10%) and Petra Energia (30%), the latter acting as operating company, won the right to explore, research, develop and produce natural gas in four blocks located in the central southern region of the State of Paraná, in a 11,327 km² area. The minimum investment in the first phase of the research is approximately R\$78.1 million for a 4-year term. We and our partners have signed the concession contracts for 2 blocks in May 2014. However, because of a public civil action the first phase of exploration for these two blocks was halted and the signing of the other two concession contracts was prohibited. On June 7th, 2017, a court decision held that all the bidding round and the agreements related thereto should be deemed null and void. Moreover, the Government of the State of Paraná enacted Law No. 19,878 (July 3, 2019), forbidding the exploration of shale gas through the drilling/fracking method.

As a result of the above-mentioned events, our consortium requested ANP to release it from its contractual obligations, with no liabilities and with reimbursement of the signing bonuses and costs incurred in connection with guarantees and release of such guarantees for the four blocks. An injunction was granted determining the suspension of all the activities for the four blocks in connection with the above mentioned public civil action, which awaits a decision from the Federal Court of Appeals of the 4th Region. In response, in October 2018, the consortium initiated an arbitration procedure with the ANP for the two blocks whose concession contracts were signed, asking for the refund of the contributions made. The arbitral award was published in May 2022. The Consortium was given the right to resign from the contractual obligations, however the arbitrators rejected the request for reimbursement of the costs incurred with the signing of the contracts. Proceedings were filed to enforce the arbitral award. The calculation of the amounts to be reimbursed is in the final stage. In relation to the other two blocks, the administrative process before the ANP for the return of signature bonuses was completed. Part of the amounts required by us in this process were returned by the ANP in November 2021. Regarding the remaining amount, we are studying how to charge the ANP.

Gas Natural Power Plants

New business studies. On January 14, 2020, we and Shell Brasil Petróleo formed the Consortium “Copel Energia a Gás Natural” aiming to develop feasibility studies for natural gas power plants in the State of Paraná. The consortium hired consultants to provide specialized technical services to conduct studies to identify the best location for the implementation of natural gas-fired thermoelectric projects in the state. In view of our decarbonization goal, the original project was terminated, but the consortium remains in place to evaluate other business opportunities.

TPP Araucária (“UEGA”). On November 4, 2022, we informed the market of further studies for a potential divestment of our equity interest in UEG Araucária S.A. “UEGA.” This initiative is part of the decarbonization process of our generation matrix, in line with our Strategic Business Planning – 2030 Vision. On December 22, 2022, we formalized the start of the divestment process of 100% of UEGA's shares, together with our Petrobras, through a competitive procedure, which is in the non-binding phase. For more information see “Item 4. Information on the Company—Significant Changes In Our Business—Disinvestment in UEGA”.

CONCESSIONS

We operate under concessions granted by the Brazilian government for our generation, transmission and distribution businesses. Under Brazilian law, concessions are subject to competitive bidding processes at the end of their respective terms.

2013 Concession Renewal Law

Until 2013, the Brazilian rules governing generation concessions gave concessionaires the right to renew for additional 20-year concession contracts that were entered into prior to December 11, 2003. For transmission and distribution concessions granted after 1995, concessionaires had the right to renew these contracts for an additional 30-

year period.

On September 11, 2012, the Brazilian government enacted the Provisional Measure No. 579, subsequently converted into the 2013 Concession Renewal Law, which significantly changed the conditions under which concessionaires are able to renew concession contracts. Under the 2013 Concession Renewal Law, generation, transmission and distribution concessionaires may renew the concessions that were in effect as of 1995 (and, in the case of generation facilities, generation concession contracts entered into prior to 2003) for an additional period of 30 years (or an additional 20-year period in the case thermal plants), provided that the concessionaire agrees to amend the concession contract to reflect a series of new conditions that aim to ensure that services are provided in a continuous and efficient fashion and subject to low tariffs. Under the 2013 Concession Renewal Law, concessionaires must decide 60 months before the end of each concession term (or 24 months with respect to thermal plant concessions that it is 24 months) whether to amend and renew a concession contract or to terminate each concession contract at the end of its respective term.

For concessionaires of generation facilities existing at that time, the 2013 Concession Renewal Law changed the scope of the concession contracts at the moment they were renewed. Previously, a generation concessionaire had the right to sell the energy generated by the facilities subject to its concession for profit. In contrast, generation concessions renewed pursuant to the 2013 Concession Renewal Law do not grant concessionaires the right to sell the energy generated by these facilities. Instead, these concessions only cover the operation and maintenance of the generation facilities, subject to quality standards determined by Brazilian authorities. The energy generated by these facilities are allocated by the Brazilian government in quotas to the regulated market, for purchase by distribution concessionaires. For new generation facilities (i.e., generation facilities operated after the 2013 Concession Renewal Law), on the other hand, the concessionaire still has the right to sell the energy produced by the generation facility.

In addition to changing the scope of generation concessions, the 2013 Concession Renewal Law establishes a new tariff regime that significantly affects the treatment of amounts to be invested by concessionaires to improve and maintain generation plants. To this effect, several regulations were issued by MME and ANEEL to regulate the compensation due to concessionaires as a result of their investments to improve and maintain generation plants.

The 2013 Concession Renewal Law affects transmission and distribution concessions differently. The principal change is that amounts invested in modernization projects, structural reforms, equipment and contingencies are subject to prior ANEEL approval. However, the 2013 Concession Renewal Law does not affect the manner in which distribution and transmission concessionaires may recover amounts invested in transmission infrastructure.

With respect to the transmission agreements, the conditions for renewal set forth in the 2013 Concession Renewal Law are the acceptance of a fixed income as determined by ANEEL and compliance with quality standards set forth in applicable regulation.

The Federal Government issued Decree 11,314/2022 that regulates the bidding and the extension of transmission concessions at the end of their term, conditioning the extension of the concession when the bidding is unfeasible or results in damage to the public interest, as long as the concessionaire formalizes the extension request at least 36 months before the end of the concession.

With respect to distribution agreements, the conditions are set forth in the amendment to the concession agreement and are related to compliance with quality standards, economic-financial sustainability indicators and corporate governance as set forth in the amendment to the concession agreement according to the parameters provided in the 2013 Concession Renewal Law.

The 2013 Concession Renewal Law applies to all generation, transmission and distribution contracts that were in effect as of 1995 (and, in the case of generation concessions, entered into prior to 2003), regardless of whether a contract grants to the concessionaire the right to renew a concession on its original terms. For example, several of our concession contracts contain provisions allowing us to renew these concessions for a period of 20 years. Under the 2013 Concession Renewal Law, in order to renew these contracts, we nonetheless would be required to accept the application of the conditions imposed by the 2013 Concession Renewal Law to the contract, and the concession contract would then be renewed for 30 years, rather than 20 years. If we choose to renew a concession contract that contains a renewal provision, we would be indemnified by the Brazilian government using funds from the RGR Fund (see Energy Sector Regulatory Charges) in an amount equal to the portion of our investments related to the concession that have not yet been amortized

or depreciated, as calculated by ANEEL.

If a concessionaire decides not to accept the new tariff regime with respect to a concession contract and therefore decides not to renew the contract, the concession will terminate at the end of its original term, and the Brazilian government will conduct a new competitive bidding process for the concession. The original concessionaire may participate in the new competitive bidding process.

In the case of hydroelectric generation concessions with an installed capacity of more than 5,000 kW, upon the expiration of their original term and provided that the concessionaire does not request the extension of such term, the granting authority may submit the concession to a new bidding process. In the case of concessions for hydroelectric generation units with an installed capacity of 5,000 kW or less, upon the expiration of their original term, the concessions may be granted to the current concessionaire in the form of registration, for an indefinite term.

Generation Concessions

Of the nineteen (19) hydroelectric plants we operated in 2022, fourteen (14) were operated under the generation concession contracts that were in force prior to the 2013 Concession Renewal Law, and five (5) were operated in accordance with the 2013 Concession Renewal Law (Capivari Cachoeira HPP, Chopim I HPP, Marumbi HPP, Mauá HPP and Colíder HPP). In 2013, 12 of the 13 hydro and thermoelectric generation concessions operated by us in 2013 (exception made only to Rio dos Patos HPP) were extended pursuant to the old regime and could be renewed again under the 2013 Concession Renewal Law.

However, at the time the 2013 Concession Renewal Law was enacted, we elected not to renew the following generation concessions: Rio dos Patos (2014), Mourão I (2015), Chopim I (2015) and Capivari Cachoeira (2015), all of which had remaining terms of 60 months or less. Please see below for further information on each of these concessions.

Foz do Areia HPP. Copel Geração e Transmissão did not elect to renew the original concession pursuant to the 2013 Concession Renewal Law for the Foz do Areia HPP (Governador Bento Munhoz da Rocha Netto). However, in order to obtain a new concession for the Foz do Areia HPP for 30 years, Copel GeT transferred the ownership of this HPP to its subsidiary, the SPC F.D.A. Geração de Energia Elétrica S.A (F.D.A) on March 3, 2020, and, on the same date, requested a new concession from the Ministry of Mines and Energy pursuant to Federal Decree no. 9,271/2018, amended by Federal Decree No. 10,135/2019 and No. 10,893/2021, which allows this renewal associated with the sale of shares of the concession holder, within 12 months of the end of the term. On December 23, 2022, Decree No. 9,271 was further amended by Decree No. 11,307, to also enable the renewal of grants by sale of shares of a holder through a public offering of shares. This alternative is in line with the intention of the controlling shareholder to transform us into a company with dispersed capital and without a controlling shareholder. We have requested to the MME the full renewal of the concession of our plants of HPP Foz do Areia, HPP Segredo and HPP Caxias, with the maintenance of 100% of participation.

Rio dos Patos HPP. The concession of Rio dos Patos HPP was terminated and not submitted to a further bidding process due to the lack operational conditions.

Mourão I and Capivari Cachoeira HPP. The granting authority submitted the concessions for HPP Capivari Cachoeira and Mourão I to new bidding processes, pursuant to which new agreements should be in force for a 30-year period. Copel GeT was the winner in the bidding process related to HPP Capivari Cachoeira. With respect to Capivari Cachoeira, although Copel GeT did not elect to renew the original concession for the Capivari Cachoeira HPP, it participated in the new competitive bidding process and won. On January 5, 2016, Copel GeT executed a concession agreement with ANEEL so that it will continue to operate this plant under an operation and maintenance regime until 2046. We paid a total amount of R\$574.8 million as signing bonus for this concession agreement. 100.0% of the energy generated by this plant in 2016 was allocated in quotas to the regulated market, and reduced to 70.0% on January 1, 2017. Copel GeT can sell remaining amount of energy generated by this plant on the Free Market or Spot Market.

Chopin I HPP. As the installed capacity of *Chopin I HPP* also does not exceed 5,000 kW, the concession regime of this plant has been changed to a registration in our favor, valid for an indefinite term. In addition, pursuant to the same statute, we may notify the granting authority of our intention to extend: (i) in 2024, the concession of *Apucarantina HPP*; and (ii) in 2025, the concessions of *Guaricana and Chaminé HPPs*. In the event we do not request the extension of these concessions, they will be subject to new bidding processes conducted by the granting authority.

Figueira TPP. Our concession for the Figueira TPP expired on March 26, 2019. We had filed an extension request with respect to this plant on May 24, 2017, but we are still waiting for the granting authority to amend our concession agreement, extending its term for an additional 20-year period in accordance with the 2013 Concession Renewal Law. This plant has an installed capacity equivalent to 20 MW and underwent a recent modernization process.

With respect to the concessions granted between 2011 and 2017 with no renewal right attached, we acquired the right to renew only one of the hydroelectric plants (HPP Cavernoso II) for a 30-year period, as a result of an amendment to the 2013 Concession Renewal Law by Law No. 13,360, of November 17, 2016.

In accordance with the 2013 Concession Renewal Law, we could have flagged to the granting authority by 2019 our intention to renew the concession of HPP São Jorge. However, we elected not to renew such concession and, consequently, we will be able to operate such HPP until July 2026 and request the conversion of this operating regime into a registration regime, as the installed capacity does not exceed 5,000 kW.

Concessions for generation projects granted after December 11, 2003 were not affected by the 2013 Concession Renewal Law and are non-renewable, meaning that upon expiration of their 35-year term, the concession will be granted subject to a new competitive bidding process. In 2019, we had three (3) hydroelectric plants operating in this condition (HPP Mauá, HPP Colíder and HPP Baixo Iguaçu).

In September 2020, the GSF Law was passed, which established new conditions for the renegotiation of hydrological risk of electricity generation, amending Article 2 of Law No. 13,203/2015, among other measures. This procedure was regulated through Normative Resolution No. 895/2020, in which ANEEL established the methodology for calculating compensation to the owners of hydroelectric plants participating in the MRE. It also regulated the repatriation of hydrological risk to equate the issue of GSF and open debts in CCEE to allow for the return of normalcy and greater liquidity in the short-term electricity market, in exchange for the extension of the terms of grants given to hydroelectric plants to up to seven years.

In 2021, the government issued new legislation that changed the calculation method applied by CCEE for the financial compensation to plants participating in the MRE. For our plants 16 plants that adhered to the method, the compensation amount was R\$1,570.5 million. ANEEL extended the terms of our grantings that adhered to new method to a total of 15,217 days (Resolutions No. 2,919 and No. 2932).

In 2022, ANEEL authorized the extension of concession grants and authorizations and approved the amendment to the concession contracts for projects with our participation through Authorizing Resolutions nº 11,345/2022, nº 12,255/2022 and No. 11,132/2022.

The following tables sets forth information relating to the actual terms as well as the renewals of our main generation hydroelectric, thermoelectric and wind farm plants and all of which we hold a direct ownership interest in:

Hydroelectric Plants	Initial concession date	First expiration date	Extension Date	Final expiration date ⁽⁵⁾
Foz do Areia ⁽¹⁾	May 1973	May 2003	January 2001	December 2024
Apucarantina	October 1975	October 2005	April 2003	January 2027
Guaricana	August 1976	August 2006	August 2005	July 2028
Chaminé.....	August 1976	August 2006	August 2005	August 2028
Segredo	November 1979	November 2009	September 2009	September 2032
Derivação do Rio Jordão.....	November 1979	November 2009	September 2009	June 2032
Salto Caxias	May 1980	May 2010	September 2009	March 2033
Mauá ⁽²⁾	June 2007	July 2042	Not extendable	May 2047
Colíder	January 2011	January 2046	Not extendable	January 2046
Cavernoso II.....	February 2011	February 2046	Not extendable	December 2050
Baixo Iguaçu ⁽³⁾	August 2012	August 2047	Not extendable	December 2049
SHP Bela Vista ⁽⁴⁾	May 2007	January 2041	Extendable	January 2041

⁽¹⁾ In March 2020, the concession of Foz do Areia was transferred from Copel GeT to FDA pursuant to ANEEL Authorizing Resolution no. 8.578/2020. Copel GeT owns 100% of FDA Geração de Energia S.A.

- (2) Mauá was constructed by Consórcio Energético Cruzeiro do Sul, of which we own 51.0% and Eletrosul owns the remaining 49.0%.
- (3) Baixo Iguaçu was constructed by Consórcio Empreendedor Baixo Iguaçu, of which we own 30% and Geração Céu Azul the remaining 70%. The commercial operations of generation units 1, 2 and 3 of Baixo Iguaçu's began in February 2019, February 2019 and April 2019, respectively.
- (4) The consortium CBVG, formed by Copel GeT and Foz do Chopim Energética Ltda., won ANEEL Auction No. 003/2018 for SHP Bela Vista. In April 2019, the authorization to operate SHP Bela Vista was transferred from Foz do Chopim Energética Ltda. to Bela Vista Geração de Energia S.A through the ANEEL's Authorizing Resolution no. 7,802/2019. In December 2019, Copel GeT became the owner of 100% of Bela Vista Geração de Energia. The commercial operations of generation units 1, 2 and 3 began in June 2021, July 2021 and August 2021 respectively. This power plant is still under construction.
- (5) Tems in this collum consider the extended term of the grantings.

Thermoelectric Plants	Initial concession date	First expiration date	Extension date	Final expiration date
Figueira	March 1969	March 1999	June 1999	March 2019

(1) We are currently waiting for the granting authority to amend our concession agreement with respect to TPP Figueira, extending the concession of the Thermoelectric Plant for another 20 years, pursuant to the applicable law.

Wind Plants	Initial concession date	First expiration date
Asa Branca I.....	April 2011	April 2046
Asa Branca II	May 2011	May 2046
Asa Branca III	May 2011	May 2046
Eurus IV	April 2011	April 2046
Santa Maria	May 2012	May 2047
Santa Helena	April 2012	April 2047
Ventos de Santo Uriel	April 2012	April 2047
Boa Vista.....	April 2011	April 2046
Farol	April 2011	April 2046
Olho D'Água.....	June 2011	June 2046
São Bento do Norte	May 2011	May 2046
Cutia ⁽¹⁾	January 2012	January 2042
Guariju ⁽¹⁾	January 2012	January 2042
Jangada ⁽¹⁾	January 2012	January 2042
Maria Helena ⁽¹⁾	January 2012	January 2042
Palmas	September 1999	September 2029
Potiguar ⁽¹⁾	May 2015	May 2050
Esperança do Nordeste ⁽¹⁾	May 2015	May 2050
Paraíso dos Ventos do Nordeste ⁽¹⁾	May 2015	May 2050
São Bento do Norte I ⁽¹⁾	August 2015	August 2050
São Bento do Norte II ⁽¹⁾	August 2015	August 2050
São Bento do Norte III ⁽¹⁾	August 2015	August 2050
São Miguel I ⁽¹⁾	August 2015	August 2050
São Miguel II ⁽¹⁾	August 2015	August 2050
São Miguel III ⁽¹⁾	August 2015	August 2050
Jandaíra I ⁽²⁾	April 2020	April 2055
Jandaíra II ⁽²⁾	April 2020	April 2055
Jandaíra III ⁽²⁾	April 2020	April 2055
Jandaíra IV ⁽²⁾	April 2020	April 2055
Vila Maranhão I ⁽³⁾	January 2019	January 2054
Vila Maranhão II ⁽³⁾	January 2019	January 2054
Vila Maranhão III ⁽³⁾	January 2019	January 2054
Vila Ceará I ⁽³⁾	January 2019	January 2054
Ventos de Vila Mato Grosso I ⁽³⁾	December 2019	December 2054
Aventura II ⁽⁴⁾	June 2018	June 2053
Aventura III ⁽⁴⁾	June 2018	June 2053

Aventura IV ⁽⁴⁾	June 2018	June 2053
Aventura V ⁽⁴⁾	June 2018	June 2053
Santa Rosa e Mundo Novo I ⁽⁵⁾	June 2018	June 2053
Santa Rosa e Mundo Novo II ⁽⁵⁾	June 2018	June 2053
Santa Rosa e Mundo Novo III ⁽⁵⁾	June 2018	June 2053
Santa Rosa e Mundo Novo IV ⁽⁵⁾	June 2018	June 2053
Santa Rosa e Mundo Novo V ⁽⁵⁾	June 2018	June 2053

⁽¹⁾ Wind plants located at our Cutia wind farm complex.

⁽²⁾ The consortium formed by Copel GeT and Cutia Empreendimentos Eólicos S.A., won ANEEL Auction no. 004/2019 for Jandaíra Wind Complex (I, II, III and IV).

⁽³⁾ Vilas Complex, located in the State of Rio Grande do Norte, which we acquired in November 2021.

⁽⁴⁾ Aventura Complex, located in the State of Rio Grande do Norte, which we acquired in January 2023

⁽⁵⁾ Santa Rosa e Mundo Novo Complex, located in the State of Rio Grande do Norte, which we acquired in January 2023

The following table sets forth information relating to the terms of our generation hydroelectric plant, whose concession agreement has been executed under the terms and conditions of the 2013 Concession Renewal Law:

Hydroelectric Plants	Initial concession date	First expiration date	Extension date	Final expiration date
Capivari Cachoeira (Gov Parigot de Souza).....	January 2016	January 2046	Not subject to extension	January 2053

The following table sets forth information relating to the terms of our generation hydroelectric plants which, once respective original concession period expires, will no longer be subject to a concession regime but rather to a registration proceeding with the ANEEL:

Hydroelectric Plants ⁽¹⁾	Initial concession date	First expiration date	Final expiration date
Chopim I.....	March 1964	July 2015	Indefinitely
São Jorge.....	December 1974	July 2026	-
Cavernoso.....	January 1981	June 2033	-
Melissa.....	May 2002	Indefinitely	-
Pitangui.....	May 2002	Indefinitely	-
Salto do Vau.....	May 2002	Indefinitely	-
Marumbi.....	March 1956	May 2018	Indefinitely

⁽¹⁾ Upon the expiration of concessions or authorizations for hydroelectric energy generation with installed capacity equal to or less than 5,000 KW, the relevant projects are subject to a registration regime in accordance with Brazilian Federal Law No. 9,074/1995, as amended by Brazilian Federal Law No. 13,360/2016. The operation of hydroelectric and thermoelectric plants with installed capacity of up to 5,000 KW are not subject to any concession, permission or authorization and require solely the registration with the granting authority.

We also have ownership interests in 11 other generation projects. The following table sets forth information relating to the terms of the concessions of the generation facilities in which we had such partial ownership interest as of December 31, 2022.

Generation Facility	Company	Initial concession date	Expiration date	Extension
HPP Dona Francisca.....	Dona Francisca Energética SA – DFESA	August 1998	September 2037	Possible
HPP Santa Clara.....	Centrais Elétricas do Rio Jordão S.A. - ELEJOR	October 2001	May 2040	Possible
HPP Fundação.....	Centrais Elétricas do Rio Jordão S.A. - ELEJOR	October 2001	June 2040	Possible
SHP Santa Clara I.....	Centrais Elétricas do Rio Jordão S.A. - ELEJOR	December 2002	December 2032	Possible
SHP Fundação I.....	Centrais Elétricas do Rio Jordão S.A. - ELEJOR	December 2002	December 2032	Possible

TPP Araucária	UEG Araucária Ltda.	December 1999	December 2029	Possible
HPP Arturo Andreoli.....	Foz do Chopim Energética	April 2000	August 2032	Possible
WPP Carnaúbas.....	São Miguel do Gostoso I	April 2012	April 2047	Not possible
WPP Reduto.....	São Miguel do Gostoso I	April 2012	April 2047	Not possible
WPP Santo Cristo.....	São Miguel do Gostoso I	April 2012	April 2047	Not possible
WPP São João.....	São Miguel do Gostoso I	March 2012	March 2047	Not possible

Transmission Concessions

Pursuant to the 2013 Concession Renewal Law and the terms of our transmission concessions, we have the right to request 30-year extensions of the concessions from ANEEL, provided that such request is delivered within 60 months prior to the expiration of the contract. Our principal transmission concession, from which 63.3% of our transmission revenues in 2022 derived, has been renewed pursuant to the 2013 Concession Renewal Law, and will therefore now expire in January 2043.

In addition, in 2022, an aggregate of 36.7% of our transmission revenues derived from eleven (11) other concession contracts for transmission lines and substations that are currently in operation and whose terms and extensions are set forth in the next table. In accordance with the 2013 Concession Renewal Law, each of these contracts can be extended for an additional 30-year period.

We intend to continue requesting extensions for all of our transmission concessions.

The following table sets forth certain information relating to the terms and extension terms of our main transmission concessions (all of which we hold a direct ownership interest), including the concession contracts for transmission lines and substations both in operation or under construction:

Transmission Facility	Initial concession Date	First expiration Date	Possibility of extension	Expected (or final) expiration date
Main transmission concession	July 2001	July 2015	Extended	January 2043
Bateias – Jaguariáiva	August 2001	August 2031	Possible	August 2061
Bateias – Pilarzinho.....	March 2008	March 2038	Possible	March 2068
Foz do Iguaçu – Cascavel Oeste .	November 2009	November 2039	Possible	November 2069
Substation Cerquilho III	October 2010	October 2040	Possible	October 2070
Araraquara 2 – Taubaté	October 2010	October 2040	Possible	October 2070
Foz do Chopim - Salto Osorio ...	August 2012	August 2042	Possible	August 2072
Assis – Paraguaçu Paulista II.....	February 2013	February 2043	Possible	February 2073
Bateias – Curitiba Norte	January 2014	January 2044	Possible	January 2074
Realeza Sul – Foz do Chopim.....	September 2014	September 2044	Possible	September 2074
Assis - Londrina	September 2014	September 2044	Possible	September 2074
Curitiba Leste – Blumenau	April 2016	April 2046	Possible	April 2076

We have ownership interests in ten (10) other transmission projects, through special purpose companies. The following table sets forth information relating to the terms of the concessions of the transmission facilities in which we had such partial ownership interest as of December 31, 2022:

Transmission Facility	Special Purpose Company (SPC)	Initial concession date	First Expiration date	Possibility of Extension	Expected (or final) expiration date
Cascavel Oeste – Umarama.....	Costa Oeste Transmissora de Energia S.A	January 2012	January 2042	Possible	January 2072
	Caiuá Transmissora de Energia				
Umarama - Guaira.....	S.A	May 2012	May 2042	Possible	May,2072

Açailândia	Integração Maranhense				
Miranda II	Transmissora de Energia S.A.	May 2012	May 2042	Possible	May 2072
Curitiba -	Marumbi Transmissora de				
Curitiba Leste.....	Energia S.A.	May 2012	May 2042	Possible	May 2072
Paranaíta –	Matrinchã Transmissora de				
Ribeirãozinho.....	Energia S.A.	May 2012	May 2042	Possible	May 2072
Ribeirãozinho –	Guaraciaba Transmissora de				
Marimbondo II	Energia S.A	May 2012	May 2042	Possible	May 2072
	Paranaíba Transmissora de				
Barreiras II – Pirapora II ...	Energia S.A	May 2013	May 2043	Possible	May 2073
	Mata de Santa Genebra				
Itatiba – Bateias.....	Transmissora S.A	May 2014	May 2044	Possible	May 2074
	Cantareira Transmissora de				
Estreito – Fernão Dias.....	Energia S.A.	September 2014	September 2044	Possible	September 2074
Ivaiporã – Londrina.....	Uirapuru Transmissora de				
	Energia S.A.	March 2005	March 2035	Possible	March 2065

Distribution Concessions

We originally operated our distribution business pursuant to a concession contract that was signed on June 24, 1999 (retroactive to July 7, 1995) and was set to expire on July 7, 2015. Under the 2013 Concession Renewal Law, we had the right to renew this concession for an additional 30-year period by accepting an amendment to the concession contract. In 2013, after a careful evaluation of the conditions imposed by the Brazilian government for the extension of our distribution concession, we decided to request the renewal of this contract and our renewal request was approved by the MME on November 11, 2015. On December 9, 2015, we executed the fifth amendment to the public Electricity Distribution Service Concession Agreement No. 46/1999 of Copel Distribuição S.A.

This amendment imposes efficiency conditions to Copel Distribuição that are measured through two different metrics: quality of the service and economic-financial sustainability of the company. Failure to comply with either of these metrics (i) for two consecutive years within the first four years of this renewed concession or (ii) in the fifth year of this concession, may, in each case, result in the termination of our distribution concession.

On November 17, 2020, ANEEL detailed the performance and efficiency indicators applicable to the electricity distribution services starting in 2021 with respect to no-interruption in supply and economic-financial management (pursuant to Resolution 948/2021). ANEEL also changed the parameters for the calculation of some variables of the Economic-Financial Management indicator.

The economic-financial management indicator is breached when the cash flow generation, after deduction of the Regulatory Reintegration Quota (*cota de reintegração regulatória*) is below 111% of SELIC, which it is considered insufficient to comply with debt interest, or when the EBITDA is lower than the Regulatory Reintegration Quota or Regulatory Depreciation Expense (“QRR”). Non-compliance for one year obliges the concessionaire to limit the payment of dividends and interest on equity capital and prohibits new legal action and business deals between the concessionaire and its related parties. Non-compliance for two consecutive years allows ANEEL to terminate the concession.

The breach of indicators of no-interruption in supply for one year imposes the obligation to create a plan to improve results. Non-compliance for two consecutive years or three years within a five-year period, may lead to limitation on the distribution of dividends, and for a consecutive period of three years, may result in the termination of the concession. Performance evaluation occurs at the end of each calendar year.

The table below presents the economic and financial and quality indicators established for the last six (6) years.

Year	Economic and Financial Indicators Indicator	Quality Indicators ⁽¹⁾		Quality Performed	
		DEC _t ⁽²⁾	FEC _t ⁽²⁾	DEC _t ⁽²⁾	FEC _t ⁽²⁾
2017	EBITDA ⁽³⁾ ≥ 0	11.23	8.24	10.29	6.20

2018	$[EBITDA (-) QRR^{(4)}] \geq 0$	11.23	8.24	10.29	6.20
2019	$\{Net\ Debt^{(5)}/[EBITDA^{(3)} (-) QRR^{(4)}]\} \leq 1/(0.8*SELIC^{(6)})$	10.12	7.74	9.10	6.00
2020	$\{Net\ Debt^{(5)}/[EBITDA^{(3)} (-) QRR^{(4)}]\} \leq 1/(1.11*SELIC^{(6)})$ $1/(1.11*SELIC^{(6)})$	9.83	7.24	7.81	5.55
2021	$\{Net\ Debt^{(5)}/[EBITDA^{(3)} (-) QRR^{(4)} \geq 0]\} \leq 1/(1.11*SELIC^{(7)})$	9.29	6.84	7.20	4.76
2022	$\{Net\ Debt^{(5)}/[EBITDA^{(3)} (-) QRR^{(4)} \geq 0]\} \leq 1/(1.11*SELIC^{(7)})$	9.19	6.80	7.98	5.29

⁽¹⁾ According to ANEEL's Technical Note No. 0335/2015.

⁽²⁾ DECI – Duration of outages per customer per year (in hours); and FECi – Frequency of outages per customer per year (number of outages).

⁽³⁾ Earnings before interest, tax depreciation and amortization, as calculated according to ANEEL regulations.

⁽⁴⁾ QRR: Regulatory Reintegration Quota or Regulatory Depreciation Expense. Until 2020, this value corresponds to the most recent Periodic Tariff Review (RTP), plus the General Market Price inflation index (IGP-M) between the month preceding the Periodic Tariff Review and the month preceding the twelve-month period of the economic and financial sustainability measurement. As of 2021, it reflects the defined value in the last periodic tariff review and updated by the Regulatory B Parcel, is calculated pro rata.

⁽⁵⁾ As calculated according to ANEEL regulations.

⁽⁶⁾ Selic base rate: limited to 12.87% per year.

⁽⁷⁾ Limited to 9.009 % per year if it exceeds this percentage, and to 6.006 % if it falls under said percentage.

COMPETITION

We have concessions to distribute electricity in substantially all of the State of Paraná, and we do not face competition from the four utilities that have been granted concessions for the remainder of the state. As a result of legislation passed in 2004, however, other suppliers are able to offer electricity to our existing Free Customers at prices lower than those we currently charge. However, when a Captive Customer becomes a Free Customer, it is still required to pay to use our distribution grid. The reduction in net revenue of our distribution business is therefore compensated with a reduction in our costs for energy that we would otherwise acquire to sell to these customers.

Furthermore, under certain circumstances, Free Customers may be entitled to connect directly to the Interconnected Transmission System rather than our distribution grid. Unlike a Free Customer's choice of another energy supplier, in which case that customer must still use our distribution grid and thus pay us the appropriate tariff, our distribution business ceases to collect tariffs from a customer that connects directly to the Interconnected Transmission System. The migration of customers from the distribution grid to the transmission grid therefore results in the loss of revenues for our distribution business.

Distribution and transmission companies are required to permit the use of their lines and ancillary facilities for the distribution and transmission of electricity by other parties upon payment of a tariff.

Free Customers are limited to, as from January 1, 2022, with demand of at least 1.0 MW at any voltage; and, after January 1, 2023, with demand of at least 500 kW at any voltage.

In 2022, special customers are customers with demand of at least 500 kW that opt to be supplied energy by means of alternative sources, such as wind power projects, small hydroelectric power plants, biomass projects, solar plants and others.

As of December 31, 2022, we had 1,491 Free Customers (of which of 1,490 were customers of our energy trading company and one of Copel GeT), representing approximately 10.4% of our consolidated operating revenue and approximately 16.7% of the total quantity of electricity sold by us.

Copel GeT has 1 Free Customer as of December 31, 2022. The volume of electricity sold to Free Customers in 2022 was not significant to the consolidated operating revenues of Copel GeT.

In the generation business, any producer may be granted a concession to build or manage thermoelectric and small hydroelectric generating facilities in the State of Paraná. Brazilian law provides for competitive bidding for generation concessions for hydroelectric facilities and, since 2017, this requirement applies only to facilities with capacity higher than 50 MW.

In the transmission business, Brazilian law provides for competitive bidding for transmission concessions for facilities with a voltage of 230 kV or greater that will form part of the Interconnected Transmission System.

Brazilian law requires that all of our generation, transmission and distribution concessions be subject to a competitive bidding process upon their expiration. We may face significant competition from third parties in bidding for renewal of such concessions or for any new concessions. The loss of certain concessions could adversely affect our results of operations.

On June 2021, a study was published by the *Empresa de Pesquisa Energética - EPE* projecting a 30 GW growth on Generation Distribution in the next 10 years. Generation Distribution refers to the generation of electricity close to or within the consumer site, and can involve any power, technology or energy source. In early 2022, the government adopted a new legal framework for distributed generation in Brazil (Federal Law No. 14,300/2022), which established different categories of energy distribution, the creation of the Electric Energy Compensation System (*Sistema de Compensação de Energia Elétrica - SCEE*) and the Social Renewable Energy Program (*Programa de Energia Renovável Social - PERS*). The expansion of Generation Distribution services can adversely affect the demand of electricity and therefore impact the electricity sector and the distribution concessionaires as a whole in the long-term.

ENVIRONMENTAL, SOCIAL AND GOVERNANCE

We have been working to improve our environmental and governance practices, and to integrate sustainability into our business through a comprehensive approach based on systemic planning and execution, prioritizing the management of risks and impacts and establishing a positive social, economic and environmental legacy in the locations where we operate. We are also working to add value to our businesses by engaging with sustainable companies, which we believe to be better prepared to manage economic, social and environmental risks.

Being a signatory to the Global Compact since 2000, we are committed to sustainability. As a founding member of the Brazilian Global Compact Network Committee, created in 2003, we support the movement to disseminate the principles of the Global Compact in promoting effective and consistent articulations between governments, companies and social organizations in favor of social, environmental and economic challenges for sustainability, as well as raising awareness among other Brazilian companies to engage and adopt corporate citizenship as a standard for managing their businesses.

We focus our business efforts to obtain better results that drive the priority SDGs of the Brazilian Electric Sector, namely: 7 (Affordable and Clear Energy), 8 (Decent Work and Economic Growth), 9 (Industry, Innovation, and Infrastructure), 11 (Sustainable Cities and Communities) and 13 Climate Action). And reinforcing its social commitment, in 2022, we integrated SDG 4 (Quality Education).

Environment

Our construction and operation activities for the generation, transmission and distribution of electric energy and distribution of natural gas are subject to federal, state and municipal environmental regulations.

We are in compliance with all material environmental regulations and, since the publication of Resolução Conama 01/1986, we elaborate Environmental Impact Studies to request and renew our environmental licenses, in accordance also with the environmental regulation issued by applicable federal, state and municipal level authorities.

All of our activities follow our Sustainability and Environmental Policies, which integrates corporate planning and sustainability management in order to optimize our financial, social and environmental performance. Also, our activities follow our Climate Change Policy, which establishes guidelines for the mitigation of greenhouse gas emission and changes in our business, evaluating risks and opportunities related to climate change. Following the implementation of our Climate Change Policy, we annually disclose our greenhouse gas inventory, using GHG Protocol methodology.

Our operations are aligned with a low carbon economy. Our shares became part of B3's Carbon Efficient Index (ICO2) portfolio, demonstrating our commitment to the transparency of our emissions. We made progress in Climate Change Management, where we hold Concept B of the CDP (Carbon Disclosure Program), one of the main initiatives in the financial sector that aims to reduce companies' greenhouse gas emissions. Our Board of Directors also approved the Carbon Neutrality Plan, comprising initiatives aiming at neutralizing our emissions by 2030.

Our Carbon Neutrality Plan aims, by 2030, to neutralize the Greenhouse Gas (GHG) emissions for the assets over which we have operational control, through the reduction and compensation of residual emissions.

Expanding market share and becoming a reference in generation, transmission, distribution and commercialization of renewable and sustainable electricity has become our main strategic driver. This goal involves important commitments made by the us, such as the decarbonization of business; the expansion of integration among the segments in which it operates to gain more synergy; and scale in products and services and discipline in the allocation of capital.

We plan to be 100% renewable by 2030, which is why it is studying divestment in the thermoelectric plants in which it has an equity stake, in addition to expanding investments in wind and solar farms, as it has already done in the last years.

Social

We work in alignment with social issues, which internally are directed by the People Management, and

Occupational Health and Safety Policies.

By 2022, we have also committed to promoting diversity in leadership (40% increase in the current female representation) and to zero fatal accidents involving employees and outsourced workers, reinforcing these processes as management priorities.

In late 2021, we reviewed our Human Rights Policy, to establish a clear guide for employees and other stakeholders on how we should act. And in 2022, we started the due diligence work in Human Rights, which will result in the identification of potential risks throughout the value chain, which will be mitigated by us in the future.

We also promote the social inclusion through our social responsibility projects, focused on the communities impacted by our business. Reinforcing our commitment to social responsibility, we approved, in 2022, the Social Investment Policy, which directs how donations and voluntary and non-voluntary contributions should be made.

Governance

In 2021, we approved new bylaws, under which we created the Sustainable Development Committee, with the objective of keeping us among the companies with the best governance practices and actions on ESG and guiding our sustainability strategy. We also implemented initiatives under the scope of the Carbon Neutrality Plan.

In November 2021, we migrated to the special B3 listing segment called “Level 2” (Nível 2). This move resulted in several improvements to our corporate governance, consolidating the progress made in recent years.

Progress has been made with regard to the rights of minority shareholders by increasing their representation on the Board of Directors from two to three members and by creating a specific statutory committee, the Minority Committee. Others statutory committees were also created, the Investment Committee and the Innovation Committee, and fundamental policies were revised, such as the Integrity Policy and the Integrated Corporate Risk Management Policy.

To grow with balance and consistency, we have been improving the capital allocation process. Instruments created between 2021 and 2022 improved governance for the development of projects and increasingly structured decision making: the new Investment and Innovation Committee, an advisory body to the Board of Directors, and the approval of the Investment Policy, which establishes the criteria for selection, evaluation, approval and monitoring of investments.

We adopt best market practices to guide and evaluate our performance and compare practices with global and local references: B3 Corporate Sustainability Index - ISE, Ethos Indicators for Sustainable and Responsible Business Models, Corporate Sustainability Assessment – CSA and other evaluations and classifications related to ESG (Environmental, Social and Governance) matters.

For the 17th time we were mentioned in the Corporate Sustainability Index - ISE B3, and we were selected to participate in the Corporate Sustainability Assessment (CSA).

Through an annual report, we reinforce our commitment to sustainable development and are accountable for our performance related to economic, social, environmental and governance aspects (Integrated Report Copel). This report follows the international guidelines of the Standards model of the Global Reporting Initiative (GRI), and the International Integrated Reporting Initiative (IIRC), and is submitted to independent assurance, to ensure the reliability of the information disclosed.

And understanding the relevance of the ESG theme for all stakeholders, in 2022, we launched the Sustainability Portal (copelsustentabilidade.com/en/), which presents all of our ESG information in accessible language.

PLANT, PROPERTY AND EQUIPMENT

Our principal properties consist of the generation facilities described in “Business.” Of the net book value of our total property, plant and equipment as of December 31, 2022 (including construction in progress), generation facilities represented 57.6%, wind farms represented 37.0%, Elejor represented 3.4%, and Araucária Thermoelectric Plant represented 2.0%. We believe that our facilities generally are adequate for our present needs and suitable for their intended purposes.

In addition, the infrastructure used by the transmission and distribution business is classified as accounts receivable related to the concession, contract assets and intangible assets as described in Notes 4.4, 4.5 and 4.9 to our audited consolidated financial statements.

THE EXPROPRIATION PROCESS

Although we receive concessions from the Brazilian government to construct hydroelectric facilities, we do not receive title to the land on which the facilities are to be located. In order for us to construct, the land must be expropriated. The land required for the implementation of a hydroelectric facility may only be expropriated pursuant to specific legislation, after proving its public interest. We generally negotiate with communities and individual owners occupying the land so as to resettle such communities in other areas and to compensate individual owners. Our policy of resettlement and compensation generally has resulted in the settlement of expropriation disputes, with friendly settlements for most of them. As of December 31, 2022, we estimated our liability related to the settlement of such disputes to be R\$154.9 million. This amount is in addition to amounts for land expropriation included in each of our hydroelectric facility budgets.

THE BRAZILIAN ELECTRIC POWER INDUSTRY

General

According to the Decennial Energy Plan - PDE 2032 released by the Empresa de Pesquisa Energética - EPE, the projected installed capacity of electricity generation in Brazil will be 228,896 MWm in December 2032.

As of 2022, approximately 23% of the installed power generating capacity of Brazil is currently owned by Eletrobras. Through its subsidiaries, Eletrobras is also responsible for approximately 38.5% of the installed transmission capacity equal or above 230 kV within Brazil. In addition, some Brazilian states control entities involved in the generation, transmission and distribution of electricity. They include Companhia Energética de Minas Gerais – CEMIG and us, among others.

Principal Regulatory Authorities

Ministry of Mines and Energy – MME

The MME is the primary regulatory institution of the power industry and acts as the Brazilian governmental authority empowered with policymaking, regulatory and supervisory powers.

National Energy Policy Council – CNPE

The National Energy Policy Council (*Conselho Nacional de Política Energética* - “CNPE”), created in August 1997, provides advice to the President of the Republic of Brazil regarding the development and creation of a national energy policy. The CNPE is chaired by the MME and is composed of ten ministers of the Brazilian government and five members designated by the President of CNPE. The CNPE was created in order to optimize the use of energy resources in Brazil and ensure the national supply of electricity.

National Electric Energy Agency – ANEEL

The Brazilian power industry is regulated by ANEEL, an independent federal regulatory agency. ANEEL’s primary responsibility is to regulate and supervise the power industry in accordance with the policies set forth by the MME and to respond to matters which are delegated to it by the Brazilian government and the MME. ANEEL’s current responsibilities include, among others, (i) administering concessions for electric energy generation, transmission and distribution, including the approval of electricity tariffs, (ii) enacting regulations for the electric energy industry, (iii) implementing and regulating the utilization of energy sources, including the use of hydroelectric power, (iv) promoting, monitoring and managing the public bidding process for new concessions, (v) settling administrative disputes among electricity sector entities and electricity purchasers, and (vi) defining the criteria and methodology for the determination of transmission and distribution tariffs.

National Electric System Operator – ONS

The ONS is a non-profit private entity comprised of electric utilities engaged in the generation, transmission and distribution of electric energy, in addition to other private participants such as importers, exporters and Free Customers. The primary role of the ONS is to coordinate and regulate the generation and transmission operations in the Interconnected Transmission System, subject to the ANEEL’s regulation and supervision. The objectives and principal responsibilities of the ONS include, among others, operational planning for the generation industry, organizing the use of the domestic Interconnected Transmission System and international interconnections, ensuring that industry participants have access to the transmission grid in a non-discriminatory manner, assisting in the expansion of the electric energy system, proposing plans to the MME for extensions of the Interconnected Transmission System, and formulating regulations regarding the operation of the transmission system for ANEEL’s approval.

Electric Energy Trading Chamber – CCEE

The CCEE (*Câmara de Comercialização de Energia Elétrica*) is a non-profit private entity subject to authorization, inspection and regulation by ANEEL. The CCEE is responsible for, among other things, (i) registering all energy purchase agreements in the regulated market, *Contratos de Comercialização de Energia no Ambiente Regulado* (“CCEAR”) and in the Free Market, (ii) accounting for and clearing short-term transactions and (iii) managing funds generated by some of the regulatory charges. The CCEE is composed of holders of concessions, permissions and authorizations in the electricity industry and Free Customers, and its board of directors is composed of five members, out of which four are appointed by these agents and one by the MME, who is the chairman of the board of directors.

Energy Sector Monitoring Committee – CMSE

The CMSE (*Comitê de Monitoramento do Setor Elétrico*) was created by the New Industry Model Law to monitor service conditions and to recommend preventative measures to ensure energy supply adequacy, including demand-side action and contracting of energy reserves.

Energy Research Company – EPE

In August 2004, the Brazilian government created the Energy Research Company (*Empresa de Pesquisa Energética* - “EPE”), a federal public company responsible for conducting strategic studies and research in the energy sector, including the industries of electric power, petroleum, natural gas, coal and renewable energy sources. The studies and research conducted by the EPE subsidize the formulation of energy policy by the MME.

Eletrobras

Eletrobras serves as a holding company for the following energy companies: Companhia Hidro Elétrica do São Francisco – CHESF, Furnas Centrais Elétricas S.A., CGT Eletrosul, Centrais Elétricas do Norte do Brasil S.A. – Eletronorte, Companhia de Geração Térmica de Energia Elétrica – CGTEE and Centro de Pesquisas de Energia Elétrica – Cepel.

ENBPar - Empresa Brasileira de Participações em Energia Nuclear e Binacional S.A.

ENBPar is a company linked to the Ministry of Mines and Energy, with the purpose of maintaining the operation of nuclear power plants under the Union’s control, maintaining the ownership of the capital stock and the acquisition of the electricity services of Itaipu Binacional, managing the marketing contracts for the energy generated by the projects contracted under the Program of Incentive to Alternative Sources of Electric Energy (Proinfa) and the energy generated by Itaipu, being the Marketing Agent of Itaipu’s Energy. It was created as a result of Federal Decree No. 10,791/2021, based on Law 14,182/2021, which provides for the privatization of Eletrobras and authorizes the Union to establish this public company.

Historical Background of Industry Legislation

The Brazilian constitution provides that the development, use and sale of electric energy may be undertaken directly by the Brazilian government or indirectly through the granting of concessions, permissions or authorizations. Historically, the Brazilian electric energy industry has been dominated by generation, transmission and distribution concessionaires controlled by the federal or state governments. Since 1995, the Brazilian government has taken a number of measures to reform the Brazilian electric energy industry. In general, these measures were aimed at increasing the role of private investment and eliminating foreign investment restrictions in order to increase overall competition and productivity in the industry.

The following is a summary of the principal developments in the regulatory and legal framework of the Brazilian electricity sector:

- In 1995, (i) the Brazilian constitution was amended to authorize foreign investment in power generation; (ii) the Concessions Law was enacted, requiring that all concessions for energy-related services be granted through public bidding processes, providing for the creation of independent producers and Free Customers and granting electricity suppliers and Free Customers open access to all distribution and transmission

systems; and (iii) a portion of the controlling interests held by Eletrobras and various Brazilian states in generation and distribution companies were sold to private investors.

- In 1998, the Power Industry Law was enacted, providing for, among other things, the creation of the ONS and the appointment of BNDES, a development bank wholly owned by the Brazilian government, as the financing agent of the power industry, especially to support new generation projects.
- In 2001, Brazil faced a serious energy crisis that lasted through February 2002. During this period, the Brazilian government implemented an energy-rationing program in the most adversely affected regions, namely the southeast, central-west and northeast regions of Brazil. In April 2002, the Brazilian government for the first time implemented the extraordinary tariff adjustment to compensate the electricity suppliers for financial losses incurred as a result of the rationing period.
- In 2004, the Brazilian government enacted the New Industry Model Law (Law No. 10,848), in an effort to further restructure the power industry with the ultimate goal of providing customers with a stable supply of electricity at reasonable prices. The New Industry Model Law introduced material changes to the regulation of the electric energy industry, in order to (i) provide incentives to private and public entities to build and maintain generation capacity, and (ii) ensure the supply of electricity in Brazil at low tariffs through a competitive electricity public bidding process. The key elements of the New Industry Model Law include:
 - Ensuring the existence of two markets: (i) the regulated market, a more stable market in terms of supply of electricity, and (ii) a market specifically addressed to certain participants (i.e., Free Customers and energy-trading companies), called the Free Market, that permits a certain degree of competition vis-à-vis the regulated market.
 - Restrictions on certain distribution activities, including requiring distributors to focus on their core business of distribution activities in order to promote more efficient and reliable services to Captive Customers.
 - Elimination of self-dealing by providing an incentive for distributors to purchase electricity at the lowest available prices rather than buying electricity from related parties.
 - Upholding contracts executed prior to the New Industry Model Law, in order to provide regulatory stability for transactions carried out before its enactment.
- In 2004, Decree No. 5,163 was enacted to govern the purchase and sale of electricity in the regulated market and the Free Market, as well as the granting of authorizations and concessions for electricity generation projects. This decree includes, among other items, rules relating to auction procedures, the form of power purchase agreements and the mechanism for passing costs through to Final Customers. Among other matters, this decree:
 - provides for the guidelines under which electricity-purchasing agents must contract their electricity demand. Electricity-selling agents must show that the energy to be sold comes from existing or planned power generation facilities. Agents that do not comply with such requirements are subject to penalties imposed by ANEEL.
 - requires electricity distribution companies to contract for 100% of their energy needs primarily through public auctions. In addition to these auctions, distribution companies can purchase limited amounts (up to 10% of their demand) from: (i) generation companies that are connected directly to a distribution company (except for hydroelectric power plants with capacity higher than 30 MW and certain thermoelectric power plants) (ii) electricity generation projects participating in the initial phase of the Proinfa Program, (iii) the Itaipu Power Plant and (iv) quotas from those generation concession contracts extended or subject to a new competitive bidding process in accordance with the 2013 Concession Renewal Law.
 - provides that the MME shall establish the total amount of energy that will be contracted in the

regulated market, including the number and the type of generation projects that will be auctioned each year.

- requires all electricity generation, distribution and trading companies, independent producers and Free Customers to notify MME, by August 1st of each year, of their estimated electricity demand or estimated electricity generation, as the case may be, for each of the subsequent five years. In advance of each electricity auction, each distribution company is also required to inform MME of the amount of electricity that it intends to contract in the auction. In addition, distribution companies are required to specify the portion of the contracted amount they intend to use to supply potentially Free Customers.
- In 2012, the Brazilian government enacted two Provisional Measures that brought important changes to the Brazilian electricity regulatory framework: (i) Provisional Measure No. 577/2012 (converted into Law No. 12,767/2012); and (ii) Provisional Measure No. 579/2012 (converted into the 2013 Concession Renewal Law). Provisional Measure No. 577 established the obligation of the granting authority to render electricity services in the event of termination of an electricity concession, as well as new rules related to the intervention by the granting authority in electricity concessions to ensure adequate performance of Utility services. The 2013 Concession Renewal Law established new rules that changed concessionaires' ability to renew concession contracts. Under this Law, generation and distribution concessionaires may renew their concession contracts that were in effect as of 1995 and transmission concessionaires may renew their concession contracts that were in effect prior to and as of 1995 for an additional period of 30 years, provided that the concessionaires agree to amend the concession contracts to reflect a new tariff regime to be established by ANEEL. See “—Concessions.”
- In 2013, the 2013 Concession Renewal Law was enacted. This statute changed the nature of the concession agreements for generation facilities existing at the time. Prior to 2013, a generation concessionaire had the right to sell the energy generated by the facilities subject to its concession for profit. In contrast, generation concessions for existing generation facilities (including those renewed pursuant to the 2013 Concession Renewal Law) could no longer grant concessionaires the right to sell the energy generated by these facilities. Instead, these concessions started to cover the operation and maintenance of the generation facilities. The energy generated by these facilities was then allocated by the Brazilian government in quotas to the regulated market, for purchase by distribution concessionaires. In case of generation facilities created after the 2013 Concession Renewal Law, the concessionaire has the right to sell the energy produced by the facility. For further information, see “—Concessions—2013 Concession Renewal Law.”
- In 2015, the Brazilian government enacted Provisional Measure No. 688/2015, converted into Federal Law No. 13,203/2015, to revise the allocation of the hydrological risks borne by hydroelectric power plants that share hydrological risks under Energy Reallocation Mechanism. In 2014 and 2015, given poor hydrological conditions, the MRE participants generated less electricity than their assured energies, which was confirmed by a significant decrease of the Generating Scaling Factor (“GSF”), a measurement of the proportion between the electricity generated by the MRE participants and their respective Assured Energy. These generation deficits resulted in losses for the MRE participants given their exposure to hydrological risks. As a consequence, Federal Law No. 13,203 established an optional mechanism that allows each generation plant to transfer these risks to Final Customers upon payment of a risk premium to the Brazilian government, as well as certain temporary extensions of generation concessions to compensate for losses in 2015. We decided to opt-in with respect to all of Copel GeT’s and Elejor’s eligible Energy Agreements under this new hydrological risk allocation mechanism, which represented approximately 16% of Copel GeT’s total Assured Energy.
- In 2016, the Brazilian government enacted Provisional Measure No. 735/2016, converted into Federal Law No. 13,360/2016, which changed several federal laws mainly to: (i) revise certain rules related to regulatory charges (CDE, CCC and RGE) and appoint CCEE as the new manager of such charges in lieu of Eletrobras; (ii) facilitate the privatization of generation, transmission and distribution companies, (iii) change certain requirements of the generation concession and authorization regimes; (iv) change rules related to the MRE; (v) allow distribution companies to sell energy excess in the Free Market; (vi) extension of terms for commencement of the supply under energy auctions in the regulated market; and (vii) transfer back from

MME to ANEEL the authority to decide about generation and transmission companies' requests for extension of their facilities construction schedules.

- In July 2017, the MME released the Public Consultation No. 033/2017, named "Proposal for improvement of the legal framework of the electricity sector." This public consultation marks an important step to guide the MME in preparation of specific legislative proposals capable of providing measures of economic rationalization and modernization of the electricity sector.
- In August 2017, Decree No. 9,143/2017 changed the frequency of the auctions for new energy and authorized the distribution companies to negotiate contracts for the sale of energy in the Free Market to Free Consumers and other agents (generators, marketers, and self-producers), provided that these contracts are linked to excess in energy contracted in auctions.
- In January 2018, Decree No 9,271/2018 regulated the granting of a new energy concession in the event of privatization of an energy generation concession holder that provides public services, in accordance with Law No 9.074, dated July 7, 1995. Pursuant to this decree, the Brazilian government may grant a new concession contract for a period of up to 30 years to the entity that results from a bidding process for the privatization of a concessionaire previously controlled directly or indirectly by a federal, state or municipal governmental entity. This decree determined that the concessionaire shall request a new concession contract during the remaining period of its concession (up to 60 months counted from the end of the concession) This decree was amended in November 2019 pursuant to Decree No 10,135 in order to reduce the deadline for the concessionaire to request the granting of a new agreement, from 60 months to 42 months counted from the end of the concession and required the privatization process to be concluded no later than 18 months prior to the termination of the prior concession. In December 2022, the decree was amended by Decree No. 11,307/2022, in order to contemplate other forms of privatization of the holder of the generation concession in addition to the transfer of share control.
- During 2018, the Brazilian government concluded the privatization of Eletrobras' distribution companies Companhia Energética do Piauí - Cepisa, Companhia Energética de Rondônia S.A. - Ceron, Companhia de Eletricidade do Acre - Eletroacre, Boa Vista Energia S.A. - Boa Vista Energia, Companhia Energética de Alagoas - Ceal and Amazonas Distribuidora de Energia S.A. - Amazonas Distribuidora.
- In June 2019, the National Energy Policy Council (*Conselho Nacional de Política Energética – CNPE*) launched a program pursuant to its Resolution No. 16 to boost the natural gas market and foster competition by promoting free competition and using Thermolectric Plants as a vehicle for creating demand for the better use of natural gas from the Pre-Salt layer.
- In December 2019, MME published the Ordinance No. 465/2019, determining that MME will gradually decrease, over the next years, the power limits to contract electric power by consumers served at any voltage, allowing them to purchase energy from conventional sources, considering the following schedule: (i) from January 1, 2021: consumers with demand equal to or greater than 1,500 kW; (ii) from January 1, 2022: consumers with demand equal to or greater than 1,000 kW; and (iii) January 1, 2023: consumers with demand of 500 kW or more. Furthermore, by January 31, 2022, ANEEL and CCEE shall present studies on the regulatory measures necessary to allow the opening of the Free Market for consumers with electric load below 500 kW.
- In January 2020, the ONS implemented the Short Term Hydrothermal Dispatch Model (Modelo de Despacho Hidrotérmico de Curtíssimo Prazo - DESSEM), in order to optimize the operations of National Interconnected System (*Sistema Interligado Nacional – SIN*), and to reduce the difference between the planned dispatch and the one that is actually carried out by taking into account factors related to the electric grid, the operation of hydroelectric power plants, Thermolectric Plants and other sector components. The execution of DESSEM meets the schedule set forth in Ordinance MME nº 301, dated July 31, 2019.
- In September 2020, Law No. 14,052 (the "GSF Law") was passed, which established new conditions for the renegotiation of hydrological risk of electricity generation, amending Article 2 of Law No. 13,203/2015, among other measures. This procedure was regulated through Normative Resolution No.

895/2020, in which ANEEL established the methodology for calculating compensation to the owners of hydroelectric plants participating in the MRE. It also regulated the repatriation of hydrological risk to equate the issue of GSF and open debts in CCEE to allow for the return of normalcy and greater liquidity in the short-term electricity market, in exchange for the extension of the terms of grants given to hydroelectric plants to up to seven years. The resolution was amended by Normative Resolution No. 945/2021, changing the compensation methodology for plants that renegotiated the hydrological risk under Normative Resolution No. 684/2015. ANEEL later approved the deadlines for the extension of the grant of the plants participating in the MRE through Homologatory Resolutions No. 2,919/2021 and No. 2,932/2021. Those interested in adhering to new mechanism must withdraw from lawsuits related to the mitigation of hydrological risks of the MRE and execute a term of acceptance of such conditions.

- In December 2020, through Normative Resolution No. 905/2020, ANEEL consolidated the rules for Electric Energy Transmission Services in the National Electric System, effective January 1, 2021.
- Additionally, 2020 and 2021 were atypical years due to the COVID-19 pandemic, which required the introduction of various legal and regulatory measures, as highlighted below:
 - In March 2020, Decree No. 6 officially declared a state of emergency in Brazil, effective until December 31, 2020. On the same date, Decree no. 10,282 was released (complemented by Decree No. 10,288/2020), which regulated Law No. 13,979/2020 and dealt with the new COVID-19 measures, including directives regarding the operation of public services and essential activities, specifically the electricity sector and electricity generation, transmission and distribution. By means of Decree No. 117/2020, the MME also established a Crisis Committee within the Ministry's scope to articulate, coordinate, monitor, guide and supervise the measures and actions taken against COVID-19 for the duration of the public health crisis. In line with the guidelines established by this decree, ANEEL issued Decree No. 6,335/2020, the Office of Monitoring the Electrical Situation (*Gabinete de Monitoramento da Situação Elétrica*), with the objective of identifying the effects of the COVID-19 pandemic on the electrical energy market and monitoring the economic-financial situation in relation to supply and demand, as well as coordinating studies of proposals to preserve equilibrium between different entities within the sector.
 - In March 2020, to ensure the continuity of electricity distribution services, ANEEL issued Normative Resolution No. 878/2020, solidifying the Agency's first measures in order to guarantee the supply of electricity to certain consumer units that have lost the ability to remain compliant as a result of the COVID-19 pandemic. This especially concerns consumer units related to the supply of energy to services and activities considered essential, as defined by Federal Decrees No. 10,282/2020 and No. 10,288/2020.
 - On April 8, 2020, the Brazilian government issued Provisional Measure No. 950, which specified temporary emergency measures for the electricity sector to cope with the state of emergency by establishing an exemption in energy tariffs funded by the CDE for low-income consumers for up to 220 kWh/month, for the period of April 1 to June 30, 2020. For this purpose, resources were provisioned by means of a credit operation aimed at providing financial relief to electricity distributors. On the same date, ANEEL published Order No. 986, authorizing the CCEE to transfer the surplus financial resources available in the reserve fund for future relief to the sector's agents, based on consumption, with the aim of reinforcing the sector's liquidity in the midst of the COVID-19 pandemic.
 - On May 18, 2020, Decree No. 10,350 was issued by the Brazilian government, which regulated Provisional Measure No. 950/2020 and provided for the creation of the COVID-19 Fund. This fund was to receive resources to cover potential deficits or anticipate distributors' revenues and regulate the use of tariffs by the CDE for the purpose of payments and receipts of amounts to cover or defer costs arising from the COVID-19 pandemic. Through Resolution No. 885/2020, ANEEL established criteria and procedures for the management of the COVID-19 Fund. The value of the resources of the COVID-19 Fund given to concessionaires were made

operational by the CCEE throughout 2020, considering, for this purpose, the existence of a positive balance in the fund.

- In May 2020, by means of Order No. 1,511/2020, ANEEL, suspended the systematic application of the system for activating the Tariff Flags (*Bandeiras Tarifárias*), under exceptional and temporary circumstances, as provided for in Submodule 6.8 of the Procedures for Tariff Regulation. This added a “green flag” through December 31, 2020 to cover the electric sector’s costs with resources from the COVID-19 Fund. This was in effect until November 30, 2020, when it was revoked by ANEEL with the same-day issuance of Order No. 3,364/2020.
- In September 2020, Provisional Measure No. 998/2020 was issued, due to important changes in the electricity sector rules to mitigate the effects on the consumer due to aid granted to companies as a result of the COVID-19 pandemic. After being approved by the House of Representatives on December 17, 2020 and by the Federal Senate on February 4, 2021, being sanctioned in March 2021 by the President of the Republic, through Law 14.120, of March 1, 2021. With the same purpose, Law No. 14,120 allowed the reallocation of certain P&D and energetic efficiency (EE) resources to the CDE account between 2021 and 2025 for certain projects. New enterprises for renewable energy among others are excluded from this benefit. New projects for hydrological energy with more than 30 MW capacity will be entitled to a discount in tariffs of 50% for 5 years counted a March 2, 2021 and 25% for the subsequent 5 years.
- In 2021, Law 14,120/2021 also set a deadline for the definition of guidelines for the government for the granting of certain environmental benefits, aligned with certain efficiency, safety and competitiveness parameters, in connection with the efforts to modernize the electricity sector.
- In January 2021, the CCEE adopted an hourly pricing model for the accounting and settlement of the short-term market. Thus, since January 1, 2021, the PLD is officially calculated for each submarket on an hourly basis, and implemented pursuant to a schedule defined by MME Directive 301/2019.
- In April 2021, CNPE Resolution 24/2021 approved the Guidelines on Cybersecurity for the Electricity Sector, as established in CNPE Resolution 1 of February 10, 2021, which created a working group with consideration for prevention, treatment, response and systemic resilience.
- In April 2021, Law No. 14,134/2021 was approved, establishing the new regulatory framework for the natural gas market in Brazil. This law sets rules for the economic activities of transportation of natural gas through pipelines and changed the regime for economic exploration of such activity from concession to authorization to be granted by ANP. It also regulated the import, export, treatment, processing, storage and commercialization of natural gas, among other related activities.
- In May 2021, Decree No. 10,707 was passed to regulate the legal provisions for the suspension of electricity supply to consumers in the Free Market and reserve capacity contracts, with the goal of assuring the continuous supply of electricity.
- In June 2021, several measures were adopted by the Federal Government to address the scarcity of hydroelectric power. Provisional Measure 1,055/2021 created the Chamber of Exceptional Rules for Hydroelectric Management (“CREG”) to establish emergency measures for the optimization of the use of hydroelectric resources and to combat water shortage, in order to preserve the continuity and security of the electro energetic supply in Brazil. The CREG was entitled to approve urgent measures proposed by the Comitê de Monitoramento do Setor Elétrico (CMSE) and if approved, compliance was mandatory by other regulatory agencies and entities in the sector. Among the measures adopted by CREG, the following stand out: (i) creation of an incentive program for the voluntary reduction of consumption by

- consumers of Groups A and B in the regulated market; (ii) the regulation of Tariffs Flags, (associating the tariffs to level of scarcity of water and hydrological shortages); and (iii) the adoption of a simplified procedure to demand reserved capacity from 2022 to 2025.
- In July 2021, Law No. 14,182 approved the privatization model of Eletrobras and also set new rules for the purchase of reserve capacity from natural gas thermoelectric plants in several regions of Brazil and the allocation of at least 50% of the demand declared by distributors to hydroelectric plants up to 50 MW in the A-5 and A-6 auctions.
 - In December 2021, the Brazilian government published Provisional Measure No. 1,078/2021, which allows the structuring of credit operations using the Energy Development Account (“CDE”) for amortization, the same structure used for *Conta-Covid*. This measure mitigates the mismatch between revenues collected from the tariff and the costs of generating energy through loans to distributors to equalize these costs. Decree 10,939/2022 further regulated the matter. Additionally, the measure also provides for the institution of extraordinary tariff flags when necessary.
 - In December 2021, ANEEL published Normative Resolution No. 964/2021, that regulates provides guidelines for cybersecurity policies and activities for the sector.
 - In December 2021, Decree No. 10,893/2021 was published, easing the requirements for the issuance of authorizations to implementation and operation of power plants. It lifted the requirements relating to proof of feasibility to connect to the transmission and/or distribution system for generation projects based on solar, wind, biomass or qualified cogeneration until March 2, 2022. ANEEL published the Normative Resolution No. 1,038/2022, in order to complement the procedures for obtaining the authorization grant, establishing a deadline of 54 months for the implementation of the authorized undertakings.
 - In December 2021, ANEEL published REN No. 1,000/2021, which defines in a simpler and more objective manner the responsibilities of the agents and the procedures to be followed by consumers so that universal access to the electric power service is available in an efficient and valuable manner.
- In January 2022, the Federal Government published Decree No. 10,946/2022, which regulates the assignment of use of physical spaces and the use of natural resources in internal waters owned by the Union, in the territorial sea, in the exclusive economic zone and on the continental shelf for the generation of electricity from offshore projects. As a result, the MME published Normative Ordinance No. 052/2022, establishing the complementary procedures related to the assignment of onerous use for exploitation of offshore generation enterprise as well as creating, together with the Ministry of Environment, through Interministerial Ordinance No. 03/2022, the Unified Portal for Management of the Use of Offshore Areas for Power Generation.
 - In January 2022, the Government enacted Law No. 14,300/2022, which established the legal framework for distributed microgeneration and minigeneration, the Electric Energy Compensation System (SCEE), and the Social Renewable Energy Program (PERS). In compliance with the approved Law, ANEEL approved Normative Resolution No. 1,059 that improves the rules for the connection and billing of microgeneration and minigeneration plants distributed in electricity distribution systems, as well as the rules of the Electric Energy Compensation System.
 - In June 2022, the Government published Law No. 14,385/2022, which regulated the exclusion of ICMS from the PIS and COFINS tax base and the return of overpaid tax amounts by public service providers of electricity distribution, being destined to the reduction of the tariff.
 - In June 2022, the Complementary Law Project (PLP) No. 18/2022 to limit the collection of ICMS on fuel, electricity, communications, and public transportation was converted into Complementary Law No.

194/2022, as they are considered essential and indispensable goods and services.

- In June 2022, ANEEL altered the methodology for calculating the TUST and TUSD through Normative Resolution No. 1,024/2022, defining components that intensify the locational signal for defining the tariffs, applicable from the 2022/2023 cycle. Consecutively, Normative Resolution No. 1,041/2022 was published, establishing a transition period until 2027 for the full application of the new rules.
- In July 2022, the CNPE approved, through Resolution 08/2022, the Plan for the Recovery of the Regularization Reservoirs of Hydroelectric Power Plants, over a period of up to 10 years, proposing short, medium and long-term actions, with the objective of improving, in an integrated manner, the policy, planning, governance, and regulation of the electric power sector and other sectors that use water resources, so as to optimize the multiple use of water.
- In September 2022, ANEEL published Normative Resolution No. 1,040/2022, creating the Demand Response framework program, which allows the possibility of voluntary reduction or displacement of electricity demand by large consumers, as an alternative to be employed by ONS in the planning of the SIN operation.
- In September 2022, the MME published Ordinance No. 050/2022, which established that as of January 1, 2024, consumers classified as Group A (high voltage) may opt to purchase electricity from any concessionaire, permissionaire, or authorized power supplier in the National Interconnected System.
- In December 2022, the Federal Government issued Decree No. 11,314 regulating the bidding and the extension of transmission concessions at the end of their term, conditioning the extension of the concession when the bidding is unfeasible or results in damage to the public interest, as long as the concessionaire formalizes the extension request at least 36 months before the end of the concession.
- In February 2023, ANEEL approved the regulation of the Law No. 14,300/2022, establishing new guidelines, among other aspects (i) for charging for the use of the distribution network, (ii) deadlines for distributors to carry out connection works, (iii) presentation of performance bonds. ANEEL's Normative Resolution No. 1,059/2023 establishes how to insert the cost of tariff benefits of participants in the Electric Energy Compensation System - ("SCEE") in the Energy Development Account ("CDE") and in the tariff processes of distributors companies. From now on, new GD projects are subject, among other rules, to staggered payments of the so-called "Fio B," starting at a percentage of 15% from this year until reaching full payment in 2029.

Potential New Regulatory Framework

The following potential changes to the Brazilian regulatory framework may have a direct impact in our operations, as our business is subject to comprehensive regulation by various Brazilian legal and regulatory bodies, especially the MME (which proposes sector policies) and ANEEL (which regulates, supervises and inspects various aspects of our business, including our tariff rates).

- In February 2018, the MME published on its website a report of the public hearing, reflecting the final proposal for improvements to the energy regulatory framework, which were especially motivated by technological, social and environmental matters, as well as difficulties arising from the current business models. Among the discussed topics, the following stand out:
 - Termination of the quota system applicable to hydropower plants (HPP) concessions that have been extended or granted through competitive biddings, in accordance with Federal Law No. 12,783/2013, and allocation of part of the economic benefit of grants to the CDE in order to reduce what is charged to the population;
 - Lowering the minimum thresholds for accessing the Free Market;
 - Approach between the short-term price formation and the operating cost of the system;

- Whether energy and ballast (currently combined for commercialization purposes) should be segregated;
 - Effects of the migration of consumers to the Free Market;
 - Market for environmental attributes;
 - Attraction of foreign capital for investments in the Brazilian energy sector;
 - More efficient tariff discounts;
 - Allocation of resources from the global reversion reserve to the transmission segment;
 - Guidelines for the use of research and development resources;
 - Modernization of the regulated market; and
 - Reduction of judicial disputes regarding the hydrological risk.
- In May 2018, most of the improvements proposed by the MME with respect to the regulatory framework applicable to the energy sector were included in Bill No. 1,917/2015 of the House of Representatives, known as the bill for the energy bill portability (*Projeto de Lei da Portabilidade da Conta de Luz*). This bill is still subject to analysis in the House of Representatives and, if approved, will depend on further approval by the Senate and the President of Brazil.
 - Also, there are initiatives in order to promote the modernization of the energy sector. Ordinance MME No. 187/2019 established a working group in order to develop proposals for the modernization of the energy sector, which released a report in October 2019 with measures that should be adopted or studied, including topics such as (i) opening of the consumer market; (ii) pricing mechanism for the short-market; (iii) expansion of the Free Market accommodating new technologies and new business models; (iv) Energy Reallocation Mechanism; (v) cost and risk allocation; (vi) introduction of new technologies; and (vii) sustainable distribution services. This working group has been appointed for a 2-year term, which may be extended for 1 additional year.
 - In November 2019, the Brazilian government submitted to Brazilian Congress Bill No. 5,877, which, among other matters, address the privatization of Centrais Elétricas Brasileiras S.A. - Eletrobras. Such bill determines the privatization of Eletrobras pursuant to a capital increase and public offering of new common shares (that entitle their holders to voting rights), resulting in the dilution of the stake held by the Brazilian government in Eletrobras (the “Eletrobras Privatization”). In February 2021, Provisional Measure No. 1,031/2021 on the Eletrobras Privatization was issued.
 - In November 2019, ANEEL submitted a proposed amendment to Resolution No. 482/2012 to a public hearing. This resolution refers to the distribution of micro and mini energy generation. The update of such rules was required in 2015 by Resolution 687/2015 and suggests improvements to the credit compensation system in view of changes to distributed generation in recent years.
 - In December 2019, CNPE approved its Resolution No. 29, pursuant to which (i) it reviewed the general criteria adopted with respect to supply guarantee in studies on offer expansion, planning of the SIN operations, and calculations of Assured Energy and power of a generation project. However, MME shall determine the specific thresholds for such criteria, which is used in the calculation of Assured Energy and plans for expansion.
 - In 2020, due to the COVID-19 pandemic, discussions beginning in 2017 between the MME and the electric sector with regards to proposals for the industry’s improvement of the legal and regulatory framework were interrupted. This meant limited progress on measures such as PL No. 1,917/2015 and PLS No. 232/2016, which address issues such as the commercial model of the electric sector, the portability of electricity bills

and concessions for electric energy generation. The COVID-19 pandemic also allowed for compromise within Special Commission of the House of Representatives, established in August 2019, regarding the Brazilian Electric Energy Code, which aims to consolidate electricity legislation that is currently scattered between ordinances issued by various government agencies. In 2021, the Congress reinitiated the discussions towards PL Nos. 1,917/2015 and PLS No. 232/2016 (now PL No. 414), the later now being labeled a priority bill under consideration of the Congress.

- Additionally, CCEE published two relevant Technical Notes. The first suggests mechanisms to improve the monitoring of the electricity energy market, as well as the regulation of the commercialization of electricity, by the adoption of new procedures to identify market risks and anomalous conduct, supported by the practices and principles adopted in the financial market. The second one proposes improvements to the models of financial safeguards and mechanisms to mitigate losses arising from defaults in the Spot Market. ANEEL will deliberate on whether to submit the proposals to public hearing.
- On January 13, 2022, through Decree No. 10,939, the measures aimed at facing the financial impacts resulting from the water shortage situation, which affected the country throughout 2021, were regulated. The contracting of a loan for the creation and management of the Hydric Shortage Account was authorized by the Chamber of Commercialization of Electric Energy - CCEE, destined to cover, totally or partially, the costs of the balance of the centralizing account of the resources of the tariff flags for April 2022 and the importation of energy referring to July and August 2021.
- In the case of Copel Distribuição S/A, the amount of R\$ 145.8 million was received, fully reverted as a negative financial component, reducing the consumer's tariff, in the tariff process of June 24, 2022. The payment will be diluted in the consumers' tariffs, in 54 installments, starting in the 2023 tariff readjustment process.
- However, throughout the year 2022, due to the increase in rainfall, the recovery of the hydric affluence was observed, increasing the level of the reservoirs, and impacting the reduction of energy purchase from thermal plants, whose generation cost is higher in relation to other sources. The conjuncture was favorable for the reduction of the value charged to the consumer regarding the tariff flags that, from January to April 2022, were in the "Hydric Shortage" level, changing to the green flag from May to December 2022.
- An important solution brought by Law 14,385/2022, which disciplines the exclusion of ICMS from the calculation basis of PIS and COFINS, was the settlement of the liability related to the collection of values of such taxes overpaid by the distributors, determining that they be returned in full to consumers through the tariff processes, according to equitable criteria. In the tariff readjustment of Copel Distribuição S/A, on June 24, 2022, it was considered, as a PIS and COFINS credit, the amount of R\$ 1.593 billion as a financial component that reduced the tariff for the period from July 2022 to June 2023.
- Furthermore, there was also the approval of the limitation of ICMS collection on fuel, electricity, communications, and public transportation, with effects on the tariff, by Complementary Law No. 194/2022, which considered them essential and indispensable goods and services.
- Another important factor impacting the sector was the privatization process of Eletrobras (Law 14,182/2021), whose amounts contributed to the Account for Energy Development (CDE) were reverted to the tariff moderation of consumers served in the regulated contracting environment. In the case of Copel Distribuição S/A, the amount reverted in the tariff process of June 2022 was R\$ 318.1 million.
- With regards to distributed generation, we highlight the publication of Law no. 14,300/2022, which establishes the legal framework for distributed microgeneration and minigeneration, the Electric Energy Compensation System (SCEE), and the Social Renewable Energy Program (PERS).
- The law allowed existing consumer units and those that file an access request within 12 months of its publication, to continue until December 31, 2045, the benefits currently granted through the Electric Energy Compensation System (SCEE). For consumer units requesting access after this deadline, the law established a transition period for the gradual charging of the compensated energy for tariff components

not associated with the cost of energy.

- In benefit of the modernization of the electric sector, the publication of Normative Rule no. 050/2022 stands out, establishing that as of January 1, 2024, consumers classified as Group A may opt to purchase electricity from any concessionaire, permissionaire or authorized power supplier of the SIN, taking an important step towards the opening of the free power market, also making it possible that in the future consumers connected at low voltage may benefit from it.
- In October 2022, the MME launched Public Consultation 137/2022 with a proposal for the publication of an ordinance providing for the reduction of load limits for the contracting of electricity in the free market by consumers connected at low voltage, as of January 1, 2028, with these consumers to be represented by a retail agent before the CCEE.
- In November 2022, in face of the insufficient capacity of the transmission system to flow the electric energy generated by new plants, the MME made available the drafts of the Ministerial Order referring to the guidelines and systematics of the competitive procedure for contracting the flow margin for generation, regulated by Decree No. 10,893/2021, which will allow the participation of generation projects, from solar, wind, biomass, or qualified cogeneration, which requested the granting of authorization without the presentation of access information, and for other projects that do not have a contract for the use of the transmission and distribution system.
- Finally, on the issue of debates about the legal framework and improvement of the regulatory framework of the electricity sector, especially Bills 414/2021 and 1,917/2015, there was no progress in 2022, being under analysis and processing by the legislative bodies. They receive, however, attention from the distributors that follow and study the possible impacts and should be one of the main topics on the agenda of Congress during the year 2023.

These potential changes to the regulatory framework applicable to the Brazilian Energy Sector may impact our operations in the coming years.

Concessions

The companies or consortia that wish to build or operate facilities for generation, transmission or distribution of electricity in Brazil must participate in a competitive bidding process or must apply to the MME or to ANEEL for a concession, permission or authorization, as the case may be. Concessions grant rights to generate, transmit or distribute electricity in a specific concession area for a specified period. This period is 35 years for generation concessions granted after 2003, and 30 years for new transmission or distribution concessions. In accordance with the 2013 Concession Renewal Law, generation and distribution concessionaires may renew their concession contracts that were in effect as of 1995 and transmission concessionaires may renew their concession contracts that were in effect prior to and as of 1995 for an additional period of 30 years, provided that the concessionaires agree to amend the concession contracts to reflect certain new terms and conditions established by the law. The 2013 Concession Renewal Law does not impact generation concessions granted after 2003, as they are non-renewable.

The Concessions Law establishes, among others, the conditions that the concessionaire must comply with when providing electricity services, customers' rights and the respective rights and obligations of the concessionaire and the granting authority. In addition to the Concessions Law, the concessionaire must also comply with the general regulations governing the electricity sector. The main provisions of the Concessions Law and related ANEEL regulations are summarized as follows:

Adequate service. The concessionaire must render adequate service to all customers in its concession and must maintain certain standards with respect to regularity, continuity, efficiency, safety and accessibility.

Use of land. The concessionaire may use public land or request that the granting authority expropriate necessary private land for the benefit of the concessionaire. In the latter case, the concessionaire must compensate the affected private landowners.

Strict liability. The concessionaire is strictly liable for all damages arising from the provision of its services.

Changes in controlling interest. The granting authority must approve any direct or indirect change in the concessionaire's controlling interest.

Intervention by the granting authority. The granting authority may intervene in the concession, through ANEEL, to ensure the adequate performance of services, as well as the full compliance with applicable contractual and regulatory provisions. Once ANEEL determines the intervention, limited to one year, but extendable for additional two years, it must designate a third party to manage the concession. Within 30 days of the determination of the intervention, the granting authority's representative must commence an administrative proceeding in which the concessionaire is entitled to contest the intervention. The administrative proceeding must be completed within 1 year. The shareholders of the concessionaire under intervention must submit to ANEEL, within 60 days of the determination of the intervention, a recovery and correction plan. If ANEEL approves such plan, the intervention is terminated. In the event ANEEL does not approve the plan, the granting authority may: (i) declare forfeiture of the concession; (ii) determine the spin-off, incorporation, merger or transformation of the concessionaire, incorporation of a subsidiary or assignment of quotas/shares to a third party; (iii) determine the change of control of the concessionaire; (iv) determine a capital increase of the concessionaire; or (v) determine the incorporation of a special purpose company.

Termination of the concession. The termination of the concession agreement may occur by means of expropriation and/or forfeiture. Expropriation is the early termination of a concession for reasons related to the public interest. An expropriation must be specifically approved by law or decree. Forfeiture must be declared by the granting authority after ANEEL or the MME has made a final administrative ruling that the concessionaire, among other things, (i) has failed to render adequate service or comply with an applicable law or regulation, (ii) no longer has the technical, financial or economic capacity to provide adequate service, or (iii) has not complied with penalties assessed by the granting authority. The concessionaire may contest any expropriation or forfeiture in the courts.

A concession agreement may also be terminated (i) through the mutual agreement of the parties, (ii) upon the bankruptcy or dissolution of the concessionaire, or (iii) following a final, non-appealable judicial decision rendered in a proceeding filed by the concessionaire.

When a concession agreement is terminated, all assets, rights and privileges that are materially related to the rendering of electricity services revert to the Brazilian government. Following termination, the concessionaire is entitled to indemnification for its investments in assets that have not been fully amortized or depreciated, after deduction of any amounts due by the concessionaire related to fines and damages.

Expiration. When the concession expires, all assets, rights and privileges that are materially related to the rendering of the electricity services revert to the Brazilian government. Following the expiration, the concessionaire is entitled to indemnification for its investments in assets that have not been fully amortized or depreciated as of the expiration.

Penalties. ANEEL regulations govern the imposition of sanctions against electricity sector participants and determine the appropriate penalties based on the nature and importance of the breach (including warnings, fines, temporary suspension from the right to participate in bidding procedures for new concessions, licenses or authorizations and forfeiture). For each infraction, the fines can be up to 2% of the revenue (net of value-added tax and services tax) of the concessionaire in the 12-month period preceding any penalty notice. Some infractions that may result in fines relate to the failure to request ANEEL's approval to, among other things: (i) execute certain contracts between related parties; (ii) sell or assign the assets related to services rendered as well as impose any encumbrance (including any security, bond, guaranty, pledge and mortgage) on these or any other assets related to the concession or the revenues from electricity services; (iii) effect a change in the controlling interest of the holder of the authorization or concession; and (iv) make certain changes to the bylaws. In the case of contracts executed between related parties that are submitted for ANEEL's approval, ANEEL may seek to impose restrictions on the terms and conditions of these contracts and, in extreme circumstances, require that the contract be rescinded.

Parallel Environment for the Trading of Electric Energy

Under the New Industry Model Law, the purchase and sale of electricity is carried out in two different segments: (i) the regulated market, which contemplates that distribution companies will purchase by public auction all the electricity

they need to supply their customers; and (ii) the Free Market, which provides for the purchase of electricity by non-regulated entities (such as the Free Customers and energy traders).

However, the electricity arising from the following is subject to specific rules different from the rules applicable to the regulated market and to the Free Market: (i) low capacity generation projects located near consumption points (such as certain co-generation plants and small hydroelectric power plants), (ii) plants qualified under the Proinfa Program, an initiative established by the Brazilian government to create incentives for the development of alternative energy sources, such as wind power projects, small hydroelectric power plants and biomass projects, (iii) Itaipu, (iv) Angra 1 and 2 as from 2013 and (v) those generation concession contracts extended or subject to a new bidding process in accordance with the 2013 Concession Renewal Law.

The electricity generated by Itaipu will continue to be sold by ENBPar to the distribution concessionaires operating in the South, Southeast and Midwest portions of the Interconnected Transmission System. The rates at which Itaipu-generated electricity is traded are denominated in U.S. dollars and established pursuant to a treaty between Brazil and Paraguay. As a consequence, Itaipu rates rise or fall in accordance with the variation of the *real*/U.S. dollar exchange rate. Changes in the price of Itaipu-generated electricity are, however, subject to the Parcel A cost recovery mechanism discussed as follows under “–Distribution Tariffs.”

Beginning January 2013, the energy generated by nuclear plants Angra 1 and 2 started to be sold by Eletronuclear to the distribution concessionaires at a rate calculated by ANEEL.

The New Industry Model Law does not affect Bilateral Agreements entered into before 2004.

The Regulated Market

In the regulated market, distribution companies must purchase their expected electricity requirements for their Captive Customers in the regulated market through a public auction process. The auction process is administered by ANEEL, either directly or through the CCEE, under certain guidelines provided by the MME.

Electricity purchases are generally made through three types of Bilateral Agreements: (i) Energy Agreements (*Contratos de Quantidade de Energia*), (ii) Availability Agreements (*Contratos de Disponibilidade de Energia*) and (iii) allocation of energy quotas, as defined by the ANEEL. Under an Energy Agreement, a generator commits to supply a certain amount of electricity and assumes the risk that its electricity supply could be adversely affected by hydrological conditions and low reservoir levels, among other conditions, which could interrupt the supply of electricity. In such case, the generator would be required to purchase electricity elsewhere in order to comply with its supply commitments. Under an Availability Agreement, a generator commits to making a certain amount of capacity available to the regulated market. In such case, the generator’s revenue is guaranteed and the distributors must bear the risk of a supply shortage. With respect to the third method (introduced by the 2013 Concession Renewal Law), the plants that have had their concession renewed under the 2013 Concession Renewal Law lost the right to sell their energy, and from now on will only receive compensation under the energy quota system as a result of the operation and maintenance of such facilities. As a result, energy generated by these generation concessionaires are passed on to distributors at a lower cost through quotas that match the size of the markets served.

With respect to the generation plants with expired concessions, which are subject to a new competitive bidding process, the winner of the competitive bidding process may be required to allocate up to 100% of the energy generated by this plant in quotas to the regulated Market depending on the criteria adopted in the relevant auction process.

The estimate of demand from distributors is the principal factor in determining how much electricity the system as a whole will contract. A distributor is obligated to contract all of its projected electricity needs. A deviation in actual demand from projected demand could result in penalties to distributors. In the event of under-contracting, the distributor is penalized directly in an amount that increases as the difference between the amounts of energy contracted for and actual demand increases. An under-contracting distributor must also pay to meet its demand by purchasing energy in the Spot Market.

In the event of over-contracting, where the contracted volume falls between 100% and 105% of actual demand, the distributor is not penalized and the additional costs are compensated customers’ tariffs. Where the contracted volume is over 105% of actual demand, the distributor must sell energy in the Spot Market. If the contract price proves lower than

the current Spot Market price, the distributor sells its excess energy for a profit. On the other hand, if the contract price is higher than the Spot Market price, the distributor sells its excess energy at a loss. The Federal Law No. 13,360, dated November 17, 2016, also permitted the sale of excess energy by distribution companies in the Free Market. Resolutions No. 833, dated December 4, 2018 and 904, dated December 8, 2020, have recently provided additional rules on the methodology to be adopted by distribution companies with respect to the Mechanism of Surplus Sales (*Mecanismo de Venda de Excedentes*, or MVE).

With respect to the granting of new concessions, regulations provide that bids for new hydroelectric generation facilities may include, among other things, the minimum percentage of electricity to be supplied in auctions in the regulated market. Concessions for new generation projects, such as Mauá and Colfider in our case, are non-renewable, meaning that upon expiration, the concessionaire must again complete a competitive bidding process.

The Free Market

The Free Market covers transactions between generation concessionaires, Independent Power Producers – IPPs, self-generators, energy traders, exporters and importers of electric energy and Free Customers. The Free Market also covers bilateral agreements between generators and distributors signed under the old model, until they expire. Upon expiration, such contracts must be executed under the New Industry Model Law guidelines.

A consumer that is eligible to choose its supplier may only do so upon the expiration of its contract with the local distributor and with advance notice or, in the case of a contract with no expiration date, upon 15 days' notice in advance of the date on which the distributor must provide MME with its estimated electricity demand for the year. In the latter case, the contract will only be terminated in the following year. Once a consumer has chosen the Free Market, it may only return to the regulated system with five years prior notice to its regional distributor, provided that the distributor may reduce such term at its discretion. This extended period of notice seeks to assure that, if necessary, the distributor can buy additional energy in auctions on the regulated market without imposing extra costs on the captive market.

Private generators may sell electricity directly to Free Customers. State-owned generators may sell electricity directly to Free Customers but are obligated to do so only through private auctions carried out by the state-owned generators exclusively to Free Customers or by the Free Customers.

As mentioned above, recently, Federal Law No. 13,360, dated November 17, 2016, also permitted the sale of excess energy by distribution companies in the Free Market, but the effectiveness of the rule is still subject to further regulation by ANEEL.

Focusing on the future of the electricity sector, the Ministry of Mines and Energy launched Public Consultation No. 33/2017 with the purpose of obtaining the view of different participants around improvements in the business model of the sector. Issues such as the expansion of the Free Market and removal of barriers to the entry of its participants, hourly energy price, adequate allocation of risks, security of supply and socio-environmental sustainability were discussed. Further regulation is expected for the years to come with bills being discussed in the Brazilian Congress in order to implement reforms in the power sector. For more information see “–Potential New Regulatory Framework.”

Regulation under the New Industry Model Law and further rules enacted

A July 2004 decree governs the purchase and sale of electricity in the regulated market and the Free Market, as well as the granting of authorizations and concessions for electricity generation projects. This decree includes, among other items, regulations relating to auction procedures, the form of power purchase agreements and the mechanism for passing costs through to Final Customers.

These regulations establish the guidelines under which electricity-purchasing agents must contract their electricity demand. Electricity-selling agents must show that the energy to be sold comes from existing or planned power generation facilities. Agents that do not comply with such requirements are subject to penalties imposed by ANEEL.

These regulations also require electricity distribution companies to contract for 100% of their energy needs primarily through public auctions. In addition to these auctions, distribution companies can purchase limited amounts (up to 10% of their demand) from: (i) generation companies that are connected directly to the distribution company (except for hydroelectric power plants with capacity higher than 30 MW and certain thermoelectric power plants) (ii) electricity

generation projects participating in the initial phase of the Proinfra Program, (iii) the Itaipu Power Plant and (iv) quotas from those generation concession contracts extended or subject to a new competitive bidding process in accordance with the 2013 Concession Renewal Law.

The MME establishes the total amount of energy that will be contracted in the regulated market, the number and the type of generation projects that will be auctioned each year.

All electricity generation, distribution and trading companies, independent producers and Free Customers are required to notify MME, by August 1st of each year of their estimated electricity demand or estimated electricity generation, as the case may be, for each of the subsequent five years. In advance of each electricity auction, each distribution company is also required to inform MME of the amount of electricity that it intends to contract in the auction. In addition, distribution companies are required to specify the portion of the contracted amount they intend to use to supply potentially Free Customers.

Auctions in the Regulated Market

Electricity auctions for new generation projects are held from the third to the seventh year before the initial delivery date of electricity. Electricity auctions for existing generation projects are held (i) from the first to the fifth year before the initial delivery date, and (ii) up to four months before the initial delivery date (“Adjustment Auctions”).

New and existing power generators may participate in the Reserve Energy Auctions as long as these generators increase the power system capacity or if they did not achieve commercial operation by January 2008. Invitations to bid in the auctions are prepared by ANEEL in accordance with guidelines established by the MME, including the requirement that the lowest bid wins the auction. Each generation company that participates in the auction executes a contract for the purchase and sale of electricity with each distribution company, in proportion to the distribution companies’ respective estimated demand for electricity, except for the market adjustment and Reserve Energy Auctions.

The contracts for new generation projects have a term between 15 and 35 years, and the contracts for existing generation projects have a term between 1 and 15 years. Contracts arising from market Adjustment Auctions are limited to a two-year term. The reserve energy contracts are limited to a 35-year term.

The quantity of energy contracted from existing generation facilities may be reduced for three reasons: (i) to compensate for Captive Customers that become Free Customers; (ii) to compensate for market deviations from the estimated market projections (up to 4% per year of the annual contracted amount, beginning two years after the initial electricity demand is estimated); and (iii) to adjust the quantity of contracted energy in bilateral agreements entered into prior to the enactment of the New Industry Model Law.

With regard to (i) above, the reduction in net revenue caused when a Captive Customer becomes a Free Customer is partially compensated by the increased amounts that Free Customers are required to pay to use our distribution system. However, a Free Customer may disconnect from our distribution grid (and therefore cease to pay us a distribution tariff) if it chooses to connect directly to the Interconnected Transmission System or if it generates energy for self-consumption and transports this energy without using our distribution grid. Because a Free Customer that connects directly to the Interconnected Transmission System no longer pays us a distribution tariff, we might not be able to fully recover this loss in revenues.

Since 2004, CCEE has conducted 35 auctions for new generation projects, 27 auctions for energy from existing power generation facilities, ten auctions for reserve energy in order to increase energy supply security, three auctions from alternative energy sources, 17 auctions for market adjustments, one simplified competitive procedures and two capacity reserve auction. No later than August 1st of each year, the generators and distributors provide their estimated electricity generation or estimated electricity demand for the five subsequent years. Based on this information, MME establishes the total amount of electricity to be traded in the auction and determines which generation companies will participate in the auction. The auction is carried out electronically in two phases.

After the completion of the auction (except in the case of Reserve Energy Auction), generators and distributors execute the CCEAR, in which the parties establish the price and amount of the energy contracted in the auction. The price is adjusted annually based on price variations published by the IPCA. The distributors grant financial guarantees to the generators (mainly receivables from the distribution service) to secure their payment obligations under the CCEAR.

Also, after completion of the Reserve Energy Auction, the generation concessionaire and the CCEE execute the *Contrato de Energia de Reserva*, in which the parties establish the price and amount of the energy contracted for in the auction. The distributors, Free Customers and self-producing customers then execute the *Contrato de Uso da Energia de Reserva* (“CONUER”) with CCEE, in order to provide for the terms of the use of the reserve energy. The reserve energy customers grant financial guarantees to CCEE to secure their payment obligations under CONUER.

The 2013 Concession Renewal Law established that generation concessions entered into prior to 2003 that were not renewed would be subject to a new competitive bidding process and that the energy generated by these facilities will be allocated by the Brazilian government in quotas to the regulated market, for purchase by distribution concessionaires. On November 25, 2015, ANEEL carried out a competitive bidding process for the grant of new 30-year concessions of 29 hydroelectric plants in accordance with the 2013 Concession Renewal Law. Until December 31, 2016, 100% of the electricity generated by such 29 hydroelectric plants must be destined to the regulated market and, as of January 1, 2017, the percentage was reduced to 70%. On September 27, 2017, the ANEEL carried another competitive bidding process for the grant of new 30-year concessions of 4 hydroelectric plants in accordance with the 2013 Concession Renewal Law. In this auction, the percentage destined to the regulate market was 70% since the beginning of the concession.

The Annual Reference Value

Brazilian regulation establishes a mechanism (“Annual Reference Value”) that limits the costs that can be passed through to Final Customers.

The regulation establishes certain limitations on the ability of distribution companies to pass-through costs to customers, such as no pass-through of costs for electricity purchases that exceed 105% of actual demand.

The MME establishes the maximum acquisition price for electricity generated by existing projects. If distributors do not comply with the obligation to fully contract their demand, the pass-through of costs from energy acquired in the short-term market is the lower of the Spot Market price and the Annual Reference Value.

Electric Energy Trading Convention

The Electric Energy Trading Convention (*Convenção de Comercialização de Energia Elétrica*) regulates the organization and functioning of the CCEE and defines, among other things, (i) the rights and obligations of CCEE participants, (ii) the penalties to be imposed on defaulting agents, (iii) the means of dispute resolution, (iv) trading rules in the regulated and Free Markets, and (v) the accounting and clearing process for short-term transactions.

Restricted Activities of Distributors

Distributors in the Interconnected Transmission System are not permitted to (i) engage in activities related to the generation or transmission of electric energy, (ii) hold, directly or indirectly, any interest in any other company, corporation or strategic agreement, or (iii) engage in activities that are unrelated to their respective concessions, except for those permitted by law or the relevant concession agreement. According to Law No. 13,360/2016, distributors are allowed to sell energy to Free Customers. This possibility is regulated by ANEEL through Normative Resolution No. 1,009/2022, with the application of the MVE.

Elimination of Self-Dealing

Since the purchase of electricity for Captive Customers is now performed through auctions in the regulated market, “self-dealing” (under which distributors were permitted to meet up to 30% of their energy needs using energy that was either self-produced or acquired from affiliated companies) is no longer permitted.

Challenges to the Constitutionality of the New Industry Model Law

The New Industry Model Law is currently being challenged on constitutional grounds before the Brazilian Supreme Court. The Brazilian government moved to dismiss the actions, arguing that the constitutional challenges were moot because they related to a provisional measure that had already been converted into law. To date, the Supreme Court has not reached a final decision and we do not know when such a decision may be reached. While the Supreme Court is reviewing the law, its provisions have remained in effect. Regardless of the Supreme Court’s final decision, certain

portions of the New Industry Model Law relating to restrictions on distributors performing activities unrelated to the distribution of electricity, including sales of energy by distributors to Free Customers and the elimination of self-dealing, are expected to remain in full force and effect.

Tariffs for the Use of the Distribution and Transmission Systems

ANEEL regulates access to the distribution and transmission systems and establishes tariffs for the use of these systems. The tariffs are (i) distribution system usage charges, which are charges for the use of the proprietary local grid of distribution companies (“TUSD”) and (ii) for the use of the transmission system, which is the Interconnected Transmission System and its ancillary facilities (“TUST”).

TUSD

Users of a distribution grid pay the distribution concessionaire a tariff known as the TUSD (*Tarifa de Uso dos Sistemas Elétricos de Distribuição*). The TUSD is divided into two parts: one related to the contracted power in R\$/kW and another related to the regulatory charges in R\$/kWh. The amount paid by the users of a distribution grid is calculated by multiplying the maximum contracted power for each of the customer’s points of connection to the concessionaire’s distribution grid, by the tariff in R\$/kW, plus the product of the power consumption by the tariff in R\$/kWh, per month.

In relation to the Captive Customers, the TUSD is part of the supply tariff that is calculated based on the voltage used by each customer.

TUST

The TUST (*Tarifa de Uso do Sistema de Transmissão*) is paid by distribution companies, generators and Free Customers to transmission companies for the use of the Interconnected Transmission System (electrical transmission system with a voltage equal or higher than 230 kV). This tariff is revised annually according to (i) the location of the user of the Interconnected Transmission System and (ii) the annual revenues that a transmission company is permitted to collect for the use of its assets in the Interconnected Transmission System. The ONS, an entity that represents all transmission companies that own assets in the Interconnected Transmission System, coordinates the payment of transmission tariffs to these transmission companies. Users of the Interconnected Transmission System sign contracts with the ONS, which allows them to use the transmission grid in return for paying TUST.

Distribution Tariffs

Distribution tariff rates to Final Customers are subject to review by ANEEL, which has the authority to adjust and review these tariffs in response to changes in energy purchase costs and market conditions. When adjusting distribution tariffs, ANEEL divides the costs of distribution companies into (i) costs that are beyond the control of the distributor, (“Parcel A costs”), and (ii) costs that are under control of distributors (“Parcel B costs”). ANEEL’s tariff adjustment formula treats these two categories differently.

Parcel A costs include, among others, the following:

- costs of electricity purchased by the concessionaire to attend Captive Customers, in accordance to the regulatory model in force;
- charges for the connection to and use of the transmission and distribution grids; and
- energy sector regulatory charges.

Parcel B costs include, among others, the following:

- a component designed to pay the distributor for the investments made by the distributor on the concession assets;
- depreciation costs; and

- a component designed to compensate the distributor for its operating and maintenance costs.

Each distribution company's concession agreement provides annual adjustments. In general, Parcel A costs are fully passed through to customers. Parcel B costs, however, are adjusted for inflation in accordance with the IPCA Index, minus the X factor.

Electricity distribution concessionaires are also entitled to periodic tariff revisions (*revisão periódica*) every four or five years. In these processes, Parcel B is recalculated, taking into account incentives for efficiency, quality improvement and reasonable tariff. These revisions are aimed at (i) assuring necessary revenues to cover efficient Parcel B operational costs and adequate compensation for investments deemed essential for services provided within the scope of each such company's concession and (ii) determining the "X factor." The fifth amendment to our concession agreement, which establishes the renewal of our concession agreement, determines the Periodic Tariff Review every five years.

The X factor for each distribution company is calculated based on the following components:

- P, based on the concessionaire's productivity, which is calculated through the distribution segment productivity (PTF), determined by the ratio between the variation in the tariff market and operating and capital costs, plus the average growth of the concessionaire's own tariff market;
- T, based on the trajectory of the concessionaire's operating costs, measured as the difference between the cost benchmarks established by ANEEL and the concessionaire's actual operating costs; and
- Q, based on quality target indicators that measure the interruption of energy supply to Final Customers, and other quality indicators.

In addition, a distribution concessionaire may request an Extraordinary Tariff Review of its tariffs in case of evident economic-financial imbalance, according to the admissibility criteria established through the Tariff Regulation Procedures (PRORET), sub-module 2.9. Extraordinary tariff adjustments were granted (i) in June 1999 to compensate for increased costs of electricity purchased from Itaipu as a result of the devaluation of the *real* against the dollar; (ii) in 2000 to compensate for the increase in Social Security Financing Contribution (*Contribuição para o Financiamento da Seguridade Social - COFINS*) from 2% to 3%; (iii) in December 2001 to compensate for losses caused by the Rationing Program; (iv) in January 2013, due to the enactment of 2013 Concession Renewal Law; (v) in March 2015, to compensate the costs related to the quotas of the CDE and increased costs with the purchase of energy, and (vi) in March 2017, to compensate the amount unduly included in the tariffs for captive consumers in 2016, referring to the Angra III plant.

Since October 2004, on the date of a subsequent tariff adjustment or tariff revision, whichever occurs earlier, distribution companies have been required to execute separate contracts for the connection and use of the distribution grid and for the sale of electricity to their potentially Free Customers.

Tariff Flags (*Bandeiras Tarifárias*)

Effective as of January 1, 2015, a new system has been introduced by the ANEEL to permit distribution concessionaires to pass on to their Final Customer certain variable cost increases attributable to changes in hydrological conditions in Brazil, prior to the formal tariffs periodic revisions made by ANEEL.

In accordance with this model, a green, yellow or red flag, as determined by ANEEL, is included in invoices sent to Final Customers, reflecting nationwide hydrological conditions (except for the State of Roraima). If a green flag is added to Final Customers' invoices due to satisfactory hydrological conditions, no additional charges are added. On the other hand, if these invoices contain yellow or red flags, this indicates that distribution concessionaires are facing higher variable costs from the acquisition of electricity and will pass these costs on to Final Customers.

Incentives

In 2000, a federal decree created the Thermoelectric Priority Program, (*Programa Prioritário de Termoeletricidade, or "PPT"*), for the purposes of diversifying the Brazilian energy matrix and decreasing Brazil's strong dependence on hydroelectric plants. The incentives granted to the Thermoelectric Plants included in the PPT were: (i)

guarantee of gas supply for 20 years, as per a MME regulation, (ii) assurance that the costs related to the acquisition of the electric energy produced by Thermolectric Plants will be passed on to customers through tariffs up to the normative value established by ANEEL, and (iii) guarantee of access to a special BNDES financing program for the electric energy industry.

In 2002, the Brazilian government established the Proinfa Program to encourage the generation of alternative energy sources. Under the Proinfa Program, Eletrobras would purchase the energy generated by alternative sources for a period of 20 years. In its initial phase, the Proinfa Program was limited to a total contracted capacity of 3,300 MW. In its second phase, which should start after the 3,300 MW cap has been reached, the Proinfa Program intends to purchase up to 10% of Brazil's annual electric energy consumption from alternative sources. The first phase of the Proinfa program commenced in 2004 and it so far has supported the construction of 131 alternative energy plants which is expected to reach the production of 11.2 million MWh. According to a decision of ANEEL, the total investment to the Proinfa Program in 2023 will be R\$ 5.45 billion.

Energy Sector Regulatory Charges

EER

The *Encargo de Energia de Reserva* ("EER") is a regulatory charge designed to raise funds for energy reserves that have been contracted through CCEE and which are deposited in the Reserve Energy Account (*Conta de Energia de Reserva* – CONER). These energy reserves, which are mandatory, were created in order to attempt to ensure a sufficient supply of energy in the Interconnected Transmission System. The EER shall be collected from Final Customers of the Interconnected Transmission System. Beginning in 2010, this charge has been collected on a monthly basis.

RGR Fund

In certain circumstances, electric energy companies are compensated for certain assets used in connection with a concession if the concession is revoked or is not renewed. In 1971, the Brazilian Congress created a reserve fund designed to provide these compensatory payments ("RGR Fund"). In February 1999, ANEEL established a fee requiring public-industry electric companies to make monthly contributions to the RGR Fund at an annual rate equal to 2.5% of the company's fixed assets in service, not to exceed 3% of total operating revenues in any year. Since the enactment of the 2013 Concession Renewal Law, the RGR Fund has been used to fund the compensations arising from the termination of non-renewed concessions. The 2013 Concession Renewal Law also allowed the funds from the RGR Fund to be transferred to the CDE.

According to 2013 Concession Renewal Law, as from January 1, 2013, the concession contracts from concessionaires of (i) distribution; (ii) transmission which competitive bidding process occurred after September 12, 2012; and (iii) transmission and generation which had their concession contract renewed or had their underlying facilities subject to a new competitive bidding process are no longer obliged to pay the annual RGR fee.

UBP

Some hydroelectric generation enterprises (except small hydroelectric power plants) are required to make contributions for using a public asset, *Uso de Bem Público* ("UBP") according to the rules of the corresponding public bidding process for the granting of concessions. Eletrobras receives the UBP payments in a specific account. See Note 26 to our audited consolidated financial statements.

ESS

The costs related to maintaining system reliability and stability when Thermolectric Plants generate energy to meet demand in the National Connection System (SIN) are called System Service Charges, or *Encargos de Serviços de Sistema* (ESS). These amounts are paid by each entity that purchases energy in the Spot Market (CCEE), proportional to each such entity's consumption.

ESS is expressed in R\$/MWh and paid only to Thermolectric Plants that generate energy in response to requests by the ONS.

CDE

In 2002, the Brazilian government instituted the Electric Energy Development Account, *Conta de Desenvolvimento Energético* (“CDE”). The CDE is funded by (i) annual payments made by concessionaires for the use of public assets, (ii) penalties imposed by ANEEL, (iii) the annual fees paid by agents offering electric energy to Final Customers, by means of an additional charge added to the tariffs for the use of the transmission and distribution grids and (iv) transfer of resources from the Federal General Budget. The CDE was originally created, amongst others, to promote the availability of electric energy services to all of Brazil and the competitiveness of the energy produced by alternative sources.

Currently, CDE aims to fund several public policies in the Brazilian electricity sector, such as: universalization of the electricity service throughout the national territory; granting of tariff discounts to various users of the service (low income; rural; Irrigating; public water, sewage and sanitation services; incentive energy generation and consumption, etc.); low tariff on isolated electricity systems (Fuel Consumption Account - CCC); competitiveness of electricity generation from the national coal source; among others. The CDE is managed by CCEE since May 2017, pursuant to Federal Law No. 13,360/2016. This charge had been substantially reduced by the 2013 Concession Renewal Law (approximately 75% compared to its December 31, 2011 amount) in an attempt to reduce the cost of electricity paid by Final Customers. The 2013 Concession Renewal Law also allowed the funds from the RGR Fund to be transferred to the CDE, provided that the Federal Treasury would also contribute with the CDE and permit the funds deposited in the CDE to be used in support of the electricity generation program in non-integrated electric grids (*sistemas elétricos isolados*) as well as to partially offset the increased costs borne by distribution concessionaires for the purchase of energy in the Spot Market as a result of the non-renewal of generation concessions due to the 2013 Concession Renewal Law.

On March 7, 2014, the Brazilian government also permitted the transfer to distribution concessionaires of funds deposited in the CDE to cover their respective costs arising from involuntary exposure to the Spot Market in January 2014 as a result of poor hydrological conditions in 2013 and 2014, which mandated the acquisition of thermoelectric energy at higher prices in the Spot Market, costs which distribution concessionaires were not able to pass on to Final Customers through regular Retail Tariffs prior to annual adjustments or formal tariffs periodic revisions made by ANEEL.

Distribution concessionaires will be able to pass on to its Final Customer a CDE charge, to the extent necessary to repay their respective financing obligations contracted by the CCEE through the ACR Account. See “—Regulated Market Account—ACR Account.”

On February 27, 2015, ANEEL approved a significant increase of the CDE fee charged to cover all of these additional costs supported by the CDE. ABRACE, an association of Free Customers filed lawsuits to contest the increase of the CDE fee. Since July 2015, the Free Customers associated with ABRACE benefit from an injunction suspending the increase of the CDE fee. Associations of distributors of energy (ABRADEE, with whom Copel Distribuição is associated) also obtained injunctions suspending its obligation to withhold such CDE fees while ABRACE’s and other consumers’ injunction remains in force.

Federal Law No. 13,360/2016 established that the Brazilian government must prepare a plan for a structural reduction of the CDE charge until December 31, 2017, and it also provided that the revenues, expenses and beneficiaries of the CDE must be published monthly by CCEE, among other changes. As a result, Decree n° 9,642/2018 was published, which determined the gradual reduction, in 5 years, of discounts granted to consumer units classified as Rural and Public Service of Water, Sewage and Sanitation, in Groups A (high voltage) and B (low voltage).

Regulated Market Account – ACR Account.

On April 2014, the Brazilian government created the Regulated Market Account, *Conta no Ambiente de Contratação Regulada – Conta-ACR* (“ACR Account”), to assist distribution concessionaires to cover their respective costs for the acquisition of thermoelectric energy for the period from February 2014 to December 2014, incurred as a result of poor hydrological conditions. Distributors incurred higher costs as a result of adverse hydrological conditions because they were required to buy thermoelectric energy at higher prices in the Spot Market, and were unable to pass all these costs on to Final Customers prior to a formal tariff periodic revision made by ANEEL. To fund the ACR Account, the Brazilian government authorized the CCEE to enter into credit agreements with certain Brazilian financial institutions. An aggregate of R\$21.7 billion, composed of nine tranches, was deposited in the ACR Account. Distribution concessionaires have been repaying this loan since 2015 by charging its Final Customers with additional CDE amounts

on a monthly basis. At first, the amount deposited in the ACR Account should be repaid by 2020. However, in March 2019, ANEEL authorized CCEE to negotiate with the creditor financial institutions and seek early termination of the corresponding loans, which occurred in September 2019.

Water Scarcity Account

Created through Decree No. 10,939, of January 13, 2022 and regulated by ANEEL Normative Resolution No. 1.008/2022, the Water Scarcity Account is intended to receive funds to cover, in whole or in part, the additional costs arising from water shortage for the concessionaires and permissionaires of public service of electricity distribution. The Water Scarcity Account allowed the postponement and payment in installments of the tariff impacts arising from the period of hydrological crisis, not immediately impacting the energy bills in the year 2021, through financial operations using the tariff charge of the Energy Development Account (“CDE”). The Electricity Trading Chamber is responsible for contracting the financial operations aimed at raising funds and managing the Water Scarcity Account, ensuring the full transfer of the costs related to these operations to the CDE, as regulated by ANEEL.

Itaipu Transmission Fee

The Itaipu Hydroelectric Plant has an exclusive transmission grid and is not part of the Interconnected Transmission System. Companies that are entitled to receive electricity from Itaipu pay a transmission fee in an amount equal to their proportional share of the Itaipu generated electricity.

Use of Water Resources Tax

Holders of concessions and authorizations that allow for the exploitation of water resources must pay a total tax of 7.00% of the value of the energy they generate, which for the purposes of this calculation is based on a rate set by ANEEL. Beginning on January 1, 2021, ANEEL set this rate at R\$76.00/MWh. The proceeds of this tax are shared among the states and municipalities where the plant or the plant’s reservoir is located, as well as with certain federal agencies.

ANEEL Inspection Fee (TFSEE)

The ANEEL Inspection Fee is an annual fee due by the holders of concessions, permissions or authorizations equal to an ANEEL determined percentage of their revenues. The ANEEL Inspection Fee requires these holders to pay up to 0.4% of their annual revenue to ANEEL in 12 monthly installments.

Default on the Payment of Regulatory Charges

The failure to pay required contributions to the RGR Fund, Proinfra Program or CDE or to make certain payments, such as those due from the purchase of electric energy in the regulated market or from Itaipu, will prevent the defaulting party from receiving adjustments or reviews of their tariffs (except for an extraordinary review) and will also prevent the defaulting party from receiving funds from the RGR Fund or CDE. We comply with payment obligations related to Regulatory Charges.

Energy Reallocation Mechanism

The Energy Reallocation Mechanism (*Mecanismo de Realocação de Energia*, or MRE) attempts to mitigate the risks borne by hydroelectric generators due to variations in river flows (hydrological risk).

Under Brazilian law, each hydroelectric plant is assigned a determined amount of “Assured Energy,” according to an energy supply risk criterion defined by MME, based on historical river flow records. The Assured Energy also represents the maximum energy that can be sold by the generator, which is set forth in each concession agreement, irrespective of the volume of electricity actually generated by the facility.

The MRE tries to guarantee that all participating plants receive the revenue corresponding to their Assured Energy, irrespective of the volume of electricity generated by them. In other words, the MRE effectively reallocates the electricity, transferring the surplus from those who have produced in excess of their Assured Energy to those that have produced less than their Assured Energy. The relocation, which occurs in the Interconnected Transmission System, is determined by the ONS, considering the nationwide electricity demand and hydrological conditions, regardless of the

power purchase agreement of each individual generator. The volume of electricity actually generated by the plant, whether more or less than their assigned Assured Energy quotient, is priced pursuant to a tariff known as the “Energy Optimization Tariff,” designed to cover only the variable operation and maintenance costs of the plant, so that generators are largely unaffected by the actual dispatch of their plants.

Each hydroelectric plant which has its concession contract renewed in accordance to 2013 Concession Renewal Law will no longer participate in the MRE, and the hydrological risk from those plants will be borne by the distribution concessionaires under the National Interconnected Power Grid. For the generation plants with expired concessions, which were subject to a new competitive bidding process under the 2013 Concession Renewal Law, 30% of the generated energy available for the generation concessionaire to sell in the market is also subject to the MRE hydrological risk allocation mechanism. This risk does not impact our distribution business, since we are allowed to increase the tariffs of our distribution customers to compensate any costs arising from this hydrological risk.

Research and Development

The companies holding concessions and permissions for distribution of electricity must invest a minimum of 0.50% of their annual net operational revenues in research and development and 0.50% in energy efficiency programs. Beginning on January 1, 2023, these percentages will become 0.75% and 0.25%, respectively.

A company holding concessions and authorizations for generation and transmission of electricity must invest a minimum of 1% of its annual net operational revenues in research and development. A company that generates electricity exclusively from small hydroelectric power plants, cogeneration or alternative energy projects is not subject to this requirement.

The amount to be invested in research and development must be distributed as follows:

- 40% to our research and development projects, under the supervision of ANEEL;
- 40% to the Ministry of Sciences and Technology, to be invested in national research and development projects; and
- 20% to the MME, to defray EPE.

In March 2021, Law 14,120/2021 and ANEEL Resolution 929/2021 changed the allocation of research and development resources.

The amount not yet committed to the research and development program until September 2020 will be transferred to CDE as a way to promote tariff moderateness. In the same way, until December 2025, a minimum of 70% of the percentages defined by law must continue to be invested in research and development programs while the difference will be transferred to CDE.

- These measures do not impact the amounts to be invested by the concessionaires, but rather their destination.

Environmental Regulations

The Brazilian Federal Constitution includes environmental matters among the ones that are subject to concurrent legislative competence. This means that the Brazilian Federal Government announces general rules that can be then complemented by rules approved by states and municipalities. The system aims to integrate environmental policies, which are always guided by a national directive, while still granting some power to the states and municipalities to regulate and act locally.

In 1981, the National Environmental Policy was enacted in Brazil (Federal Law 6,938/1981), with an aim to preserve, improve, and recover the environment in Brazil by the establishing several principles to be met by different parties. This culminated in an extensive regulatory framework towards mindful use, conservation, and effective protection of natural resources.

For example, in 1988, Article 225 of the Federal Constitution alluded to environmental issues, advocating for the right of all citizens to an ecologically balanced environment and the duty of the collective to defend and preserve the environment for future generations. In 1998, the Federal Environmental Crimes Law (Law 9,605/1998) was published, providing for criminal and administrative penalties for conduct and activity deemed harmful to the environment.

The entities that make up the National Environmental System and the publications of the National Environmental Council (*Conselho Nacional de Meio Ambiente*), which regulate numerous issues, especially those related to the process of environmental licensing of enterprises, are also relevant to Brazil's efforts towards environmental protection.

Additional federal laws and statutes established the National System of Water Resources Administration and the National Council of Water Resources in order to deal with main environmental issues associated with the hydroelectric sector and water usage. In 2000, the Federal Government created an independent agency, the National Water Resources Agency, to regulate and supervise the usage of water resources. In 2008, Federal Decree 6,514/2008 was enacted to further define administrative responsibility for environmental violations.

Also noteworthy is the Brazilian Forest Code (Federal Law 12,651/2012) and related regulations that established norms in relation to vegetation that may suffer from the impacts resulting from the implementation of enterprises associated with hydroelectric reservoirs.

In addition to the applicable legislation mentioned above, it is also necessary to consider the actions of the so-called Intervening Bodies, which are entities related to the environmental licensing process. However, the Intervening Bodies also act on more specific issues, the most frequent being related to the National Indian Foundation (Funai), the Institute of National Historical and Artistic Heritage (Iphan), the Palmares Foundation, the Chico Mendes Institute for Biodiversity Conservation (ICMBio), among others.

All these regulations can increase the costs associated with the implementation of energy generation and transmission projects, since concessionaires need to fully adhere to all environmental laws and regulations.

Thus, according to Brazilian environmental legislation, any action that represents environmental risk can result in up to three types of liability: civil, administrative and criminal. Thus, those who violate an environmental law may be subject to administrative and criminal sanctions, and in cases of environmental damage, will have the obligation to repair or compensate the affected party. Administrative sanctions may apply to us and to individual company representatives simultaneously and may include significant fines and suspension of activities. Criminal sanctions may include fines, and for individuals, including directors and employees of companies that have committed environmental crimes, possible imprisonment.

All of our power generation, distribution and transmission facilities are subject to environmental licensing procedures and environmental licenses obtained by such facilities may establish several criteria. The maintenance of these licenses will still be subject to compliance with certain requirements, hence why we consistently act in full compliance of applicable environmental legislation.

Item 4A. Unresolved Staff Comments

None.

Item 5. Operating and Financial Review and Prospects

The information presented in this section should be read together with our audited consolidated financial statements for the years ended December 31, 2022, 2021 and 2020 that have been prepared in accordance with IFRS as issued by the IASB. For more information see “Presentation of Financial and Other Information” and Note 3 to our audited consolidated financial statements for the year ended December 31, 2022.

The information presented in this section focuses on material events and uncertainties known to our management that could result in reported financial information not being indicative of future operating results or future financial condition, including a quantitative and qualitative description of the reasons underlying material changes. The following discussion contains forward-looking statements that involve risks and uncertainties. Our actual results may differ significantly from those discussed in the forward-looking statements for several reasons, including, without limitation, the risks described in “Forward-Looking Statements” and “Item 3. Key Information—Risk Factors.”

OVERVIEW

Brazilian Economic Conditions

All of our operations are in Brazil, and we are affected by general Brazilian economic conditions. In particular, the general performance of the Brazilian economy affects demand for electricity, and inflation affects our costs and our margins. The Brazilian economic environment faced periods of instability in recent years, impacting the performance of the Brazilian GDP growth rates, with an increase of 2.3% in 2013 and 0.1% in 2014 and a decrease of 3.8% in 2015. The growth rate was equally negative in 2016, with a decrease of 3.3%. The economic environment showed signs of recovery in 2017, with an increase of 1.0% in growth rate. In 2018 and 2019, the economic environment continued to recover, with an increase of 1.3% and 1.1%, respectively, in growth rate. In 2020, the growth rate decreased by 4.1%. In 2021, the growth rate increased by 4.6%. In 2022, the growth rate increased by 2.9%.

The following table shows selected economic data for the periods indicated:

	Year ended December 31,		
	2022	2021	2020
Inflation (IPCA)	5.79%	10.06%	4.52%
Inflation (IGP-DI)	5.03%	17.74%	23.7%
Appreciation (depreciation) of the real vs. U.S. dollar	(6.5)%	7.5%	(28.8)%
Period-end exchange rate – US\$1.00 ⁽¹⁾	5.2171	5.5799	5.1967
Average exchange rate – US\$1.00	5.1648	5.3949	5.1558
Change in real GDP	2.9%	4.6%	(4.1)%
Average interbank interest rates ⁽²⁾	12.5%	4.5%	2.8%

⁽¹⁾ The real/U.S. dollar exchange rate at December 31, 2022 was R\$5.2171 per US\$1.00.

⁽²⁾ Calculated in accordance with Central Clearing and Custody House, or *Central de Custódia e Liquidação Financeira de Títulos* (“CETIP”), methodology (based on nominal rates).

Sources: FGV – Fundação Getúlio Vargas, the Brazilian Central Bank, the Brazilian Geography and Statistics Institute IBGE and CETIP.

Rates and Prices

Our operational results are significantly affected by changes in the prices at which our generation business sells energy, and by the prices at which our distribution and trading business buys and resells energy.

Our generation business sells energy at unregulated prices in the regulated market, in the Free Market and in the Spot Market. Our generation business allocates the amount of energy that it sells in each of these markets seeking to maximize returns and subject to applicable restrictions, based on factors such as: (i) the requirements of its concession contracts, many of which set a minimum percentage of energy generated in a particular concession that must be sold in the regulated market; (ii) the volume of energy that we plan to sell to Free Customers for a given year; and (iii) the outlook of the short-term, medium-term and long-term for energy prices generally. Although sales in the Free Market and the

Spot Market are not directly regulated, they are influenced by energy regulatory policy. The prices at which our generation business sells energy are not regulated.

Our distribution business purchases enough energy to meet 100% of the demand we forecast for our Final Customers in auctions at unregulated prices in the regulated market. Our distribution business resells that energy to Final Customers at regulated tariffs that take into consideration the price at which the energy was purchased. If our forecasts fall short of the actual electricity demand of our Final Customers, we may be required to enter into short-term agreements to purchase electricity in the Spot Market. If our forecasts exceed the actual demand of our Final Customers, our distribution business sells the excess energy in the Spot Market. The margins in our distribution business tend to be relatively stable due to the regulated nature of the distribution business, while the margins in our generation business are typically larger but less stable, since they are not substantially market regulated.

Sales to Final Customers (which include sales by our distribution business to Captive Customers, sales by our generation business and sales by our trading business to Free Customers) represented approximately 53.1% of the volume of electricity we made available in 2022, and accounted for 60.3% of our energy sales revenues. Almost all of such sales were to Captive Customers. For more information, see “Item 4. Information on the Company—The Brazilian Electric Power Industry—Distribution Tariffs.” In general, if our costs for energy increase, the tariff process permits us to recover these costs from our customers through higher rates in future periods. However, if we do not receive tariff increases to cover our costs, if the recovery of these costs is delayed, or if our Board of Directors elects to reduce the tariff increase awarded by ANEEL, our profits and cash flows may be adversely affected.

ANEEL modifies our Retail Tariffs annually, generally in June. Since January 2013, the adjustments have been as follows.

- In January 2013, due to the enactment of 2013 Concession Renewal Law, we were subject to an extraordinary revision approved by ANEEL. The average impact of this extraordinary review in the tariffs we charge our customers was a decrease of 19.28%.
- In June 2013, ANEEL approved the annual revision of our Retail Tariffs, increasing them by an average of 13.08%, of which 11.40% related to the tariff increase and 1.68% referred to an increase in recovery of deferred regulatory accounts (CVA). After giving effect to the recovery of Parcel A costs, the average effect of this tariff adjustment on our Captive Customers was an increase of 14.61%. However, Copel Distribuição requested a partial deferral of this adjustment, which was authorized by ANEEL and approved on July 9, 2013. The amount of R\$255.9 million was therefore deferred and included as a financial component in the 2014 annual revision. This deferral reduced the average effect of the tariff adjustment to 9.55%.
- In June 2014, ANEEL approved the annual adjustment of our Retail Tariffs, increasing them by an average of 35.38%, of which 25.05% related to the tariff increase and 10.34% related to an increase in recovery of deferred regulatory accounts (CVA). After giving effect to the recovery of Parcel A costs, the average effect of this tariff adjustment on our Captive Customers was an increase of 39.71%. However, Copel Distribuição requested a partial deferral of this adjustment, which was authorized by ANEEL and approved on July 22, 2014. The amount of R\$898.3 million was therefore deferred and included as a financial component in the 2015 annual adjustment. This deferral reduced the average effect of the tariff revision to 24.86%.
- In March 2015, ANEEL approved an extraordinary revision due to a series of events that significantly impacted the distribution concessionaires’ costs, which were not originally foreseen in the 2014 Retail Tariff increase, such as the increase of Itaipu tariffs (46.14%) and higher prices to purchase energy in recent energy auctions. Copel Distribuição’s Average Tariff revision approved by ANEEL was 36.79% starting from March 2, 2015. Of this total, 22.14% related to CDE charges that have been passed to customers and 14.65% relates to (i) Itaipu’s tariff increase and (ii) the higher prices paid by us to purchase energy in recent energy auctions that have been passed to customers.
- In June 2015, ANEEL authorized the annual revision of Copel Distribuição’s tariff to Final Customers, increasing them by an average of 15.32%, of which (i) 20.58% related to the inclusion of the financial components, which will be recovered in the 12 months subsequent to the adjustment (including the amount of R\$935.3 million corresponding to the deferrals in 2013 and 2014), (ii) 0.34% related to the restatement

of Portion B, (iii) (3.25)% related to the adjustment of Portion A, and (iv) (2.35)% reflected the removal of the financial components from the previous process. The adjustment was fully applied to Copel Distribuição's tariffs as of June 24, 2015.

- In June 2016, ANEEL approved the fourth periodic review of our Retail Tariffs, decreasing them by 12.87%, of which: (1.73)% related to the inclusion of financial components; 4.48% due to the update of Portion B; (2.57)% related to the update of Portion A; and (13.05)% reflecting the removal of the financial components of the previous tariff process.
- In March 2017, ANEEL approved an extraordinary tariff revision to correct the amount unduly included in the tariffs for captive consumers in 2016. The return corresponded to the energy that was to be generated by the Angra III power plant; however, the plant was not yet in commercial operation. The refund of the amount charged the most was made in a single installment during the month of April 2017, and, as of May 2017, the tariffs were adjusted to disregard the amount that was being charged. The decision, of extraordinary character, affected 90 distributors of electric power of the country. Our retail tariff (residential B1) was reduced by an average of 11.8% during April 2017 due to the adjustment resulting from the removal of the Reserve Energy Charge (EER) tariff coverage of the Angra III plant, retroactive to the last Periodic Tariff Review, held in June/2016. As of May 2017, the tariff was reset, disregarding the effect arising from the retroactive adjustment, but maintaining the exclusion of the EER (Reserve Energy Charge) component of Angra III for the coming months, until June 2017, the month of the adjustment annual tariff.
- In June 2017, ANEEL approved the annual revision of our Retail Tariffs, increasing them by an average of 3.13%, of which 3.86% related to the tariff increase and (0.73)% related to the inclusion of financial components. After the removal of the financial components of the previous tariff process, the average effect of this tariff adjustment on our Customers was an increase of 5.85%.
- In June 2018, ANEEL approved the annual revision of our Retail Tariffs, increasing them by an average of 14.32%, of which 7.80% related to the tariff increase and 6.52% related to the inclusion of financial components. After the removal of the financial components of the previous tariff process, the average effect of this tariff adjustment on our Customers was an increase of 15.99%.
- In June 2019, ANEEL approved the annual adjustment of our Tariffs, increasing them on average by 8.57%, with -1.96% related to the variation in economic revenue and 10.54% related to the inclusion of financial components. After removing the financial components from the previous tariff process, the average effect of the tariff adjustment on our consumers was an increase by 3.41%.
- In June 2020, ANEEL approved the annual adjustment of our supply tariffs, which represented a tariff repositioning index of 15.84%, comprised of a variation of 8.68% in the economic components and 7.16% in the financial components. After removing the effect of the financial variables from the previous tariff process, the average effect perceived by the customers would be 5.39%. However, in an aim to reduce the impact on electric bills due to the financial consequences of the COVID-19 pandemic, ANEEL created the COVID-19 Fund, a loan operation between various banks contracted by the CCEE in order to dilute tariff increases in the next five years. Thus, Copel Distribution asked that the effects the COVID-19 Fund be applied to our annual tariff adjustment in the amount of R\$536.4 million, equivalent to the accumulated total of the Compensation Account for the Variation of Items of Parcel A (CVA), considered a negative financial component, ultimately reducing the effect on the consumer. With the removal of the previous year's financial components, the final average effect perceived by the consumer was 0.41%.
- In June 2021, ANEEL approved the fifth periodic review of our Retail Tariffs, increasing them by 9.89% in average, of which: 1.19% related to the inclusion of financial components; 1.05% due to the update of Portion B; 8.62% related to the update of Portion A; and (0.98)% reflecting the removal of the financial components of the previous tariff process.
- In June 2022, ANEEL approved our annual tariff adjustment with an average tariff increase of 4.90%, of which: -3.04% referring to the inclusion of financial components; 3.14% due to the update of Part B; 5.04% referring to the update of Part A; and -0.24% reflecting the withdrawal of financial components from the

previous tariff process.

Purchase and Resale of Energy

Our distribution business purchases energy from generation companies and resells this energy to Final Customers at regulated rates. For more information, see “Item 4. Information on the Company— Business—Generation” and “Item 4. Information on the Company—Business—Purchases for the captive market.” Our major long-term contracts or purchase obligations are described as follows.

- We purchase energy from Itaipu at prices that are determined based on the Itaipu project’s costs, including servicing its U.S. dollar-denominated debt. In 2022, our electricity purchases from Itaipu amounted to R\$1,461.0 million;
- Our distribution business is required to purchase a large portion of its energy needs from the regulated market. For more information, see “Item 4. Information on the Company—The Brazilian Electric Power— Industry—Concessions—Auctions in the Regulated Market.”

Under current legislation, the amount that our distribution business charges Final Customers is composed of two fees: a fee for the actual energy consumed and a fee for the use of our distribution grid. Since the regulated rates at which our distribution business sells energy to Final Customers are substantially the same as the rates at which it purchases energy (after accounting for deductions and the cost of energy purchased for resale), our distribution business does not generate operating profit from the sale of electricity to Final Customers. Rather, our distribution business generates operating profit principally by collecting tariffs for the use of our distribution grid.

Special Obligations

The contributions received from the Brazilian government and our customers exclusively for investment in our generation assets, transmission and distribution grid are named as special obligations. We record the amount of these contributions on our statement of financial position as a reduction of assets, under the caption “special obligations,” and, upon the conclusion or termination of the operating concession granted to us, the amount of these contributions is offset against the assets. The highest amount we recorded as special obligations as of December 31, 2022, from the distribution segment, was R\$2,775.4 million as a reduction of intangible assets and R\$73.0 million as a reduction of contract assets. More information in Notes 10.1 and 17.1 to our Financial Statements.

ANALYSIS OF ELECTRICITY SALES AND COST OF ELECTRICITY PURCHASED

The following table sets forth the volume and Average Rate components of electricity sales and purchases for the years ended December 31, 2022, 2021 and 2020:

Categories of purchaser	2022	2021	2020
Electricity Sales			
<i>Electricity sales to Final Customers</i>			
Average price (R\$/MWh): ⁽¹⁾			
Industrial customers	453.99	541.07	419.46
Residential customers	419.11	507.95	391.78
Commercial customers	449.55	530.84	407.78
Rural customers	325.89	354.96	250.27
Other customers ⁽³⁾	667.93	715.58	604.80
Free Customers ⁽²⁾	234.15	231.00	216.50
All customers	369.09	426.23	350.58
<i>Volume (GWh):</i>			
Industrial customers	2,102	2,275	2,314
Residential customers	8,212	8,068	7,910
Commercial customers	4,295	4,149	4,172
Rural customers	2,357	2,461	2,451
Other customers ⁽³⁾	2,404	2,359	2,333
Free Customers ⁽²⁾	11,498	9,538	7,989
All customers	30,868	28,849	27,169
Total revenues from sales to Final Customers (millions of R\$)	11,393	12,296	9,525
<i>Electricity sales to distributors⁽⁴⁾</i>			
Average price (R\$/MWh) ⁽¹⁾	155.58	320.83	224.55
Volume (GWh)	29,950	21,925	19,287
Total revenues (millions of R\$)	4,644	7,034	4,331
Electricity Purchases			
<i>Purchases from Itaipu</i>			
Average cost (R\$/MWh) ⁽⁵⁾	277.12	328.92	321.23
Volume (GWh)	5,272	5,435	5,498
Percentage of total Itaipu production purchased	7.5	8.2	9.2
Total cost (millions of R\$) ⁽⁶⁾	1,461.0	1,787.7	1,766.1
<i>Purchases from Angra</i>			
Average cost (R\$/MWh)	342.03	230.23	277.69
Volume (GWh)	928	976	968
Total cost (millions of R\$) ⁽⁶⁾	317.4	224.7	268.8
<i>Purchases from CCGF</i>			
Average cost (R\$/MWh)	127.98	116.10	109.18
Volume (GWh)	5,901	5,916	6,136
Total cost (millions of R\$) ⁽⁶⁾	755.2	686.3	669.9
<i>Purchases from others⁽⁴⁾</i>			
Average cost (R\$/MWh)	154.43	196.00	213.77
Volume (GWh)	36,024	34,719	19,295
Total cost (millions of R\$) ⁽⁶⁾	5,563.3	6,805.0	4,124.7

⁽¹⁾ Average prices or costs do not consider “use of main distribution and transmission grid” revenue and were calculated by dividing (i) the

corresponding revenues, including taxes, by (ii) MWh of electricity sold.

- ⁽²⁾ Includes Free Customers of Copel GeT and Copel Mercado Livre.
- ⁽³⁾ Includes public services such as street lighting, as well as the supply of electricity to government agencies, and Donations and grants.
- ⁽⁴⁾ Energy traded between our subsidiaries not included.
- ⁽⁵⁾ Our purchases of electricity generated by Itaipu are stated in *reais* and paid for on the basis of a capacity charge expressed in U.S. dollars per kW plus a “wheeling” (or transportation) charge expressed in *reais* per kWh.
- ⁽⁶⁾ See “Item 4. Information on the Company—Business—Generation” and “Item 4. Information on the Company—Business— Purchases for the captive market” for an explanation of our expenses relating to electricity purchases.

RESULTS OF OPERATIONS FOR THE YEARS ENDED DECEMBER 31, 2022, 2021 AND 2020

The following table summarizes our results of operations for the years ended December 31, 2022, 2021 and 2020.

In 2022, our net income decreased 77.2% compared to 2021 mainly due to non-recurring events that negatively affected our financials statements, especially related to provision for allocation of PIS and COFINS credits and the increase in provision associated with an arbitration in the evidentiary instruction phase and liquidation of the sentence. Despite this, in 2022, the result was positively impacted by, among other factors, the more favorable hydrological scenario and startup of Vilas Wind Complex into the generation portfolio, the 0.8% increase in the grid market (which considers offset energy from Mini and Micro Distributed Generation – MMGD) and the 5th tariff review cycle of Copel Distribuição, by the increase on transmission assets remuneration and by the increase in energy volume sold by Copel Mercado Livre in comparison to the prior year.

Below is a discussion of the significant components of our results of operations, on a consolidated basis. For more information on our reportable statements, see Note 33 to our audited consolidated financial statements.

	Year ended December 31,		
	2022	2021	2020
	(R\$ million)		
Net Operating Revenues:			
Electricity sales to Final Customers:	11,393.0	12,296.5	9,524.8
Residential	3,441.7	4,098.2	3,098.9
Industrial.....	954.3	1,230.9	970.6
Commercial, services and other activities	1,930.8	2,202.5	1,701.2
Rural	768.1	873.6	613.4
Other classes.....	4,298.0	3,891.3	3,140.7
Electricity sales to distributors	4,644.2	7,034.2	4,331.0
Use of main distribution and transmission grid	9,843.7	10,088.3	8,780.5
Residential	2,899.4	3,011.5	2,788.7
Industrial.....	1,174.1	1,456.4	1,273.3
Commercial, services and other activities	1,735.2	1,771.5	1,628.1
Rural	663.0	623.3	548.7
Other classes.....	645.7	633.2	582.3
IFree consumers	1,819.2	1,440.9	1,164.0
Concessionaires and generators	86.2	79.5	61.7
Operating and maintenance income - O&M and interest income.....	820.9	1,072.0	733.7
Construction income	2,176.2	1,951.6	1,414.1
Distribution of piped gas	1,669.6	950.9	679.3
Result of Sectorial financial assets and liabilities	1,847.9	2,502.3	746.1
Other operating revenues	534.3	359.0	406.5
Fair value of assets from the indemnity for the concession	89.9	142.6	57.3
(-) Revenue deductions	(10,270.9)	(11,340.9)	(7,306.5)
	21,927.9	23,984.5	18,633.1
Operating Costs and Expense⁽¹⁾:			
Electricity purchased for resale	(8,096.9)	(9,503.7)	(6,829.5)
Charge of the main distribution and transmission grid	(2,520.5)	(2,501.6)	(1,525.6)
Personnel and management	(1,026.9)	(1,550.9)	(1,601.9)
Pension and healthcare plans.....	(266.2)	(248.8)	(228.6)
Material.....	(92.4)	(69.8)	(72.7)

Materials and supplies for power electricity.....	(120.4)	(1,854.9)	(404.5)
Natural gas and supplies for gas business.....	(939.5)	(506.1)	(354.7)
Third-party services	(800.7)	(706.6)	(558.0)
Depreciation and amortization	(1,301.0)	(1,082.5)	(1,009.9)
Credit losses, provisions and reversals	(831.2)	(185.0)	(201.4)
Construction cost.....	(2,149.2)	(1,899.8)	(1,417.5)
Hydrological risk renegotiation - GSF	-	1,570.5	-
Other costs and expenses.....	(534.6)	(365.4)	(369.2)
Provision for allocation of PIS and Cofins credits	(810.6)	-	-
	(19,490.1)	(18,904.6)	(14,573.5)
Equity in earnings of associates and joint ventures	478.6	366.3	193.5
Financial results	(1,966.0)	(327.4)	866.3
Profit before income tax and social contribution	950.4	5,118.8	5,119.4
Income tax and social contribution on profit	199.1	(1,259.6)	(1,285.4)
Net income from continuing operations	1,149.5	3,859.2	3,834.0
Net income (loss) from discontinued operations	-	1,189.6	75.6
Net income for the year	1,149.5	5,048.8	3,909.6
Net income attributable to controlling shareholders	1,112.0	4,952.6	3,904.2
Net income attributable to non-controlling interest	37.3	96.0	5.5
Other comprehensive income	210.0	152.7	(179.2)
Comprehensive income	1,359.3	5,201.4	3,730.6
Comprehensive income attributable to controlling shareholders.....	1,319.3	5,105.2	3,725.2
Comprehensive income attributable to non-controlling interest.....	40.0	96.2	5.3

⁽¹⁾ Includes values for Hydrological risk renegotiation – GSF and Provision for allocation of PIS and COFINS credits

Results of Operations for 2022 compared with 2021

Operating Revenues

Our consolidated net operating revenues decreased by 8.6%, or R\$2,056.6 million, in 2022 compared to 2021. This result reflected a decrease of R\$2,390.0 million in electricity sales to distributors partially offset by an increase of R\$-718.7 million in distribution of piped gas. Below are the main reasons for variations in operating revenue accounts:

Electricity Sales to Final Customers. Our revenues from electricity sales to Final Customers decreased by 7.3%, or R\$903.5 million, mainly due to the reduction in the ICMS rate on electricity operations from 29% to 18%, in accordance with Federal Law 194/22 and the growth of micro and mini distributed generation, as follows:

- The revenue from electricity sold to residential customers decreased R\$656.5 million in 2022 compared to 2021, reflecting a decrease of 17.5% in the average price (R\$/MWh) of the electricity sold during the same period, despite the increase in volume sold compared to 2021.
- The revenue from electricity sold to industrial customers decreased by 22.5%, or R\$276.6 million, in 2022 compared to 2021, reflecting a decrease of 16.1% in the average price (R\$/MWh).
- The revenue from electricity sold to commercial customers decreased by 12.3%, or R\$271.7 million, in 2022 compared to 2021, reflecting a decrease of 15.3% in the average price (R\$/MWh).
- The revenue from electricity sold to rural customers decreased by 12.1%, or R\$105.5 million, in 2022 compared to 2021.
- The revenue from electricity sold to free customers increased by 26.3%, or R\$378.3 million, in 2022 compared to 2021. This increase is mainly due to increase of 39.6% in the volume of energy sold to Copel Mercado Livre's free consumers.

Electricity Sales to Distributors. Our revenues from electricity sales to distributors decreased by 34%, or R\$2,390.0 million in 2022 compared to 2021, mainly due to the reduction of energy produced by TPP Araucária in 2022, as a consequence of the improvement in hydrological conditions.

Use of main distribution and transmission grid. Our revenues from the use of main distribution and transmission grid decreased by 2.4%, or R\$244.6 million, mainly due to the decrease in remuneration on transmission assets, due to the reduction of the IPCA and IGPM indexers, the exemption in ICMS over TUSD/TUST as of September 2022, despite the 0.8% growth in the billed grid market and the tariff adjustment of Copel Distribuição which corresponded to the Average Tariff effect being 9.32% for consumers connected in high voltage and 2.68% for consumers connected in low voltage.

Construction income. Our revenues from construction increased by 11.5%, or R\$224.6 million, mainly to higher investments in the energy distribution segment.

Distribution of Piped Gas. Revenues from the distribution of piped gas increased by 75.6%, or R\$718.7 million, higher volume distributed in the captive market and the tariff adjustment applied to consumers in February, May and August 2022, with an average cumulative effect of 78.3% in the gas portion as of January 2022.

Sectorial Financial Assets and Liabilities. Our financial assets and liabilities result decreased by 26.2%, or R\$654.4 million as a result of the reduction in energy costs and other financial components.

Other Operating Revenues. Other operating revenues increased by 48.8%, or R\$175.3 million, mainly as a result of the increase in the fair value of the energy purchase and sale agreements of Copel Comercialização, and increase in rental revenue.

Operating Costs and Expense

Our consolidated costs of sales and services provided increased by 3.1% or R\$585.5 million. The main factors that stand out in our operating costs and expense in 2022 are as follows:

- *Electricity Purchased for Resale.* Our purchased energy costs for resale decreased by 14.8%, or R\$1,406.8 million, mainly due to more favorable hydrological conditions in the period.
- *Charge of the Main Distribution and Transmission Grid.* Expenses we incurred for our use of the main distribution and transmission grid increased 0.8%, or R\$18.9 million due to the higher value of Charge reserve energy – EER, partially offset by lower value of System Services Charges - ESS.
- *Personnel and administrative expenses* decreased by 33.8%, or R\$524.0 million, mainly reflecting the reduction of R\$473.6 million in the provision for performance and profit sharing, the reduction in the number of employees and the cost reduction policy.
- *Material for Power Electricity* decreased 93.5% or R\$1,734.5 million as a result of reductions in TPP Araucaria dispatch in 2022.
- *Natural Gas and Supplies for Gas Business.* Expenses related to natural gas purchases increased 85.6%, or R\$433.4 million, resulting from the higher volume and price of acquisition for resale.
- *Third-Party Services.* Expenses related to third party services increased by 13.3%, or R\$94.1 million, resulting from the increase in maintenance costs of the electrical system, due to actions to reduce interruptions to consumers (DEC/FEC) and the increase in O&M services with full entry of wind farms.
- *Depreciation and Amortization.* Depreciation and amortization increased by 20.2%, or R\$218.5 million, mainly as a result of a revision of estimated useful life of certain assets in the generation segment, mainly due to the adherence, in 2021, to the hydrological risk renegotiation (GSF) and the start-up of new generation assets.

- *Credit losses, provisions and reversals.* Accrual and provisions increased by 349.3%, or R\$646.2 million, mainly as a result of an increase of R\$436.5 million in provisions for litigation, reflecting mainly the increase in the estimate of losses in civil actions related to discussions in an arbitration protected by secrecy and confidentiality, in phase of probative instruction and liquidation of judgment, which had been previously reported as a contingent liability in our financial statements, and R\$219.2 million in impairment of assets, mainly in the generation segment due to lower operation of TPP Araucária.
- *Construction Cost.* Costs related to construction increased by 13.1%, or R\$249.4 million, reflecting investments made in the transmission and distribution infrastructure of energy and piped gas.
- *Other Costs and Expenses.* Other costs and expenses increased 46.3%, or R\$169.2 million, mainly due to the increase of R\$56.7 million in financial compensation for the use of water resources related to the higher volume of generation from hydroelectric plants and the increase of R\$58.3 million in losses in the decommissioning and disposal of assets. *Provision for allocation of PIS and Cofins credits:* In 2022 we recognized the amount of R\$810.6 in “Provision for the Allocation of PIS and COFINS credits” account to record the impacts of Federal Law 14,385/2022, of June 27, 2022. For more information, see the Item “Tax and Social Contribution Claims”.

Equity earnings of associates and joint ventures

Equity earnings of associates and joint ventures was R\$478.6 million in 2022, an increase of 30.7%, compared to R\$366.3 million in 2021. This variation is a result of the positive result of equity in the electricity transmission jointly controlled companies, mainly as a result of the higher monetary restatement on contract assets.

Financial Results

We recognized a decrease of financial gains of 500.5%, or R\$1,638.6 million mainly due to: (i) update of provision for destination of PIS and Cofins credits of R\$1,011.4 million; (ii) the lack of income from financial updating of the CRC contract due to its settlement in August 2021 and; (iii) increase in interest expenses in the amount of R\$ 627.3 million, due to higher interest on loans and financing (CDI accumulated in 2022 of 12.38% against 4.42% in 2021), partially offset by the better return on financial investments (in the amount of R\$299.4 million).

Income Tax and Social Contribution Expenses

Credits to be recovered as of December 31, 2022 amounted to R\$199.1 million, referring mainly to the greater tax benefit related to the payment of interest on equity. For more information, see explanatory note 12.3 to our financial statements.

Results of Operations for 2021 Compared with 2020

Operating Revenues

Our consolidated net operating revenues increased by 28.7%, or R\$5,351.4 million, in 2021 compared to 2020. This result reflected, an increase of R\$9,385.8 million in gross operating revenue offset by an increase of R\$4,034.4 million in revenue deductions (PIS/PASEP and COFINS, ICMS, ISSQN and sectorial charges). Below are the main reasons for variations in revenue accounts:

Electricity Sales to Final Customers. Our revenues from electricity sales to Final Customers increased by 29.1%, or R\$2,771.7 million, mainly due to the increase in the average price and volume sold, as follows:

- The revenue from electricity sold to residential customers increased R\$999.3 million in 2021 compared to 2020, also considering a growth of 29.7% on the average price (R\$/MWh) of the electricity sold during the same period, and the increase in volume sold compared to 2020.
- The revenue from electricity sold to industrial customers increased by 26.8%, or R\$260.3 million, in 2021

compared to 2020, considering an increase of 29.0% on the average price (R\$/MWh).

- The revenue from electricity sold to commercial customers increased by 29.5%, or R\$501.3 million, in 2021 compared to 2020, considering an increase of 30.2% on the average price (R\$/MWh).
- The revenue from electricity sold to rural customers increased by 42.4%, or R\$260.2 million, in 2021 compared to 2020. This increase is mainly due to the reduction of subsidies applied to the rural class, under the terms of Federal Decree n. 9,642/2018.
- The revenue from electricity sold to free customers increased by 27.4%, or R\$ 473.7 million, in 2021 compared to 2020. This increase is mainly due to increase of 70.0% in the volume of energy sold to Copel Mercado Livre's free consumers.

Electricity Sales to Distributors. Our revenues from electricity sales to distributors increased by 62.4%, or R\$ 2,703.2 million, mainly due to the sale of 2,195 GWh of energy produced by TPP Araucária in 2021 and the increase in volume of energy sold under bilateral contracts by Copel Mercado Livre.

Use of main distribution and transmission grid. Our revenues from the use of main distribution and transmission grid increased by 14.9%, or R\$1,307.8 million, mainly due to the increase in remuneration on transmission assets, due to the growth of the IPCA and IGPM indexes, the 5.6% growth in the grid market and the tariff adjustment of Copel Distribuição which corresponded to the Average Tariff effect being 9.57% for consumers connected in high voltage and 10.04% for consumers connected in low voltage.

Construction income. Our revenues from construction increased by 38.0%, or R\$537.5 million, mainly to higher investments in the energy distribution segment.

Distribution of Piped Gas. Revenues from the distribution of piped gas increased by 40.0%, or R\$271.6 million, due to the higher volume of sales from Compagas to TPP Araucária and the tariff adjustment, with an average effect of 18.2%, applied to consumers as of August 1, 2021.

Sectorial Financial Assets and Liabilities. Our financial assets and liabilities result increased by 235.4%, or R\$1,756.2 million due to the higher value of net assets constituted in 2021, mainly due to higher electricity costs and system service charges (ESS) than those considered in the calculation of the electricity tariff of Copel DIS, a reflection of the hydrological deficit in the period with greater dispatch of thermoelectric plants.

Other Operating Revenues. Other operating revenues decreased by 11.7%, or R\$47.5 million, mainly as a result of the decrease in the fair value of the energy purchase and sale agreements of Copel Comercialização, offset by the increase in rental revenue.

Operating Costs and Expense

Our consolidated costs of sales and services provided increased by 29.7% or R\$4,331.1 million. The main factors leading to such increase in our operating costs and expense are as follows:

- *Electricity Purchased for Resale.* Our purchased energy costs for resale increased by 39.2%, or R\$2,674.2 million, mainly due to the impact of the water crisis on energy prices and to cope with the higher volume of energy sold in the period.
- *Charge of the Main Distribution and Transmission Grid.* Expenses we incurred for our use of the main distribution and transmission grid increased 64.0%, or R\$976.0 million due to the higher value of System Services Charges - ESS due to the higher thermal dispatch outside the order of merit to face the water crisis and the tariff adjustment of the contracts of the basic grid.
- *Personnel and administrative expenses* decreased by 3.2%, or R\$51.0 million, mainly reflecting the reduction of R\$114.3 million in the provision for performance and profit sharing, the reduction in the

number of employees and the cost reduction policy, offset by the salary adjustment of 10.78% in October 2021 resulting from the higher inflation rate in the period (3.89% in October 2020), according to the collective bargaining agreement and the R\$72.3 million increase in the provision for the voluntary termination program in the period.

- *Material for Power Electricity* increased 358.6% or R\$1,450.4 million as a result of TPP Araucaria dispatch in 2021.
- *Natural Gas and Supplies for Gas Business.* Expenses related to natural gas purchases increased 42.7%, or R\$151.4 million, resulting from the higher volume of acquisition for resale.
- *Third-Party Services.* Expenses related to third party services increased by 26.6%, or R\$148.6 million, resulting from the increase in maintenance costs of the electrical system, due to actions to reduce interruptions to consumers (DEC/FEC) and the increase in O&M services with full entry of wind farms.
- *Depreciation and Amortization.* Depreciation and amortization increased by 7.2%, or R\$72.6 million, as a result of a revision of estimated useful life of certain assets in the generation segment, mainly due to the effects of the hydrological risk renegotiation – GSF.
- *Credit losses, provisions and reversals.* Accrual and provisions decreased by 8.1%, or R\$16.4 million, as a result of the reversal of impairment of R\$110.3 million, mainly in the generation segment due to higher operation of TPP Araucária and of the reclassification of the recovery of revenues from estimate of credit losses account, which were included in other operational costs and expenses in 2020.
- *Construction Cost.* Costs related to construction increased by 34.0%, or R\$482.3 million, reflecting investments made in the transmission and distribution infrastructure of energy and piped gas.
- *Hydrological risk renegotiation – GSF.* On September 28, 2021, the Board of Directors of Copel Geração e Transmissão (“Copel GeT”) approved the adhesion to the renegotiation of the hydrological risk of the Assured Energy portion not committed to the Regulated Contracting Environment (“ACR”), through the extension of the concession of its hydroelectric plants participating in the energy reallocation mechanism (“MRE”). We recognized the amount of R\$1,570.5 million.
- *Other Costs and Expenses.* Other costs and expenses increased 1.0%, or R\$3.8 million, mainly due to the reclassification of the recovery of revenues from estimate of credit losses account, partially offset by gains from disposals of assets and rights.

Equity earnings of associates and joint ventures

Equity earnings of associates and joint ventures was R\$366.3 million in 2021, an increase of 89.3%, compared to R\$193.5 million in 2020. This variation is a result of the positive result of equity in the electricity transmission jointly controlled companies, mainly as a result of the higher monetary restatement on contract assets, the conclusion of works and the lower provision for arbitration disputes with the EPC holder.

Financial Results

We recognized a decrease of financial gains of R\$1,193.7 million mainly due to: (i) recognition of PIS/COFINS tax credit in 2020; (ii) the lower income from financial updating of the CRC contract due to its settlement in August 2021 and; (iii) increase in interest expenses in the amount of R\$ 248.2 million, due to higher interest on loans and financing (CDI accumulated in 2021 of 4.42% against 2.76% in 2020 and IPCA of 10.06% against 4.52%), partially offset by the better return on financial investments (in the amount of R\$ 83.2 million).

Income Tax and Social Contribution Expenses

In 2021, our income tax and social contribution expenses was R\$1,259.6 million, reflecting an effective tax rate

of 24.6% in our pretax income, compared to R\$1,285.4 million and an effective tax rate of 25.1% in our pretax profit in 2020.

Net income (loss) from discontinued operations

Due to the divestment process, as described in Note 41 to our Consolidated Financial Statements, the results of Copel Telecom operations were classified as discontinued operations. The gross gain from the sale of Copel Telecom, completed on August 3, 2021, was R\$ 1,723.9 million, deducting taxes, the net gain was R\$1,116.4 million. Considering the consolidated result for 2021, net income from discontinued operations was R\$ 1,189.6 million.

LIQUIDITY AND CAPITAL RESOURCES

Our principal liquidity and capital requirements are to finance the expansion and improvement of our distribution and transmission infrastructure and to finance the expansion of our generation facilities.

We believe our working capital is sufficient for our present requirements and the next 12 months. We expect to finance our liquidity and capital requirements primarily with our own resources, arising from retained earnings and cash generation from our operations and third party resources (BNDES, Other Financial Institutions and Capital Markets). In December 2022, our Current Liquidity, an index ratio that measures our current assets over our current liabilities reached 1.3x (1.4x in 2021) with a cash balance, equivalent to cash and bonds and securities of R\$2,678.8 million (R\$3,488.9 million in 2021 and R\$3,224.3 million in 2020).

With respect to long term capital needs, we use a model of five years to monitor our needs in a series of scenarios and variables, including Net Debt/EBITDA and minimum cash balance with the intention to preserve the liquidity and improve the capital structure. In this context, we work to anticipate exercises of liability management to improve liquidity if conditions are favorable.

All of our future liquidity conditions rely on a series of scenarios and may be adversely affected depending on market and other conditions. Actual liquidity may differ significantly for several reasons, including, without limitation, the risks described in “Forward-Looking Statements” and “Item 3. Key Information—Risk Factors.”

We have not engaged in any off-balance sheet arrangements that have, or are reasonably likely to have, a current or future effect on the registrant’s financial condition, changes in financial condition, revenues or expenses, results of operations, liquidity, capital expenditures or capital resources that is material to investors.

We monitor our financial liquidity continuously and, for that purpose, we consider (i) on the external side, the possibility of raising funds through the Financial Institutions, Capital Markets and other Sectoral Institutions, and (b) on the internal side, taking the necessary actions in our operations by reducing expenses or postponing investments in order to guarantee the timely fulfillment of financial obligations. Accordingly, we expect to preserve the working capital required for our operations throughout the period.

In addition to working capital, our other principal uses of cash are capital expenditures, dividend payments and debt servicing. Capital expenditures were R\$2,518.5 million in 2022 and R\$2,255.2 million in 2021. The following table sets forth a breakdown of our capital expenditures for the periods indicated. Our capital expenditures are focused on projects located in Brazil.

	Year ended December 31,		
	2022	2021	2020
	(R\$million)		
Generation and transmission ⁽¹⁾	472.7	494.8	431.9
Distribution	1,848.1	1,623.0	1,279.6
Telecom	-	54.4	103.4
Investment of associates and joint ventures.....	4.8	31.0	72.4
Araucária Thermolectric Plant.....	153.6 ⁽²⁾	0.0	0.4
Compagas.....	23.1	14.3	15.2
Elejor.....	7.3	31.1	0.2
Others.....	8.9	6.7	1.6
Total	2,518.5	2,255.3	1,904.7

⁽¹⁾ Considers investment in projects held 100% by Copel GeT.

⁽²⁾ Considers amounts referring to Major Inspection and Overhaul of the Plant, initially foreseen in the costing budget, which were reclassified as investments in the 2022 Financial Statements.

As in previous years, our capital requirement will be financed by cash from our operations and/or by external financing, which may serve to offset commitments arising from the maturity of previous external financing.

Our total budgeted capital expenditures for our wholly-owned subsidiaries for 2023 is R\$2,182.3 million, of which:

- R\$274.9 million are for generation and transmission;
- R\$1,878.9 million are for our distribution business;
- R\$28.5 million are for other investments.

The following subsidiaries, which are not wholly owned by us, also budgeted their own capital expenditures for 2023, as described as follows:

- Compagas: R\$49.9 million; and
- Elejor: R\$26.7 million.

Historically, we have financed our liquidity and capital requirements primarily with cash provided by our operations and through external financing. Our principal source of funds in 2022 was our operating activities. Net cash used by financing activities was R\$1,922.0 million in 2022, compared with R\$2,884.4 million in 2021. Net cash provided by operating activities was R\$3,902.6 million in 2022, compared with R\$3,386.8 million in 2021 and R\$3,940.8 million in 2020. The increase in 2022, compared to 2021, was mainly due to the improvement in the hydrological scenario, with a lower need to purchase energy. The increase in 2021, compared to 2020, is mainly explained by the reduction in expenses with “Electricity Purchased for Resale,” due to the improvement in hydrological conditions. In 2023, we expect to finance our liquidity and capital requirements primarily with our own Resources, arising from retained earnings and cash generation from our operations, primary offering of our shares, and Third Party Resources (BNDES, Other Financial Institutions and Capital Markets).

Long-term debt have generally been used to finance our major capital expenditure projects, or capital expenditures acquisition financing programs offered by Federal Development Bank, as BNDES. The scheduled maturities of these long-term loans have been structured to match the expected cash flow from the conclusion of the related capital expenditure projects and, as a result, reduce the risk of any significant deterioration of our liquidity position.

The following table shows the maturity of loans, financing and debentures:

	(R\$million)							Total
	Short Term		Long Term					
	2023	2024	2025	2026	2027	2028	>2028	
Domestic Currency.....	1,625.2	1,256.0	3,386.2	2,009.3	941.4	270.6	2,965.5	12,454.2
Foreign Currency	-	-	-	-	-	-	-	-
Total	1,625.2	1,256.0	3,386.2	2,009.3	941.4	270.6	2,965.5	12,454.2

As in prior years, we plan to make significant investments in future periods to expand and upgrade our generation, transmission and distribution businesses. In addition, we may seek to invest in other existing electric utilities, in communications services or in other areas, each of which may require additional domestic and international financing. Our ability to generate cash sufficient to meet our planned expenditures is dependent upon a variety of factors, including our ability to maintain adequate tariff levels, to obtain the required regulatory and environmental authorizations, to access domestic and international capital markets, and a variety of operating and other contingencies. We anticipate that our cash provided by operations may be insufficient to meet these planned capital expenditures, and that we may require additional financing from sources such as BNDES and the Brazilian and international capital markets.

ANEEL’s regulations require prior approval from ANEEL for any transfer of funds from our subsidiaries to us in the form of loans or advances. ANEEL approval is not required for cash dividends, as long as cash dividends do not exceed a dividend threshold (“Dividend Threshold”) equal to the greater of adjusted net income or income reserves available for distribution. The Dividend Threshold is established by Brazilian Corporate Law.

The cash dividends we have received from our subsidiaries have been historically sufficient to meet our cash flow requirements without exceeding the Dividend Threshold. As a result, we have not sought approval from ANEEL to receive either loans or advances from our subsidiaries or cash dividends from our subsidiaries in excess of the Dividend Threshold. We do not expect these restrictions on loans and advances and on cash dividends exceeding the Dividend Threshold to impact our ability to meet our cash obligations, since we expect cash dividends below the Dividend Threshold to be sufficient in the future.

Our outstanding loans and financing (including debentures) as of December 31, 2022 totaled R\$12,454.2 million. As of December 31, 2022, we had no debt outstanding denominated in U.S. dollars. For more information on the terms of these loans and financings including reference to their specific maturity dates and interest rate structure, see Note 20 and 21 to our audited consolidated financial statements. We are not subject to seasonality with respect to our borrowing requirements. Our major loans and financing arrangements are:

Banco do Brasil:

- In December 2022, we had R\$751.7 million of outstanding debt with Banco do Brasil (not including the debentures listed below), consisting of financings we contracted to increase our working capital.

Debentures:

- In March 2016, Nova Asa Branca I, Nova Asa Branca II, Nova Asa Branca III, Nova Eurus IV and Ventos de Santo Uriel Wind Farms issued R\$300.8 million in non-convertible debentures, with sixteen-year maturity and payment of interest on monthly basis. The interest rate of TJLP index + 2.02% per year is applicable to R\$147.6 million and IPCA index + 9.87% per year is applicable to R\$153.2 million. As of December 31, 2022, we had an aggregate balance of R\$217.5 million of outstanding debt under these debentures;
- In July 2018, Copel GeT issued R\$1.0 billion in simple, non-convertible debentures, with an interest rate of 126% of the CDI index per year, with a five-year maturity and payment of interest on a semester basis. As of December 31, 2022, we had an aggregate outstanding balance of R\$357.6 million under these debentures;
- In September 2018, Copel GeT issued R\$290.0 million in simple, non-convertible debentures. These debentures have an interest rate equal to IPCA index + 7.6475% per year, with a seven-year maturity and payment of interest on a semester basis. As of December 31, 2022, we had an aggregate outstanding balance of R\$225.6 million under these debentures;
- In September 2018, Copel Distribuição issued R\$1.0 billion in simple, non-convertible debentures with an interest rate of CDI index + 2.70% per year, with a five-year maturity and payment of interest on a semester basis. As of December 31, 2022, we had an aggregate outstanding balance of R\$346.9 million under these debentures;
- In March 2019, Cutia Empreendimentos issued R\$360.0 million in simple, non-convertible debentures. These debentures have an interest rate equal to IPCA index + 5.8813% per year, with a thirteen-year maturity and payment of interest on a semester basis. As of December 31, 2022, we had an aggregate outstanding balance of R\$360.9 million under these debentures;
- In July 2019, Copel GeT issued R\$1 billion in simple, non-convertible debentures, in two series, with an interest rate of 109% of the CDI index per year and IPCA index + 3.90% with a five-years and six-years maturity and payment of interest on a semester basis. As of December 31, 2022, we had an aggregate outstanding balance of R\$1,104.2 million under these debentures;
- In November 2019, Copel Distribuição issued R\$850 million in simple, non-convertible debentures, in two series, with an interest rate of IPCA index + 4.20% per year and CDI index + 1.45% per year with an eight-years and three-years maturity and payment of interest on a semester basis. As of December 31, 2022, we had an aggregate outstanding balance of R\$618.2 million under these debentures;

- In June 2021, Copel Distribuição issued R\$1.5 billion in simple, non-convertible debentures, in two series, with an interest rate of IPCA index + 4.7742% per year and CDI index + 1.95% per year with a ten-year and five-year maturity and payment of interest on a semester basis. As of December 31, 2022, we had an aggregate outstanding balance of R\$1,566.3 million under these debentures;
- In October 2021, Copel GeT issued R\$1.5 billion in simple, non-convertible debentures, in two series, with an interest rate of CDI index + 1.38% per year and IPCA index + 5.7138% per year with a five-year and ten-year maturity and payment of interest on a semester basis. As of December 31, 2022, we had an aggregate outstanding balance of R\$1,564.8 million under these debentures; and
- In May 2022, Copel Distribuição issued R\$1.5 billion in simple, non-convertible debentures, in three series, with an interest rate of IPCA index + 6.1732% per year, CDI + 1.21% per year and CDI + 1.36% per year with a three-year, five year and ten-year maturity and payment of interest on semester basis. As of December 31, 2022, we had an aggregate outstanding balance of R\$1,525.0 million under these debentures.

BNDES

- In December 2013, we received approval for the BNDES financing of HPP Colíder in an aggregate amount of R\$1,041.2 million, maturing in October 2031. As of December 31, 2013, we had received R\$840.1 million of this amount, with the remaining disbursements to be made in accordance with the construction schedule of HPP Colíder. Additionally, BNDES approved the finance of the Cerquilho III transmission substation in the amount of R\$17.6 million, which was disbursed in a single installment. As of December 31, 2022, the aggregate outstanding balance of these two contracts totaled R\$623.5 million;
- BNDES has provided a loan to us of R\$339.0 million to finance the construction of the Mauá Hydroelectric Plant. Mauá is owned by Consórcio Energético Cruzeiro do Sul, in which we have a 51.0% interest and Eletrosul has a 49.0% interest. BNDES is providing 50.0% of the loan amount, and Banco do Brasil S.A. is providing the remaining 50.0%. All the receivables arising from this plant were pledged in favor of BNDES and Banco do Brasil until full repayment of the loan. As of December 31, 2022, we had an aggregate of R\$121.4 million in outstanding debt with BNDES and Banco do Brasil under this facility;
- In December 2011, we entered into a financing contract with BNDES in the total value of R\$44.7 million for the construction of Transmission Line Foz do Iguacu - Cascavel Oeste, with maturity in 14 years. As of December 31, 2022, we had an aggregate of R\$11.2 million in outstanding debt under this financing contract;
- In March 2012, we entered into a financing contract with BNDES in the total value of R\$282.1 million for the construction of GE Farol, Ge Boa Vista, GE São Bento do Norte and GE Olho D'Água Wind Farms with maturity in 16 years. As of December 31, 2022, we had an aggregate of R\$155.6 million in outstanding debt under this financing contract;
- In September 2012, we entered into a financing contract with BNDES in the total value of R\$73.1 million for the construction of SHP Cavernoso II, with maturity in 16 years. As of December 31, 2022, we had an aggregate balance of R\$32.0 million of outstanding debt under this financing contract;
- In December 2014, we entered into a financing contract with BNDES to finance the improvement of the distribution system of the greater Curitiba area, with maturity in 9.4 years. We have obtained a R\$78.9 million funding on December 2014 and as of December 31, 2022, we had an aggregate outstanding balance of R\$11.8 million under this financing contract;
- In June 2015, we entered into a financing contract with BNDES in the total value of R\$ 154.6 million for the construction Santa Helena and Santa Maria Wind Farm, with maturity in 16 years. As of December 31, 2022, we had an aggregate balance of R\$71.2 million of outstanding debt under this financing contract;
- In December 2015, we entered into a financing contract with BNDES in the total value of R\$55.8 million for the construction of Transmission Line Assis - Paraguaçu Paulista II and Londrina - Figueira e Salto

Osório - Foz do Chopim C2, with maturity in 15 years. As of December 31, 2022, we had an aggregate balance of R\$25.7 million of outstanding debt under this financing contract;

- In November 2018, we entered into a financing contract with BNDES in the total value of R\$194.0 million for the implementing Baixo Iguaçu Hydroelectric Power Plant as well as its associated transmission system, with maturity in 17 years. As of December 31, 2022, we had an aggregate balance of R\$159.9 million of outstanding debt under this financing contract;
- In October 2018, we entered into a financing contract with BNDES in the total value of R\$619.4 million for the construction and implementing Cutia Empreendimentos Eólicos Wind Farms, with maturity in 17 years. As of December 31, 2022, we had an aggregate balance of R\$543.3 million of outstanding debt under this financing contract.
- In August 2018, Copel GeT signed a share exchange agreement with Eletrosul in the controlled ventures Costa Oeste Transmissora de Energia S.A. (51% Copel GeT and 49% Eletrosul), Marumbi Transmissora de Energia S.A. (80% Copel GeT and 20% Eletrosul) and Transmissora Sul Brasileira de Energia S.A. (20% Copel GeT and 80% Eletrosul). With this contract, Copel GeT starts to hold 100% interest in the Costa Oeste and Marumbi undertakings and Eletrosul now holds 100% stake in Transmissora Sul Brasileira.
- Marumbi has an agreement signed with BNDES in 2014, in the amount of R\$55 million, for the Implementation of the 525 kV Transmission Line between SE Curitiba and SE Curitiba Leste and the implementation of SE Curitiba, with maturity in 14 years. It has a balance on December 31, 2022 of R\$20.0 million.
- Costa Oeste has an agreement signed with BNDES in 2013, in the amount of R\$36.7 million, for the implementation of the 230 kV Transmission Line between SE Cascavel Oeste and SE Umuarama Sul and the implementation of the SE, with maturity in 14 years. It has a balance on December 31, 2022 of R\$13.4 million.
- In June 2020, we entered into a financing contract with BNDES in the total value of R\$432.1 million for the implementing of the Transmission Line SE Medianeira, SE Curitiba Centro, SE Curitiba Uberaba, SE Andirá Leste, Curitiba Leste-Blumenau and Baixo Iguaçu Realeza as well as its associated transmission system, with maturity in 23 years. As of December 31, 2022, we had an aggregate balance of R\$389.8 million of outstanding debt under this financing contract.

CAIXA ECONÔMICA FEDERAL (CEF)

- In December 2022, we had R\$7.7 million in outstanding debt related to government programs to finance distribution projects.

BANCO DO NORDESTE

- In May 2021, we entered into a financing contract with BNB for a total value of R\$208.7 million for the construction of Jandaíra I, Jandaíra II, Jandaíra III and Jandaíra IV Wind Farms, with a maturity of 17 years. We had received R\$69.1 million of this amount, with the remaining disbursements to be made in accordance with the construction schedule. As of December 31, 2022, we had an aggregate balance of R\$172.5 million of outstanding debt under this financing contract.
- In November 2021, we completed the acquisition of Vilas Complex, which has financing until 2039/2040. As of December 31, 2022, we had an aggregate balance of R\$546.3 million of outstanding debt under this financing contract.

In addition, Copel Distribuição applied to receive a loan in the amount of R\$ 145.8 million, pursuant to the Term of Acceptance to the Water Scarcity Account created by Decree 10,939/2022 (as proposed in ANEEL Technical Note 08/2022). The loan aims to mitigate the decrease in our operating cash flow as a result of the payments of the Bonus of the Incentive Program for Voluntary Reduction of Consumption of Electricity, energy imports referring to the

competences of July and August 2021 and the costs related to the fixed revenue referring to the competences from May to December 2022 of the Simplified Competitive Procedure - PCS of 2021 with monthly transfers as determined and settled by the CCEE. Our application still needs to be approved by the regulatory body.

We are party to several legal proceedings that could have a material adverse impact on our liquidity if the rulings are unfavorable to us. These contingencies are described in “Item 8. Financial Information—Legal Proceedings.”

In addition, we have commitments not yet incurred related to long-term contracts, and therefore not recognized in the financial statements, as presented in Note 36 to our consolidated financial statements. The main amount refers to energy purchase and transportation contracts commitments, totaling R\$108,768.3 million on December 31, 2022. These commitments are expected to be settled as follows: R\$6,971.1 million in less than a year, R\$23,154.7 million from one to 5 years and R\$78,696.5 million after 5 years.

In Note 34.2.2 to our consolidated financial statements we present the expected values for settlement of contractual obligations undiscounted in each time range. Our projections are based on financial indicators linked to the related financial instruments and forecast according to average market expectations as disclosed in the Brazilian Central Bank’s Focus Report.

Item 6. Directors, Senior Management and Employees

We are managed by:

- a Board of Directors, which may be composed of 9 members; and
- a Board of Executive Officers, which is currently composed of 7 members.

BOARD OF DIRECTORS

The Board of Directors ordinarily meets monthly. A majority of the members of the Board of Directors is required for the meeting to be held, and decisions are taken by a majority vote of those present at the meeting. For additional information, see “Item 10. Additional Information—Memorandum and Articles of Association.” The members of the Board of Directors are elected to serve for two-year terms and may be reelected up to another three consecutive terms. Among the current nine members of the Board of Directors:

- five were elected by the controlling shareholders;
- two was elected by minority shareholders (holding voting shares);
- one was elected by minority shareholders (holding outstanding non-voting shares); and
- one was elected by our employees.

According to Brazilian Corporate Law, minority shareholders are entitled to appoint and remove at least one member of the Board of Directors, in a separate election, without the participation of the controlling shareholder, if such minority shareholders hold (i) at least 15% of our voting shares or (ii) at least 10% of our outstanding non-voting shares. Minority shareholders holding at least 10% of our voting shares are entitled to request that a multiple voting procedure be adopted, a proceeding that grants each voting share as many votes as there are members of the Board of Directors and the right for all the voting shareholders to vote for only one candidate or to distribute his votes among several candidates, also in accordance with the Brazilian Corporate Law.

Our bylaws entitle minority shareholders that hold voting shares the right to appoint and remove two members of the Board of Directors, in a separate election, regardless of the voting shares which are held by them as a class, if they haven’t appointed a higher number through a Multiple Vote proceeding in the general shareholders’ meeting. Moreover, our employees are also entitled to appoint and remove one member of the Board of Directors. However, if a multiple vote proceeding is adopted and, also, the minority shareholders appoint members of the Board of Directors through a separate election, the controlling shareholder is entitled to appoint and remove the same number of members appointed and elected by the minority shareholders and employees, plus one.

Also, according to Brazilian Corporate law, members of our Board of Directors who are elected by the non-controlling shareholders have the right to veto (provided it is duly justified) the appointment of the independent accountant made by the majority of the members of our Board of Directors.

The terms of the current members of the Board of Directors expire in April 2023. The current members of our Board of Directors are:

Name	Position	Since
Marcel Martins Malczewski.....	Chairman	2019
Leila Abraham Loria.....	Director	2017
Andriei José Beber.....	Director	2021
Carlos Biedermann.....	Director	2019
Fausto Augusto de Souza.....	Director	2021
Marco Antônio Barbosa Cândido.....	Director	2018
Gustavo Bonini Guedes.....	Director	2019

Name	Position	Since
Marco Antonio Bologna.....	Director	2021
Daniel Pimentel Slaviero.....	Director	2019

The following are brief biographies of the current members of our Board of Directors:

Marcel Martins Malczewski. Mr. Malczewski was born on December 8, 1964. He holds a Master's degree in Industrial Sciences and Computing from Universidade Tecnológica Federal do Paraná (1989); and a Bachelor's degree in Electrical Engineering from Universidade Federal do Paraná (1987). Mr. Malczewski also attended the Owner/President Management Program at Harvard Business School (2004). He is currently the Chairman of the Board of Directors of Companhia Paranaense de Energia - Copel. He is also member of the Board of Directors of AMcom, InfoPrice and Velsis. Additionally, Mr. Malczewski is a partner at M3 Investimentos Ltda. and at Trivella M3 Investimentos S.A. Previously, he was member of the Board of Directors of Ubook (2017-2021); member of the Board of Directors of Veltec (2012-2018); co-founder (1990), CEO (2001-2009), Chairman (2010-2011) and member of the Board of Directors (2012-2015) at Bematech S.A. He was also a Professor (1989-1994) and coordinator (1991-1994) of the Computer Engineering undergraduate course at Pontifícia Universidade Católica do Paraná.

Leila Abraham Loria. Ms. Loria was born on January 26, 1954. Ms. Loria took a course in Sustainable Capitalism & ESG online from Berkeley Executive Education (2021); a Course on ESG: how to rethink and innovate in business (2021); an advanced Governance, Risk and Compliance training course at Risk University - KPMG (2018) and a Corporate Governance and Innovation course at Nova School of Business and Economics, in Lisbon, Portugal (2016); as well as a Course for Board Members from Instituto Brasileiro de Governança Corporativa - IBGC (2015). She holds a Post-MBA in Corporate Governance and Capital Markets for executives from B.I. International (2015), with modules in Columbia and John Hopkins universities, and an International Executive MBA from APG-Amana (1994). Ms. Loria also has a Postgraduate Degree in Business Administration from COPPEAD-UFRJ Business School (1978) and a Bachelor's Degree in Business Administration from Fundação Getúlio Vargas (1976). Ms. Loria is currently a member of the Board of Directors and Chairman of the Minority Shareholders Committee of Companhia Paranaense de Energia - Copel. Additionally, she is an Independent Member of the Board of Directors, a Member of the Social and Environmental Responsibility Committee and a Member of the Diversity Committee at JBS; Alternate member of the Advisory Board of Anaconda; Member of the Advisory Council of Casas Pernambucanas; Co-chair of Women Corporate Directors - WCD; and Member of the Ethics Committee at Abracom. Previously, she was Chairman and Member of the Board of the Brazilian Institute of Corporate Governance - IBGC (2018-2022); a member of the Statutory Audit Committee of Companhia Paranaense de Energia - Copel (2017-2021); Member of the Board of Directors of Madeira Energia - MESA and Santo Antônio Energia -SAE (2017-2021); Member of the Advisory Board of INPLAC Indústria de Plástico (2016-2021); Member of the Advisory Board of Costão do Santinho Resort (2016-2021); Member of the Advisory Board of the COPPEAD-UFRJ Business School (2005-2018); Executive Officer at Telefonica Brasil and Member of the Board of Directors of Telefonica Vivo (2010-2015); Chairman and General Officer at TVA (Abril Group) and Member of the Board of Directors at Tevecap (1997-2006) and Canbras, a joint venture between Abril and Bell Canada (1998-2002); General Officer and Member of the Board of Directors at Direct TV (1997-1999); Chief Business Officer at Walmart (1994-1997); and Chief Officer for Marketing, Sales, Business, Purchasing and Human Resources at Mesbla (1978-1994).

Andriei José Beber. Mr. Beber was born on November 18, 1973. He holds an MBA in Business Management from Fundação Getúlio Vargas (2006); a PhD and a Master's Degree in Engineering, Concentration Area: Structures, from Universidade Federal do Rio Grande do Sul (2003 and 1999); and a Bachelor of Science in Civil Engineering from Universidade Regional de Blumenau (1997). He took several professional development courses at Instituto Brasileiro de Governança Corporativa - IBGC (Governance Improvement Course for Directors and Supervisory Board Members of State-Owned Companies and Mixed Economy Corporations (2021), Corporate Risk Management Course (2019), Advanced Course for Board Members (2018), Performance Monitoring Course (2018), Audit Committee Course (2017), and Certified Board Member Course (2016). At Companhia Paranaense de Energia - Copel, he is currently a member of the Board of Directors, Chairman of the Sustainable Development Committee, and Member of the Minority Shareholders Committee. He is also Alternate member of the Supervisory Board of Companhia Siderúrgica Nacional - CSN; Alternate member of the Board of Directors at Klabin S.A.; Instructor for the Board of Directors training courses at IBGC; Member of the Board of Directors and Coordinator of the Audit Committee of Tecnisia; Member of the Coordinating Committee - SC Chapter of IBGC; and Professor of the FGV Management Graduate Program of Fundação Getúlio Vargas. Previously, he was a Member of the Supervisory Board of Usiminas (2021-2022); Independent Board Member at AES Eletropaulo (2017-2018); Coordinator of the Graduate Course in Building Maintenance at Universidade do Vale do Itajaí (2004-2019); Board Member at Centrais Elétricas de Santa Catarina - Celesc S.A. (2010-2015); and Associate Researcher at Universidade Federal do Rio Grande do Sul (1999-2003).

Carlos Biedermann. Mr. Biedermann was born on August 18, 1953. Mr. Biedermann attended the Executive Program of the Singularity University (2019) and the International Business Programme at INSEAD/Harvard in France (1995). He holds a post-graduate degree in Financial Markets from Fundação Getúlio Vargas - FGV (1979) and Bachelors' degrees in Accounting, from Unisinos (1977), and in Business Management and Public Management, from Universidade Federal do Rio Grande do Sul (1975). He is currently a member of the Board of Directors and Financial expert member of the Statutory Audit Committee of Companhia Paranaense de Energia - Copel. Mr. Biedermann has considerable experience as a board member in several sectors, including organizations such as Amcham/RS and the Association of Marketing and Sales Directors of Brazil - ADVB/RS. At present, he is Chairman of the Board of Directors of Brivia Dez and also has seats in the Board of Directors of Lojas Lebes, and Solar. He is a member of the Audit Committee of Suzano Papel e Celulose, Grupo Algar, Grupo Cornélio Brennand, Moinho Paulista, Banrisul, Grupo Raymundo da Fonte and Tribanco. Additionally, he is an instructor at the Brazilian Institute of Corporate Governance - IBGC and a partner at Biedermann Consulting. Previously, he was Chairman of the Board of Directors of Trensurb (2019-2021); Guest lecturer in the Post-MBA Corporate Governance Program at Unisinos (2017-2019); Member of the Advisory Board of Farmácias São João (2016-2019); Chairman of the Audit Committee of Instituto Brasileiro de Governança Corporativa - IBGC (2009-2014); Chairman (2013-2014) and member of the Board of the Young Presidents Organization - YPO (2009-2012 and 2015-2017); Chairman of the Deliberative Council of Grêmio Foot-Ball Porto Alegrense (2016-2022); and Senior Partner at PricewaterhouseCoopers Auditing and Consulting (2002-2015).

Fausto Augusto de Souza. Mr. Souza was born on November 04, 1980. He holds an Executive MBA in Finance and Capital Markets from FAE Business School (2022), an Executive MBA in Management - Electricity Sector from Fundação Getúlio Vargas (2019), a Master's degree in Electrical Engineering from Universidade Federal do Paraná (2015), a Bachelor's degree in Electrotechnical Engineering from Universidade Tuiuti do Paraná (2011) and a Specialization in Automation and Industrial Process Control from Universidade Tecnológica Federal do Paraná (2005). He formerly took courses in Technologist in Electrotechnics: Automation and Industrial Drives (2003) and Technician in Electrotechnics at Universidade Tecnológica Federal do Paraná (1999). He is currently a member of the Board of Directors and of the Sustainable Development Committee of Companhia Paranaense de Energia - Copel, and he also serves as Electro-technical Technician at Copel Distribuição S.A. Previously he was a member of the Permanent Commission of the Ecoefficiency Program at Companhia Paranaense de Energia - Copel (2017-2018); Substitute Professor of the Electrical Engineering, Control and Automation Engineering and Industrial Automation Technology courses at Universidade Tecnológica Federal do Paraná - UTFPR (2013-2015); Professor and researcher of the Electrical Engineering and Control and Automation Engineering courses at Unisociesc - Curitiba campus (2016-2017); and Professor of the Electrical Engineering and Systems Analysis course at Universidade Unicesumar - Curitiba (2018-2020).

Marco Antônio Barbosa Cândido. Mr. Cândido was born on March 6, 1969. Mr. Cândido holds a Ph.D. and a Master's degree in Production Engineering from Universidade Federal de Santa Catarina - UFSC (1997 and 1994), and a degree in Aeronautical Mechanics Engineering from Instituto Tecnológico de Aeronáutica - ITA (1991). At Companhia Paranaense de Energia - Copel, Mr. Cândido is currently a member of the Board of Directors, Chairman of the Statutory Audit Committee, and Chairman of the Investment and Innovation Committee. He is also Chief Executive Officer and Founding Partner at MBC Consultoria, and member of the Board of Aebel, Expreso Princesa dos Campos and Athena Saúde S.A. Previously, he was a member of the Board of Hospital Santa Rita and Santa Rita Saúde health care provider in the city of Maringá - PR (2015-2019), at Grupo Positivo (2014-2016) and at Sistema de Saúde Mãe de Deus, in the state of Rio Grande do Sul - RS (2014-2015); Chief Executive Officer at Grupo Paysage (2013-2015), Grupo Marista (2012-2013), and at Associação Paranaense de Cultura - APC, a parent company of Pontifícia Universidade Católica do Paraná - PUCPR (2005-2012); besides being a full professor, researcher and dean at Pontifícia Universidade Católica do Paraná - PUCPR (1995-2013).

Gustavo Bonini Guedes. Mr. Guedes was born on April 10, 1982. He holds a post-graduate degree in Electoral Law from Centro Universitário Curitiba (2009) and a Bachelor's degree in Law from Centro Universitário Autônomo do Brasil (2004). Mr. Guedes is currently a member of the Board of Directors of Companhia Paranaense de Energia - Copel. Additionally, he is a member of the Brazilian Academy of Electoral and Political Law - Abradep, founding partner at Bonini Guedes Advocacia and a Lawyer specialized in Public Law, with more than 15 years of experience in Electoral, Administrative and Public Management Law. Previously, he was President of the Electoral Law Institute of Paraná (2015-2017); a Professor at Escola Superior de Advocacia - ESA/PR (2008-2014); advisory member of the Electoral Law Commission of the Federal Council of the Brazilian Bar Association - OAB (2013-2015); and coordinator of the Electoral Law Department of Vernalha Guimarães e Pereira Advogados (2008-2015).

Marco Antonio Bologna. Mr. Bologna was born on April 22, 1955. He holds a Bachelor's degree in Production

Engineering from Escola Politécnica da Universidade de São Paulo (1978) and took an Extension course in Financial Services from Lloyds Bank PLC - Manchester Business School da University of Manchester (UK) (1988). At Companhia Paranaense de Energia - Copel, he is currently a member of the Board of Directors, of the Investment and Innovation Committee and of the Minority Shareholders Committee. Additionally, he is a member of the Board of Directors of Grupo Edson Queiroz; Member of the Advisory Board of Vivix S.A. (a company of Grupo Cornélio Brennand) and of Grupo Silvio Santos; Member of the Board of Directors of Astra; and Board Member at the non-governmental organization Amigos do Bem. He also act as Strategy, Finance and Governance Consultant of Grupo F. A. Oliva and Partner of Galapagos Capital. Previously, he was President of Grupo Banco Fator (Investment Bank, Brokerage House, Asset Management and Insurance Company) (2015-2018); Member of the Board of Directors and Coordinator of the Audit Committee of Suzano Papel e Celulose S.A. (2006-2018); Chairman of the Board at TAM S.A. (2014-2016); Member of the Board at Multiplus Empresa de Fidelização S.A. (2013-2016); President of TAM S.A. - Holding Company (2010-2015); President of TAM S.A. and TAM Linhas Aéreas S.A. (2004-2007 and 2012-2013); Member of the Board at TAM S.A. (2009-2012); Member of the Board at TAM Aviação Executiva S.A. (2008-2012); CEO of Wtorre S.A. (2008) and Member of the Board of Wtorre Commercial Properties (2009-2011); Member of the Board of Directors of IATF - IATA Training Fund (Geneva) (2010-2011); CEO of TAM Aviação Executiva (2009-2010); Advisor of TAM Empreendimentos e Participações - Holding Company (Amaro family) (2003-2009); Member of the Board of Directors of Banco Daycoval S.A. (2007-2008); Member of the Board of Directors of Interprint S.A (2006-2007); CEO of Banco VR and CFO of Grupo VR (Szajman family) (2003); and CFO of TAM S.A. and TAM Linhas Aéreas S.A. (2001-2003).

Daniel Pimentel Slaviero. Mr. Slaviero was born on November 22, 1980. Mr. Slaviero attended the Owner/President Management - OPM program (2015) and the YPO Harvard President Seminar (2010), both from Harvard Business School. Mr. Slaviero also completed the Executive Business Program (STC) from Kellogg School of Management/Fundação Dom Cabral (2009); and holds a degree in Business Administration from Universidade Positivo - UP (2001). At Companhia Paranaense de Energia - Copel he is currently Chief Executive Officer, Member of the Investment and Innovation Committee, Member of the Sustainable Development Committee and Executive Secretary of our Board of Directors. Additionally, Mr. Slaviero serves as Chairman of the Board of Directors of Copel's wholly-owned subsidiaries Copel Geração e Transmissão S.A., Copel Distribuição S.A., Copel Comercialização S.A., and Copel Renováveis S.A. (currently Copel Serviços S.A.). He is also Chairman of the Board of Directors of F.D.A. Geração de Energia Elétrica S.A. and Full member in the consumption category of the Board of Directors of ONS - Operador Nacional do Sistema Elétrico. Previously he acted as Chairman of the Board of Directors of Copel Telecomunicações S.A. (2019-2021); Executive Officer at Sistema Brasileiro de Televisão - SBT (2017-2018); Chief Business Officer at Sistema Brasileiro de Televisão - SBT (2017-2018); Chief Institutional Officer at Grupo Silvio Santos (2010-2017); General Director at Sistema Brasileiro de Televisão - SBT Brasília (2010-2017); Chairman at the Brazilian Association of Radio and Television Broadcasters - Abert (2006-2016); Executive Officer at Grupo Paulo Pimentel (2001-2010); and Programming and Production Manager at Grupo Paulo Pimentel (2000-2001).

BOARD OF EXECUTIVE OFFICERS

Our Board of Executive Officers meets fortnightly and is responsible for our daily management. Each Executive Officer also has individual responsibilities established by our bylaws and the Board’s rules of procedure.

According to our bylaws, our Board of Executive Officers consists of up to seven (7) members. The Executive Officers are elected by the Board of Directors for two-year terms but may be removed by the Board of Directors at any time. The terms of the current members of the Board of Executive Officers expire in December 2023. The current members are as follows:

Name	Position	Since
Daniel Pimentel Slaviero.....	Chief Executive Officer	2019
Ana Letícia Feller.....	Chief Business Management Officer	2018
Adriano Rudek de Moura.....	Chief Financial and Investor Relations Officer	2017
Cassio Santana da Silva.....	Chief Business Development Officer	2019
Eduardo Vieira de Souza Barbosa.....	Chief Legal and Institutional Relations Officer	2019
Vicente Loiacono Neto.....	Chief Governance, Risk and Compliance Officer	2018
David Campos.....	Chief Assistant Communications Officer	2019

The following are brief biographies of the current members of our Board of Executive Officers:

Daniel Pimentel Slaviero. Mr. Slaviero has been our Chief Executive Officer since January 8, 2019. For biographical information regarding Mr. Slaviero, see “—Board of Directors.”

Ana Letícia Feller. Ms. Feller was born on October 15, 1977. Besides holding an Executive MBA degree, from Fundação Dom Cabral (2022), she received an MBA degree in Leadership with emphasis in Management, from Estação Business School (2015); a Post-graduate degree in Management with emphasis in Strategic People Management, from FAE Centro Universitário (2009); and a Post-graduate degree in Labor Law, from Unibrasil (2005). She holds a Bachelor’s degree in Law from Pontifícia Universidade Católica do Paraná (2000). She is currently Copel’s Chief Business Management Officer; Member of the Board of Directors of Copel Distribuição S.A., and Copel Renováveis S.A. (currently Copel Serviços S.A.). Ms. Feller has been a Lawyer at Companhia Paranaense de Energia - Copel since 2002, where she also served as Member of the Board of Directors of Copel Comercialização S.A. (2018-2020), Copel Telecomunicações (2019-2021); Assistant to the Chief Business Management Officer (2017-2018); Chair of the Permanent Compensation Committee (2017-2018); Chair of the Management Committee (2017-2018); Human Resources Chief Official (2007-2010 and 2013-2017); and member of the Ethical Guidance Council (2006-2008 and 2010-2012). Additionally, she was an alternate member of the Deliberative Council of Fundação Copel de Previdência e Assistência Social (2014-2018).

Adriano Rudek de Moura. Mr. Moura was born on September 25, 1962. Mr. Moura took professional development courses at Instituto Brasileiro de Governança Corporativa - IBGC (2021, 2020 and 2018), at Fundação Dom Cabral (2019), at Duke’s Fuqua School of Business (2010) and at Harvard Business School (2007). He received a post-graduate degree in Finance and Controllership from Fundação Instituto de Pesquisas Contábeis, Atuariais e Financeiras - FINEC/USP (1997). Mr. Moura holds a degree in Accounting from Centro Universitário Ítalo Brasileiro - Unifal (1985). Mr. Moura is currently Copel’s Chief Financial and Investor Relations Officer. He is also Chief Financial and Investor Relations Officer of Copel Geração e Transmissão S.A. and Copel Distribuição S.A.; Chief Financial Officer of Copel Comercialização S.A.; and Chief Financial Officer of Copel Renováveis S.A. (currently Copel Serviços S.A.). Previously, he was Latin America CFO & IRO at Electrolux (2003-2017); Brazil CFO & IRO at Electrolux (1999-2003); Brazil Controller at Electrolux (1997-1999); Vice-president at Associação Nacional de Fabricantes de Produtos Eletroeletrônicos (National Association of Home Appliance Manufacturers) (2013-2015); member of the Board of Directors at CTI (2011-2017) and at Eletros (2013-2015); member of the Supervisory Board at Gafisa (2009-2014); Tenda (2009-2014); and Alphaville (2012-2013); graduate school Professor at Fundação Armando Alvares Penteado - FAAP (1999); Professor at Faculdade de Administração de Empresas e Economia do Paraná - FAE (1995); and auditor and consultant at Arthur Andersen (1982-1997).

Cassio Santana da Silva. Mr. da Silva was born on August 14, 1978. He holds a Bachelor’s degree in Business

Administration from Universidade Federal do Paraná - UFPR (2002); and an Executive MBA from Fundação Getúlio Vargas - Rio de Janeiro (2003). He is currently Copel's Chief Business Development Officer and Member of the Board of Directors of Copel Geração e Transmissão S.A. Previously, he held leading positions in many multinational companies, such as Business Unit Manager at Telefônica Brasil S.A. (2014-2019); Senior Brand and Trade Manager at Kimberly Clark (2011-2013); Marketing and Trade Marketing Manager at Danone Northeastern Business Unit (2009-2011); National Trade Marketing Manager at Danone (2008-2009); Trade Marketing Manager at Philip Morris (2007-2008); Regional Sales Manager at Ambev in the Dominican Republic (2006-2007); and Trade Marketing Manager at AmBev (2002-2006).

Eduardo Vieira de Souza Barbosa. Mr. Barbosa was born on October 3, 1982. Mr. Barbosa holds a Graduate Degree in Business Law and Citizenship from Unicuritiba and a graduate degree in Constitutional Law from Academia Brasileira de Direito Constitucional - ABDConst, besides a Bachelor's degree in Law from Universidade Tuiuti do Paraná - UTP. He is currently Copel's Chief Legal and Regulatory Officer, as well as the Chief Legal and Institutional Relations Officer of Copel Geração e Transmissão S.A., Copel Distribuição S.A., Copel Comercialização S.A. and Copel Renováveis S.A. (currently Copel Serviços S.A.). Previously he acted as Chief Executive Officer at Copel Renováveis S.A. (2019-2021); Member of the Board of Directors of Copel Renováveis S.A., as Executive Secretary (2019-2021); Visiting Professor of Corporate Law for the first graduate studies module at Pontifícia Universidade Católica do Paraná - PUC/PR (2018); Vice chairman of the Câmara de Arbitragem, Mediação e Conciliação Societária do Brasil - Cambra (1st Brazilian Corporate Chamber of Arbitration, Mediation and Conciliation) (2017-2018); Member of the Board of Directors, elected member of the Board of Executive Officers and member of the Auction Committee of the Commercial Registry of the State of Paraná (2015-2018); Strategic Consultant of Companhia Paranaense de Saneamento do Paraná - Sanepar, Assistant to the Chief Legal Officer for CS Bioenergia S.A. (2015-2018); Professor at the Centro de Estudos da Administração Pública - Ceap (Public Administration Studies Center) (2014) and visiting professor of Public Administration; Member of the Political Council (2013-2016) and Chief Legal Officer of the Conselho de Jovens Empresários - CJE (Young Entrepreneurs Committee) (2011-2016) at the State of Paraná Trade Association; Chief Prosecutor of the Commercial Registry of the State of Paraná (2011-2015); Member of the Board of Directors of the Instituto Paranaense de Direito Eleitoral - Iprade (Electoral Law Institute of Paraná) (2010); Member of the Electoral Law Committee of the Brazilian Bar Association - State of Paraná - OAB/PR (2010); Founding partner at Vieira Barbosa & Carneiro law office (2009); and Legal adviser and referee to legal and individual entities directly and indirectly connected to the Public Administration.

Vicente Loiacono Neto. Mr. Loiacono was born on June 4, 1983. He holds a Master's Degree in Business Law and Citizenship from Centro Universitário Curitiba - Unicuritiba (2021); a post-graduate degree in Civil Procedure Law - Great Transformations from Universidade do Sul de Santa Catarina (2010), and a Bachelor's degree in Law from Centro Universitário Curitiba – Unicuritiba (2007). Mr. Loiacono is currently Copel's Chief Governance, Risk and Compliance Officer. Mr. Loiacono has been a lawyer at the company since 2011, where he also served as Advisor to the Chief Executive Office (2017-2018) and to the Chief Legal Office (2013); and as Member of the Ethical Guidance Council (2014). He also was Coordinator of the Risk and Compliance Committee of Instituto Brasileiro de Executivos de Finanças no Paraná - IBEF-PR (2020-2021); member of the Commission on Corporate Compliance and Anti-corruption of the Brazilian Bar Association - OAB-PR (2019-2021); member of the Commission of Employee Lawyers of the Brazilian Bar Association - OAB-PR (2019-2021); member of the Supervisory Board of Fundação Copel de Previdência e Assistência Social (2015); and deputy coordinator of the Conselho de Jovens Empresários - CJE (Young Entrepreneurs Council) at the State of Paraná Trade Association (2014-2016).

David Campos. Mr. Campos was born on November 05, 1969. Mr. Campos received a Bachelor's degree in Social Communication - Journalism from Universidade Estadual de Ponta Grossa - UEPG (1990). He is currently Chief Assistant Communications Officer at Companhia Paranaense de Energia - Copel. Previously he acted as Chief Communication Official at Itaipu Binacional (2017); Municipal Secretary of Social Communication at Curitiba Municipality (2011-2012); Head of the Mayor's Office in Curitiba (2010); Chief Journalist at the State of Paraná Legislative Assembly (2001-2009); Secretary of Social Communication for the State of Paraná (1999-2000); and Municipal Secretary of Social Communication at Curitiba Municipality (1997-1998).

SUPERVISORY BOARD

We have a permanent Supervisory Board (*Conselho Fiscal*), which meets monthly. The Supervisory Board consists of five (5) members and five (5) alternates elected for two-year terms by the shareholders at the annual meeting, and may be re-elected up to two (2) consecutive times. The Supervisory Board, which is independent of our management and of our external auditors, has the responsibilities provided in Federal Law No. 6,404/1976 and Federal Law No. 13,303/2016, which include, among others:

- reviewing our financial statements and reporting on them to our shareholders;
- issuing reports on proposed changes in capitalization, corporate budgets and proposed dividend distributions and any corporate reorganization to be submitted to the shareholders; and
- in general, supervising the activities of management and reporting on them to our shareholders.

The following table lists the current and alternate members of the Supervisory Board, who were appointed at the 66th annual shareholders' meeting, held on April 29, 2021. The term of all members of the Supervisory Board indicated below will expire in April 2023.

Name	Since
Demetrius Nichele Macei.....	2019
Harry Françóia Júnior	2019
José Paulo da Silva Filho	2019
Eduardo Badyr Donni	2021
Raphael Manhães Martins	2021
Alternates	
Roberto Zaninelli Covelo Tizon ⁽¹⁾	2022
Otamir Cesar Martins.....	2018
Verônica Peixoto Coelho	2021
Estevão de Almeida Accioly.....	2019
Cristiane do Amaral Mendonça	2021

⁽¹⁾ Roberto was appointed at the 67th annual shareholders' meeting, held on April 29, 2022, in order to replace João Luiz Giona Junior, who resigned on December 21, 2021.

AUDIT COMMITTEE

Under our bylaws, our Audit Committee must be composed of three to five members, and currently has three members, each of whom serves a term of two years, and may be re-elected up to three consecutive times.

Pursuant to the rules of procedure of the Audit Committee, each member must be appointed by, and may be replaced by, a resolution of our Board of Directors. The current members of our Audit Committee are Mr. Marco Antônio Barbosa Cândido (chairman), Mr. Luiz Claudio Maia Vieira and Mr. Carlos Biedermann (audit committee financial expert).

The Audit Committee is responsible for supervising the processes related to the preparation of our financial statements, ensuring that we are in compliance with all legal requirements related to our reporting obligations, monitoring the work of the independent auditors and our staff who are responsible for our internal auditing and reviewing the effectiveness of our internal control and risk management procedures and staff. The Audit Committee meets monthly and have quarterly meetings with the Supervisory Board, the Board of Directors, our and internal and independent auditors.

APPOINTMENT AND EVALUATION COMMITTEE (“CIA”)

The CIA is a permanent statutory body of Copel which provides support to our Board of Directors. The CIA’s purpose is to verify the compliance of the process of appointment and evaluation of our statutory body members (i.e. Board of Directors, Supervisory Board, Board of Executive Officers and relevant statutory committees), in each case in accordance with (i) the Appointment Policy; (ii) the Internal Rules of Appointment of Statutory Bodies Members; (iii) other internal rules; and (iv) applicable law. The CIA works closely with Copel (Holding) and its wholly-owned subsidiaries and its scope may be extended to controlled companies, affiliates and other companies in which we hold equity interests.

Member	Position	Date of Appointment
Marcos Leandro Pereira	Chairman	04.29.2021
Robson Augusto Pascoalini.....	Member	04.29.2021
Durval Jose Soledade Santos.....	Member	10.01.2021

INVESTMENT AND INNOVATION COMMITTEE (“CII”)

In 2021, we created the Investments and Innovation Committee (“The CII”), an advisory body to the Board of Directors, and approved the Investment Policy to improve capital allocation, an essential tool for the execution of our Strategic Guidelines of sustainable growth, value generation for shareholders and the longevity of our energy business. The policy establishes criteria for the selection, prioritization, evaluation, approval and monitoring of investments. As such, the development of projects takes this Policy and our Strategic Guidelines into account. Our Investment Policy is available in our website ri.copel.com/en/.

The CII is a permanent statutory body of Copel which provides support to our Board of Directors. The CII’s purpose is to analyze and issue recommendations regarding our investment plans, in order to facilitate robust oversight of our investments by the Board of Directors. The CII works closely with us and its scope may be extended to controlled companies, affiliates and other companies in which we hold equity interests.

Member	Position	Date of Appointment
Marco Antônio Barbosa Cândido	Chairman	05.06.2021
Daniel Pimentel Slaviero.....	Member	05.06.2021
Marco Antonio Bologna.....	Member	05.06.2021

SUSTAINABLE DEVELOPMENT COMMITTEE (“CDS”)

The Sustainable Development Committee (“CDS”) is an independent and permanent body that advises the Board of Directors in relation to us. CDS may interact with companies directly or indirectly controlled by us when determined by the Board of Directors. CDS role, operation and composition are determined by internal policies approved by the Board of Directors. Among its activities, we highlight the assistance to the set of guidelines, policies and principles for the management of personnel and our sustainable development, focusing on social, environmental and governance (ESG) matters, based on best market practices.

Member	Position	Date of Appointment
Andriei José Beber	Chairman	05.06.2021
Daniel Pimentel Slaviero	Member	05.06.2021
Fausto Augusto de Souza	Member	05.06.2021
Marcos Leandro Pereira	Member	05.06.2021

MINORITY SHAREHOLDERS COMMITTEE (“CDM”)

The Minority Shareholders’ Committee (“CDM”) is an independent and permanent body that advises the Board of Directors. CDM role, operation and composition are detailed in internal policies approved by the Board of Directors.

Member	Position	Date of Appointment
Leila Abraham Loria	Chairman	06.16.2021
Andriei José Beber	Member	06.16.2021
Marco Antonio Bologna	Member	06.16.2021

COMPENSATION OF DIRECTORS, OFFICERS, SUPERVISORY BOARD MEMBERS AND AUDIT COMMITTEE MEMBERS

Under Brazilian Corporate law, the total compensation of the Board of Directors, Board of Executive Officers and Supervisory Board is established annually by our general shareholders meeting. Under paragraph 3 of section 162 of the Brazilian Corporate Law, the compensation of the members of our Supervisory Board must be equal to, or greater than, 10% of the average compensation paid to the members of our Board of Executive Officers (excluding benefits, representation funds and profit-sharing plans, if applicable). The members of our Supervisory Board received in 2022 15% of the monthly compensation of the Chief Executive Officer. Finally, the members of our Audit Committee (who are also members of our Board of Directors) received the monthly compensation paid to the members of the Supervisory Board plus R\$5,000.00.

For the year ended December 31, 2022, the aggregate amount of compensation paid by us to the members of our Board of Directors, Board of Executive Officers and Supervisory Board was R\$8.6 million, of which 68.1% was for our Board of Executive Officers, 14.5% was for our Board of Directors, 9.5% to our committees, and 7.9% was for our Supervisory Board, as approved by our 67th annual shareholders' meeting held on April 29, 2022.

The following table shows additional details about the compensation paid to the members of our Board of Directors, Board of Executive Officers and Supervisory Board for the periods indicated.

Area	Compensation (R\$'000) in the years ended December 31,								
	Board of Directors			Executive Officers			Supervisory Board		
	2022	2021	2020	2022	2021	2020	2022	2021	2020
Number of members ⁽¹⁾	9.00	9.17	9.00	7.00	7.00	7.00	5.00	5.17	5.00
Total Salary.....	1,151.0	756.8	641,1	5,073.3	4,993.5	4,995.0	659,4	659.4	659,4
Largest Salary	227.8	227.8	227.8	879.2	879.2	879,2	131.9	131.9	131,9
Smallest Salary	131.9	43.2	131,9	381,9	388.4	389,9	11.0	43.2	131,9
Average Salary.....	185.4	157.4	181,4	708.8	713.4	713,6	127.9	106.7	131,9
Compensation for attending committees ⁽²⁾	814.5	1,099.7	1183,6	-	-	-	-	-	-
Others ⁽³⁾	92.4	456.5	451,9	755.74	4,834.6	2,106.0	12.6	144.3	145,8
Total⁽⁴⁾	2,058.0	2,313.0	2,276.6	5,829.8	9,828.1	9,360.0	672.0	803.74	805,2

⁽¹⁾ This figure corresponds to the average number of members per year.

⁽²⁾ Refers to Statutory Committees.

⁽³⁾ Refers to Private Pension Contribution, Assistance Plan, Bonuses (only Directors) and Food Allowance (only Directors) and labor charges (years 2020 and 2021). In compliance with the CIRCULAR LETTER/ANUAL-2022- CVM/SEP, the 2022 position does not present the amounts related to labor charges.

⁽⁴⁾ Comprises Total Salary, Compensation for attending committees and Others.

We have no service contracts with our directors providing for benefits upon termination of employment. We do not have a stock option plan for our directors, officers or employees.

EMPLOYEES

On December 31, 2022, we had 5,875 employees, compared to 6,383 employees on December 31, 2021 and 6,667 employees on December 31, 2020. Including employees at Compagas, Elejor and UEG Araucária Ltda. (companies in which we have a majority stake) we had 6,029 employees as of December 31, 2022.

The following table sets forth the number of our employees and a breakdown of employees by area of activity as of the dates indicated in each area of our operations.

Area	As of December 31,		
	2022	2021	2020
Generation and transmission.....	1,487	1,523	1,533
Distribution	4,257	4,430	4,641
Telecommunications.....	0	0	355
Services	0	217	
Corporation staff and research and development	84	169	96
Other employees.....	47	44	42
Total employees of Copel and wholly-owned subsidiaries.....	5,875	6,383	6,667
Compagas.....	132	133	142
Elejor.....	7	7	7
Araucária.....	15	15	17
Total	6,029	6,538	6,833

All of our employees are covered by collective bargaining agreements that we renegotiate annually with unions representing the various professional categories. In 2022, we negotiated and signed labor agreements with the unions that represent our employees, effective as of October, for a period of two years. We agreed to salary increases of 7.19% in 2022 compared to 2021 salaries, with a forecast of readjustment by the accumulated INPC between October 2022 and September 2023 on the base date of October 10, 2023.

We provide a number of benefits to our employees. The most significant is our sponsorship of *Fundação Copel de Previdência e Assistência Social* (“Fundação Copel”), which supplements the Brazilian government retirement and health benefits available to our employees. As of December 31, 2022, approximately 99% of our employees had elected to participate in a defined contribution plan.

In accordance with federal law and our compensation policy, our employees participate in a profit-sharing plan. The Board of Directors and the shareholders must approve the amount of such compensation, which is determined in accordance with an agreement between an employee committee and us. An employee’s receipt of compensation is conditioned on us meeting certain benchmarks described in the above-mentioned agreement, as confirmed in our published year-end financial statements. The amount of profit-sharing distributions reserved and approved for the 2022 fiscal year was R\$46.1 million. The amount of profit-sharing distributions accrued and approved for the 2021 fiscal year was R\$290.2 million.

On February 12, 2020 the Board of Directors approved the implementation, within Copel and its wholly-owned subsidiaries, of a short-term incentive program called Performance Incentive Program, or *Prêmio Por Desempenho* (“PPD”) directed at aligning efforts throughout different organizational levels to our strategic objectives. The final cycle of the program began on January 1, 2021 and ended on December 31, 2021. Payment occurred in April 2022. The results obtained at the end of this final cycle show that 39% of our areas met or exceeded the our set goals and the Goal Achievement Index average (*Índice de Cumprimento de Metas* or “ICM”) was 92.63%.

SHARE OWNERSHIP

As of March 31, 2023, board members and executive officers held, collectively, directly or indirectly, less than 1.0% of any class of our shares.

The following table indicates the board members, executive officers and members of the Supervisory Board who held shares as of March 31, 2023 and their respective share ownership as of such date, considering shares traded on the B3. No other board member, executive officer, members or alternate members of the Supervisory Board held shares issued by us on March 31, 2023.

	Number of shares ⁽¹⁾			
	Common	Class A	Class B	Units
Board of Directors				
Marcel Martins Malczewski				
Daniel Pimentel Slaviero	-	-	-	-
Marco Antônio Barbosa Cândido	-	-	-	-
Carlos Biedermann	-	-	-	-
Gustavo Bonini Guedes	-	-	-	-
Marco Antonio Bologna	-	-	-	-
Leila Abraham Loria	-	-	-	-
Andriei José Beber	-	-	-	-
Fausto Augusto de Souza				
Executive Officers				
Daniel Pimentel Slaviero	-	-	-	-
Ana Letícia Feller	-	-	-	-
Adriano Rudek de Moura	-	-	33,300	17.100
Cassio Santana da Silva	-	-	-	-
Eduardo Vieira de Souza Barbosa	-	-	-	-
Vicente Loiacono Neto	-	-	-	-
David Campos	-	-	-	-
Supervisory Board – Members				
Demetrius Nichele Macei	-	-		-
Harry Françaia Júnior	-	-	-	-
José Paulo da Silva Filho	-	-	-	-
Eduardo Badyr Donni	-	-	-	-
Raphael Manhães Martins	-	-	13,300	-
Supervisory Board – Alternates				
Otamir Cesar Marins				
Estevão de Almeida Accioly	-	-	-	-
Veronica Peixoto Coelho	-	-	-	-
Cristiane do Amaral Mendonça	-	-	-	-

⁽¹⁾ Considers the share split and the shares held directly or indirectly.

We have no share-based incentive plan for employees.

Item 7. Major Shareholders and Related Party Transactions.

MAJOR SHAREHOLDERS

Since 1954, the State of Paraná has owned the majority of our Common Shares and has exercised control over us. On December 31, 2022, the State of Paraná directly owned 69.66% of the Common Shares. The State of Paraná does not have any different voting rights, but as long as it holds a majority of our Common Shares, it will have the right to elect a majority of our directors.

On December 31, 2022, BNDESPAR owned directly 12.44% of our Common Shares.

The following table, sets forth certain information regarding the ownership of our Common Shares on December 31, 2022, including the unfolded ratio of Units:

Shareholder	Common shares ⁽¹⁾	
	(thousands)	(% of total)
State of Paraná	734,298	69.7
BNDESPAR	131,162	12.4
Public Float - Traded as part of ADS	32,643	3.1
Public Float - Traded on the B3	137,147	13.0
All directors and officers as a group with trading on B3 ⁽²⁾	17	-
Public Float – Traded on Latibex	222	-
Other ⁽³⁾	18,601	1.76
Total	1,054,090	100.0

⁽¹⁾ Includes shares held through Units or ADS.

⁽²⁾ As of December 31, 2022, our directors and officers owned an aggregate of 17,100 Common Shares, all in Units. None of our directors and officers holds more than 1% of our Common Shares.

⁽³⁾ Shares held directly in the records of our registrar.

The following table, sets forth certain information regarding the ownership of our Class B Shares on December 31, 2022:

Shareholder	Class B Shares ⁽¹⁾	
	(thousand)	(% of total)
State of Paraná	115,945	6.9
BNDESPAR	524,646	31.2
Traded as ADSs	130,572	7.8
Traded on the B3	905,335	53.9
All directors and officers as a group with trading on B3 ⁽²⁾	114	-
Traded on Latibex	1,796	0.1
Other ⁽³⁾	927	0.2
Total	1,679,335	100.0

⁽¹⁾ Considers shares held through Units or ADS.

⁽²⁾ On December 31, 2022, our directors and officers held an aggregate of 114,500 Class B Shares, including those grouped together in the form of Units.

⁽³⁾ Shares held directly in the records of our registrar.

As of March 31, 2023, 22.2% of Common Shares, 5.2% of Class B Shares and 14.3% Units were held by United States residents registered at B3 and Unit ADSs listed on the NYSE represented 14.78% of all outstanding Units.

Our total share capital remained unchanged over the past fiscal year. Upon our migration to Level 2 of Governance Standards of B3, in December 2021, the holder of Preferred Shares was granted restricted voting rights in relation to certain matters. As of today, each Unit gives its holder equal rights to the underlying 1 Common Shares and 4 Class B Shares, as follows: (i) each Common Shares has one voting right in any shareholder meeting (1 Unit = 1 vote); and (ii) each Class B Share has restricted voting rights in regard to certain fundamental matters when discussed in a shareholders' meeting, as further detailed in "Item 10. Additional Information. Memorandum and Articles of Association. Voting Rights."

Unitization

On April 23, 2021, the Board of Directors approved, the conversion of shares and the formation of share deposit certificates ("Units") under the 1st Share Conversion and Share Deposit Certificate Formation Program ("1st Units Program" or "Program"). During the request period, the non-controlling shareholders requested (i) the conversion of 362,580,947 common shares into class "B" preferred shares, the conversion of 139,520 class "A" preferred shares into class "B" preferred shares, the total conversion of 82,330,391 class "B" preferred shares into common shares; and (ii) the creation of 248,134,108 Units. In addition, the State of Paraná, as the controlling shareholder, after the request period, required (i) the conversion of 115,969,784 common shares into Class B preferred shares; and (ii) the creation of 28,992,446 Units, in the book-entry environment. After the conversion, the State of Paraná maintains its participation of 31.1% in our total capital, out of which 5.3% are Units. The Board of Directors approved (i) the ratification of the capital stock, fully subscribed and paid up, in the amount of R\$10,800,000,000.00, which, after the conversion of shares, represented by 2,736,553,750 shares, without par value, being 1,054,090,460 common shares, 3,128,000 class "A" preferred shares, and 1,679,335,290 class "B" preferred shares; and (ii) the total formation of 277,126,554 Units.

Each Unit comprises four Class B shares plus one Common share. In the United States, each Unit is represented by an ADS issued by the Depositary pursuant to a Deposit Agreement by and among us, the Depositary and the registered holders and beneficial owners from time to time of the ADSs. The ADSs trade on the NYSE under the symbol "ELP." In addition to NYSE and B3, in 2021, Latibex also started trading the Units, under the symbol "XCOPU."

The following table, sets forth certain information regarding the ownership of our Units on December 31, 2022:

Shareholder	UNITS (thousands)
State of Paraná	28,986
BNDSPAR.....	131,162
Traded – as ADSs	32,643
Traded on B3	27,768
All directors and officers as a group ⁽²⁾	17
Traded on Latibex	222
Other	73
Total	220,871

⁽¹⁾ On December 31, 2022, our directors and officers held an aggregate of 17,100 Units.

Since the Conversion Offers were consummated on April 23, 2021 only Units ADS are being traded on the NYSE, while all Class B ADSs are no longer traded.

Share Split

On March 11, 2021, acting at an Extraordinary Shareholders' Meeting, our shareholders approved the splitting of our shares, pursuant the Brazilian Corporate Law, in the proportion of one share to ten shares, so that for each one share issued by us, nine new shares of the same class and type would be credited (the "Share Split"). The shares were traded ex-Share Split as of March 12, 2021 (inclusive), and the shares resulting from the Share Split were credited to the shareholders on March 16, 2021. Considering that the Share Split was carried out in such a way that each share we issued

was split into ten shares of the same type and class, there was no surplus resulting from fractions of shares.

The Share Split did not affect our capital stock, which remained at R\$10,800,000,000.00 as of March 12, 2021, or impacted any rights of holders of our shares. After the Share Split, our capital stock was represented by 2,736,553,750 shares with no par value, of which 1,450,310,800 Common Shares and 1,286,242,950 Preferred Shares and, of these, 3,267,520 Class A Shares and 1,282,975,430 are Class B Shares. Our management took the necessary measures to implement the Share Split of the ADRs.

RELATED PARTY TRANSACTIONS

We engage in transactions, including the sale of electric energy and charges for use of the transmission system, with our principal shareholders and with our joint ventures and affiliates. The tariffs we charge on electric energy sold to our related parties are approved by ANEEL, and the amounts are not material. We also provide guarantees in the context of financing transactions and power purchase agreements entered into by our subsidiaries in the ordinary course of business. For more information, see Note 35 to our audited consolidated financial statements.

Transactions with Shareholders

The following summarizes the most significant transactions with our principal shareholders:

BNDES and BNDESPAR

BNDESPAR, a wholly-owned subsidiary of BNDES, owns 12.4% of our Common Shares. BNDES has granted us loans to finance the construction of generation and transmission facilities and both BNDES and BNDESPAR have purchased debentures issued by Cutia, Nova Asa Branca I, Nova Asa Branca II, Nova Asa Branca III, Nova Eurus IV and Ventos de Santo Uriel Wind Farms, which are our subsidiaries.

As of December 31, 2022, we had an aggregate of R\$2,314.4 million in outstanding net debt with BNDES and BNDESPAR under these financing transactions. For additional information, please see Notes 20, 21 and 35 to our audited consolidated financial statements, as well as Item 5. Operating and Financial Review and Prospects—Liquidity and Capital Resources.

State of Paraná

As of December 31, 2022, we had R\$18.4 million in receivables from the State of Paraná. The amount refers mainly to the *Energia Solidária* and *Tarifa Rural Noturna* programs.

The *Energia Solidária* program, established by State Law No. 20,943/2021, defines certain benefits relating to electricity consumption by residential consumer units of low-income families residing in the State of Paraná. The *Tarifa Rural Noturna* Program, regulated by Decree No. 1,288/2019, provides for the payment to Copel Distribuição, by the State Government, of the amount corresponding to 60% of the active electricity tariff and of the charges resulting from services, including the additional tariff flag, provided in the night period to beneficiary consumers.

Transactions with Joint Ventures and Affiliates

We have operation and maintenance services agreements, transmission system connection agreements and contracts for the use of transmission system with our Joint Ventures and, also, operation and maintenance services agreements, connection to the transmission system contracts and power purchase and sale agreements signed with our Affiliates, as described on Note 35 to our audited consolidated financial statements. We also have dividend amounts receivable from these investees, as presented in the same note.

Renewal of Compagas' concession contract

On December 27, 2022, Compagas entered into an amendment of its concession agreement for public services of canalized gas supply, with distribution exclusivity, in the State of Paraná and other related activities. The renewal of the concession occurred upon payment of an award bonus, in favor of the State of Paraná, in the amount of R\$ 508 million, in consideration for the extension of the concession for an additional 30-year period. The total estimated capex of the project is R\$ 2.5 billion to be realized over 30 years.

Transactions with Other related parties

Fundação Copel

Fundação Copel is a closed pension fund sponsored by us, Compagas and other entities that runs and operates benefit plans, welfare and social assistance. In 2022, we made payments to Fundação Copel consisting of rental and for

expenditure on pension and welfare plans. For more information, see Notes 22 and 35 to our audited consolidated financial statements.

Transactions with Key management staff

The fees and social security charges and the pension and healthcare plans expenses with the Management are presents at Notes 31.2 and 22.3 to our audited consolidated financial statements. There are no additional obligations beyond the short-term benefits disclosed in these notes.

Item 8. Financial Information

See section Financials Information.

A. Consolidated Financial Information

See “Item 5. Operating and Financial Review and Prospects—Overview” and “Item 18. Financial Statements.”

LEGAL PROCEEDINGS

We are currently subject to numerous proceedings relating to civil, administrative, labor and tax claims. Our audited consolidated financial statements only include provisions when we have a present obligation (legal or constructive) resulting from a past event; it is probable (i.e., more likely than not) that an outflow of resources embodying economic benefits will be required to settle the obligation; and a reliable estimate can be made of the amount necessary to settle the obligation. As of December 31, 2022, our provisions for such risks were R\$2,037.6 million (does not include the provision of R\$1,851.3 million referred to below in the item "Tax and Social Contribution Claims"). However, it is possible that some amounts actually paid are different from the estimates made in recognizing these provisions because of determinations of final judgments and/or liquidations of the award.

As of December 31, 2022, we estimate that the total amount of claims against us, excluding disputes involving non-monetary claims or claims whose potential losses cannot be reasonably estimated due to the current early stages of proceedings, for which no provisions have been made, was R\$3,708.8 million, of which R\$372.1 million correspond to labor claims; R\$12.7 million to employee benefits; R\$1,496.6 million to regulatory claims; R\$1,337.6 million to civil claims; and R\$489.8 million to tax claims. For more information, see Note 28 to our audited consolidated financial statements.

Tax and Social Contribution Claims

During the second half of 2010, two lawsuits were decided before the Federal Regional Court (*Tribunal Regional Federal*) in favor of the Brazilian government, reversing the prior judgment that recognized our immunity regarding the payment of COFINS tax. As a result, the Federal Internal Revenue Service (*Receita Federal*) issued an infraction notice demanding the payment of COFINS tax from the period between August 1995 and December 1996. As of December 31, 2022, we had provisioned R\$123.6 million to cover expected losses related to these lawsuits.

In June 2022, the Federal Government enacted Federal Law 14,385/2022, which impacted our subsidiary Copel DIS, with a negative effect in our net income in 2022 in the amount of R\$1,202.5 million and no immediate cash effect. This law defines the destination of mandatory tax amounts that were collected in excess by the providers of the public electric energy distribution service in the country, due to the collection of PIS/COFINS on ICMS, recognized by the courts as undue. Based on a final and unappealable decision in a lawsuit filed in 2009, Copel DIS was granted the right to exclude the full amount of ICMS from the PIS/COFINS tax base. The immediate effect was an average reduction of 3.8% in energy bills, as of July 2020. Since then, Copel DIS has already passed on to consumers, through reductions in tariff adjustments approved by ANEEL, R\$2,295.1 million. The provision of R\$1,851.3million refers for the period comprising the 11th and the 16th year from the date of the final and unappealable decision of the lawsuit, based on the risk assessment carried out by our management and supported by the opinions of legal advisors. Copel DIS is evaluating the appropriate measures to be taken, including legal measures, considering the protection given to unappealable decisions and applicable limitation periods.

Additionally, we are party to administrative and judicial proceedings pursuant to which we are challenging claims of the Brazilian Social Security authorities to pay additional security contributions. In these proceedings, we estimate the amount of our expected loss to be R\$30.9 million.

Labor-related Claims

We are the defendant in several lawsuits filed by either current or past employees of ours, related to overtime claims, dangerous work conditions, relocation, and other matters. As of December 31, 2022, we have provisions totaling R\$536.4 million reflecting the expected losses related to these lawsuits.

Regulatory

We are disputing certain regulatory and legal proceedings in connection with ANEEL's allegations that we violated regulatory standards. As of December 31, 2022, we have provisions totaling R\$8.5 million reflecting the expected losses related to these proceedings.

Additional Claims

We are party to several lawsuits brought by landowners whose land has been affected by our transmission and distributions lines. As of December 31, 2022, we have provisions totaling R\$293.8 million reflecting the expected losses related to these lawsuits.

We are party to several lawsuits related, mainly to accidents involving equipment used in our electricity transmission and distribution grids and actions involving billing, supposed irregular procedures, administrative contracts, and vehicle accidents. As of December 31, 2022, we have provisions totaling R\$338.0 million reflecting the expected losses related to these lawsuits.

We are also party to an arbitration protected by secrecy and confidentiality, in the early stage of award settlement. As of December 31, 2022, we have R\$629.1 million registered reflecting the expected losses related to this litigation. Regarding to this arbitration, we also have R\$ 338.8 million for which no provisions have been made, that refers to the estimate of possible loss of a total, monetarily restated, of R\$ 2.966,8 of the plaintiffs claim.

DIVIDEND PAYMENT

In accordance with our bylaws and Brazilian Corporate Law, we must, except if decided otherwise, pay annual dividends for each fiscal year within sixty days of the declaration of the dividends at the annual shareholders' meeting or by the Board of Directors. To the extent amounts are available for distribution, we are required to distribute as a mandatory dividend an aggregate amount equal to at least 25.0% of our adjusted net profit. Dividends are allocated pursuant to the formula described in "Dividend Priority of Class A Shares and Class B Shares" below. Under Brazilian Corporate Law, we are not permitted to suspend the mandatory dividend payable with respect to the Common Shares, Class A Shares and Class B Shares for any year, except for retaining part of the mandatory dividend in a special reserve for unrealized profits when the realized part of the net profit is smaller than the mandatory dividend. Brazilian Corporate Law permits, however, a company to suspend the payment of all dividends if our management, with the approval of the Supervisory Board, reports at the shareholders' meeting that the distribution would be detrimental to the Company given its financial circumstances. In such a case, companies with publicly traded securities must submit a report to the CVM providing the reasons for the suspension of dividend payments. Notwithstanding the above, Brazilian Corporate Law and our bylaws provide that Class A Shares and Class B Shares shall acquire voting rights if we suspend the mandatory dividend payments for more than three consecutive fiscal years, and such voting rights will continue until all dividend payments, including back payments, have been made. We are not subject to any contractual limitations on our ability to pay dividends.

In accordance with our dividends policy, we may distribute yearly regular dividends higher than the mandatory minimum of 25% following certain guidelines related to our Financial Leverage Ratio, defined as the ratio between Ebitda and net debt:

- If our Financial Leverage Ratio is below 1.5x, we shall distribute 65% of our adjusted net profits.
- If our Financial Leverage Ratio is in between 1.5x and 2.7x, we shall distribute 50% of our adjusted net profits.
- If our Financial Leverage Ratio is higher than 2.7x, we shall distribute the mandatory minimum of 25% of our adjusted net profits.

Any distribution of dividends higher than the minimum amount of 25% of our adjusted net profits is constrained to the Available Cash Flow of the same year, defined as the operating cash flow minus net cash flow used for investment.

Calculation of Adjusted Net Profit

Annual dividends are payable from our adjusted net profit for such period. Brazilian Corporate Law defines "net profit" for any fiscal year as the profits of a fiscal year after the deduction of income and social contribution taxes for that fiscal year and after the deduction of any amounts allocated to employees' and management's participation in our results in such fiscal year. The "net profit" for a relevant fiscal year is subject to adjustment by the addition or subtraction of amounts allocated to legal and other reserves, the result of which is known as our adjusted net profit.

In accordance with Brazilian Corporate Law, we must maintain a legal reserve, to which we must allocate 5% of our net profits for each fiscal year until such reserve reaches an amount equal to 20.0% of our capital stock (calculated in accordance with Brazilian Corporate Law). However, we are not required to make any allocations to our legal reserve in a fiscal year in which the legal reserve, when added to our other established capital reserves, exceeds 30.0% of our total capital stock. The amounts to be allocated to such reserve must be approved by our shareholders in a shareholders' meeting and may be used only for the increase of our capital stock or compensation of losses.

On December 31, 2022, our legal reserve was R\$1,512.7 million, or 14.0% of our capital stock at that date.

In addition to deducting amounts for the legal reserve, under Brazilian Corporate Law net profit may also be adjusted by deducting amounts allocated to:

- the contingency reserve: under Brazilian Corporate Law, our shareholders' meeting, upon a justified proposal of our management, may decide to allocate a percentage of our net profits to a contingency reserve for anticipated losses that are deemed probable in future years, which amount may be estimated;

- the tax incentives reserve: under Brazilian Corporate Law, our shareholders' meeting, upon a justified proposal of our management, may decide to allocate a percentage of our net profits resulting from government donations or subsidies for investment purposes.

On the other hand, net profits may also be increased by:

- the reversal of any amounts previously allocated to a contingency reserve in the fiscal year in which the loss that had been anticipated does not occur as projected or in which the anticipated loss occurs but is lower than the contingency allocated to it; and
- any amounts included in the unrealized profits reserve that have been realized in the relevant fiscal year and have not been used to offset losses, as approved by our shareholders' meeting.

Moreover, our net profits are also adjusted by adding the realization of amounts registered under "Equity Value Adjustments." The account "Equity Value Adjustments" was created as a result of the first-time adoption of IFRS by us in 2010, which caused a fair value revaluation of certain fixed assets and the adoption of the fair value as its "deemed cost" at that date. The increase of the deemed cost of fixed assets led to an increase in depreciation costs. Thus, our management has decided to add to the adjusted net profits the realization of the "Equity Value Adjustments" in order to compensate for effects of the increased depreciation costs. In 2022, our adjusted net profits used to calculate our dividends was increased by R\$36.5 million as a result of said realization.

The amounts available for distribution are determined on the basis of the Statutory Financial Statements prepared using the method required by Brazilian Corporate Law, which differ from our audited consolidated financial statements included herein.

Dividend Priority of Class A Shares and Class B Shares

According to our bylaws, Class A Shares and Class B Shares are entitled to receive annual, non-cumulative minimum dividends, which dividend per share shall be at least 10% higher than the dividends per share paid to the holders of the Common Shares. Class A Shares have a dividend priority over the Class B Shares, and Class B Shares have a dividend priority over the Common Shares. To the extent that dividends are paid, they are to be paid in the following order:

- first, the holders of Class A Shares have the right to receive a minimum dividend equal to 10% of the total share capital represented by the Class A Shares outstanding at the end of the fiscal year in respect of which the dividends have been declared;
- second, to the extent there are additional amounts to be distributed after all amounts allocated to the Class A Shares have been paid in accordance with the first bullet point above, the holders of Class B Shares have the right to receive a minimum dividend per share equal to (i) 25% of the adjusted net profit (ii) the total number of Class B Shares outstanding at the end of the fiscal year in respect of which the dividends have been declared; and
- third, to the extent that there are additional amounts to be distributed after all amounts allocated to the Class A Shares and the Class B Shares have been paid, the holders of Common Shares have the right to receive an amount per share equal to (i) the mandatory dividend divided by (ii) the total number of Common Shares outstanding at the end of the fiscal year in respect of which dividends have been declared, provided that the Class A Shares and Class B Shares receive dividends per share at least 10% higher than the dividends per share paid to the Common Shares.

To the extent that there are additional amounts to be distributed after all amounts described in the preceding items have been paid and in the form therein described, any such additional amount will be divided equally among all our shareholders. Holders of Units are paid dividends equal to those of their underlying shares.

Payment of Dividends

We are required to hold an annual shareholders' meeting by April 30th of each year at which, among other things, an annual dividend may be declared by decision of the shareholders on the recommendation of the management, as approved by the Board of Directors. The payment of annual dividends is based on the financial statements prepared for the fiscal year ending December 31. Under Brazilian Corporate Law, we must pay dividends to shareholders of record within 60 days of the date of the shareholders meeting that declared the dividends. A shareholders' resolution may set forth another date of payment, which must occur prior to the end of the fiscal year in which such dividend was declared. We are not required to adjust the amount of paid-in capital for inflation for the period from the end of the last fiscal year to the date of declaration or to adjust the amount of the dividend for inflation for the period from the end of the relevant fiscal year to the payment date. Consequently, the amount of dividends paid to holders of Units may be substantially reduced due to inflation.

Pursuant to our bylaws, our management may declare interim dividends to be paid from profits in our semi-annual financial statements, in accordance with our dividend policy. Any payment of interim dividends counts towards the mandatory dividend for the year in which the interim dividends were paid. In accordance with our dividends policy, Board of Directors should approve at least once a year interim dividends.

Pursuant to Brazilian Corporate Law, we may pay interest on equity in lieu of dividends as an alternative form of making distributions to shareholders. We may treat a payment of interest on equity as a deductible expense for tax purposes, provided that it does not exceed the lesser of:

- the total amount resulting from (i) Long-Term Interest Rate (*Taxa de Juros a Longo Prazo*, or "TJLP") multiplied by (ii) the total shareholders' equity (determined in accordance with Brazilian tax legislation), less certain deductions prescribed by Brazilian tax legislation; and
- the greater of (i) 50.0% of current net income (after the deduction of social contribution on profits (CSLL – *Contribuição Social sobre o Lucro Líquido*) and before taking such distributions and any deductions for corporate income tax) for the year in respect of which the payment is made or (ii) 50.0% of retained earnings and profit reserves for the year prior to the year in respect of which the payment is made.

In order to be eligible to receive amounts remitted in foreign currency outside of Brazil, shareholders who are not residents of Brazil and directly owns our shares must register with the Brazilian Central Bank in order to receive dividends, sales proceeds or other amounts with respect to their shares. The Units underlying the ADSs are held in Brazil by the Custodian, as agent for the Depository, which is the registered owner of our shares.

Payments of cash dividends and distributions, if any, will be made in Brazilian currency to the Custodian on behalf of the Depository, which will then convert such proceeds into U.S. dollars and will cause such U.S. dollars to be delivered to the Depository for distribution to holders of ADSs. In the event that the Custodian is unable to immediately convert the Brazilian currency received as dividends into U.S. dollars, the amount of U.S. dollars payable to holders of ADSs may be adversely affected by devaluations of the Brazilian currency that occur before such dividends are converted and remitted. In the event the holder of an ADS fails to collect its dividends from the Custodian within three (3) years, counted as of the date when such dividend was made available, Brazilian Corporate Law states that such dividends may be returned to us. In this case, the ADS holder shall lose its right to receive the dividends.

The table below, sets forth the cash distributions we paid/will pay as dividends and as interest on equity for the periods indicated.

Year	Payment date	Distribution (R\$thousands)	Payment per share (R\$)			
			Common	Preferred A	Preferred B	UNIT
2014	Jun 2015	622,523	0.21723600	0.25250700	0.23900000	-
2015	Jun 2016	326,795	0.11371600	0.25250700	0.12547300	-
2016	Jun 2017	282,947	0.09853900	0.28905000	0.10841000	-
2016	Dec 2017	223,266	0.07792700	-	0.08593200	-

Year	Payment date	Distribution (R\$thousands)	Payment per share (R\$)			
			Common	Preferred A	Preferred B	UNIT
2017	Aug 2018	266,000	0.09262400	0.28905000	0.10188700	-
2017	Aug 2018	23,401	0.00817700	-	0.00899600	-
2018	Jun 2019	280,000	0.09751500	0.28905000	0.10727000	-
2018	Jun 2019	98,542	0.03443500	-	0.03788100	-
2019	Jun 2020	321,500	0.11211739	0.19732848	0.12334596	-
2019	Sep 2020	321,500	0.11211739	0.19732848	0.12334596	-
2020	Sep 2020	781	-	0.23912059	-	-
2020	Aug 2021	807,500	0.28183240	0.31001564	0.31001564	-
2020	Aug 2021	210,276	0.07231977	0.14384143	0.07955175	0.39052677
profit reserves	Apr 2021	1,250,000	0.43627306	0.47990038	0.47990038	-
profit reserves	Aug 2021	123,257	0.04301883	0.04732072	0.04732072	-
profit reserves	Aug 2021	134,192	0.04683557	0.05151910	0.05151910	-
2021	Nov 2021	239,636	0.08249641	0.09074606	0.09074606	0.44548065
2021	Nov 2021	1,197,002	0.41207756	0.45328533	0.45328533	2.22521888
profit reserves	Jun 2022	283,173	0.09748467	0.10723314	0.10723314	0.52641723
2021	Jun 2022	1,368,675	0.47117031	0.51829476	0.51829476	2.54435609
2022	Nov 2022	600,000	0.20655465	0.22721013	0.22721013	1.11539517
2022	until 6/30/2023*	370,000	0.12737536	0.14011292	0.68782704	0.68782704

(*) approval of the date by resolution of the AGM

The table below sets forth the cash distributions we paid/will pay as dividends and as interest on equity, translated into US\$ based on the exchange rate at year-end, for the periods indicated.

Year	Payment date	Distribution (US\$ thousands)	Payment per shares (US\$)			
			Common	Preferred A	Preferred B	UNIT
2014	Jun 2015	234,366	0.08178450	0.09506325	0.08997816	-
2015	Jun 2016	83,691	0.02912211	0.06466580	0.03213302	-
2016	Jun 2017	86,818	0.03023503	0.08869013	0.03326378	-
2016	Dec 2017	68,505	0.02391059	-	0.02636679	-
2017	Aug 2018	81,618	0.02800000	0.08737908	0.03080018	-
2017	Aug 2018	7,074	0.00247189	-	0.00271947	-
2018	Jun 2019	72,262	0.02516646	0.07459740	0.02768401	-
2018	Jun 2019	25,431	0.00888691	-	0.00977625	-
2019	Jun 2020	79,763	0.02781586	0.04895638	0.03060162	-
2019	Sep 2020	79,763	0.02781586	0.04895638	0.03060162	-
2020	Sep 2020	150	-	0.04601393	-	-
2020	Aug 2021	155,387	0.05423296	0.05965625	0.05965625	-
2020	Aug 2021	40,463	0.01391648	0.02767938	0.01530813	0.07514899
profit reserves (*)	Apr 2021	219,402	0.07657541	0.08423295	0.08423295	-
profit reserves (*)	Aug 2021	21,634	0.00755074	0.00830582	0.00830582	-

Year	Payment date	Distribution (US\$ thousands)	Payment per shares (US\$)			
			Common	Preferred A	Preferred B	UNIT
profit reserves (*)	Aug 2021	23,554	0.00822066	0.00904272	0.00904272	-
2021 (**)	Nov 2021	220,061	0.01516645	0.01668310	0.01668310	0.08189886
2021 (**)	Nov 2021	44,056	0.07575791	0.08333370	0.08333370	0.40909271
profit reserves(***)	Jun 2022	50,743	0.01746881	0.01921569	0.01921569	0.09433155
2021(***)	Jun 2022	245,260	0.08443156	0.09287604	0.09287604	0.45593694
2022 (****)	Nov 2022	113,334	0.03901601	0.04291761	0.04291761	0.21068645
2022 (*****)	until	70,912	0.02441217	0.02685339	0.02685339	0.13182572

(*) US\$ based on the exchange rate of 3/31/2021

(**) US\$ based on the exchange rate of 9/30/2021

(***) US\$ based on the exchange rate of 12/31/2021

(****) US\$ based on the exchange rate of 11/30/2022

(*****) US\$ based on the exchange rate of 12/31/2022

Item 9. The Offer and Listing

The principal trading market for our shares (including our Class B Shares, Common Shares and Units) is the B3 (Brasil, Bolsa, and Balcão) market. Our Common Shares trade on B3 under the symbol “CPLE3” our Class B Shares trade under the symbol “CPLE6” and our Units shares, each representing four Class B shares plus one Common share, trade under the symbol “CPLE11.” On March 31, 2023, approximately 290,122 shareholders owned our CPLE6 shares, 90,665 owned CPLE3 shares and 14,892 owned Units in B3.

In the United States, our Units are in the form of ADSs, issued by the Depositary pursuant to the Deposit Agreement by and between us, the Depositary and the registered holders and beneficial owners from time to time of the ADSs. The ADSs trade on the NYSE under the symbol “ELP”.

On June 19, 2002, our shares were listed on Latibex, an Euro-based market for Latin American securities. In 2021, Latibex also started trading the Units, under the symbol “XCOPU.” The shares trade under the symbols “XCOP,” XCOPO and XCOPU.

Item 10. Additional Information

MEMORANDUM AND ARTICLES OF ASSOCIATION

Organization

We are a publicly traded company duly registered with the CVM under No. 1431-1. According to Article Four of our bylaws, we are authorized to pursue, directly or through consortia or in partnership with private companies, the following objectives and purposes:

- researching and studying, technically and economically, all energy sources, providing solutions for a sustainable development;
- researching, studying, planning, constructing and developing the production, transformation, transportation, storage, distribution and trade of energy in any of its forms, chiefly electric power, as well as fuels and energy raw materials;
- studying, planning, designing, constructing and operating dams and their reservoirs, as well as other undertakings for multiple uses of water resources;
- providing services in energy trading, energy infrastructure, information and technical assistance concerning the rational use of energy to business undertakings with the aim of implementing and developing economic activities deemed relevant for the development of the State of Paraná, upon approval by the Board of Directors; and
- developing activities in the areas of energy generation, electronic data transmission, electronic communications and control, cellular telephone systems, and other endeavors that may be deemed relevant to us and the State of Paraná, being authorized, for such aims, upon approval by the Board of Directors, and for the aims set forth in the second and third bullet points above, to join, preferably holding major stakes or controlling interest, consortia or concerns with private companies, pension funds or other private entities, to participate in bidding processes of new concessions and/or already established special purpose companies to exploit already existing concessions, having taken into consideration, besides the projects' general features, their respective social and environmental impacts.

Except as described in this section, our bylaws do not contain provisions addressing the duties, authority, or liabilities of directors and management, which are instead established by Brazilian Corporate Law.

Qualification of Board of Directors

The appointed directors must comply with the legal requirements set forth in Federal Law No. 13,303/2016, particularly the ones mentioned in its article 17, and Federal Law No. 6,404/1976. Moreover, pursuant to Federal Law No. 13,303/2016 and to our bylaws, our Board of Directors will mandatorily comprise, at least, (i) three independent members or no less than 25% of the members of our Board of Directors, (ii) three to five members that meet the requirements for members of the Statutory Audit Committee, (iii) two members appointed by minority shareholders which held voting shares, if they do not elect a higher number through multiple vote, (iv) one member appointed by shareholders holding preferred shares, representing, at least, 10% of our total capital stock, and (v) one member appointed by the employees.

Limitations on Directors' Powers

Under Brazilian Corporate Law and our Related Parties Transactions and Conflict Of Interest Policy, if a director or an executive officer has a conflict of interest with us in connection with any proposed transaction, the director or executive officer may not vote in any decision of the board of directors or of the board of executive officers related to that transaction, and must disclose the nature and extent of the conflict of interest for transcription in the minutes of the meeting. A director or an executive officer may not transact any business with a company, including accepting any loans,

except on reasonable and fair terms for us and conditions that are identical to the terms and conditions prevailing in the market or offered by third parties. According to our bylaws, shareholders set the aggregate compensation payable to directors, executive officers, and members of the Supervisory Board. For more information, see “Item 6. Directors, Senior Management and Employees.” Our bylaws do not establish any mandatory retirement age limits.

Board of Directors and Board of Executive Officers

According to our bylaws, we are managed by a Board of Directors, composed of nine members and a Board of Executive Officers, composed of six to seven members.

Our Board of Directors ordinarily meets monthly and is responsible, among other things, for: (i) establishing our corporate strategy; (ii) defining the general orientation of our business; (iii) defining the responsibilities of members of our Board of Executive Officers; and (iv) electing the members of our Board of Executive Officers.

Our Board of Executive Officers meets every two weeks and is responsible for our daily management. Each Executive Officer also has individual responsibilities established by our bylaws.

The members of our Board of Directors, of our Board of Executive Officers, our Supervisory Board and of our statutory committees shall be liable for any loss or damages resulting from the performance of their duties, in compliance with the applicable law. Notwithstanding, we shall ensure, provided no conflict with our own interests arises, legal assistance for members or former members of statutory bodies in judicial and administrative proceedings brought by third parties, during or after their term of office, for the performance of the duties of their office, in accordance to the terms and provisions of our bylaws.

For further information, see Items 6 – “Directors, Senior Management and Employees - Board of Directors” and “Directors, Senior Management and Employees - Board of Executive Officers.”

Shareholders’ Meetings

The convening of our shareholders’ meeting is made through publication of a notice to shareholders in a newspaper. As provided by Brazilian Corporate Law, publications have to be made in a newspaper with wide circulation in the same city as our corporate headquarters. The notice must be published no fewer than three times, beginning at least 30 calendar days prior to the scheduled meeting date. We make local notices in the *Valor Econômico*.

In order for a shareholders’ meeting to be held on first call, shareholders representing at least one-quarter of the voting capital have to be present, except as otherwise provided for under Brazilian law. If no such quorum is verified, a second meeting may be called by notice given at least 8 calendar days prior to such meeting and in accordance with the same rules of publication previously described. The quorum requirements will not apply to a second meeting, subject to the minimum quorum and voting requirements for certain matters, as discussed as follows. A shareholder without a right to vote may attend a general shareholders’ meeting and take part in the discussion of matters submitted for consideration.

A shareholder may be represented at a general shareholders’ meeting by a proxy appointed in accordance with applicable Brazilian law not more than one year before the meeting, who must be a shareholder, a company officer, a lawyer or a financial institution.

Right of Withdrawal

Our common shares and preferred shares are not redeemable, with the exception that a dissenting shareholder has, under certain circumstances provided for in Brazilian Corporate Law, the right to withdraw its equity interest from a company and to receive a payment equal to the book or economic value of their shares, whichever is lower.

This right of withdrawal arises if any of the following matters are decided upon at a shareholders’ meeting:

- creation of a new class of preferred shares or a disproportionate increase in an existing class of preferred shares relative to other classes of shares, unless such action is provided for in or authorized by our bylaws,

which, as of the this date, is not the case;

- modification to the preference, privilege or conditions for redemption or amortization granted to one or more classes of preferred shares, or the creation of a new class of preferred shares with greater privileges than the existing classes of preferred shares;
- reduction of the mandatory dividend;
- consolidation or merger into another company;
- participation in a group of companies (grupo de sociedades), as defined by Brazilian Corporate Law;
- the transfer of all shares to another company or receipt of shares by another company, in such a way as to make the company whose shares were transferred a wholly-owned subsidiary of the other;
- changes to our corporate purpose; or
- a spin-off that results in (a) a change to our corporate purpose (unless the spin-off company's assets and liabilities are transferred to a company that has substantially the same corporate purpose); (b) a reduction in any mandatory dividend (although in our case, our preferred shares do not carry mandatory dividends); or (c) any participation in a group of companies.

The right of withdrawal also arises if a spin-off or merger occurs but the new company fails to register as a public stock corporation (and, if applicable, fails to list its shares on the stock exchange) within 120 days of the date of the shareholders' meeting that approved the spin-off or merger.

Preferred Shares Rights

Pursuant to Brazilian Corporate Law, each preferred share of a class that is admitted to trading on a Brazilian stock exchange must have the certain rights under the Company's bylaws.

Our bylaws comply with the directives provided by Brazilian Corporate Law as follows: (i) our Class A Shares shall have priority in the distribution of minimum dividends of 10% per year, *pro rata*, calculated as a percentage of the paid-in capital stock represented by such shares on December 31 of the previous fiscal year; (ii) our Class B Shares shall have priority in the distribution of minimum dividends, *pro rata*, in the amount equivalent to 25.0% of our net profits, as adjusted in accordance with Article 202 of Law No. 6,404/76, calculated as a proportion of the paid-in capital stock represented by such shares on December 31st of the previous fiscal year; (iii) the dividends paid on Class B Shares pursuant to item (ii) above shall be paid only from any remaining profits after the payment of priority dividends to Class A Shares; and (iv) the dividends to be paid per preferred share, regardless of the class, shall be at least 10% higher than the dividends to be paid per Common Share; (v) the preferred shares will acquire voting rights if, during three consecutive fiscal years, we fail to pay a fixed or minimum dividend to which the preferred shares are entitled; and (vi) each Unit receives dividends for its underlying 1 Common Share and 4 Class B Shares. For more information on our dividend policy, see "Item 8. Financial Information – Dividend Payment."

Voting Rights

As a general rule, only our Common Shares are entitled to vote and each Common Share corresponds to one vote. Holders of preferred shares acquire voting rights if, during three consecutive fiscal years, we fail to pay a fixed or minimum dividend to which the preferred shares are entitled. If a holder of preferred shares acquires voting rights in this manner, such rights will be identical to the voting rights of a holder of Common Shares and will continue until the dividend is paid.

Furthermore, in accordance with our bylaws holders of preferred shares are entitled to voting rights in regards of specific matter discussed in a shareholders' meeting:

- Change in our corporate type into another, as well as incorporation, merger or spin-off.
- Agreements between us and our controlling shareholder, directly or through a third party, or an entity influenced by the controlling shareholder, when such agreements shall be discussed in a shareholders' meeting by force of statute or our bylaws.
- Appraisal of assets for paying in our capital increase.
- Choice of an entity to be hired for the assessment of our economic value.
- Change or revocation of articles in our bylaws that alter or modify any of the requirements set forth in item 4.1. of the regulation of the Level 2 of B3, while the Level 2 participation contract is still in effect.
- Appointment and removal of a member of the Board of Directors in a separate election, when requested by shareholders which have preferred shares equal to at least 10% of our total shares.
- Exclusion or change in our bylaws aimed to suppress the right set forth in article 28, XXIX of our bylaws, which provides for the adoption of the full tariff set by a granting authority, requires the approval of most of the preferred shares.

Holders of Units may exercise their voting rights in accordance with its underlying shares.

Preemptive Rights

Our shareholders have a general preemptive right to subscribe for shares in any capital increase, in proportion to his or her ownership, as provided for in the Brazilian Corporate Law. A minimum period of 30 days following the publication of notice of a capital increase is assured for the exercise of the right, and the right is transferable. We may issue shares up to the limit of the authorized capital, excluding right of first refusal to the shareholders, as provided for in the Brazilian Corporate Law and in our bylaws.

Liquidation

In the event of our liquidation, after all creditors have been paid, all shareholders will participate equally and ratably in any remaining residual assets.

Liability of the Shareholders for Further Capital Calls

Neither Brazilian Corporate Law nor our bylaws provide for capital calls after shares are paid in. The shareholders' liability is limited to the payment of the issue price of the shares subscribed or acquired.

Conversion Rights

Our bylaws provide, as a general rule, that the only permitted conversion of shares is Class A Shares are convertible into Class B Shares. As an exception, Class B Shares can be converted into Common Shares, and vice-versa, strictly for the formation of Units made of four Class B Shares and one Common Share under our unitization programs set by the Board of Directors. Our shares are not otherwise convertible.

Form and Transfer

Our shares are maintained in book-entry form with a transfer agent ("Transfer Agent"). To make a transfer of shares, the Transfer Agent makes an entry in the register, debits the share account of the transferor and credits the share account of the transferee.

Transfers of shares by foreign investors are made in the manner described above and are executed by the

investor's local agent on the investor's behalf. However, if the original investment was registered with the Brazilian Central Bank pursuant to a foreign investment mechanism regulated by Resolution No. 4,373 of September 29, 2014 of the Brazilian Central Bank ("Resolution No. 4,373") as described under "Exchange Controls" as follows, the foreign investor must declare the transfer in its electronic registration.

A shareholder may choose, in its individual discretion, to hold its shares through B3. Shares and Units are added to the B3 system through Brazilian institutions that have clearing accounts with the B3. Our shareholder registry indicates which shares and Units are listed on the B3 system. Each participating shareholder is in turn registered in a register of beneficial shareholders maintained by the B3 and is treated in the same manner as the other registered shareholders.

Changes in Rights of Shareholders

A General Meeting of Shareholders must be held whenever we intend to change the rights of holders of our common shares or preferred shares. Under Brazilian Corporate Law the proposed changes must be approved by a majority of the class of shareholders that would be affected. Certain changes related to the rights of preferred shares, such as changes in preferences, advantages or conditions of redemption or amortization, may result in the exercise of rights to withdraw by the holders of the shares affected.

Regulation of and Restrictions on Foreign Investors

Foreign investors face no legal restrictions barring them from holding Common Shares, Class A Shares, Class B Shares, Units or ADSs.

The ability to convert into foreign currency dividend payments and proceeds from the sale of Common Shares, Preferred Shares or Units or from the exercise of preemptive rights, and to remit such amounts outside Brazil is subject to restrictions under foreign investment legislation which generally requires, among other things, the registration of the relevant investment with the Brazilian Central Bank. Any foreign investor who registers with the CVM in accordance with Resolution No. 4,373 may buy and sell securities on Brazilian stock exchanges without obtaining a separate certificate of registration for each transaction.

Annex II to Resolution No. 4,373 ("Annex II Regulations") allows Brazilian companies to issue depositary receipts in foreign exchange markets. Our ADS program is duly registered with the Brazilian Central Bank and the CVM.

Our bylaws do not impose any limitation on the rights of Brazilian residents or non-residents to hold our shares and exercise the rights in connection therewith.

Disclosure of Shareholder Ownership

Under Brazilian regulations any person or group of persons representing the same interest that carries out a relevant trading involving shares or securities issued by a publicly traded company must disclose its share ownership to the investor relations officer of such company, which, in turn, must disclose such information to the CVM and to any relevant stock exchange. A relevant trading is defined as a transaction by which the direct or indirect equity stake of the persons referred above reaches an equity interest corresponding to 5% or its multiples (10%, 15%, and so on), of a type or class of shares representing the company's capital stock. Any subsequent increase or decrease of 5% or its multiples in ownership of any class of shares must be similarly disclosed. The same reporting obligation applies to the acquisition of any rights over the shares and other securities mentioned in applicable regulation and to the execution of any derivative financial instruments referenced in shares. If such increase results in change of corporate control or administrative structure, or if the increase imposes a public offering, in addition to informing the investor relations officer, a statement containing certain required information must be published in newspapers that are widely circulated in Brazil.

Change of Controlling Shareholder

Under the Brazilian constitution and our bylaws, a change of the controlling shareholder, the State of Paraná, is only permitted with legislative authorization. If such approval is granted to the State of Paraná, and the change in the control over us would happen by a private sale of shares held by the current controlling shareholder or sale of preemptive rights from such controlling shareholder, such transaction shall be subject to the buyer launch a tender offer for the shares held by the minority shareholders.

Arbitration

As provided for in our bylaws, we, our shareholders, directors, officers and members of the supervisory board shall resolve through arbitration any dispute or conflict that may arise between them, regarding, among others, the application, validity, effectiveness, interpretation, violation and corresponding effects of the provisions of our bylaws, of the current applicable law, of the rules applicable to the capital markets in general, as well as those of the regulation of the level 2 of corporate governance of B3 S.A. - Brasil, Bolsa e Balcão (“Level 2”), of the Level 2 participation contract, and of the Sanctions and the Arbitration Regulations of the B3 Market Arbitration Chamber.

MATERIAL CONTRACTS

For information concerning our material contracts, see “Item 4. Information on the Company” and “Item 5. Operating and Financial Review and Prospects.”

EXCHANGE CONTROLS

The ownership of Class A Shares, Class B Shares, Common Shares or Units of the Company by individuals or legal entities domiciled outside Brazil is subject to certain conditions established under Brazilian law, as described below.

The right to convert dividend payments and proceeds from the sale of shares into foreign currency and to remit such amounts outside Brazil is subject to restrictions under Brazilian foreign investment legislation, which generally requires, among other things, that the relevant investments have been registered with the Brazilian Central Bank. Such restrictions on the remittance of foreign capital abroad may hinder or prevent Itaú Unibanco S.A., as custodian for the Units represented by ADSs (“Custodian”), or holders who have exchanged ADSs for Units from converting dividends, distributions or the proceeds from any sale of such Units, as the case may be, into U.S. dollars and remitting such U.S. dollars abroad. Holders of ADSs could be adversely affected by delays in, or refusal to grant any, required government approval for conversions of Brazilian currency payments and remittances abroad of the Units underlying the ADSs.

Under Resolution No. 4,373, foreign investors may invest in almost all financial assets and engage in almost all transactions available in the Brazilian financial and capital markets, provided that certain requirements are fulfilled. The definition of foreign investor includes individuals, legal entities, mutual funds and other collective investment entities, domiciled or headquartered abroad.

To be eligible to invest in the Brazilian financial and capital markets, foreign investors must:

1. appoint at least one representative in Brazil with powers to perform actions relating to foreign investments;
2. register as a foreign investor with the CVM, pursuant to CVM Resolution No. 13/2020;
3. register the foreign investment with the Brazilian Central Bank; and
4. constitute at least one custodian institution authorized by CVM, provided that this provision is not applicable to foreign investors who are individuals.

Securities and other financial assets held by foreign investors must be registered or maintained in deposit accounts or under the custody of an entity duly licensed by the Brazilian Central Bank or the CVM. In addition, securities trading is restricted to transactions carried out in the stock exchanges or organized over-the-counter markets licensed by the CVM.

The Annex II Regulations provide for the issuance of depositary receipts in foreign markets in respect of shares of Brazilian issuers. Prior to the issuance of the ADSs, the ADS program was approved by the Brazilian Central Bank and the CVM under the Annex V to CMN Resolution No. 2,689, which allowed Brazilian companies to issue depositary receipts in foreign exchange markets and was in force by the time the ADSs were issued. Depositary receipts are currently governed by Resolution No. 4,373. The proceeds from the sale of ADSs by ADS holders outside Brazil are free of Brazilian foreign investment controls and should not be subject to taxation in Brazil. The withdrawal and the disposal of Units upon cancellation of ADS will be subject to taxation in Brazil. For more information, see “Item 10. Additional Information—Taxation—Brazilian Tax Considerations—Taxation of Gains Outside Brazil.”

An electronic registration has been issued in the name of the Depositary with respect to the ADSs and is maintained by the Custodian on behalf of the Depositary. Pursuant to this electronic registration, the Custodian and the Depositary are able to convert dividends and other distributions with respect to the Units represented by ADSs into foreign currency and remit the proceeds outside Brazil. In the event that a holder of ADSs exchanges such ADSs for Units, such holder must seek to obtain its own electronic registration with the Brazilian Central Bank.

Pursuant to Resolution No. 4,373, the withdrawal of Units upon cancellation of ADSs may require simultaneous exchange transactions in the event the investor decides not to dispose of those Units. The simultaneous exchange transactions may be required in order to obtain a certificate of registration of Units with the Brazilian Central Bank. This transaction will be subject to tax in Brazil. For more information, see “Item 10. Additional Information—Taxation—Brazilian Tax Considerations—Other Brazilian Taxes.”

Thereafter, any holder of Units may not be able to convert into foreign currency and remit outside Brazil the

proceeds from the disposition of, or distributions with respect to, such Units, unless such holder obtains his own electronic registration. A holder that obtains an electronic registration may be subject to less favorable Brazilian tax treatment than a holder of ADSs. For more information, see “Item 10. Additional Information—Taxation—Brazilian Tax Considerations.”

TAXATION

The following summary contains a description of the principal Brazilian and U.S. federal income tax consequences of the acquisition, ownership and disposition of Common Shares, Preferred Shares, Units or ADSs, but it does not purport to be a comprehensive description of all of the tax considerations that may be relevant to a decision to purchase Common Shares, Preferred Shares, Units or ADSs. The summary is based upon the tax laws of Brazil and regulations thereunder and on the tax laws of the United States and regulations thereunder as in effect on the date hereof, which are subject to change. Prospective purchasers of Common Shares, Preferred Shares, Units or ADSs should consult their own tax advisors as to the tax consequences of the acquisition, ownership and disposition of Common Shares, Preferred Shares, Units or ADSs.

Although there is at present no income tax treaty between Brazil and the United States, the tax authorities of the two countries have had discussions that may culminate in such a treaty. No assurance can be given, however, as to whether or when a treaty will enter into force or how it will affect the U.S. holders of Common Shares, Preferred Shares, Units or ADSs. Prospective holders of Common Shares, Preferred Shares, Units or ADSs should consult their own tax advisors as to the tax consequences of the acquisition, ownership and disposition of Common Shares, Preferred Shares, Units or ADSs in their particular circumstances.

Brazilian Tax Considerations

The following discussion summarizes the principal Brazilian tax consequences of the acquisition, ownership and disposition of Common Shares, Preferred Shares, Units or ADSs by an individual, entity, trust or organization resident or domiciled outside Brazil for purposes of Brazilian taxation (“Non-Brazilian Holder”). It is based on Brazilian law currently in effect, which is subject to differing interpretations and changes that may apply retroactively. This discussion does not address all the Brazilian tax considerations that may be applicable to any particular Non-Brazilian Holder, and each Non-Brazilian Holder should consult its own tax advisor about the Brazilian tax consequences of investing in Common Shares, Preferred Shares, Units or ADSs.

Taxation of Dividends

Dividends paid by the Company in cash or in kind from profits of periods beginning on or after January 1, 1996 (i) to the Depositary in respect of Units underlying ADSs or (ii) to a Non-Brazilian Holder in respect of Common Shares, Preferred Shares or Units generally will not be subject to Brazilian withholding income tax. Dividends paid from profits generated before January 1, 1996 may be subject to Brazilian withholding income tax at varying rates depending upon the year in which the profits have been obtained.

There are discussions in the Brazilian Congress regarding a potential income tax reform aiming at revoking the this exemption and imposing income taxation on the payment of dividends. However, it is still unclear if and how such reform will eventually pass.

Distributions of Interest on Equity

In accordance with Law No. 9,249, dated December 26, 1995, as amended, Brazilian corporations may make payments to shareholders characterized as distributions of interest on the equity of the company as an alternative form of making dividend distributions. The rate of interest may not be higher than TJLP, as determined by the Brazilian Central Bank from time to time. The total amount distributed as interest on equity may not exceed, for tax purposes, the greater of (i) 50.0% of net income (after the deduction of the social contribution on net profits and before taking into account the provision for corporate income tax and the amounts attributable to shareholders as net interest on equity) related to the period in respect of which the payment is made and (ii) 50.0% of the sum of retained profits and profit reserves as of the date of the beginning of the period in respect of which the payment is made.

Distributions of interest on equity paid to Brazilian and Non-Brazilian Holders of Units, including payments to the Depositary in respect of Units underlying ADSs, are deductible by the Company for Brazilian corporate income tax and social contribution on net profits purposes as far as the limits above described are observed. Such payments to shareholders are subject to Brazilian withholding income tax at the rate of 15.0%, except for payments to shareholders situated in tax haven jurisdictions (that is, a country or location that does not impose income tax or where the maximum income tax rate is lower than 20% or where the local legislation imposes restrictions on disclosing the shareholding

composition or the ownership of the investment or the beneficial owner of the income derived from transactions carried out and attributable to a Non-Brazilian Holder – “Tax Haven Holder”), which payments are subject to withholding income tax at a 25.0% rate. A regulation issued by the Brazilian tax authorities on November 28, 2014 (Ordinance 488, of 2014) decreased, from 20% to 17%, the minimum threshold for certain specific cases. The reduced 17% threshold applies only to countries and regimes aligned with international standards of fiscal transparency in accordance with rules to be established by the Brazilian tax authorities in Normative Ruling 1,530 dated December 19, 2014. The list of tax haven jurisdictions is currently provided in Normative Ruling No. 1,037. These payments may be included, at their net value, as part of any mandatory dividend. To the extent that payment of interest on net equity is so included, the corporation is required to distribute to shareholders an additional amount to ensure that the net amount received by them, after payment of the applicable withholding income tax, plus the amount of declared dividends, is at least equal to the mandatory dividend.

Taxation of Gains Outside Brazil

According to Law No. 10,833 of December 29, 2003 (“Law No. 10,833/03”), capital gains realized on the disposition of assets located in Brazil by a Non-Brazilian Holder, whether to another non-Brazilian resident or to Brazilian residents, are subject to taxation in Brazil. In this sense, if the Common Shares, Preferred Shares or Units are disposed of by a Non-Brazilian Holder, as they are defined as assets located in Brazil, such holder will be subject to income tax on the gains assessed, following the rules described below, whether the disposition is conducted in Brazil or abroad and with a Brazilian resident or not.

A disposition of Units can occur abroad if an investor decides to cancel its investment in ADSs and register the underlying Units as a direct foreign investment under Law No. 4,131. Any capital gain arising from sales or other dispositions of Units outside Brazil would be subject to Brazilian income tax at the rates that range from 15% to 22.5% depending on the amount of the gain, as follows: (i) 15% on gains not exceeding R\$5,000,000.00; (ii) 17.5% on gains that exceed R\$5,000,000.00 and do not exceed R\$10,000,000.00; (iii) 20% on gains that exceed R\$10,000,000.00 and do not exceed R\$30,000,000.00; and (iv) 22.5% on gains exceeding R\$30,000,000.00 or, if the investor is a Tax Haven Holder, 25.0%, which should be withheld by the purchaser of the Units outside Brazil or its attorney-in-fact in Brazil.

Regarding ADSs, although the matter is not free from doubt, the gains realized by a Non-Brazilian Holder on the disposition of ADSs to another Non-Brazilian Holder should not be taxed in Brazil, based on the theory that ADSs do not constitute assets located in Brazil for purposes of Law No. 10,833/03. However, we cannot assure you that Brazilian courts would adopt this theory. Thus, the gain on a disposition of ADSs by a Non-Brazilian Holder to a resident in Brazil (or possibly even to a Non-Brazilian Holder in the event that courts determine that ADSs would constitute assets located in Brazil) may be subject to income tax in Brazil.

Taxation of Gains in Brazil

For purposes of Brazilian taxation, the income tax rules on gains related to disposition of Common Shares, Preferred Shares or Units vary depending on the domicile of the Non-Brazilian Holder, the form by which such Non-Brazilian Holder has registered its investment before the Brazilian Central Bank and/or how the disposition is carried out, as described below.

Generally, gains are defined as the positive difference between the amount realized on the sale or exchange of a security and its acquisition cost. Gains assessed on the disposition of the Common Shares, Preferred Shares or Units carried out on the Brazilian stock exchange (which includes the transactions carried out on the organized over-the-counter market) are:

1. exempt from income tax when assessed by a Non-Brazilian Holder registered under Resolution No. 4,373 (“4,373 Holder”) that is not a Tax Haven Holder;
2. subject to income tax at a rate of 15.0% in the case of gains assessed by a Non-Brazilian Holder that (i) is not a 4,373 Holder and is not a Tax Haven Holder, or (ii) is a 4,373 Holder and is a Tax Haven Holder; or
3. subject to income tax at a rate of 25.0% in the case of gains assessed by a Non-Brazilian Holder that is not a 4,373 Holder and is a Tax Haven Holder.

There can be no assurance that the current preferential treatment for 4,373 Holders will continue in the future.

Any other gains assessed on a disposition of the Common Shares, Preferred Shares or Units that is not carried out on the Brazilian stock exchange is subject to income tax at the progressive rates ranging from 15% to 22.5%, except for gains assessed by Tax Haven Holders who are subject to an income tax rate of 25.0%.

If these gains are related to transactions conducted on the Brazilian non-organized, over-the-counter market, through an intermediary, the withholding income tax of 0.005% on the sale value shall also be applicable and can be offset with the eventual income tax due on the capital gain.

The deposit of Units in exchange for the ADSs may be subject to Brazilian income tax. In this case, the difference between the acquisition cost and the market price of the Units would be subject to income tax at the progressive rates ranging from 15% to 22.5% or 25.0% in the case of investors that are Tax Haven Holders. There may be arguments to claim that this taxation is not applicable in the case of a Non-Brazilian Holder that is registered under Resolution 4,373 (other than Tax Haven Holders), which should not be subject to income tax in such a transaction.

The withdrawal of Units upon cancellation of ADSs should not be subject to Brazilian income tax, as long as the regulatory rules are appropriately observed with respect to the registration of the investment before the Brazilian Central Bank.

In the case of redemption of the Common Shares, Preferred Shares or Units or ADSs or capital reduction by a Brazilian corporation, with subsequent withdrawal of the ADSs, such as our company, the positive difference between the amount effectively received by the Non-Brazilian Holder and the acquisition cost of the securities redeemed is treated as capital gain derived from the sale or exchange of shares not carried out on a Brazilian stock exchange market and is therefore subject to income tax at the progressive rates ranging from 15.0% to 22.5% or 25.0%, as the case may be.

Any exercise of preemptive rights relating to the Common Shares, Preferred Shares, Units or ADSs will not be subject to Brazilian taxation. Gains on the sale or assignment of preemptive rights will be subject to the same tax treatment applicable to disposition of Common Shares, Preferred Shares or Units.

Other Brazilian Taxes

There are no Brazilian inheritance, gift or succession taxes applicable to the ownership, transfer or disposition of Common Shares, Preferred Shares, Units or ADSs by a Non-Brazilian Holder except for gift and inheritance taxes levied by some states in Brazil on gifts made or inheritances bestowed by individuals or entities not resident or domiciled in Brazil or in the relevant State to individuals or entities that are resident or domiciled within such State in Brazil. There are no Brazilian stamp, issue, registration, or similar taxes or duties payable by holders of Common Shares, Preferred Shares, Units or ADSs.

Pursuant to Decree No. 6,306 of December 14, 2007 (“Decree No. 6,306/07”), a tax on foreign exchange transactions (“IOF/Exchange”) may be imposed on the conversion of Brazilian currency into foreign currency (e.g., for purposes of paying dividends and interest) or *vice-versa*. Currently, for most exchange transactions, the rate of IOF/Exchange is 0.38%, except for: (i) foreign exchange transactions for the inflow of funds related to investments in variable income effectuated by a Non-Brazilian Holder in the Brazilian financial and capital market, in which case the rate is 0%, and (ii) payment of dividends, and interest on shareholders’ equity related to the investment mentioned under item (i) above, in which case the rate is zero. Nonetheless, the Brazilian government may increase the rate to a maximum of 25.0%. Any such increase will be applicable only prospectively.

Pursuant to Decree No 6,306/07, the Tax on Bonds and Securities Transactions (“IOF/Bonds”) may be imposed on any transactions involving bonds and securities, including those carried out on Brazilian stock, futures and commodities exchanges. The rate of IOF/Bonds Tax applicable to transactions involving common shares is currently zero if the redemption, transfer or renegotiation occurs after 30 days of their acquisition. As from December 24, 2013, the IOF/Bonds levies at a rate of zero percent on the transfer (*cessão*) of shares traded in a Brazilian stock exchange environment with the specific purpose of enabling the issuance of depositary receipts to be traded outside Brazil. The Brazilian government is permitted to increase such rate at any time up to 1.5% per day, but only in respect of future transactions.

U.S. Federal Income Tax Considerations

The statements regarding U.S. tax law set forth below are based on U.S. law as in force on the date of this annual report, and changes to such law subsequent to the date of this annual report may affect the tax consequences described herein (possibly with retroactive effect). This summary describes the principal U.S. federal income tax consequences of the ownership and disposition of Common Shares, Preferred Shares, Units or ADSs, but it does not purport to be a comprehensive description of all of the U.S. tax consequences that may be relevant to a decision to hold or dispose of Common Shares, Preferred Shares, Units or ADSs. This summary applies only to purchasers of Common Shares, Preferred Shares, Units or ADSs who will hold the Common Shares, Preferred Shares, Units or ADSs as capital assets and does not apply to special classes of holders such as brokers or dealers in securities or currencies, holders whose functional currency is not the U.S. dollar, holders of 10% or more of our shares by vote or value (taking into account shares held directly or through depositary arrangements), tax-exempt organizations, financial institutions, holders liable for the alternative minimum tax, securities traders who elect to account for their investment in Common Shares, Preferred Shares, Units or ADSs on a mark-to-market basis, regulated investment companies, partnerships or other pass-through entities (or partners or members therein), insurance companies, U.S. expatriates, and persons holding Common Shares, Preferred Shares, Units or ADSs in a hedging transaction or as part of a straddle, conversion or other integrated transaction for U.S. federal income tax purposes. Moreover, this summary does not address the Medicare tax on net investment income or the tax consequences to U.S. holders of acquiring, owning or disposing of Common Shares, Preferred Shares, Units or ADSs under any U.S. federal estate or gift, state, local or foreign taxes.

Each holder is encouraged to consult such holder's tax advisor concerning the overall tax consequences to it, including the consequences under laws other than U.S. federal income tax laws, of an investment in Common Shares, Preferred Shares, Units or ADSs.

In this discussion, references to a "U.S. holder" are to a beneficial holder of a Common Shares, Preferred Shares, Units or an ADS that is (i) an individual citizen or resident of the United States of America, (ii) a corporation, or any other entity taxable as a corporation, organized under the laws of the United States of America, any state thereof, or the District of Columbia, or (iii) otherwise subject to U.S. federal income taxation on a net basis with respect to the Common Shares, Preferred Shares, Units or ADS.

For purposes of the U.S. Internal Revenue Code of 1986, as amended, which we call the "Code," holders of ADSs will generally be treated as owners of the Units represented by such ADSs

Taxation of Distributions

A U.S. holder will recognize dividend income for U.S. federal income tax purposes in an amount equal to the amount of any cash and the value of any property distributed by us as a dividend to the extent that such distribution is paid out of our current or accumulated earnings and profits, as determined for U.S. federal income tax purposes, when such distribution is received by the custodian (or by the U.S. holder in the case of a holder of Common Shares, Preferred Shares or Units).

We do not expect to maintain calculations of our earnings and profits in accordance with U.S. federal income tax principles. U.S. holders therefore should expect that distributions generally will be treated as dividends for U.S. federal income tax purpose.

If you are a U.S. holder, the amount of any distribution will include the amount of Brazilian tax withheld on the amount distributed, and the amount of a distribution paid in *reais* will be measured by reference to the exchange rate for converting *reais* into U.S. dollars in effect on the date the distribution is received by the custodian (or by a U.S. holder in the case of a holder of Common Shares, Preferred Shares or Units). If the custodian (or U.S. holder in the case of a holder of Common Shares, Preferred Shares or Units) does not convert such *reais* into U.S. dollars on the date it receives them, it is possible that the U.S. holder will recognize foreign currency loss or gain, which would be ordinary loss or gain, when the *reais* are converted into U.S. dollars. Dividends paid by us will not be eligible for the dividends received deduction allowed to corporations under the Code.

The U.S. dollar amount of dividends received by an individual, with respect to the ADSs, will be subject to taxation at preferential rates if the dividends are "qualified dividends." Subject to certain exceptions for short-term and hedged positions, dividends paid on the ADSs will be treated as qualified dividends if (i) the ADSs are readily tradable

on an established securities market in the United States and (ii) we were not, in the year prior to the year in which the dividend was paid, and are not, in the year in which the dividend is paid, a passive foreign investment company (“PFIC”). The ADSs are listed on the New York Stock Exchange, and will qualify as readily tradable on an established securities market in the United States so long as they are so listed. Based on our audited consolidated financial statements and relevant market and shareholder data, we believe that we were not treated as a PFIC for U.S. federal income tax purposes with respect to our 2021 and 2022 taxable years. In addition, based on our audited consolidated financial statements and our current expectations regarding the value and nature of our assets, the sources and nature of our income, and relevant market and shareholder data, we do not anticipate becoming a PFIC for the 2023 taxable year. Based on existing guidance, it is not clear whether dividends received with respect to the Units will be treated as qualified dividends, because the Units themselves are not listed on a U.S. exchange. Holders of ADSs and Units should consult their own tax advisers regarding the availability of the reduced dividend tax rate in light of the considerations discussed above and their own particular circumstances.

Subject to generally applicable limitations and conditions, Brazilian withholding tax on dividends with respect to Common Shares, Preferred Shares, Units or ADSs that is paid at the appropriate rate applicable to the U.S. holder may be eligible for credit against such U.S. holder’s U.S. federal income tax liability. These generally applicable limitations and conditions include new requirements recently adopted by the IRS and any Brazilian tax will need to satisfy these requirements in order to be eligible to be a creditable tax for a U.S. holder. The application of these requirements to the Brazilian tax on dividends is uncertain and we have not determined whether these requirements have been met. If the Brazilian tax is not a creditable tax for a U.S. holder or the U.S. holder does not elect to claim a foreign tax credit for any foreign income taxes, the U.S. holder may be able to deduct the Brazilian tax in computing such U.S. holder’s taxable income for U.S. federal income tax purposes. For U.S. holders that do elect to claim foreign tax credits, dividend distributions will constitute income from sources without the United States and generally will constitute “passive category income” for foreign tax credit purposes. The availability and calculation of foreign tax credits and deductions for foreign taxes involve the application of complex rules and also vary depending upon on a U.S. holder’s particular circumstances. U.S. holders should consult their own tax advisors regarding the application of these rules to their particular situations.

Distributions of additional shares to holders with respect to their Common Shares, Preferred Shares, Units or ADSs that are made as part of a pro rata distribution to all our shareholders generally will not be subject to U.S. federal income tax.

Holders of Common Shares, Preferred Shares, Units or ADSs that are foreign corporations or nonresident alien individuals, which we call “non-U.S. Holders,” generally will not be subject to U.S. federal income tax or withholding tax on distributions with respect to Common Shares, Preferred Shares, Units or ADSs that are treated as dividend income for U.S. federal income tax purposes unless such dividends are effectively connected with the conduct by the holder of a trade or business in the United States.

Taxation of Capital Gains

Upon the sale or other taxable disposition of the Common Shares, Preferred Shares, Units or ADS, a U.S. holder will recognize gain or loss for U.S. federal income tax purposes. The amount of the gain or loss will be equal to the difference between the amount realized in consideration for the disposition of the Common Shares, Preferred Shares, Units or ADS (including the gross amount of the proceeds before the deduction of any Brazilian tax) and the U.S. holder’s tax basis in the Common Shares, Preferred Shares, Units or ADS. Such gain or loss generally will be subject to U.S. federal income tax as capital gain or loss and will be long-term capital gain or loss if the Common Shares, Preferred Shares, Units or ADS has been held for more than one year on the date of the disposition. The net amount of long-term capital gain recognized by an individual holder generally is subject to taxation at preferential rates. Capital losses may be deducted from taxable income, subject to certain limitations. Gain realized by a U.S. holder on a sale or disposition of Common Shares, Preferred Shares, Units or ADSs generally will be treated as U.S. source income for U.S. foreign tax credit purposes. Under the new foreign tax credit requirements recently adopted by the IRS, any Brazilian tax imposed on the sale or other disposition of the Common Shares, Preferred Shares, Units or ADSs is unlikely to be treated as a creditable tax for U.S. foreign tax credit purposes. If the Brazilian tax is not a creditable tax for a U.S. holder or the U.S. holder does not elect to claim a foreign tax credit for any foreign income taxes, the U.S. holder may be able to deduct the Brazilian tax in computing such U.S. holder’s taxable income for U.S. federal income tax purposes. U.S. holders should consult their own tax advisors regarding the application of the foreign tax credit rules to a sale or other disposition of the Common Shares, Preferred Shares, Units or ADSs and any Brazilian tax imposed on such sale or disposition.

A non-U.S. Holder will not be subject to U.S. federal income tax or withholding tax on gain realized on the sale or other disposition of the Common Shares, Preferred Shares, Units or ADSs unless (i) such gain is effectively connected with the conduct by the holder of a trade or business in the United States, or (ii) such holder is an individual who is present in the United States of America for 183 days or more in the taxable year of the sale and certain other conditions are met.

Foreign Financial Asset Reporting

Certain U.S. Holders that own “specified foreign financial assets” with an aggregate value in excess of US\$50,000 on the last day of the taxable year or US\$75,000 at any time during the taxable year are generally required to file an information statement along with their tax returns, currently on IRS Form 8938, with respect to such assets. “Specified foreign financial assets” include any financial accounts held at a non-U.S. financial institution, as well as securities issued by a non-U.S. issuer that are not held in accounts maintained by financial institutions. The understatement of income attributable to “specified foreign financial assets” in excess of US\$5,000 extends the statute of limitations with respect to the tax return to six years after the return was filed. U.S. Holders who fail to report the required information could be subject to substantial penalties. Prospective investors are encouraged to consult with their own tax advisors regarding the possible application of these rules, including the application of the rules to their particular circumstances.

Backup Withholding and Information Reporting

Dividends paid on, and proceeds from the sale or other disposition of, the ADSs or Common Shares, Preferred Shares or Units to a U.S. holder generally may be subject to the information reporting requirements of the Code and may be subject to backup withholding unless the U.S. holder (i) is a corporation or other exempt recipient or (ii) provides an accurate taxpayer identification number and certifies that no loss of exemption from backup withholding has occurred. The amount of any backup withholding collected from a payment to a U.S. holder will be allowed as a credit against the U.S. holder’s U.S. federal income tax liability and may entitle the U.S. holder to a refund, provided that certain required information is furnished to the Internal Revenue Service.

A non-U.S. Holder generally will be exempt from these information reporting requirements and backup withholding tax, but may be required to comply with certain certification and identification procedures in order to establish its eligibility for such exemption in connection with payments received within the United States or through certain U.S.-related intermediaries.

DOCUMENTS ON DISPLAY

We file reports, including annual reports on Form 20-F and other information with the SEC pursuant to the rules and regulations of the SEC that apply to foreign private issuers. We are required to make filings with the SEC by electronic means. Any filings we make electronically will be available to the public over the Internet at the SEC's website.

For more information about our securities, see Exhibit 2.4 to this annual report.

Item 11. Quantitative and Qualitative Disclosures about Market Risk

See Note 34.2.3 to our audited consolidated financial statements for disclosure about market risk.

Item 12. Description of Securities Other than Equity Securities

Not applicable.

Item 12A. Debt Securities

Not applicable.

Item 12B. Warrants and Rights

Not applicable.

Item 12C. Other Securities

Not applicable.

Item 12D. American Depositary Shares

In the United States, the Units trade in the form of ADSs, each representing one Unit, issued by The Bank of New York Mellon (or the Depositary) pursuant to the Deposit Agreement. The ADSs trade under the symbol "ELP." ADS holders are required to pay various fees to the Depositary, and the Depositary may refuse to provide any service for which a fee is assessed until the applicable fee has been paid. The Depositary is located at 240 Greenwich Street, New York, NY 10286.

ADS holders are required to pay the Depositary: (i) an annual fee of up to US\$0.02 per ADS (or portion thereof) for administering the ADS program, and (ii) amounts in respect of expenses incurred by the Depositary or its agents on behalf of ADS holders, including expenses arising from compliance with applicable law, taxes or other governmental charges, cable, telex and facsimile transmission, or conversion of foreign currency into U.S. dollars. In both cases, the Depositary may decide in its sole discretion to seek payment by either billing holders or by deducting the fee from one or more cash dividends or other cash distributions.

ADS holders are also required to pay additional fees for certain services provided by the Depositary, as set forth in the table below.

Depositary service	Fee payable by ADS holders
Issuance of ADSs, including issuances resulting from a distribution of shares or rights or other property	US\$5.00 or less per 100 ADSs (or portion thereof)
Cancellation of ADSs for the purpose of withdrawal, including if the deposit agreement terminates	US\$5.00 or less per 100 ADSs (or portion thereof)
Distribution of cash dividends	US\$0.02 or less per ADS
Distribution of securities distributed to holders of deposited securities which are distributed by the depositary to ADS registered holders	A fee equivalent to the fee that would be payable if securities distributed to the holder had been shares and the shares had been deposited for issuance of ADSs
Depositary services	US\$0.02 (or less) per ADSs per calendar year

<u>Depository service</u>	<u>Fee payable by ADS holders</u>
Transfer and registration of shares on the Depository's share register to or from the name of the depository or its agent when the holder deposits or withdraws shares	Registration or transfer fees
Cable, telex and facsimile transmissions (when expressly provided in the deposit agreement)	Expenses of the Depository
Converting foreign currency to U.S. dollars	Expenses of the Depository
Taxes and other governmental charges the Depository or the custodian are required to pay on any ADS or share underlying an ADS (e.g., stock transfer taxes, stamp duty or withholding taxes)	As necessary
Any charges incurred by the Depository or its agents for servicing the deposited securities	As necessary

Payments by the Depository

The Depository pays us an agreed amount, which includes reimbursements for certain expenses we incur in connection with the ADS program. These reimbursable expenses currently include legal and accounting fees, listing fees, investor relations expenses and fees payable to service providers for the distribution of material to ADR holders. For the year ended December 31, 2022, this amount was US\$762,618.17.

Item 13. Defaults, Dividend Arrearages and Delinquencies

Not applicable.

Item 14. Material Modifications to the Rights of Security Holders and Use of Proceeds

None.

Item 15. Control and Procedures

2022 Fiscal Year

Disclosure Controls and Procedures, and Report on Internal Control over Financial Reporting

(a) Disclosure Control and Procedures

We evaluated the effectiveness of our disclosure controls and procedures as of December 31, 2022 with the participation of our Chief Executive Officer and Chief Financial Officer. Based on our assessment, we concluded that, as of December 31, 2022, our disclosure controls and procedures were effective in providing reasonable assurance that information that we are required to disclose in the reports we present or submit under the Exchange Act is recorded, processed, summarized and reported, within the deadlines specified in the applicable rules and forms, and are accumulated and reported to our management, including our Chief Executive Officer and Chief Financial Officer, as appropriate to allow for timely decisions regarding any required disclosure.

(b) Management Annual Report on Internal Control over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting and for evaluating the effectiveness of internal control over financial reporting. The process of internal controls over financial reporting is designed by our Chief Executive Officer and our Chief Financial Officer, under the supervision of our Board of Directors, and is carried out by our management and other employees as a means to provide reasonable assurance regarding the reliability of financial reporting and the preparation of consolidated financial statements for external purposes in accordance with IFRS, issued by the IASB.

Rules 13a-15(f) and 15d-15(f) under the Exchange Act define internal control over financial reporting as a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles, and includes policies and procedures that (1) refer to record keeping that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the Company's assets; (2) provide reasonable assurance that transactions are recorded as necessary to enable the preparation of financial statements in accordance with generally accepted accounting principles, and that Company's receipts and expenses are being made only with authorization from Company's management and directors; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of Company's assets that could have a material effect on the audited consolidated financial statements.

Due to its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. In addition, projections of any assessment of effectiveness for future periods are subject to numerous risks, including that controls may become inadequate due to changes in conditions.

Our management has assessed the effectiveness of our internal controls over financial reporting as of December 31, 2022, was based on the criteria established in the Internal Control – Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

Based on such assessments and criteria, management has concluded that, as of December 31, 2022, our internal control over financial reporting is effective.

Our independent registered public accounting firm has examined the effectiveness of our internal control over financial reporting, as indicated in the report included in this document.

(c) Attestation Report of the Registered Public Accounting Firm



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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Shareholders and the Board of Directors of
Companhia Paranaense de Energia - Copel

Opinion on internal control over financial reporting

We have audited the internal control over financial reporting of Companhia Paranaense de Energia - Copel and subsidiaries (the "Company") as of December 31, 2022, based on criteria established in Internal Control - Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2022, based on criteria established in "Internal Control - Integrated Framework (2013)" issued by COSO.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board - PCAOB (United States), the consolidated financial statements as of and for the year ended December 31, 2022 of the Company, and our report, dated April 26, 2023, expressed an unqualified opinion on those financial statements.

Basis for opinion

The Company's Management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management Annual Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.



Definition and limitations of internal control over financial reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that: (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of Management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ DELOITTE TOUCHE TOHMATSU
Auditores Independentes Ltda.

Curitiba, Brazil
April 26, 2023

(d) Changes in Internal Control on Financial Reporting

Our management has not identified any other changes in its internal control over financial disclosure reporting during the year ended December 31, 2022 that has significantly affected, or is reasonably likely to materially affect, its internal control over financial reporting.

Item 16A. Audit Committee Financial Expert

On April 30, 2021, our Board of Directors reviewed the qualifications and backgrounds of the members of the Audit Committee and determined that Mr. Carlos Biedermann an “audit committee financial expert” within the meaning of Item 16A of Form 20-F and satisfied the requirements of independence of Rule 10A-3 under the Securities Exchange Act. For more information regarding our Audit Committee, see “Item 6. Directors, Senior Management and Employees—Audit Committee.”

Item 16B. Code of Ethics

Our code of ethics, called “Code of Conduct,” was adopted for the first time in 2003. Over the years, the document has been revised to adapt it to the Company’s reality. The current version of the Code of Conduct was approved on July 13, 2022 by the Board of Directors.

The Code of Conduct applies to all of our employees, interns, suppliers, service providers, contractors, directors and officers (including our Chief Executive Officer, our Chief Financial Officer and the head of our accounting department), as well as of our wholly owned subsidiaries. Since the adoption of our Code of Conduct, we have not granted any express or implied waiver of any section of our code to the persons to whom it applies.

Our Code is available on our website (ri.copel.com/en) and copies can also be mailed upon written request to the address given on the front cover.

Item 16C. Principal Accountant Fees and Services

Audit and Non-Audit Fees

Deloitte Touche Tohmatsu Auditores Independentes Ltda., PCAOB ID No. 1045, acted as our independent registered public accounting firm for the fiscal years ended December 31, 2022 and 2021.

The table next sets forth the total amount billed to Deloitte Touche Tohmatsu Auditores Independentes Ltda. for services performed 2022 and 2021, and breakdown these amounts by category of service.

Billed	Year ended December 31,	
	2022	2021
	(R\$ million)	
Audit fees	4.8	4.7
Audit-related fees	-	-
Tax fees	0.1	0.1
Total.....	4.9	4.8

Audit Fees

Audit fees are fees billed for the audit of our annual financial statements and for the reviews of our quarterly financial information in connection with statutory and regulatory filings or engagements.

Tax Fees

Tax fees are fees billed for the review of fiscal and tax procedures, including the examination of the procedures in force for the calculation, retention, registration, control, collection, recovery and accounting of taxes, including ancillary obligations.

Audit Committee Pre-Approval Policies and Procedures

When hiring other services from its external auditors, the Company's practice provides for prior analysis by the Audit Committee of the Board of Directors, which must consider in this assessment whether a relationship or service provided by an independent auditor: (i) creates conflicting interests with your audit client; (ii) puts them in a position to audit their own work; (iii) results in acting as a manager or as an employee of the audit client; or (iv) puts them in a position of attorney for the audit client.

The Audit Committee also considers, in this type of assessment, whether any service provided by the independent auditing company may impair, in fact or apparently, the firm's independence. Whenever necessary, the Audit Committee can count on the technical support of the Internal Audit, or of an independent consultancy, for technical evaluation that may be required in each specific case, with discussions on the contracting of other services being recorded in the minutes of this collegiate meeting independent auditor.

For more information regarding our Board of Directors and Audit Committee, see "Item 6. Directors, Senior Management and Employees."

Item 16D. Exemption from the Listing Standards for Audit Committees

Absent an exemption, a listed company must establish an audit committee composed of independent members of the board of directors that meets specified independence requirements set forth in Rule 10A-3 under the Securities Exchange Act. We rely on our Audit Committee, established pursuant to CVM Resolution No. 23/2021 to meet the exemption requirements under paragraph (c)(3) of Rule 10A-3. Under our bylaws and the Audit Committee's charter, (i) our Audit Committee shall have three to five members, (ii) a majority of its member must comply with the independence requirements of our bylaws and of Federal Law 13,303/2016, (iii) at least one member must be an independent member of our Board of Directors, (iv) at least one member must not be a member of our Board of Directors and (v) at least one member must be must satisfy accounting / financial expertise requirements of Federal Law 13,303/2016.

Currently, our Audit Committee is composed of three members. Mr. Carlos Biedermann, Marco Antônio Barbosa Cândido and Mr Luiz Claudio Maia Vieira. Mr Luiz Claudio Maia Vieira is characterized as an external member. For more information regarding our Audit Committee, see "Item 6. Directors, Senior Management and Employees—Audit Committee."

Item 16E. Purchases of Equity Securities by the Issuer and Affiliated Purchasers

None.

Item 16F. Changes in Registrant's Certifying Accountant

Not applicable.

Item 16G. Corporate Governance

Section	New York Stock Exchange Corporate Governance Rules for U.S. Domestic Issuers	Our Approach
Director Independence		
303A.01	A company listed on the New York Stock Exchange (a “listed company”) must have a majority of independent directors on its Board of Directors. “Controlled companies” are not required to comply with this requirement.	As a controlled company, we are not required to comply with the majority of independent directors requirement. Under our Bylaws, at least 25% of the members of our board must be independent, as determined by our shareholders and registered in the minutes of the General Meeting that elects these board members, in accordance with our Bylaws, Federal Laws 6,404/1976 and 13,303/2016, B3’s Level 2 Corporate Governance Regulation.
303A.03	The non-management directors of a listed company must meet at regularly scheduled executive sessions without management.	Our Chief Executive Officer is also a member of the board of directors. Our non-managing directors regularly hold executive sessions without management, which are usually scheduled to occur at the end of every board meeting.
Nominating/Corporate Governance Committee		
303A.04	A listed company must have a Nominating/Corporate Governance Committee composed entirely of independent directors, with a written charter that covers certain minimum specified duties. “Controlled companies” are not required to comply with this requirement.	As a controlled company, we are not be required to comply with the nominating/corporate governance committee requirements. In compliance with Article 10 of Brazilian Law 13,303/2016 we have a permanent statutory committee, advisory to the shareholders, and responsible for monitoring the nomination and evaluation processes applicable to our management, members of our board of directors, Supervisory Board, and board committees. This committee is composed of members appointed by our shareholders.
Compensation Committee		
303A.05	A listed company must have a compensation committee composed entirely of independent directors, with a written charter that covers certain minimum specified duties. “Controlled companies” are not required to comply with this requirement.	We do not have a compensation committee. As a controlled company, we are not required to comply with the compensation committee requirements.
Audit Committee		
303A.06 303A.07	A listed company must have an audit committee with a minimum of three (3) independent directors who satisfy the independence requirements of Rule 10A-3 under the Securities Exchange Act, with a written charter that covers certain minimum specified duties.	We have a Statutory Audit Committee, an independent advisory body to the Board of Directors, as per Article 51 of our Bylaws (Holding Company), whose responsibilities, duties, competencies and attributions are established in specific internal regulations, in compliance with the laws of Brazil and the United States, including the provisions of the Sarbanes-Oxley Act (SOX); SEC and NYSE rule sand best practices. We rely on the Statutory Audit Currently the Audit Committee is composed of three independent members.
Equity Compensation Plans		

Section	New York Stock Exchange Corporate Governance Rules for U.S. Domestic Issuers	Our Approach
303A.08	Shareholders must be given the opportunity to vote on all equity compensation plans and material revisions thereto, with limited exemptions set forth in the NYSE rules.	Under Brazilian Corporate Law, shareholder pre-approval is required for the adoption of any equity compensation plans and material revisions thereto.
Corporate Governance Guidelines		
303A.09	A listed company must adopt and disclose corporate governance guidelines that cover certain minimum specified subjects.	Although the corporate governance practices adopted by us do not comply with all the terms specified in the rules of the NYSE, they fulfill the requirements established for companies listed on level 2 of corporate governance of B3S.A. Brasil, Bolsa e Balcão. We also adopt the Code of Better Corporate Governance Practices of the Brazilian Institute for Corporate Governance (“IBGC”).
Code of Ethics for Directors, Officers and Employees		
303A.10	A listed company must adopt and disclose a code of business conduct and ethics for its directors, officers and employees, and must promptly disclose any waivers of the code for directors or executive officers.	We have adopted a code of ethics, a set of rules that guide the actions of all persons who perform activities on behalf of us and our wholly owned and controlled subsidiaries, including employees (regardless of their function or hierarchical position), administrators (members of the Board of Directors and Board of Executive Officers), members of the Audit Committee, interns, suppliers, service providers and outsourced personnel. All such individuals are responsible for abiding by the code’s provisions and applying its content within their respective roles, in addition to promoting disclosure, understanding and integration of our code of ethics.
Certification Requirements		
303A.12	A CEO of a listed company must promptly notify the NYSE in writing after any executive officer of the listed company becomes aware of any material non-compliance with any applicable provisions of Section 303A and certify he or she is not aware of any violation by the listed company of NYSE corporate governance listing standards, qualifying the certification to the extent necessary. Each listed company must submit an executed Written Affirmation annually to the NYSE. In addition, each listed company must submit an interim Written Affirmation as and when required by the interim Written Affirmation form specified by the NYSE.	Our CEO will promptly notify the NYSE in writing after any of our executive officer’s become aware of any material non-compliance with any applicable provisions of the NYSE corporate governance rules and will also certify if he is not aware of any violation by the listed company of NYSE corporate governance listing standards. We submit every year an Annual Written Affirmation to the NYSE and will submit an interim Written Affirmation when required.

Item 16H. Mine Safety Disclosure

Not applicable.

Item 16I. Disclosure Regarding Foreign Jurisdictions that Prevent Inspections

Not applicable.

Item 17. Financial Statements

Not applicable.

Item 18. Financial Statements

Item 19. Exhibits

1.1	Corporate Bylaws approved and consolidated by the 187th Extraordinary Shareholders Meeting, of October 10, 2013, and amended by the 190th Extraordinary Shareholders meeting, of April 23, 2015, and by the 193rd Extraordinary Shareholders meeting of December 22, 2016, and by the 195 th Extraordinary Shareholders meeting of June 7, 2017, and by the 197th Extraordinary Shareholders meeting of June 28, 2018, and by the 199 th Extraordinary Shareholders meeting of April 29, 2019, and by the 200 th Extraordinary Shareholders meeting of December 02, 2019, and by the 201 th Extraordinary Shareholders meeting of March 11, 2021.
2.1	Deposit Agreement (preferred shares) dated as of March 21, 1996, as amended and restated as of April 27, 2021 in the form of Exhibit 2.1 hereto.
2.4	Description of Securities registered under Section 12 of the Exchange Act.
8.1	List of subsidiaries controlled by us
12.1	Certification of our Chief Executive Officer, pursuant to Rules 13a-14 and 15d-14 under the Securities Exchange Act of 1934.
12.2	Certification of our Chief Financial Officer, pursuant to Rules 13a-14 and 15d-14 under the Securities Exchange Act of 1934.
13.1	Certification of our Chief Executive Officer, pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
13.2	Certification of our Chief Financial Officer, pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
101.INS	XBRL Instance Document.
101.SCH	XBRL Taxonomy Extension Schema Document.
101. CAL	XBRL Taxonomy Extension Calculation Linkbase Document.
101. DEF	XBRL Taxonomy Extension Definition Linkbase Document.
101.LAB	XBRL Taxonomy Extension Label Linkbase Document.
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document.

We omitted from the exhibits filed with or incorporated by reference into this annual report certain promissory notes and other instruments and agreements with respect to our long-term debt, none of which authorizes securities in a total amount that exceeds 10% of our total assets. We hereby agree to furnish to the Securities and Exchange Commission copies of any such omitted promissory notes or other instruments or agreements as the Commission requests.

TECHNICAL GLOSSARY

2013 Concession Renewal Law: Brazilian Law No. 12,783 enacted on January 11, 2013, under which most generation, transmission and distribution concessionaires may be renewed at the request of the concessionaire for an additional period of 30 years, but only if the concessionaire agrees to amend the terms of the concession contract to reflect a new tariff regime to be established by ANEEL.

ADSs: American Depositary Shares, each representing one Unit.

ANEEL: The Brazilian Electricity Regulatory Agency, or the *Agência Nacional de Energia Elétrica*.

Assured Energy: Determined amount assigned to each hydroelectric plant according to the energy supply risk criteria defined by MME. The Assured Energy also represents the maximum energy that can be sold by the generator, which is set forth in each concession agreement, irrespective of the volume of electricity actually generated by the facility.

Availability Agreement: Agreement under which a generator commits to making a certain amount of electrical capacity available to the Regulated Market. In such case, the generator's revenue is guaranteed, and the distributors must bear the risk of a supply shortage.

Average Tariff or Rate: Total sales revenue divided by total megawatt hours (MWh) sold for each relevant period, including in the case of the Company, unbilled electricity, or electricity which has been delivered to a customer, but for which the utility has yet to deliver a bill. Total sales revenue, for the purpose of computing average tariff or rate, includes both gross billings before deducting value-added tax and unbilled electricity sales upon which such taxes have not yet accrued.

Bilateral Agreement: Legal instrument that formalizes the purchase and sale of electric energy between Agents of the Chamber of Commercialization of Electric Energy - CCEE, with the purpose of establishing prices, terms and amounts of supply at determined time intervals.

BNDES: the National Bank for Economic and Social Development, or *Banco Nacional de Desenvolvimento Econômico e Social*.

Brazilian Central Bank: The Brazilian Central Bank, or *Banco Central do Brasil*. *Brazilian Forestry Code:* Federal Law No. 12,651/2012.

B3 (Brasil, Bolsa, Balcão): B3 S.A. - Brasil, Bolsa, Balcão, the securities, commodities and futures exchange, headquartered in São Paulo, Brazil, incorporated as a result of the merger of BM&FBOVESPA S.A. – Bolsa de Valores, Mercadorias e Futuros and CETIP S.A. – Mercados Organizados.

Captive Customers: customers whose energy is supplied by the distributor in which the consumer unit is connected, such as that the amount paid already includes the energy cost and service cost for use of transmission and distribution - wire service. The consumer is not free to negotiate the conditions and the flexibility of energy supplied to meet the needs of its business, instead having to follow the determinations set forth by the distributor. The consumer is subject to the unpredictability of the annual variation of the value of the distributors' tariffs.

CCEE (Câmara de Comercialização de Energia Elétrica): Chamber of Commercialization of Electric Energy.

CDE: the Electric Energy Development Account, or *Conta de Desenvolvimento Energético*.

CER: Reserve Energy Contract (Contrato de Energia Reserva).

Class A Shares: Our class A preferred shares.

Class B Shares: Our class B preferred shares.

CMN: The National Monetary Council of Brazil, or *Conselho Monetário Nacional*.

Code: The U.S. Internal Revenue Code of 1986, as amended.

Common Shares: Our common shares.

Compagas: Companhia Paranaense de Gás – Compagas

Copel Distribuição: Copel Distribuição S.A., Our entity engaged in the distribution business.

Copel Geração e Transmissão S.A. or Copel GeT: Our entity engaged in the generation and transmission business.

CRC Account: The recoverable rate deficit account, or *Conta de Resultados a Compensar*.

Custodian: Itaú Unibanco S.A., as custodian for the Units represented by ADSs.

CVM (Comissão de Valores Mobiliários): Securities and Exchange Commission

Decree No. 6,306/07: Brazilian tax Decree No. 6,306 dated December 14, 2007, which regulates tax on credit, exchange and insurance, or relating to securities – *IOF*.

Deloitte: Deloitte Touche Tohmatsu Auditores Independentes Ltda.

Deposit Agreement: A Deposit Agreement between us, the Depositary and the registered holders and beneficial owners from time to time of the ADSs.

Depositary: The Bank of New York Mellon, as depositary.

Distribution: The transfer of electricity from the transmission lines at grid supply points and its delivery to customers through distribution lines at voltages between 13.8 kV and 44 kV.

Distributor: An entity supplying electrical energy to a group of customers by means of a distribution grid.

Elejor: Centrais Elétricas do Rio Jordão S.A.

Eletrosul: Eletrosul Centrais Elétricas S.A.

Energy Agreement: Agreement under which a generator commits to supply a certain amount of electricity and assumes the risk that its electricity supply could be adversely affected by hydrological conditions and low reservoir levels, which could interrupt the supply of electricity. In such case, the generator would be required to purchase electricity elsewhere in order to comply with its supply commitments.

Final Customer: A party that uses electricity for its own needs.

Free Customers: Electricity customers that are able to choose their own power suppliers since they meet the following requirements: as from January 1, 2022, with demand of at least 1.0 MW at any voltage; and, after January 1, 2023, with demand of at least 500 kW at any voltage

Free Market: Market segment that permits a certain degree of competition. The Free Market specifically contemplates purchase of electricity by non-regulated entities such as Free Customers and energy traders.

Furnas: Furnas Centrais Elétricas S.A

Generating Unit: An electric generator together with the turbine or other device that drives it.

Gigawatt (GW): One billion watts.

Gigawatt hour (GWh): One gigawatt of power supplied or demanded for one hour, or one billionwatt hours.

Group A Customers: A group of customers that uses electricity at 2.3 kV or higher. Tariffs applied to this group are based on the actual voltage level at which energy is supplied and the time of day and year the energy is supplied.

Group B Customers: A group of customers that uses electricity at less than 2.3 kV. Tariffs applied to this group are comprised solely of an energy charge and are based on the classification of the customer.

GSF: Generation Scaling Factor.

HPP or Hydroelectric Power Plant: A generating unit that uses water power to drive the electric generator.

IASB: International Accounting Standards Board.

IFRS: International Financial Reporting Standards.

IGP-DI: The *Índice Geral de Preços—Disponibilidade Interna* inflation index.

IGP-M Index: The Brazilian General Market Price inflation index, or the *Índice Geral de Preços do Mercado*.

Installed Capacity: The level of electricity that can be delivered from a particular generating unit on a full-load continuous basis under specified conditions as designated by the manufacturer.

Interconnected Transmission System: Systems or grids for the transmission of energy, connected together by means of one or more lines and transformers.

IPCA: *Índice Nacional de Preços ao Consumidor Amplo* - IPCA inflation index.

IPP: Independent Power Producer, a legal entity or consortium holding a concession or authorization for power generation for sale for its own account to public Utility concessionaires or Free Customers.

Itaipu: Itaipu Binacional, a hydroelectric facility equally owned by Brazil and Paraguay, with an installed capacity of 14,000 MW.

Kilovolt (kV): One thousand volts.

Kilowatt (kW): One thousand watts.

Kilowatt hour (kWh): One kilowatt of power supplied or demanded for one hour, or one thousand watt hours.

Latibex: A Euro-based market for Latin American securities, which is part of the Madrid Stock Exchange.

LGPD: Brazilian Federal Law No. 13,709/2018, or *Lei Geral de Proteção de Dados Pessoais*.

Low-income Residential Customers: A group of customers that consumes less than 220 kWh per month and has filed an application to receive benefits under any of the Brazilian government's social programs. Low-income residential customers are considered a subgroup of residential customers and are not subject to payment of emergency capacity and emergency acquisition charges or any extraordinary tariff approved by ANEEL.

Main Transmission Concession: transmission concession contract No. 060/2001 comprised of different transmission assets that were in operation in the year of 2001 (date of execution of the concession agreement).

MCSD: The Mechanism for Compensation of Surpluses and Deficits (*Mecanismo de Compensação de Sobras e Déficits*), which corresponds to the process of reallocation of energy surpluses and deficits undertaken in accordance with the Regulated Contracting Environment – ACR among the distribution agents that participate in CCEE.

MCSD-EN: The Mechanism for Compensation of Surpluses and Deficits of New Energy (*Mecanismo de Compensação de Sobras e Déficits de Energia Nova*), which allows distribution agents to offset amounts of electric energy and power acquired in auctions of new generation projects, and allows the reduction of amounts contracted

with generating agents bound to new generation ventures.

Megawatt (MW): One million watts.

Megawatt hour (MWh): One megawatt of power supplied or demanded for one hour, or one million watt hours.

MME: The Brazilian Ministry of Mines and Energy, or the *Ministério de Minas e Energia*.

MRE: The Energy Reallocation Mechanism is a mechanism which attempts to mitigate the risks borne by hydroelectric generators due to variations in river flows (hydrological risk).

MVE: The Mechanism of Surplus Sales, or the *Mecanismo de Venda de Excedentes*, which allows distribution companies to sell energy surpluses and, in the case of sales related to amounts within the regulatory limits or involuntary over contracting, allows distribution companies to revert the acquired benefit to consumers through tariff adjustments.

Non-Brazilian Holder: An individual, entity, trust or organization resident or domiciled outside Brazil for purposes of Brazilian taxation that acquires, owns and disposes of Common Shares, Preferred Shares, Units or ADSs.

PLD: Difference Settlement Price or, *Preço de Liquidação de Diferenças*.

PPD: Performance Incentive Program, or *Prêmio Por Desempenho*.

Preferred Shares: Our preferred shares, divided between Classe A Shares and Class B Shares.

ONS: The National Electric System Operator, or the *Operador Nacional do Sistema Elétrico*.

RAP or APR: Annual Permitted Revenues, or *Receita Anual Permitida*, the annual revenue established by ANEEL to be charged by a transmission concessionaire for the use of its transmission lines by third parties, which include Free Customers, generators and distributors.

Rationing Program: A program instituted by the Brazilian government to reduce electricity consumption, in effect from June 1, 2001 to February 28, 2002, given it was a period of low rainfall in Brazil.

Real, Reais or R\$: Brazilian *reais* (plural) and the Brazilian *real* (singular).

Regulated Market: Market segment in which distribution companies purchase all the electricity needed to supply customers through public auctions. The auction process is administered by ANEEL, either directly or through CCEE, under certain guidelines provided by the MME. The regulated market is generally considered to be more stable in terms of supply of electricity.

Regulatory Remuneration Base: The aggregate amount of investments made by the distribution companies in connection with the services compensated by tariffs charged to consumers (*Base de Remuneração Regulatória*).

Reserve Energy Auction: mechanism for the contracting of reserve energy created to increase the security in the supplied of energy by the National Interconnected System (SIN). The reserve auction acts as an insurance contracted by distributors to be used when there is a mismatch between forecasted demand and supply. This modality of contracting is formalized through the conclusion of the CER between the selling agents in the auctions and the CCEE.

Retail Tariff: Revenue charged by distribution companies to its customers. Each customer falls within a certain tariff level defined by law and based on the customer's classification, although some flexibility is available according to the nature of each customer's demand. Retail tariffs are subject to annual revision by ANEEL.

RGR Fund: A reserve fund designed to provide compensatory payments to energy companies for certain assets used in connection with a concession if the concession is revoked or is not renewed.

Sanepar: Companhia de Saneamento do Paraná – Sanepar.

Securities Act: The United States Securities Act of 1933, as amended.

Securities Exchange Act: The United States Securities Exchange Act of 1934, as amended.

Sercomtel: Sercomtel Telecomunicações S.A.

SHP – Small Hydroelectric Plant: Hydroelectric plants with generating capacity between 1,000 kW and 30,000 kW with a reservoir covering an area equal to or less than 3.0 km².

SPC: Special Purpose Company, or *Sociedade de Propósito Específico*.

Special Customers: A group of customers that uses at least 500 kV. A Special Customer may choose its energy supplier if that supplier derives its energy from alternative sources, such as small hydroelectric plants, wind plants or biomass plants.

Spot Market: Deregulated market segment in which electricity is bought or sold for immediate delivery. In general, prices of spot market energy purchases tend to be substantially higher than the price of energy under long-term energy purchase agreements.

Substation: An assemblage of equipment, which switches and/or changes or regulates the voltage of electricity in a transmission and distribution system.

Tax Haven Holder: A shareholder situated in tax haven jurisdictions (that is, a country or location that does not impose income tax or where the maximum income tax rate is lower than 20% (or 17%, as the case may be) or where the local legislation imposes restrictions on disclosing the shareholding composition or the ownership of the investment or the beneficial owner of the income derived from transactions carried out and attributable to a Non-Brazilian Holder). The list of tax haven jurisdictions is currently provided in Normative Ruling No. 1,037.

Thermoelectric Plant or TPP: A generating unit which uses combustible fuel, such as coal, oil, diesel natural gas or other hydrocarbon as the source of energy to drive the electric generator.

TJLP: The Long-Term Interest Rate, or the *Taxa de Juros a Longo Prazo*, the Brazilian government's long-term interest rate.

Transmission: The bulk transfer of electricity from generating facilities to the distribution grid at load center station by means of the transmission grid (in lines with capacity between 69 kV and 525 kV).

Transmission Tariff: Revenue charged by a transmission concessionaire based on the transmission grid it owns and operates. Transmission tariffs are subject to periodic revisions by ANEEL.

TUST: The tariff established by ANEEL for the use of the transmission system, which is the Interconnected Transmission System and its ancillary facilities.

UHE GBM: Governador Bento Munhoz da Rocha Netto Hydroelectric Power Plant.

Unit(s): depositary receipt traded in B3 and Latibex, and depending on the context, the depositary receipt represented by ADS traded in NYSE, in each case composed by one Common Share and four Class B Shares.

U.S. Dollars, dollars, or US\$: United States dollars.

U.S. Holder: A beneficial holder of a Common Share, a Preferred Share, an Unit or an ADS that is (i) an individual citizen or resident of the United States of America, (ii) a corporation, or any other entity taxable as a corporation, organized under the laws of the United States of America, any state thereof, or the District of Columbia, or (iii) otherwise subject to U.S. federal income taxation on a net basis with respect to the Common Share, Preferred Share, Unit or ADS.

Utility: An entity that is the holder of a concession or authorization to engage in the generation, transmission or

distribution of electric energy in Brazil.

Volt: The basic unit of electric force analogous to water pressure in pounds per square inch.

Watt: The basic unit of electrical power.

SIGNATURES

The registrant hereby certifies that it meets all of the requirements for filing on Form 20-F and that it has duly caused and authorized the undersigned to sign this annual report on its behalf.

COMPANHIA PARANAENSE DE ENERGIA – COPEL

By: /s/ Daniel Pimentel Slaviero

Name: Daniel Pimentel Slaviero

Title: Chief Executive Officer

By: /s/ Adriano Rudek de Moura

Name: Adriano Rudek de Moura

Title: Chief Financial and Investor Relations Officer

Date: April 26, 2023

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Shareholders and the Board of Directors of
Companhia Paranaense de Energia - Copel

Opinion on the financial statements

We have audited the accompanying consolidated statements of financial position of Companhia Paranaense de Energia - Copel and subsidiaries (the "Company") as of December 31, 2022 and 2021, the related consolidated statements of income, of comprehensive income, of changes in equity and of cash flows for each of the three years in the period ended December 31, 2022, and the related notes (collectively referred to as the "financial statements"). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2022 and 2021, and the results of its operations and of its cash flows for each of the three years in the period ended December 31, 2022, in conformity with International Financial Reporting Standards - IFRS as issued by the International Accounting Standards Board - IASB.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2022, based on the criteria established in "Internal Control - Integrated Framework (2013)" issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated April 26, 2023, expressed an unqualified opinion on the Company's internal control over financial reporting.

Basis for opinion

These financial statements are the responsibility of the Company's Management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by Management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

Critical audit matters

The critical audit matters communicated below are matters arising from the current-period audit of the financial statements that were communicated or required to be communicated to the audit committee and that: (1) relate to accounts or disclosures that are material to the financial statements, and (2) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the financial statements, taken as a whole, and we are not, by communicating the critical audit matters below, providing separate opinions on the critical audit matters or on the accounts or disclosures to which they relate.

Recognition of revenue from electricity sales to final customers and use of the main distribution and transmission grid - Refer to notes 4.12 and 30 to the financial statements

Critical audit matter description

The Company bills its customer on a monthly basis based on the energy measured, and recognize revenue at this moment. The Company also recognize unbilled revenue calculated between the date of the last measurement and the end of the month, on estimated basis, based on the average of the last billing. Unbilled revenues from the billing date to month-end are estimated based on the prior month's billing and recognized as revenue at the end of the month in which the service was provided. At the end of each month, the volume of energy delivered to customers since the date of the last measurement is estimated and the corresponding unbilled revenue is determined considering the estimated daily consumption and the applicable rates by customer class, reflecting historical trends and significant experience. The differences between estimated unbilled and actual revenues are recognized in the next month.

We identified recognition of revenue from electricity sales to final customers and use of the main distribution and transmission grid as a critical audit matter because of the judgments necessary to audit the revenue recognition, including the methods and assumptions used to estimate unbilled revenue, as well as the use of automated systems to process and recognize revenue. Performing procedures to audit revenue required a high degree of auditor judgment and extensive audit effort, including involvement of our Information Technology (IT) specialists.

How the critical audit matter was addressed in the audit

Our audit procedures on revenue recognition included the following, among others:

- We tested the effectiveness of controls over revenue recognition, including Management's controls over the measurement of energy volumes and pricing, as well as controls over estimates of unbilled revenue.
- With the assistance of our IT specialists, we:
 - Identified the significant systems used to process revenue transactions and tested the general IT controls over each of these systems, including testing of user access controls, change management controls, and IT operations controls.
 - Performed testing of system interface controls and automated controls within the relevant revenue streams, as well as the controls designed to ensure the accuracy and completeness of revenue.

- With respect to unbilled revenue, we:
 - Evaluated the appropriateness and consistency of the methods and assumptions used by Management to develop the estimates of unbilled revenue.
 - Tested the mathematical accuracy of Management’s estimates of unbilled revenue.
 - Evaluated Management’s ability to estimate unbilled revenue accurately by comparing actual subsequent revenue with Management’s historical estimates for the related revenue streams.
- We performed a test that comprised developing an independent expectation of the revenue amounts and its comparison with revenue effectively recognized.
- For a sample of revenue transactions, we performed detail transaction testing by agreeing the amounts recognized to source documents, testing the mathematical accuracy of the revenue recognized, and verifying subsequent cash receipts.
- We assessed whether the disclosures made by Management in the financial statements are appropriate.

Provisions for legal claims and contingent liabilities - Refer to notes 4.11 and 28 to the financial statements

Critical audit matter description

The Company is part in several legal and administrative proceedings before different courts. Based on assessments made by the Company’s legal counsel, Management recognized a provision for those lawsuits which likelihood of loss is probable. The Company’s Management believes that it is not practicable to provide information regarding the expected timing of any cash outflows related to the lawsuits in which the Company and its subsidiaries are involved, due to the slow pace and unpredictability of Brazilian legal, tax and regulatory systems, and since final resolution of the proceedings for which a provision has been recognized depends on the conclusions of the lawsuits or arbitration proceedings.

We identified provisions for legal claims and contingent liabilities as a critical audit matter because of the large number of cases and the subjectivity necessary to estimate the likelihood and to measure the provision for litigation of potential losses. Performing audit procedures to evaluate whether the provision for legal claims was appropriately recognized and disclosed required a high degree of auditor judgment and an increased extent of effort.

How the critical audit matter was addressed in the audit

Our audit procedures related to provision for legal claims and contingent liabilities included the following, among others:

- We tested the effectiveness of controls related to provision for legal claims and evaluation of contingent liabilities, including those over the completeness and accuracy on such information, including the review of new and outstanding legal matters, as well as controls over the measurement of potential losses.
- With the assistance of our IT specialists, we tested the effectiveness of controls related to the information systems used by Management to monitor and evaluate outstanding legal matters.
- We tested the completeness and accuracy of the database used by Management to manage outstanding legal matters and to determine the likelihood of loss and measuring potential losses.
- We inquired internal and external legal counsel to understand developments in legal matters and progression in potential settlement discussions.

- We requested and received a written response from internal and external legal counsel as it relates to lawsuits and the related classification of the likelihood of loss for the Company and the amounts involved, as applicable.
- We read the minutes of the meetings of the Board of Directors and Board of Executive Officers for evidence of undisclosed contingencies or unrecognized provisions.
- We evaluated the assumptions and judgments used by Management to estimate the provision for legal claims, including corroborating the assumptions with internal legal counsel, with the assistance of our tax and environmental specialists, for specific matters we have deemed necessary.
- We evaluated the Company's disclosures for consistency with our knowledge of the Company's legal matters.

Provision for allocation of PIS and COFINS credits - Refer to note 12.2.1 to the financial statements

Critical audit matter description

The Company recognized in prior years, as well as in the current year, liabilities to be refunded to customer related to the recovery of PIS and COFINS tax credits. In prior years, the Company considered that the liability was limited to the past ten years, counted from the date of the final and unappealable decision on the lawsuit that recognized the right to such tax credits. Federal Law No. 14,385 was enacted on June 27, 2022, which defines the allocation of mandatory tax amounts that were overpaid by the public electricity distribution service, due to the recognition by the judiciary that ICMS should be excluded from the PIS and COFINS calculation basis. Based on the review of the risk assessment carried out by Management and supported by the opinion of the legal counsel, as a consequence of such new Law enacted during 2022, the Company recognized an additional provision during the current year, referring to the period between the 11th and the 16th year from the date of the final and unappealable decision of the lawsuit.

We identified the provision for allocation of PIS and COFINS credits as a critical audit matter due to the judgements exercised in the assessment of the requirements of the Law No. 14,385 enacted during the current year and the related application of accounting pronouncements to determine the Company's probable obligation to the customers. Performing procedures to audit the provision for allocation of PIS and COFINS credits required a high degree of auditor judgment due to the significant judgement exercised by Management in the assessment of the Law No. 14,385 and the related provision.

How the critical audit matter was addressed in the audit

Our audit procedures related to the provision for allocation of PIS and COFINS credits included the following, among others:

- We tested the effectiveness of controls related to Management's process to assess and recognize this provision.
- With the assistance of our legal specialists, we:
 - Obtained the legal opinions prepared by the Company's legal specialists (outside legal counsel and the Company's attorneys in charge) with respect to the assessment of the requirements of Federal Law 14.385 and its relationship with the other laws applicable to the matter.
 - Assessed the arguments and judgments presented by the Company and its legal specialists, mainly documented in the legal opinions mentioned before.

- With the assistance of our specialists in technical accounting and audit standards, we assessed the concepts used by Management for the accounting treatment of Federal Law 14,385.
- We assessed whether the disclosures made by Management in the financial statements are appropriate.

/s/ DELOITTE TOUCHE TOHMATSU
Auditores Independentes Ltda.

Curitiba, Brazil

April 26, 2023

We have served as the Company's auditor since 2016.

**Companhia Paranaense de Energia – Copel and Subsidiaries
Consolidated Financial Statements as of December 31, 2022 and 2021
and for the years ended December 31, 2022, 2021 and 2020 and Report of
Independent Registered Public Accounting Firm**

COMPANHIA PARANAENSE DE ENERGIA – COPEL and Subsidiaries
Consolidated Statements of Financial Position
As of December 31, 2022 and 2021
All amounts expressed in thousands of Brazilian reais, unless otherwise stated

ASSETS	Note	12.31.2022	12.31.2021
CURRENT ASSETS			
Cash and cash equivalents	5	2,678,457	3,472,845
Bonds and securities	6	93	16,121
Collaterals and escrow accounts		157	182
Trade accounts receivable	7	3,342,050	4,433,193
Dividends receivable		138,330	68,162
Sectorial financial assets	8	190,699	383,740
Accounts receivable - concessions	9	8,603	5,121
Contract assets	10	220,660	148,488
Other current receivables	11	897,380	749,816
Inventories		194,850	197,779
Income tax and social contribution receivable	12.3	355,065	151,912
Other current recoverable taxes	12.2	1,239,694	1,508,864
Prepaid expenses	13	60,076	53,649
Receivable from related parties	35	1,135	-
		9,327,249	11,189,872
NONCURRENT ASSETS			
Long Term Assets			
Bonds and securities	6	430,963	344,937
Other temporary investments		25,619	19,985
Collaterals and escrow accounts		-	142,764
Trade accounts receivable	7	109,819	82,233
Judicial deposits	14	632,458	591,131
Sectorial financial assets	8	190,699	383,740
Accounts receivable - concessions	9	2,269,690	2,261,684
Contract assets	10	7,452,019	6,739,560
Other noncurrent receivables	11	931,452	916,606
Income tax and social contribution receivable		127,824	153,850
Deferred income tax and social contribution	12.1	1,644,299	963,259
Other noncurrent recoverable taxes	12.2	2,627,293	3,143,546
Prepaid expenses	13	10	27
		16,442,145	15,743,322
Investments	15	3,325,731	3,042,134
Property, plant and equipment	16	10,069,468	10,142,591
Intangible assets	17	10,277,727	9,215,560
Right-of-use asset	26	261,380	204,056
		40,376,451	38,347,663
TOTAL ASSETS		49,703,700	49,537,535

Notes are an integral part of these financial statements

COMPANHIA PARANAENSE DE ENERGIA – COPEL and Subsidiaries
Consolidated Statements of Financial Position
As of December 31, 2022 and 2021
All amounts expressed in thousands of Brazilian reais, unless otherwise stated

LIABILITIES	Note	12.31.2022	12.31.2021
CURRENT LIABILITIES			
Payroll, social charges and accruals	18	252,789	604,810
Accounts payable to suppliers	19	2,090,022	2,585,735
Income tax and social contribution payable		156,191	63,946
Other taxes due	12.2	303,606	440,933
Loans and financing	20	278,838	579,770
Debentures	21	1,346,347	2,144,485
Dividend payable		482,325	330,947
Post-employment benefits	22	73,814	68,836
Sectorial charges payable	23	46,488	198,386
Research and development and Energy efficiency	24	370,244	292,495
Accounts payable related to concession	25	105,003	104,963
Sectorial financial liabilities	8	433,914	139,770
Lease liability	26	64,870	47,240
Other accounts payable	27	601,619	370,383
PIS and Cofins to be refunded to consumers	12.2.1	550,527	7,294
		7,156,597	7,979,993
NONCURRENT LIABILITIES			
Accounts payable to suppliers	19	125,448	125,249
Deferred income tax and social contribution	12.1	1,517,682	1,364,828
Other taxes due	12.2	633,491	594,810
Loans and financing	20	4,371,525	3,098,674
Debentures	21	6,457,508	6,003,132
Post-employment benefits	22	996,223	1,226,338
Research and development and Energy efficiency	24	244,514	334,602
Accounts payable related to concession	25	832,539	798,996
Sectorial financial liabilities	8	49,341	153,409
Lease liability	26	208,886	165,494
Other accounts payable	27	645,234	599,909
PIS and Cofins to be refunded to consumers	12.2.1	1,444,631	3,319,501
Provision for allocation of PIS and Cofins credits	12.2.1	1,851,257	-
Provisions for legal claims	28	2,037,599	1,597,365
		21,415,878	19,382,307
EQUITY			
Attributable to controlling shareholders			
Capital	29.1	10,800,000	10,800,000
Equity valuation adjustments	29.2	593,382	426,170
Legal reserve		1,512,687	1,457,087
Profit retention reserve		7,911,295	7,785,092
Additional dividends proposed		-	1,368,675
		20,817,364	21,837,024
Attributable to non-controlling interests	15.2.2	313,861	338,211
		21,131,225	22,175,235
TOTAL LIABILITIES & EQUITY		49,703,700	49,537,535

Notes are an integral part of these financial statements

COMPANHIA PARANAENSE DE ENERGIA – COPEL and Subsidiaries
Consolidated Statements of Income
For the years ended December 31, 2022, 2021 and 2020
All amounts expressed in thousands of Brazilian reais, unless otherwise stated

	Note	12.31.2022	12.31.2021	12.31.2020
CONTINUING OPERATIONS				
NET OPERATING REVENUE	30	21,927,721	23,984,287	18,633,249
Operating costs	31	(16,928,407)	(19,119,637)	(13,347,822)
GROSS OPERATING PROFIT		4,999,314	4,864,650	5,285,427
Other operational expenses / income				
Selling expenses	31	(186,740)	(194,998)	(159,825)
General and administrative expenses	31	(803,721)	(924,561)	(809,408)
Hydrological Risk Renegotiation - GSF	17.2	-	1,570,543	-
Other operational income (expenses), net	31	(760,631)	(235,910)	(256,475)
Provision for allocation of PIS and Cofins credits	12.2.1	(810,563)	-	-
Equity in earnings of investees	15	478,577	366,314	193,547
		(2,083,078)	581,388	(1,032,161)
PROFIT BEFORE FINANCIAL RESULTS AND TAXES		2,916,236	5,446,038	4,253,266
Financial results				
Financial income	32	1,032,837	932,049	895,119
Financial expenses		(1,987,504)	(1,259,410)	(973,397)
Restatement of credits/ (provision for destination of credits) of PIS and Cofins	12.2.1	(1,011,370)	-	944,549
		(1,966,037)	(327,361)	866,271
OPERATING PROFIT		950,199	5,118,677	5,119,537
INCOME TAX AND SOCIAL CONTRIBUTION				
Current	12.3	(429,267)	(469,226)	(1,260,469)
Deferred		628,389	(790,406)	(24,896)
		199,122	(1,259,632)	(1,285,365)
NET INCOME FROM CONTINUING OPERATIONS		1,149,321	3,859,045	3,834,172
DISCONTINUED OPERATIONS				
Net income from discontinued operations	39	-	1,189,557	75,578
NET INCOME		1,149,321	5,048,602	3,909,750
Attributed to shareholders of the parent company arising from continuing operations		1,112,007	3,767,197	3,823,981
Attributed to shareholders of the parent company due to discontinued operations		-	1,185,376	80,221
Attributed to non-controlling shareholders resulting from continuing operations	15.2.2	37,314	96,029	5,548
BASIC AND DILUTED EARNING PER SHARE ATTRIBUTED TO CONTROLLING SHAREHOLDERS - CONTINUING OPERATIONS - Expressed in Brazilian Reais				
Common shares	29.3	0.38839	1.20448	1.33430
Class "A" Preferred shares		0.50343	1.41173	1.76982
Class "B" Preferred shares		0.41745	1.50668	1.46773
BASIC AND DILUTED EARNING PER SHARE ATTRIBUTED TO CONTROLLING SHAREHOLDERS - Expressed in Brazilian Reais				
Common shares	29.3	0.38839	1.61429	1.36229
Class "A" Preferred shares		0.50343	1.86252	1.80062
Class "B" Preferred shares		0.41745	1.95747	1.49852

Notes are an integral part of these financial statements

COMPANHIA PARANAENSE DE ENERGIA – COPEL and Subsidiaries
Consolidated Statements of Comprehensive Income
For the years ended December 31, 2022, 2021 and 2020
All amounts expressed in thousands of Brazilian reais, unless otherwise stated

	Note	12.31.2022	12.31.2021	12.31.2020
NET INCOME		1,149,321	5,048,602	3,909,750
Other comprehensive income				
Items that will never be reclassified to profit or loss				
Gain (losses) on actuarial liabilities	29.4			
Post employment benefits		291,740	246,626	(271,345)
Taxes on other comprehensive income		(88,548)	(93,881)	92,190
Items that may be reclassified to profit or loss	29.4			
Adjustments related to financial assets		10,295	-	-
Taxes on other comprehensive income		(3,500)	-	-
Total other comprehensive income, net of taxes		209,987	152,745	(179,155)
TOTAL COMPREHENSIVE INCOME		1,359,308	5,201,347	3,730,595
Attributable to controlling shareholders - continuing operations		1,319,273	3,919,798	3,645,033
Attributable to controlling shareholders - discontinued operations		-	1,185,376	80,221
Attributed to non-controlling shareholders - continuing operations		40,035	96,173	5,341

Notes are an integral part of these financial statements

COMPANHIA PARANAENSE DE ENERGIA – COPEL and Subsidiaries
Consolidated Statements of Changes in Equity
For the years ended December 31, 2022, 2021 and 2020
All amounts expressed in thousands of Brazilian reais, unless otherwise stated

	Note	Attributable to controlling shareholders								Attributable to non-controlling interests	Equity Consolidated
		Capital	Equity valuation adjustments		Profit reserves			Accumulated profit	Shareholders' equity		
			Deemed cost	Other comprehensive income	Legal reserve	Profit retention reserve	Additional proposed dividends				
Balance as of January 1, 2020		10,800,000	739,994	(148,067)	1,014,248	4,846,239	-	-	17,252,414	345,798	17,598,212
Net Income		-	-	-	-	-	-	3,904,202	3,904,202	5,548	3,909,750
Other comprehensive income		-	-	-	-	-	-	-	-	-	-
Actuarial losses, net of taxes	29.4	-	-	(178,948)	-	-	-	-	(178,948)	(207)	(179,155)
Total comprehensive income		-	-	(178,948)	-	-	-	3,904,202	3,725,254	5,341	3,730,595
Realization - deemed cost, net of taxes	29.4	-	(59,630)	-	-	-	-	59,630	-	-	-
Deliberation of additional dividends proposed		-	-	-	-	-	-	-	-	(51,799)	(51,799)
Allocation proposed to AGM:		-	-	-	-	-	-	-	-	-	-
Legal reserve		-	-	-	195,210	-	-	(195,210)	-	-	-
Interest on equity (JSCP)	29.3	-	-	-	-	-	-	(807,500)	(807,500)	-	(807,500)
Additional dividends proposed from the non-capitalized earnings	29.3	-	-	-	-	(1,507,449)	1,507,449	-	-	-	-
Dividends	29.3	-	-	-	-	-	-	(211,057)	(211,057)	(7,933)	(218,990)
Profit retention reserve		-	-	-	-	2,750,065	-	(2,750,065)	-	-	-
Balance as of December 31, 2020		10,800,000	680,364	(327,015)	1,209,458	6,088,855	1,507,449	-	19,959,111	291,407	20,250,518
Net income		-	-	-	-	-	-	4,952,573	4,952,573	96,029	5,048,602
Other comprehensive income		-	-	-	-	-	-	-	-	-	-
Actuarial gain, net of taxes	29.4	-	-	152,601	-	-	-	-	152,601	144	152,745
Total comprehensive income		-	-	152,601	-	-	-	4,952,573	5,105,174	96,173	5,201,347
Realization - deemed cost, net of taxes	29.4	-	(46,575)	-	-	-	-	46,575	-	-	-
Realization of actuarial liabilities - divestment of Copel Telecom	29.4	-	-	(33,205)	-	33,205	-	-	-	-	-
Deliberation of additional dividends proposed		-	-	-	-	-	(1,507,449)	-	(1,507,449)	(32,638)	(1,540,087)
Allocation proposed to Annual General Meeting - AGM:		-	-	-	-	-	-	-	-	-	-
Legal reserve		-	-	-	247,629	-	-	(247,629)	-	-	-
Interest on equity (JSCP)	29.3	-	-	-	-	(283,173)	-	(239,636)	(522,809)	-	(522,809)
Dividends	29.3	-	-	-	-	-	1,368,675	(2,565,678)	(1,197,003)	(16,731)	(1,213,734)
Profit retention reserve		-	-	-	-	1,946,205	-	(1,946,205)	-	-	-
Balance as of December 31, 2021		10,800,000	633,789	(207,619)	1,457,087	7,785,092	1,368,675	-	21,837,024	338,211	22,175,235
Net income		-	-	-	-	-	-	1,112,007	1,112,007	37,314	1,149,321
Other comprehensive income		-	-	-	-	-	-	-	-	-	-
Actuarial gain, net of taxes	29.4	-	-	202,509	-	-	-	-	202,509	683	203,192
Adjustments related to financial assets	29.4	-	-	4,757	-	-	-	-	4,757	2,038	6,795
Total comprehensive income		-	-	207,266	-	-	-	1,112,007	1,319,273	40,035	1,359,308
Realization - deemed cost, net of taxes	29.4	-	(36,513)	-	-	-	-	36,513	-	-	-
Realization - actuarial gain	29.4	-	-	(3,541)	-	3,541	-	-	-	-	-
Deliberation of additional dividends proposed	29.3	-	-	-	-	-	(1,368,675)	-	(1,368,675)	-	(1,368,675)
Dividends and Interest on equity (JSCP)	29.3	-	-	-	-	(891,000)	-	(79,000)	(970,000)	(40,198)	(1,010,198)
Allocation proposed to Annual General Meeting - AGM:		-	-	-	-	-	-	-	-	-	-
Legal reserve		-	-	-	55,600	-	-	(55,600)	-	-	-
Dividends	29.3	-	-	-	-	-	-	(258)	(258)	(24,187)	(24,445)
Profit retention reserve		-	-	-	-	1,013,662	-	(1,013,662)	-	-	-
Balance as of December 31, 2022		10,800,000	597,276	(3,894)	1,512,687	7,911,295	-	-	20,817,364	313,861	21,131,225

Notes are an integral part of these financial statements

COMPANHIA PARANAENSE DE ENERGIA – COPEL and Subsidiaries
Consolidated Statements of Cash Flows
For the years ended December 31, 2022, 2021 and 2020
All amounts expressed in thousands of Brazilian reais, unless otherwise stated

	Note	12.31.2022	12.31.2021	12.31.2020
CASH FLOWS FROM OPERATIONAL ACTIVITIES				
Net income from continuing operations		1,149,321	3,859,045	3,834,172
Net income from discontinued operations		-	1,189,557	75,578
Net income		1,149,321	5,048,602	3,909,750
Adjustments to reconcile net income for the period with cash generation from operating activities:				
Unrealized monetary and exchange variation and debt charges - net		1,314,407	622,680	456,456
Interest - bonus from the grant of concession agreements under the quota system	9.3	(118,439)	(134,482)	(94,307)
Remuneration of transmission concession contracts	10.3	(769,248)	(1,084,986)	(777,670)
Provision for allocation of PIS and Cofins credits	12.2.1	1,821,933	(21,640)	(1,755,112)
Income tax and social contribution	12.3	429,267	469,226	1,260,469
Deferred income tax and social contribution	12.3	(628,389)	790,406	24,896
Equity in earnings of investees	15.1	(478,577)	(303,137)	(193,547)
Appropriation of post-employment benefits obligations	22.4	268,171	246,812	224,478
Creation for research and development and energy efficiency programs	24.1	156,690	194,016	148,019
Recognition of fair value of assets from the indemnity for the concession	30	(89,941)	(142,642)	(57,341)
Sectorial financial assets and liabilities result	30	(1,847,863)	(2,502,324)	(746,052)
Depreciation and amortization	31	1,300,982	1,082,539	1,009,912
Net operating estimated losses, provisions and reversals	31.4	831,216	240,787	237,294
Result do Hydrological Risk Renegotiation - GSF	17.2	-	(1,570,543)	-
Realization of added value in business combinations	10.3	(721)	(722)	(722)
Fair value in energy purchase and sale operations	30.1 and 31.1	(32,748)	35,818	(137,463)
Derivatives fair value	32	2,907	20,401	(24,511)
Loss on disposal of accounts receivable related to concession		26,703	20	144
Loss on disposal of contract assets	10.1	8,829	7,155	35,590
Loss on disposal of property, plant and equipment	16.2	42,841	40,305	5,195
Loss on disposal of intangible assets	17	55,177	30,623	52,811
Result of write-offs of use rights of assets and liabilities of leases - net	26.1 and 26.2	(79)	(177)	(314)
Net income for the period from discontinued operations	39	-	(1,189,557)	-
		3,442,439	1,879,180	3,577,975
Decrease (increase) in assets				
Trade accounts receivable		1,628,696	(210,965)	(175,049)
Dividends and interest on own capital received		67,732	82,937	53,952
CRC transferred to the Government of the State of Paraná		-	1,646,614	300,025
Judicial deposits		575	(87,866)	16,729
Sectorial financial assets		966,466	1,509,802	979,642
Other receivables		62,369	(129,814)	(13,898)
Inventories		2,929	(30,699)	(40,035)
Income tax and social contribution recoverable		(498,961)	(267,179)	123,582
Other taxes recoverable		264,048	(64,130)	74,125
Prepaid expenses		(6,410)	(16,621)	(3,473)
Related parties		(1,135)	-	-
		2,486,309	2,432,079	1,315,600
Increase (decrease) in liabilities				
Payroll, social charges and accruals		(190,627)	17,224	347,002
Related parties		-	-	-
Suppliers		(504,362)	(53,298)	292,108
Other taxes		892,002	834,358	(79,053)
Post-employment benefits	22.4	(201,566)	(198,626)	(197,143)
Sectorial charges due		(151,898)	164,674	5,204
Research and development and energy efficiency	24.1	(203,673)	(246,744)	(153,729)
Payable related to the concession	25.1	(106,370)	(88,430)	(74,931)
Other accounts payable		105,631	21,828	117,610
Provisions for legal claims	28.1	(242,212)	(207,877)	(167,316)
		(603,075)	243,109	89,752
CASH GENERATED BY OPERATING ACTIVITIES				
		5,325,673	4,554,368	4,983,327
Income tax and social contribution paid		(174,295)	(659,318)	(636,420)
Loans and financing - interest due and paid	20.3	(337,455)	(193,421)	(183,391)
Debentures - interest due and paid	21.2	(890,123)	(343,903)	(386,281)
Charges for lease liabilities paid	26.2	(21,151)	(6,514)	(6,679)
NET CASH GENERATED BY OPERATING ACTIVITIES FROM CONTINUING OPERATIONS				
		3,902,649	3,351,212	3,770,556
NET CASH GENERATED BY OPERATING ACTIVITIES FROM DISCONTINUED OPERATIONS	39	-	35,620	170,288
NET CASH GENERATED FROM OPERATING ACTIVITIES				
		3,902,649	3,386,832	3,940,844

(continued)

COMPANHIA PARANAENSE DE ENERGIA – COPEL and Subsidiaries
Consolidated Statements of Cash Flows, continuation
For the years ended December 31, 2022, 2021 and 2020
All amounts expressed in thousands of Brazilian reais, unless otherwise stated

	Note	12.31.2022	12.31.2021	12.31.2020
CASH FLOWS FROM INVESTMENT ACTIVITIES				
Financial investments		67,157	(54,120)	(48,238)
Additions to contract assets		(1,923,558)	(1,482,785)	(1,236,999)
Acquisitions of subsidiaries - effect on cash	1.1.1	(18,031)	(501,886)	-
Additions in investments	15.1	(4,829)	(30,970)	(72,439)
Capital reduction of investees	15.1	61,536	-	228
Additions to property, plant and equipment		(535,542)	(338,137)	(226,325)
Additions to intangible assets	17.3 and 17.4	(421,729)	(4,546)	(10,225)
NET CASH USED BY INVESTMENT ACTIVITIES FROM CONTINUING OPERATIONS		(2,774,996)	(2,412,444)	(1,593,998)
NET CASH GENERATED BY INVESTMENT ACTIVITIES FROM DISCONTINUED OPERATIONS	39	-	2,444,352	(73,573)
NET CASH GENERATED (USED) FROM INVESTING ACTIVITIES		(2,774,996)	31,908	(1,667,571)
CASH FLOWS FROM FINANCING ACTIVITIES				
Loans and financing obtained from third parties	20.3	1,891,954	134,313	263,000
Transaction costs of loans and financing obtained from third parties	20.3	(19,781)	(1,647)	-
Issue of debentures	21.2	1,500,000	3,000,000	-
Transaction costs in the issuing of debentures	21.2	(14,445)	(35,030)	-
Payments of principal - loans and financing	20.3	(1,000,319)	(202,577)	(248,863)
Payments of principal - debentures	21.2	(2,051,481)	(1,852,048)	(1,036,490)
Amortization of principal of lease liabilities	26.2	(60,200)	(51,270)	(46,365)
Dividends and interest on own capital paid		(2,167,769)	(3,874,318)	(626,357)
NET CASH USED BY FINANCING ACTIVITIES FROM CONTINUING OPERATIONS		(1,922,041)	(2,882,577)	(1,695,075)
NET CASH USED BY FINANCING ACTIVITIES FROM DISCONTINUED OPERATIONS	39	-	(1,850)	(20,038)
NET CASH USED FROM FINANCING ACTIVITIES		(1,922,041)	(2,884,427)	(1,715,113)
TOTAL EFFECTS ON CASH AND CASH EQUIVALENTS				
		(794,388)	534,313	558,160
Cash and cash equivalents at the beginning of the period	5	3,472,845	3,222,768	2,941,727
Cash and cash equivalents at the end of the period	5	2,678,457	3,472,845	3,222,768
Cash and cash equivalents variations from discontinued operations	39	-	284,236	277,119
CHANGE IN CASH AND CASH EQUIVALENTS		(794,388)	534,313	558,160

Notes are an integral part of these financial statements

COMPANHIA PARANAENSE DE ENERGIA – COPEL and Subsidiaries
Notes to the Consolidated Financial Statements
For the years ended December 31, 2022, 2021 and 2020
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1. Operations

Companhia Paranaense de Energia (Copel, Company), with its head office located at Rua José Izidoro Biazzetto, 158, bloco A, Curitiba - State of Paraná, is a publicly-held mixed capital company controlled by the State of Paraná and its shares are traded at Corporate Governance Level 2 of the Special Listing Segments of B3 S.A. - Brasil, Bolsa Balcão Stock Exchange and on the New York Stock Exchange (NYSE) and on the Madrid Stock Exchange, in the Latin American segment (Latibex).

The core activities of Copel and its subsidiaries, which are regulated by the Brazilian Electricity Regulatory Agency (Aneel), linked to the Brazilian Ministry of Mines and Energy (MME), are to carry out research, study, plan, build and explore the production, transformation, transport, distribution and trading of energy, in any of its forms, mainly electricity. Furthermore, Copel participates in consortiums, in private sector and mixed-capital companies for the purpose of engaging in activities, mainly in areas of energy and natural gas.

On November 24, 2022, Law 21,272 of the State of Paraná authorized the transformation of Copel into a company with dispersed capital and no controlling shareholder (“Corporation”) through a secondary public offering of shares and/or Units issued by the Company and owned by Controller. On December 21, 2022, with legal authorization, the Board of Directors of Copel approved studies to enable the full renewal of the Concessions of Hydroelectric Power Plants Governador Bento Munhoz da Rocha Netto, Governador Ney Braga and Governador José Richa and to analyze fundraising alternatives for the payment of the respective granting bonuses, estimated at R\$3,719,428 as per Interministerial Ordinance of the Brazilian Ministry of Mines and Energy and Ministry of Finance - MME/MF No. 01, dated March 30, 2023. The transformation of Copel into a “Corporation” will allow, under the terms of Law 9074/95, to maintain 100% of the Company's interest in the plants. On January 31, 2023, the Board of Directors of Copel approved hiring specialized consultants and technical advisors to assist in the studies and structuring of an eventual offering.

1.1 Copel’s equity interests

Copel has direct and indirect interests in subsidiaries (1.1.1), joint ventures (1.1.2), associates (1.1.3) and joint operations (1.1.4). Until December 31, 2022, there were no changes, acquisitions and disposals in relation to the equity interests of December 31, 2021. On October 6, 2022, Copel GeT entered into an agreement for the acquisition of the Santa Rosa & Mundo Novo and Aventura Wind Complexes, and the operation was concluded on January 30, 2023, according to Note 40.1.

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1.1.1 Subsidiaries

Subsidiaries	Headquarters	Main activity	Interest	
			%	Investor
Copel Geração e Transmissão S.A. (Copel GeT)	Curitiba/PR	Production and transmission of electricity	100.0	Copel
Copel Distribuição S.A. (Copel DIS) (a)	Curitiba/PR	Distribution of electricity	100.0	Copel
Copel Serviços S.A. (Copel SER)	Curitiba/PR	Production of electricity	100.0	Copel
Copel Comercialização S.A. (Copel COM)	Curitiba/PR	Commercialization of electricity	100.0	Copel
Companhia Paranaense de Gás - Compagás	Curitiba/PR	Distribution of pipeline gas	51.0	Copel
Elejor - Centrais Elétricas do Rio Jordão S.A.	Curitiba/PR	Production of electricity	70.0	Copel
UEG Araucária S.A. (UEGA)	Curitiba/PR	Production of electricity from natural gas	20.3	Copel
			60.9	Copel GeT
São Bento Energia, Investimentos e Participações S.A. (São Bento)	Curitiba/PR	Control and management of interests	100.0	Copel GeT
Nova Asa Branca I Energias Renováveis S.A.	S. Miguel do Gostoso/RN	Production of electricity from wind sources	100.0	Copel GeT
Nova Asa Branca II Energias Renováveis S.A.	Parazinho/RN	Production of electricity from wind sources	100.0	Copel GeT
Nova Asa Branca III Energias Renováveis S.A.	Parazinho/RN	Production of electricity from wind sources	100.0	Copel GeT
Nova Eurus IV Energias Renováveis S.A.	Touros/RN	Production of electricity from wind sources	100.0	Copel GeT
Santa Maria Energias Renováveis S.A.	Maracanaú/CE	Production of electricity from wind sources	100.0	Copel GeT
Santa Helena Energias Renováveis S.A.	Maracanaú/CE	Production of electricity from wind sources	100.0	Copel GeT
Ventos de Santo Uriel S.A.	João Câmara/RN	Production of electricity from wind sources	100.0	Copel GeT
Cutia Empreendimentos Eólicos S.A. (Cutia)	Curitiba/PR	Control and management of interests	100.0	Copel GeT
Brownfield Investment Holding Ltda. (Brownfield)	Curitiba/PR	Control and management of interests	100.0	Copel GeT
Ventos de Serra do Mel B S.A. (Serra do Mel)	Serra do Mel/RN	Control and management of interests	68.84	Copel GeT
			31.16	Brownfield
Costa Oeste Transmissora de Energia S.A.	Curitiba/PR	Transmission of electricity	100.0	Copel GeT
Marumbi Transmissora de Energia S.A.	Curitiba/PR	Transmission of electricity	100.0	Copel GeT
Urapuru Transmissora de Energia S.A.	Curitiba/PR	Transmission of electricity	100.0	Copel GeT
Bela Vista Geração de Energia S.A.	Curitiba/PR	Production of electricity	100.0	Copel GeT
F.D.A. Geração de Energia Elétrica S.A. (FDA)	Curitiba/PR	Production of electricity	100.0	Copel GeT
Jandaíra I Energias Renováveis S.A.	Curitiba/PR	Production of electricity from wind sources	100.0	Copel GeT
Jandaíra II Energias Renováveis S.A.	Curitiba/PR	Production of electricity from wind sources	100.0	Copel GeT
Jandaíra III Energias Renováveis S.A.	Curitiba/PR	Production of electricity from wind sources	100.0	Copel GeT
Jandaíra IV Energias Renováveis S.A.	Curitiba/PR	Production of electricity from wind sources	100.0	Copel GeT
Eol Potiguar B61 SPE S.A. (b)	Serra do Mel/RN	Production of electricity from wind sources	100.0	Copel GeT
GE Olho D'Água S.A.	São Bento do Norte/RN	Production of electricity from wind sources	100.0	São Bento
GE Boa Vista S.A.	São Bento do Norte/RN	Production of electricity from wind sources	100.0	São Bento
GE Farol S.A.	São Bento do Norte/RN	Production of electricity from wind sources	100.0	São Bento
GE São Bento do Norte S.A.	São Bento do Norte/RN	Production of electricity from wind sources	100.0	São Bento
Central Geradora Eólica São Bento do Norte I S.A.	São Bento do Norte/RN	Production of electricity from wind sources	100.0	Cutia
Central Geradora Eólica São Bento do Norte II S.A.	São Bento do Norte/RN	Production of electricity from wind sources	100.0	Cutia
Central Geradora Eólica São Bento do Norte III S.A.	São Bento do Norte/RN	Production of electricity from wind sources	100.0	Cutia
Central Geradora Eólica São Miguel I S.A.	São Bento do Norte/RN	Production of electricity from wind sources	100.0	Cutia
Central Geradora Eólica São Miguel II S.A.	São Bento do Norte/RN	Production of electricity from wind sources	100.0	Cutia
Central Geradora Eólica São Miguel III S.A.	São Bento do Norte/RN	Production of electricity from wind sources	100.0	Cutia
Usina de Energia Eólica Guajiru S.A.	São Bento do Norte/RN	Production of electricity from wind sources	100.0	Cutia
Usina de Energia Eólica Jangada S.A.	São Bento do Norte/RN	Production of electricity from wind sources	100.0	Cutia
Usina de Energia Eólica Potiguar S.A.	São Bento do Norte/RN	Production of electricity from wind sources	100.0	Cutia
Usina de Energia Eólica Cutia S.A.	São Bento do Norte/RN	Production of electricity from wind sources	100.0	Cutia
Usina de Energia Eólica Maria Helena S.A.	São Bento do Norte/RN	Production of electricity from wind sources	100.0	Cutia
Usina de Energia Eólica Esperança do Nordeste S.A.	São Bento do Norte/RN	Production of electricity from wind sources	100.0	Cutia
Usina de Energia Eólica Paraíso dos Ventos do Nordeste S.A.	São Bento do Norte/RN	Production of electricity from wind sources	100.0	Cutia
Eol Potiguar B141 SPE S.A.	Serra do Mel/RN	Production of electricity from wind sources	100.0	Serra do Mel
Eol Potiguar B142 SPE S.A.	Serra do Mel/RN	Production of electricity from wind sources	100.0	Serra do Mel
Eol Potiguar B143 SPE S.A.	Serra do Mel/RN	Production of electricity from wind sources	100.0	Serra do Mel
Eol Ventos de Vila Paraíba IV SPE S.A.	Serra do Mel/RN	Production of electricity from wind sources	100.0	Serra do Mel

(a) On May 19, 2022, the Brazilian Securities and Exchange Commission (CVM) granted the registration of Copel DIS as a publicly-held company in category "B".

(b) Wind farm with 99.99992% interest in Copel Get and 0.00008% in Brownfield.

Vilas Wind Complex

On November 30, 2021, the Company concluded the acquisition of 100% of the Vilas Wind Complex and preliminarily measured the fair value of the identified assets acquired and the liabilities assumed on the acquisition date.

In September 30, 2022, the provisional amounts of the business combination were revised. The following table presents the fair value of the net assets acquired, updated after the final adjustments of the business combination:

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	Adjusted book value (a)	Fair value adjustment	Fair value at the acquisition date
Assets identified	901,059	301,102	1,202,161
Cash and cash equivalents	76,350	-	76,350
Bonds and securities	13,236	-	13,236
Trade accounts receivable	23,585	-	23,585
Other receivables	341	-	341
Income tax and social contribution	476	-	476
Other recoverable taxes	64	-	64
Prepaid expenses	24	-	24
Property, plant and equipment	754,557	-	754,557
Intangible assets	10,275	301,102	311,377
Right-of-use asset	22,151	-	22,151
Liabilities assumed	605,893	102,375	708,268
Suppliers	11,229	-	11,229
Income tax and social contribution	117	-	117
Other taxes due	2,905	-	2,905
Deferred income tax and social contribution	3,191	102,375	105,566
Loans and financing	539,671	-	539,671
Lease liability	22,379	-	22,379
Other accounts payable	26,401	-	26,401
Net assets acquired	295,166	198,727	493,893

(a) Book value of investees adjusted to the Company's practices before the allocation of fair value in the business combination.

The table below shows the variation in amounts in relation to the preliminary values recognized on November 30, 2021, and the final amounts updated on December 31, 2022:

	Preliminary value	Adjustments	Final value
Consideration amount	597,684	(1,416)	596,268
(-) Fair value of net assets acquired	503,463	(9,570)	493,893
Goodwill	94,221	8,154	102,375

The revision of the provisional values of the business combination had impact on the measurement of capital gain and goodwill totaling R\$8,154. Considering that the adjustments are not material to the Financial Statements, with no impact on the Company's results, the balances of December 31, 2021, are not being restated. Of the total paid for the operation, R\$578,236 were disbursed in November 2021 and the remaining balance, R\$18,031, during the year 2022

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1.1.2 Joint Ventures

Joint ventures	Headquarters	Main activity	Interest	
			%	Investor
Voltalia São Miguel do Gostoso I Participações S.A.	São Paulo/SP	Interests in companies	49.0	Copel
Solar Paraná GD Participações S.A. (a)	Curitiba/PR	Interests in companies	49.0	Copel
Caiuá Transmissora de Energia S.A.	Rio de Janeiro/RJ	Transmission of electricity	49.0	Copel GeT
Integração Maranhense Transmissora de Energia S.A.	Rio de Janeiro/RJ	Transmission of electricity	49.0	Copel GeT
Matrinchã Transmissora de Energia (TP NORTE) S.A.	Rio de Janeiro/RJ	Transmission of electricity	49.0	Copel GeT
Guaraciaba Transmissora de Energia (TP SUL) S.A.	Rio de Janeiro/RJ	Transmission of electricity	49.0	Copel GeT
Paranaíba Transmissora de Energia S.A.	Rio de Janeiro/RJ	Transmission of electricity	24.5	Copel GeT
Mata de Santa Genebra Transmissão S.A.	Jundiaí/SP	Transmission of electricity	50.1	Copel GeT
Cantareira Transmissora de Energia S.A.	Rio de Janeiro/RJ	Transmission of electricity	49.0	Copel GeT

(a) Holding of 6 Special Purpose Entities (SPEs) operating in the distributed generation sector (photovoltaic plants): Pharma Solar II, Pharma Solar III, Pharma Solar IV, in commercial operation, and Bandeirantes Solar I, Bandeirantes Solar II and Bandeirantes Solar III, in pre-operating stage.

1.1.3 Associates

Associated companies	Headquarters	Main activity	Interest	
			%	Investor
Dona Francisca Energética S.A.	Agudo/RS	Production of electricity	23.03	Copel
Foz do Chopim Energética Ltda.	Curitiba/PR	Production of electricity	35.77	Copel GeT
Carbocampel S.A.	Figueira/PR	Coal exploration	49.0	Copel

1.1.4 Joint operations (consortiums)

The Company has interests in some joint operations. The two relevant consortiums, with amounts recorded in the Company's property, plant and equipment, are presented in Note 16.3.

2. Concessions and Authorizations

2.1 Concession contracts or authorizations obtained by Copel

Concession agreement / authorization of the equity		Interest %	Maturity
Copel DIS	Contract 046/1999, extended by 5th addendum to the contract	100	07.07.2045
Elejor	Contract 125/2001 - HPP Fundão	70	06.11.2040
	Contract 125/2001 - HPP Santa Clara		05.10.2040
	Authorization - SHP Fundão I and SHP Santa Clara I - 753/2002 and 757/2002		12.19.2032
Dona Francisca Energética	Contract 188/1998 - HPP Dona Francisca	23	09.21.2037
UEG Araucária	Authorization 351/1999 - TPP Araucária (60.9% Copel GET)	20.3	12.23.2029
Compagás (2.1.1)	Concession gas distribution contract	51	07.06.2054
Usina de Energia Eólica São João S.A. (a)	MME Ordinance 173 /2012 - WPP São João	49	03.26.2047
Usina de Energia Eólica Carnaúba S.A. (a)	MME Ordinance 204 /2012 - WPP Carnaúbas	49	04.09.2047
Usina de Energia Eólica Reduto S.A. (a)	MME Ordinance 230 /2012 - WPP Reduto	49	04.16.2047
Usina de Energia Eólica Santo Cristo S.A. (a)	MME Ordinance 233/2012 - WPP Santo Cristo	49	04.18.2047

(a) Subsidiaries of Voltalia São Miguel do Gostoso I Participações S.A.

Hydroelectric Power Plant - HPP
Small Hydroelectric Plant - SHP
Thermal Power Plant - TPP
Wind Power Plant - WPP

2.1.1 Compagas

Compagas has a service concession arrangement signed with the Granting Authority, the State of Paraná, effective for 30 years as of July 6, 1994, extended for the same period as of the ending date of the original term, based on article 16 of the State Supplementary Law No. 205/2017. Therefore, the final term of the arrangement was extended to July 6, 2054.

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The main requirements for concession renewal, among others, are: adoption of the price-cap regulation model; remuneration based on the weighted average cost of capital (WACC), initially at 9.125% p.a.; definition of the initial Net Regulatory Remuneration Base (BRRL) contemplating the assets not amortized in the current concession, the granting bonus, offset against regulatory liabilities; total estimated Capex of R\$2.5 billion to be realized over 30 years; tariff adjustment based on Brazil's Extended Consumer Price Index (IPCA) variations. The new arrangement was signed on December 26, 2022 and the service concession was extended upon payment of a R\$508,000 grant bonus through offsetting of concessionaire credits referring to the previous service concession arrangement in the amount of R\$98,000 and financial disbursement of R\$410,000 in December 2022.

As a result of this process, the accounts receivable related to concessions was transferred to intangible assets, where the consideration for the grant bonus was also recorded, as shown in Notes 9.2 and 17.3.

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2.2 Concession contracts or authorizations obtained by Copel Get and its investees

Copel GeT	Interest %	Maturity	
ONEROUS CONCESSION BY THE USE OF PUBLIC PROPERTY - UBP			
Generation Concession Contract 001/2007 - HPP Gov. Jayme Canet Júnior (Mauá)	51	05.27.2047	
Generation Concession Contract 001/2011 - HPP Colider	100	01.30.2046	
Authorization - Ordinance 133/2011 - SHP Cavernoso II	100	12.06.2050	
Generation Concession Contract 002/2012 - HPP Baixo Iguaçu	30	12.03.2049	
Generation Concession Contract 007/2013			
HPP Apucarantina	100	01.27.2027	
HPP Chaminé	100	08.02.2028	
HPP Derivação do Rio Jordão	100	06.21.2032	
HPP Cavernoso	100	06.23.2033	
PUBLIC SERVICE CONCESSIONS			
Generation Concession Contract 045/1999			
TPP Figueira (Note 34.2.6)	100	03.27.2019	
HPP São Jorge (Note 34.2.6)	100	07.24.2026	
HPP Gov. Ney Aminthas de Barros Braga (Segredo)	100	09.25.2032	
HPP Gov. José Richa (Salto Caxias)	100	03.20.2033	
Generation Concession Contract 001/2020			
UHE Guaricana	100	07.21.2028	
Authorization - Resolution 278/1999 - WPP Palmas	100	09.29.2029	
Dispatch 182/2002 - Hydroelectric Generating Plant - HGP Melissa, HGP Ptangui and HGP Salto do Vau (only register with ANEEL)	100	-	
Generation Concession Contract 003/2016 - HPP Gov. Pedro Viriato Parigot de Souza (GPS)	100	01.03.2053	
HPP Marumbi - Power generating plant registration: CGH. PH. PR. 001501-6.02	100	-	
Authorization Aneel 5,373/2015 - HGP Chopim I (only register with ANEEL)	100	-	
Concession agreement / authorization of the equity			
UEG Araucária	Authorization 351/1999 - TPP Araucária (20,3% - Copel)	60.9	12.23.2029
Nova Asa Branca I	MME Ordinance 267/2011 - WPP Asa Branca I	100	04.25.2046
Nova Asa Branca II	MME Ordinance 333/2011 - WPP Asa Branca II	100	05.31.2046
Nova Asa Branca III	MME Ordinance 334/2011 - WPP Asa Branca III	100	05.31.2046
Nova Eurus IV	MME Ordinance 273/2011 - WPP Eurus IV	100	04.27.2046
Santa Maria	MME Ordinance 274/2012 - WPP SM	100	05.08.2047
Santa Helena	MME Ordinance 207/2012 - WPP Santa Helena	100	04.09.2047
Ventos de Santo Uriel	MME Ordinance 201/2012 - WPP Santo Uriel	100	04.09.2047
GE Boa Vista	MME Ordinance 276 /2011 - WPP Dreen Boa Vista	100	04.28.2046
GE Farol	MME Ordinance 263 /2011 - WPP Farol	100	04.20.2046
GE Olho D'Água	MME Ordinance 343 /2011 - WPP Dreen Olho D'Água	100	06.01.2046
GE São Bento do Norte	MME Ordinance 310 /2011 - WPP Dreen São Bento do Norte	100	05.19.2046
Esperança do Nordeste	MME Ordinance 183/2015 - WPP Esperança do Nordeste	100	05.11.2050
Paraíso dos Ventos do Nordeste	MME Ordinance 182/2015 - WPP Paraíso dos Ventos do Nordeste	100	05.11.2050
Usina de Energia Eólica Jangada	Resolution 3,257/2011 - WPP GE Jangada	100	01.05.2042
Maria Helena	Resolution 3,259/2011 - WPP GE Maria Helena	100	01.05.2042
Usina de Energia Eólica Potiguar	MME Ordinance 179/2015 - WPP Potiguar	100	05.11.2050
Usina de Energia Eólica Guajiru	Resolution 3,256/2011 - WPP Dreen Guajiru	100	01.05.2042
Usina de Energia Eólica Cutia	Resolution 3,258/2011 - WPP Dreen Cutia	100	01.05.2042
São Bento do Norte I	Ordinance 349/2015 - WPP São Bento do Norte I	100	08.04.2050
São Bento do Norte II	Ordinance 348/2015 - WPP São Bento do Norte II	100	08.04.2050
São Bento do Norte III	Ordinance 347/2015 - WPP São Bento do Norte III	100	08.04.2050
São Miguel I	Ordinance 352/2015 - WPP São Miguel I	100	08.04.2050
São Miguel II	Ordinance 351/2015 - WPP São Miguel II	100	08.04.2050
São Miguel III	Ordinance 350/2015 - WPP São Miguel III	100	08.04.2050
Foz do Chopim	Authorization 114/2000 - SHP Arturo Andreoli	35.77	08.15.2032
SHP Bela Vista (Note 16.5.1)	Resolution 913/2017 - transfer of title under Resolution 7,802/2019	100	01.02.2041
F.D.A. Electricity Generation (Note 34.2.6)	Generation Concession Contract contract 002/2020	100	12.21.2024
Jandaíra I Energias Renováveis (Note 16.5.2)	Ordinance 140/2020 - WPP Jandaíra I	100	04.02.2055
Jandaíra II Energias Renováveis (Note 16.5.2)	Ordinance 141/2020 - WPP Jandaíra II	100	04.02.2055
Jandaíra III Energias Renováveis (Note 16.5.2)	Ordinance 142/2020 - WPP Jandaíra III	100	04.02.2055
Jandaíra IV Energias Renováveis (Note 16.5.2)	Ordinance 139/2020 - WPP Jandaíra IV	100	04.02.2055
EOL Potiguar B 141 SPE S.A.	Ordinance 02/2019 - WPP Vila Maranhão I	100	01.11.2054
EOL Potiguar B 142 SPE S.A.	Ordinance 12/2019 - WPP Vila Maranhão II	100	01.14.2054
EOL Potiguar B 143 SPE S.A.	Ordinance 13/2019 - WPP Vila Maranhão III	100	01.14.2054
EOL Potiguar B 61 SPE S.A.	Ordinance 453/2019 - WPP Ventos de Vila Mato Grosso I	100	12.06.2054
Ventos de Vila Paraíba IV SPE S.A.	Ordinance 10/2019 - WPP Vila Ceará I	100	01.14.2054

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Copel GeT	Interest %	Maturity	Next tariff review
Transmission lines and substations concession agreements			
Contract 060/2001 - Transmission facilities (sundry Transmission lines and Substations) - extended by the 3 rd additive term	100	01.01.2043	2023
Contract 075/2001 - Transmission line 230 kV Bateias - Jaguariaíva	100	08.17.2031	(a)
Contract 006/2008 - Transmission line 230 kV Bateias - Pilarzinho	100	03.17.2038	2023
Contract 027/2009 - Transmission line 525 kV Foz do Iguaçu - Cascavel Oeste	100	11.19.2039	2025
Contract 010/2010 - Transmission line 500 kV Araraquara II - Taubaté	100	10.06.2040	2026
Contract 015/2010 - Substation Cerquillo III 230/138 kV	100	10.06.2040	2026
Contract 022/2012 - Transmission line 230 kV Londrina - Figueira and Transmission line 230 kV Foz do Chopim - Salto Osório	100	08.27.2042	2023
Contract 002/2013 - Transmission line 230 kV Assis - Paraguaçu Paulista II e Substation Paraguaçu Paulista II 230 kV	100	02.25.2043	2023
Contract 005/2014 - Transmission line 230 kV Bateias - Curitiba Norte e Substation Curitiba Norte 230/138 kV	100	01.29.2044	2024
Contract 021/2014 - Transmission line 230 kV Foz do Chopim - Realeza e Substation Realeza 230/138 kV	100	09.05.2044	2025
Contract 022/2014 - Transmission line 500 kV Assis - Londrina	100	09.05.2044	2025
Contract 006/2016 - Transmission line 525 kV Curitiba Leste - Blumenau	100	04.07.2046	2026
Transmission line 230 kV Baixo Iguaçu - Realeza			
Transmission line 230 kV Curitiba Centro - Uberaba			
Substation Medianeira 230/138 kV			
Substation Curitiba Centro 230/138 kV			
Substation Andirá Leste 230/138 kV			
Concession agreement / authorization of the equity			
Costa Oeste Transmissora Contract 001/2012: Transmission line 230 kV Cascavel Oeste - Umuarama Substation Umuarama 230/138 kV	100	01.12.2042	2027
Caiuá Transmissora Contract 007/2012: Transmission line 230 kV Umuarama - Guaíra Transmission line 230 kV Cascavel Oeste - Cascavel Norte Substation Santa Quitéria 230/138/13,8 kV Substation Cascavel Norte 230/138/13,8 kV	49	05.10.2042	2027
Marumbi Transmissora Contract 008/2012: Transmission line 525 kV Curitiba - Curitiba Leste Substation Curitiba Leste 525/230 kV	100	05.10.2042	2027
Integração Maranhense Contract 011/2012: Transmission line 500 kV Açailândia - Miranda II	49	05.10.2042	2027
Matrinchã Transmissora Contract 012/2012: Transmission line 500 kV Paranaíba - Cláudia Transmission line 500 kV Cláudia - Paranatinga Transmission line 500 kV Paranatinga - Ribeirãozinho Substation Paranaíba 500 kV Substation Cláudia 500 kV Substation Paranatinga 500 kV	49	05.10.2042	2027
Guaraciaba Transmissora Contract 013/2012: Transmission line 500 kV Ribeirãozinho - Rio Verde Norte Transmission line 500 kV Rio Verde Norte - Marimbondo II Substation Marimbondo II 500 kV	49	05.10.2042	2027
Paranaíba Transmissora Contract 007/2013: Transmission line 500 kV Barreiras II - Rio das Éguas Transmission line 500 kV Rio das Éguas - Luziânia Transmission line 500 kV Luziânia - Pirapora 2	24.5	05.02.2043	2023
Mata de Santa Genebra Contract 001/2014: Transmission line 500 kV Itatiba - Bateias Transmission line 500 kV Araraquara 2 - Itatiba Transmission line 500 kV Araraquara 2 - Fernão Dias Substation Santa Bárbara D'Oeste 440 kV Substation Itatiba 500 kV Substation Fernão Dias 500/440 kV	50.1	05.14.2044	2024
Cantareira Transmissora Contract 019/2014: Transmission line Estreito - Fernão Dias	49	09.05.2044	2025
Urapuru Transmissora Contract 002/2005: Transmission line 525 kV Ivaiporã - Londrina	100	03.04.2035	(a)

(a) Do not undergo tariff review and RAP reduces to 50% in the 16th year.

3. Basis of Preparation

The consolidated financial statements have been prepared in accordance with International Financial Reporting Standards (IFRS) issued by the International Accounting Standards Board, IASB.

Executive Board declares that all relevant information specific to consolidated financial statements, and only those, are being evidenced and correspond to those used in management.

The issuance of these consolidated financial statements was authorized by the Board of Directors on April 26, 2023.

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3.1 Functional and presentation currency

The consolidated financial statements are presented in Brazilian Reais, which is the functional and presentation currency of the Company. Balances herein have been rounded to the nearest thousand, unless otherwise indicated.

3.2 Basis of measurement

The consolidated financial statements were prepared based on the historical cost, except for certain financial instruments and investments measured at fair value, as described in the respective accounting policies and notes.

3.3 Use of estimates and judgments

In the preparation of these consolidated financial statements, Management used judgments, estimates and assumptions that affect the application of accounting policies and the reported amounts of assets, liabilities, income and expenses of the Company. Actual results may differ from those estimates.

Estimates and assumptions are reviewed on a continuous basis. The revisions to the estimates are recognized prospectively.

3.3.1 Judgments

The Notes below are those containing information about judgments made in applying of accounting policies with significant impacts on the amounts recognized in the consolidated financial statements:

- Notes 4.1 and 15 - Basis of consolidation and Investments: assessment of the existence of control and significant influence;
- Note 4.2 - Financial instruments: definition of the category of financial instruments.

3.3.2 Uncertainties over assumptions and estimates

The Notes below are those containing information about the main assumptions regarding the future and other main sources of uncertainty in estimates with a reasonable possibility of leading to significant adjustments in the values of assets and liabilities in the next financial year:

- Notes 4.3 and 8 - Sectorial financial assets and liabilities: forecast of values that will be included in the tariff review process;
- Notes 4.4 and 9 - Accounts receivable related to the concession: forecast of cash flows and the indemnifiable balance of the concession contracts;
- Notes 4.5 and 10 - Contract assets: definition of the contract remuneration rate, allocation of price to performance obligations and forecast of cash flows;
- Notes 4.8 and 16 - Property, plant and equipment: estimated useful life of assets;
- Notes 4.9 and 17 - Intangible assets: estimated useful life of assets;
- Notes 4.10.1 and 7.3 - Expected Credit Losses: estimate of amounts that will not be received;

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- Notes 4.10.2 and 16.4 - Impairment of assets: definition of assumptions, determination of the discount rate and forecast of cash flows;
- Notes 4.11 and 28 - Provisions for litigation and contingent liabilities: estimated losses on legal claims;
- Notes 4.11 and 12.2.1 - Provision for allocation of PIS and Cofins credits: assessment of amounts that may be required to be refunded to consumers;
- Note 4.12 - Revenue recognition: estimate of unbilled amounts and construction margin;
- Note 4.14 - Power purchase and sale transactions in the Spot Market (Electric Energy Trading Chamber - CCEE): forecast of amounts to be billed by CCEE;
- Note 4.15 - Derivative financial instruments: mark to market of energy purchase and sale contracts;
- Notes 4.16.2 and 12.1 - Deferred income tax and social contribution: forecast of future taxable income;
- Notes 4.17 and 22 - Post-employment benefits: actuarial assumptions for evaluating pension and assistance plans;
- Notes 4.18 and 26 - Right to Use Assets and Lease Liabilities: definition of the interest rate for contracts.

3.4 Management's judgment on going concern

Management has concluded that there are no material uncertainties that cast doubt on the Company's ability to continue as a going concern. No events or conditions were identified that may raise significant doubts on its ability to continue as a going concern.

The main bases of judgment used for such conclusion are: (i) main activities resulting from long-term concessions; (ii) robust equity; (iii) strong operating cash generation, including financial capacity to settle commitments entered into with financial institutions; (iv) historical profitability; and (v) fulfillment of the objectives and targets outlined in the Company's Strategic Planning, which is approved by Management, monitored and reviewed periodically, seeking the continuity of its activities.

4. Significant Accounting Policies

4.1 Basis of consolidation

4.1.1 Calculation of equity in earnings of investees

Investments in joint ventures and associates are recognized in the consolidated financial statements based on the equity method. Under this method, investments are initially recorded at cost and their carrying amount is increased or decreased by the recognition of the investor's interest in profit, loss and other comprehensive income generated by investees after acquisition. This method must be discontinued from the date the investment ceases to qualify as a jointly controlled or associated company.

Payment of dividends decreases the carrying value of investments.

When required, for the calculation of equity in earnings of investees, the investees' financial statements are adjusted to align their policies with the Parent's accounting policies.

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4.1.2 Subsidiaries

The subsidiaries are entities to which the Company is exposed to or has a right over the variable returns arising from its involvement with them and has the ability to affect those returns exerting its power over the entities.

The financial statements of the subsidiaries are included in the consolidated financial statements as from the date they start to be controlled by the Company until the date such control ceases.

The balances of the subsidiaries' assets and liabilities, and profit or loss, are consolidated and transactions between consolidated companies are eliminated. The balances of transactions between continuing operations and discontinued operations are also fully eliminated in the consolidated balance sheet.

4.1.3 Noncontrolling interests

Noncontrolling interests are presented in equity, separately from the equity attributable to the Parent Company's shareholders. Profits, losses and other comprehensive income are also allocated separately from the ones allocated to the Parent Company's shareholders, even if this procedure results in negative noncontrolling interest balance.

4.1.4 Joint ventures and associates

Joint ventures are entities over which the Company, subject to an agreement, has the ability to affect returns exerting its power in conjunction with other parties, irrespective of the percentage of interest in the voting capital.

Associates are entities over which the Company exerts significant influence regarding financial and operational decisions, without control.

When the share in losses of a joint venture or associate equals or exceeds the accounting balance of the investor's equity interest in the investee, the investor should discontinue the recognition of its share in future losses. Additional losses will be considered, and a liability will be recognized, only if the investor incurs legal or constructive obligations, or performs payments on behalf of the investee. Should the investee subsequently post profits, the investor should resume the recognition of its interest in these profits only subsequent to the point at which the portion to which it is entitled to in these subsequent profits equals its share in unrecognized losses.

4.1.5 Joint operations (consortiums)

Joint operation is a joint business according to which parties that jointly control the business have rights on assets and obligations regarding liabilities related to the business.

Joint operations are recorded in proportion to the share of interest held in their assets, liabilities and profit or loss.

4.1.6 Business combination

The acquisition analysis is done on a case-by-case basis to determine whether the transaction represents a business combination or an asset purchase. Transactions between companies under common control do not constitute a business combination.

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Assets and liabilities acquired in a business combination are accounted for using the acquisition method and are recognized at their fair value at the acquisition date.

The excess of the acquisition cost over the fair value of the net assets acquired (identifiable assets acquired, net of assumed liabilities) is recognized as goodwill in intangible assets. When the amount generated is negative, the bargain purchase gain is recognized directly in profit or loss.

The amount paid that refers specifically to the concession right acquired in a business combination where the acquired entity is a concession operator, whose right to the concession has a known and defined term, is not characterized as goodwill.

In acquisitions of interests in associates and in joint ventures, although they do not constitute a business combination, the net assets acquired are also recognized at fair value. Goodwill is presented in the investment.

4.2 Financial Instruments

Financial instruments are recognized immediately on the trade date, that is, when the obligation or right arises. They are initially recorded at fair value, unless it is a trade receivable without a significant financing component, plus, for an item not measured at fair value through profit or loss, any directly attributable transaction costs. Accounts receivable from customers without a significant component of financing are initially measured at the price of the transaction.

Fair values are determined based on market prices for financial instruments with active market, and by the present value method of expected cash flows, for those that have no quotation available in the market.

After initial recognition, financial assets are only reclassified if the Company changes its business model for managing financial assets and this reclassification must be made prospectively.

The Company does not have financial instruments measured at fair value through other comprehensive income, except for the asset arising from Certified Emissions Reductions - CERs of Elejor. The Company operates with derivative financial instruments as described in Note 4.15.

The Company's financial instruments are classified and measured as described below.

4.2.1 Financial assets recorded at fair value through profit or loss

Financial assets recorded at fair value through profit or loss include assets classified as held for trading, financial assets designated upon initial recognition as at fair value through profit or loss or financial assets required to be measured at fair value. Financial assets are classified as held for trading if they are acquired for the purpose of being sold or repurchased in the near term. Financial assets with cash flows that are not solely payments of principal and interest are classified and measured at fair value through profit or loss, irrespective of the business model. After initial recognition, transaction costs and attributable interest expenses, when incurred, are recognized through profit or loss.

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4.2.2 Financial assets measured at amortized cost

These are so classified and measured when: (i) the financial asset is maintained within a business model whose objective is to maintain financial assets in order to receive contractual cash flows; and (ii) the contractual terms of the financial asset give rise, on specified dates, to cash flows that exclusively comprise payments of principal and interest on the principal amount outstanding.

4.2.3 Financial liabilities measured at amortized cost

Financial liabilities are measured at amortized cost using the effective interest method. This method is also used to allocate interest expense of these liabilities for the period. The effective interest rate is the rate that discounts estimated future cash flows (including fees paid or received that form an integral part of the effective interest rate, transaction costs and other premiums or discounts) over the expected life of the financial liability or, when appropriate, over a shorter period, for the initial recognition of the net carrying amount.

4.2.4 Financial liabilities measured at fair value through Profit or Loss

These are liabilities designated upon initial recognition as at fair value through profit or loss and those classified as held for trading. Financial liabilities designated fair value through profit or loss are stated at fair value with the respective gains or losses in fair value recognized in the statement of income. Net gains or losses recognized in profit or loss include the interest paid on the financial liability.

4.2.5 Derecognition of financial assets and liabilities

The Company derecognizes a financial asset when the contractual rights to the cash flows from the financial asset expire, or it transfers the rights to receive the contractual cash flows in a transaction in which substantially all of the risks and rewards of ownership of the financial asset are transferred or in which the Company neither transfers nor retains substantially all of the risks and rewards of ownership and it does not retain control of the financial asset.

The Company derecognizes financial liabilities only when its obligations are discharged, cancelled or settled. The difference between the carrying amount of the derecognized financial liability and the corresponding disbursement made, or to be made, is recorded to profit or loss.

4.3 Net sectorial financial assets and liabilities

The Company records changes in sectorial financial assets and liabilities to maintain neutrality between the billed amounts of consumer tariffs, to cover energy costs, charges and other related items, and the forecast for tariff coverage, according to the term amendment to the distribution concessionaires concession agreement, approved by Aneel Order No. 4621/2014.

Net sectorial financial assets and liabilities comprise: a) Portion A Cost Variation Compensation Account - CVA, which records the variation between estimated and realized costs of energy purchase, of transmission and sectorial charges; b) financial items that correspond to other rights and obligations included in the tariff.

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The amounts are updated until the next tariff readjustment/revision and, after approval by Aneel, the new tariff is applied for the current tariff year, providing for collection or return of constituted assets and liabilities, which are then amortized.

In the event of termination of the concession for any reason, the residual values of Portion A items and other financial components, not recovered or returned through tariff, must be incorporated in the calculation of the compensation, keeping rights or obligations of the concessionaire with the Granting Authority safeguarded.

4.4 Accounts receivable related to the concession

Refer to financial assets of the concessions with unconditional right to receive cash by the Company, guaranteed by the Granting Authority by contractual clause and specific legislation.

4.4.1 Power distribution service concession

The concession agreement for electricity distribution provides that the users of the public service remunerate part of the investments made by the concessionaire and the Granting Authority at the end of the concession indemnifies the other party. This model provides for the recognition of financial assets, contract assets in the construction period and intangible assets.

The portion recognized as a financial asset refers to the indemnity set forth in the public power distribution service concession agreements, which the Company understands as an unconditional right to cash payments from the Granting Authority upon expiration of the concession. This indemnification aims to reimburse the Company for investments made in infrastructure, without recovery, through the tariff.

The cash flows related to these assets are determined taking into account the Regulatory Compensation Basis (BRR), defined by the Granting Authority, and the fair value is recorded based on the replacement cost methodology of the assets included in the distribution infrastructure linked to the concession.

4.4.2 Piped gas distribution service concession

The piped gas distribution concession agreement provides that part of the investments made by the concessionaire is remunerated by the public service users and another part is indemnified by the Granting Authority, the State of Paraná, at the end of the concession. This model provides for the recognition of financial assets, contract assets during the construction period and intangible assets. The amount that will not be amortized within the concession term is presented as Accounts receivable related to the concession and represents the amount to be reimbursed to the Company by the Granting Authority at the end of the contract term.

4.4.3 Bonus for the grant of quota system generation concession agreement

The quota system generation concession agreement provides for the payment of a bonus for the grant to the Granting Authority, pursuant to paragraph 7 of article 8 of Law 12,783/2013.

This bonus is recognized as a financial asset because it represents an unconditional right to receive cash, guaranteed by the Granting Authority during the term of the concession and without risk of demand.

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The remuneration of this financial asset is based on the Weighted Average Cost of Capital - WACC defined by the National Energy Policy Council (CNPE) in Resolution 2/2015, which is being presented in the statement of income as operating revenue in accordance with the Company's business model.

4.4.4 Concession of power generation

The Company has operated and operates concession agreements for power generation that contain indemnification clauses for the infrastructure not depreciated, amortized and/or received during the concession term. After maturity, the residual balances of the assets are transferred to Accounts receivable related to the concession. At the end of each reporting period, Management evaluates the recoverability of the asset, remeasuring its cash flow based on its best estimate.

4.5 Contract assets

Represented by the construction in progress or in service of the infrastructure delegated by the Granting Authority, conditional upon the receipt of revenue not only by the passage of time, but after fulfilling the performance obligation to maintain and operate the infrastructure.

4.5.1 Power distribution service concession

Represents the concessionaire's contractual right related to the works under construction to meet the needs of the concession, accounted for at cost plus financial charges, when applicable.

When the assets are put into operation, the assets are transferred to the intangible asset, in the amount equivalent to what will be remunerated by the user through payment of the fee for the use of the services, or to the accounts receivable associated to the concession, in the amount equivalent to the residual portion of the assets not amortized, which will be reverted to the Granting Authority through indemnification at the end of the concession.

4.5.2 Power gas distribution service concession

Construction in progress for the distribution of piped gas which will be transferred to intangible assets upon their entry in operation and to the extent that the right (authorization) is received to charge the users of the public service. The amount that will not be amortized within the term of the concession is transferred to Accounts receivable related to the concession.

4.5.3 Power transmission concession

Represents the balance of public electricity transmission contracts signed with the Granting Authority to build, operate and maintain the high voltage lines and substations of the generation centers up to the distribution points.

During the term of the concession agreement, the Company receives, subject to its performance, a remuneration denominated Annual Revenue Allowance (RAP) that remunerates the investments made in the construction of the infrastructure and covers also, the costs of operation and maintenance incurred.

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After the beginning of the commercial operation and insofar as the operation and maintenance service - O&M is provided, the portion of RAP referring to O&M revenue is recognized in profit or loss at fair value, on a monthly basis, and billed together with the revenue part recognized in the construction phase, referring to the remuneration of the built-up assets. This amount billed after complying with the O&M performance is reclassified to the financial asset under Customers until its effective receipt.

The Company estimates its revenue in the construction phase at fair value based on the budgeted cost of the work and used by management as a parameter for bidding on the concession auction. Fair value revenue comprises the budgeted cost for the entire construction period plus the construction margin, which represents sufficient profit to cover the costs of managing and monitoring the work.

The remuneration rate of each concession is determined by the projection of the expected cost, of the profit margin on the cost in the construction phase and also of the projection of the RAP to be received, already net of the variable consideration estimate (PV) and the RAP part of the O&M performance. This fair value valuation technique using the income approach discounts cash flow for the entire concession period, determining at initial recognition the implied rate that zeroes the flow over time. This remuneration rate is fixed at the initial period and does not change during the performance of the contract and represents the market rate in effect at the time under the conditions of the negotiation between parties.

The assets arising from the construction of the transmission infrastructure are formed by the recognition of construction revenue, according to the percentage of completion of the construction (Note 4.13), and by their financial remuneration (Note 4.12.2).

The Company recognizes gains and losses due to efficiency or inefficiency in the construction of the infrastructure and due to periodic tariff review (RTP), when incurred, directly in the statement of income for the year.

Upon expiration of the concession, any uncollected amounts related to the construction of infrastructure shall be received directly from the Granting Authority, as an unconditional right to cash reimbursement pursuant to the concession agreement, as compensation for investments made and not recovered through tariffs (RAP).

Existing System Basic Network - RBSE

The assets that compose the Existing System Basic Network - RBSE include one economic component, referring to the cost of capital of the assets not depreciated in July 2017, and one financial component, resulting from the right for the Annual Permitted Revenue (RAP) of the Concession Agreement No. 060/2001, not received in the period from January 2013 to June 2017, plus monetary adjustment and remuneration interest.

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4.6 Accounts payable related to the concession

These refer to the amounts set forth in the concession agreement in connection with the right to explore hydraulic power generation potential (onerous concession), whose agreement is signed as Use of Public Property (UBP) agreements. The obligation is recognized on the date of signature of the concession agreement corresponding to the present value of future cash payments for the concession. The liability is then remeasured using the effective interest rate and reduced by contractual payments.

4.7 Inventories (including property, plant and equipment and contract assets)

Materials and supplies in inventory, classified under current assets, and those assigned for investments, classified under property, plant and equipment, and contract assets, have been recorded at their average acquisition cost. Recorded amounts do not exceed their net realizable value.

4.8 Property, Plant and Equipment

The property, plant and equipment related to the public service concession agreement are depreciated according to the straight-line method based on annual rates set forth and reviewed periodically by Aneel, which are used and accepted by the market as representative of the economic useful lives of the assets related to concession's infrastructure. Property, plant and equipment related to contracts for the use of public property under the independent electricity producer scheme are depreciated based on annual rates established by Aneel limited to the concession period. All other property, plant and equipment are depreciated using the straight-line method based on estimates of their useful lives, which are reviewed annually and adjusted if necessary.

Costs directly attributable to construction works as well as interest and financial charges on borrowings from third parties during construction are recorded under property, plant and equipment in progress, if it is probable that they will result in future economic benefits for the Company.

4.9 Intangible Assets

These comprise software acquired from third parties and software developed in-house and are measured at acquisition cost and amortized over five years, besides Intangible assets from Concession Agreements below.

4.9.1 Onerous concession of electric power generation and piped gas

Corresponds to acquisition of exploration rights on hydropower potential and piped gas whose onerous concession contract is signed as Use of Public Property - UBP and/or Grant Bonus.

This asset is recognized at the present value of future cash disbursements during the Concession Agreement term. At the date of start of commercial operation or acquisition of exploration rights on hydropower potential and piped gas, the amount presented is fixed and amortized over the concession period.

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4.9.2 Hydrological risk renegotiation (Generation Scaling Factor - GSF)

Asset consisting of the renegotiation of the hydrological risk under the terms of Law No. 13,203/2015 and subsequent changes, arising from the amounts recovered from the cost with the adjustment of the Energy Reallocation Mechanism - MRE (GSF). The amount was transformed by Aneel into an extension of the concession period, which is amortized on a straight-line basis until the end of the new concession period.

4.9.3 Power distribution service concession

This comprises the right to control infrastructure, built or acquired as part of the electric energy public service concession, and the right to charge fees to the users of the public service.

Intangible assets are recorded at their fair acquisition and construction value, less accumulated amortization and impairment losses, when applicable. The amortization of intangible assets reflects the pattern in which it is expected that future economic benefits will flow to the Company during the concession period.

During the infrastructure construction phase costs are classified as contract assets (Note 4.5).

4.9.4 Piped gas distribution service concession

Intangible assets for piped gas distribution services, which correspond to the right to charge users for the gas supply.

This intangible asset was initially recognized at acquisition or construction cost, plus interest and other capitalized finance charges. This asset is amortized using the straight-line basis over its estimated useful life, considering the economic benefits generated by intangible assets.

During the infrastructure construction phase, costs are classified as contract assets (Note 4.5).

4.9.5 Intangible assets acquired separately

Intangible assets with a finite useful life, acquired separately, are recorded at cost, less accumulated amortization and accumulated impairment losses. Amortization is recognized using the straight-line method based on the estimated useful lives of the corresponding assets. The estimated useful lives and the amortization method are reviewed at the end of each reporting period, with the effect of any changes in estimate being accounted for on a prospective basis.

4.9.6 Derecognition of intangible assets

An intangible asset is derecognized when no future economic benefits are expected from use or disposal. Gains or losses arising from disposal of an intangible asset are recognized in profit or loss, measured as the difference between net disposal proceeds and the carrying amount of the asset.

4.10 Impairment of assets

Assets are assessed to detect evidence of impairment.

4.10.1 Financial assets

Provisions for losses on financial assets are based on assumptions about default risk, existing market conditions and future estimates at the end of each year.

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The Company applies the simplified approach of IFRS 9 to the measurement of expected credit losses for the entire existence of financial assets that do not have significant financing components, by considering a provision for expected loss over a useful life for all trade accounts receivable. To measure expected credit losses, trade accounts receivable is grouped based on shared credit risk characteristics, number of days late, in the amount considered enough to cover losses on the realization of these assets, based on specific criteria of the payment history, collection actions carried out for the credit recovery and relevance of the amount due in the receivables portfolio.

4.10.2 Non-financial assets

Whenever there is a loss resulting from situations where an asset's carrying value exceeds its recoverable value, defined as the higher of the asset's value in use or its net selling price, this loss is recognized in profit or loss for the year.

For impairment testing purposes, assets are grouped at the lowest levels for which there are separately identifiable cash flows (Cash Generating Units - CGU).

The amount of the impairment of non-financial assets is reviewed at the reporting date. In case of reversal of impairment losses that had been recorded in prior years, this reversal is recognized in current year's profit or loss.

Assets arising from onerous concession and rights of concession and/or authorization to generate electricity, classified as intangible assets, have their impairment tested along with the other assets of that cash-generating unit.

The impairment of contract assets in their construction phase is tested immediately, mainly considering the use of the effective interest rate fixed at the beginning of the project and carried to the end of the concession cash flow. After the beginning of the commercial operation, the portion of revenue recognized is tested for impairment in the accounts receivable from customers. For the receivable part conditioned to fulfill the performance obligation to maintain and operate the infrastructure, the Company has no history and no expectation of losses, since amount is subject to guarantee structures, via shared apportionment of eventual default losses among the other members of the national interconnected system managed by the National Electric System Operator (ONS) and by the jurisdiction of the sector.

4.11 Provisions

Provisions are recognized when: i) the Company has a present obligation (legal, formalized or constructive) resulting from a past event, ii) it is probable (i.e., more likely than not) that an outflow of resources embodying economic benefits will be required to settle the obligation, and iii) a reliable estimate can be made of the amount to settle the obligation.

The estimates of outcomes and financial impacts are determined by the Company, which requires use of judgment by Management, supplemented by the experience of similar past transactions and, in some cases, by independent expert reports.

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Environmental liabilities are recognized as the Company assumes formal obligations before regulatory agencies or becomes aware of potential risks related to environmental issues, which may lead to cash disbursements that are deemed probable and that may be estimated. During the project implementation phase, the accrued amounts are included in property, plant and equipment (generation), construction cost (transmission) or contract assets (distribution). At the start of operations, all costs included in the Operating License, whose programs will be executed during the concession and the respective disbursement has not yet occurred, are measured and adjusted to present value according to the estimated cash flow of disbursements and recorded as environmental provisions matched against the assets related to the project, being adjusted periodically.

Once the project enters commercial operation, all costs or expenses incurred with environmental programs related to the project's operation and maintenance licenses are analyzed according to their nature and included in profit or loss for the period, except for costs or expenses for renewing licenses, which are recorded as intangible assets and amortized over the term of the license.

4.12 Revenue recognition

4.12.1 Revenue from contracts with customers

Revenue is measured based on the consideration that the Company expects to receive in a contract with the customer, net of any variable consideration. The Company recognizes revenues when it transfers control of the product or service to the customer and when it is probable to receive the consideration considering the client's ability and intention to pay the consideration when due. The Company's operating revenue comes mainly from the electricity supply and from the electric network availability.

The revenue from electricity supply is recognized monthly based on the data for billing that are determined by the average MW of contracted electricity and declared with the CCEE. When the information is not available, the Company estimates the revenue considering the contracts' rules, the price estimate and the volume provided.

For wind power generation companies subject to minimum generation amounts, the Company understands that it is subject to variable consideration, and for this reason, includes a provision for non-performance based on the annual generation estimates, reducing revenue.

Revenue from electric power supply and network availability is recognized monthly based on measured and effectively billed energy. In addition, the Company records unbilled revenue, calculated from the period between the last billing and the end of each month, by estimate based on the last measurement taken. In the concession contract for the public electricity distribution service, non-performance compensations are provided for quality indicators that, when incurred, reduce electricity availability revenue.

4.12.2 Interest income

Interest income is recognized when it is probable that future economic benefits will flow to the Company and its amount can be reliably measured. Interest income is recognized on a straight-line basis and based on time and the effective interest rate on outstanding principal amounts. The effective interest rate is the one that

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discounts the estimated future cash receipts calculated during the estimated life of the financial asset in relation to initial net carrying amount of that asset.

Regarding the contract assets of the power transmission concession, financial compensation revenue is recognized using the implicit remuneration rate established at the beginning of each project, which is presented in the statement of income as operating income in accordance with the Company's business model.

4.13 Construction revenues and costs

Revenue related to construction services for infrastructure in the power transmission and distribution services, and gas distribution, are recognized over time based on the stage of completion of the work.

The respective costs are recognized when incurred, in the statement of income for the year, as construction cost.

Given that Copel DIS and Compagas outsource the construction of distribution infrastructure to unrelated parties through works carried out in the short term, the construction margin to the power and gas distribution activities result in no significant amounts, resulting in the non-recognition of such margin.

The construction margin adopted for the transmission activity for the years 2022, 2021 and 2020 was 1.65%, and results from a calculation methodology that considers the respective business risk.

4.14 Power purchase and sale transactions in the Spot Market (Electric Energy Trading Chamber - CCEE)

Power purchase and sale transactions in CCEE are recorded on the accrual basis of accounting, based on data released by CCEE, which are calculated by the product of the Differences settlement prices - PLD multiplied by the energy surplus declared with CCEE, or, when such information is not available in a timely manner, by an estimate prepared by Management.

4.15 Derivative Financial Instruments

4.15.1 Power purchase and sale transactions

The Company negotiates energy purchase and sale agreements and part of its contracts are classified as derivative financial instruments measured at fair value through profit or loss.

Unrealized net gains or losses arising from the mark-to-market of these contracts (difference between contractual and market prices) are recorded as operating income or operating costs in the Statement of income.

4.15.2 Non-Deliverable Forward (NDF) contracts

In addition, the Company operates with Non-Deliverable Forward – NDF contracts, which aim exclusively at providing hedge against exchange rate risks associated with cash flows from capital contributions to subsidiaries, when they reflect foreign-currency denominated purchases of projected equipment. They are measured at their fair value, with changes recorded in the statement of income for the year. The fair value is calculated based on the information of each contracted operation and the respective market information on

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the closing dates of the financial statements.

4.16 Taxes

4.16.1 Income Tax and Social Contribution

The taxation on profit comprises income tax and social contribution calculated based on the taxable profits (adjusted profit) of each taxable entity at the applicable tax rates according to prevailing legislation, namely, at 15%, plus 10% surtax on the amount exceeding R\$240 per year, for income tax and at 9% for social contribution.

Income tax and social contribution losses can be offset against future taxable profits, considering the limit of 30% of the taxable profit for the period, and can be carried forward indefinitely.

4.16.2 Deferred income tax and social contribution

The Company, based on its profitability history and the expectation of generating future taxable profits, based on its internal projections prepared for reasonable periods for its business, sets up a deferred tax asset on temporary differences between the tax bases and on tax losses and negative tax basis.

The deferred income tax and social contribution are recognized on temporary differences between the carrying amounts of assets and liabilities in the financial statements and the corresponding tax bases used for tax calculation purposes, to the extent that there will probably be sufficient taxable profits against which the temporary differences can be utilized and the tax losses can be offset.

Deferred tax assets and liabilities may be offset if there is a legal right to offset the current tax assets and liabilities and they relate to the same taxing authority.

4.16.3 Other taxes recoverable and other tax obligations

Sales and services revenues are subject to value-added tax (ICMS or VAT) and service tax (SS), at the applicable rates, and to the PIS (Social Integration Program) and COFINS (Contribution for Social Security Funding). Credits resulting from non-cumulative PIS and COFINS charges are accounted for as reductions to operating costs in the statement of income.

Credits arising from non-cumulative ICMS, PIS and COFINS related to the purchase of assets are presented as reductions to the acquisition cost of these assets. Prepayments or amounts that can be offset are presented in current and non-current assets, according to their expected realization.

4.17 Post-employment benefits

The Company sponsors pension plans to supplement retirement and pension plans and the Assistance Plan (medical and dental assistance) for their active employees and their legal dependents. The amounts of these actuarial commitments (contributions, costs, liabilities and/or assets) are evaluated annually by an independent actuary, with the base date that coincides with the end of the year. The economic and financial assumptions for the purposes of the actuarial valuation are discussed with the independent actuary and approved by the Management.

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The assets of the benefit plans are valued at market value (marked-to-market) by the Company. The value of the net plan liability is recognized at the present value of the actuarial obligation, less the fair value of the plan assets. The adoption of the projected credit unit method adds each year of service as a triggering event for an additional benefit unit, adding up to the calculation of the final obligation.

Other actuarial assumptions are used, which take into account biometric and economic tables in addition to historical data from the benefits plans, obtained from the manager of these plans, Fundação Copel de Previdência e Assistência Social.

Actuarial gains or losses caused by changes in assumptions and/or actuarial adjustments are recognized in other comprehensive income.

4.18 Right to use lease assets and liabilities

Upon entering into a lease agreement, the right to use assets is recorded at present value, with a corresponding entry to a lease liability of the same amount, except for agreements that meet the exemption criteria of the accounting standard (short-term leases, low value or those that foresee variable remuneration). After initial measurement, the amortization of the right-of-use asset is recorded in operating result and interest on the lease liability in financial result. To define the interest rate, the Company uses as a basis the nominal rate practiced in the last funding of the Copel group, disregarding subsidized or incentivized funding.

4.19 Standards applicable to the Company effective January 1, 2022

As of January 1, 2022 changes in the following standards are in effect, without significant impacts on the financial statements of the Company:

- (i) IAS 37: specification of costs to fulfill onerous contract;
- (ii) IAS 16: definitions of resources before their intended use;
- (iii) IFRS 3: update of the standard, in view of the changes in the Conceptual Framework;
- (iv) Annual improvements to the 2018 - 2020 IFRS cycle with changes in pronouncements: IFRS 1, IFRS 9, IFRS 16 and IAS 41.

4.20 New standards that are not yet in effect

As of the following fiscal years, the changes below will be in effect:

- (i) IAS 1 and IFRS practical expedient 2: classification of liabilities as current or non-current and change in accounting policy disclosures (from January 1, 2023);
- (ii) IFRS 17: new standards for insurance contracts, replacing IFRS 4 (from January 1, 2023);
- (iii) IAS 8: updating of accounting estimates definitions (from January 1, 2023);
- (iv) IAS 12: amendment to the treatment of deferred tax related to assets and liabilities arising from a single transaction (from January 1, 2023);

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- (v) IFRS 16 - Leases: amendments related to sale and leaseback operations (from January 1, 2024);
- (vi) IFRS 10 and IAS 28: changes related to the sale or contribution of assets between an investor and its associate or joint venture (no defined effective date).

The Company does not expect significant impacts on the Company's financial statements resulting from these changes in standards.

5. Cash and Cash Equivalents

	12.31.2022	12.31.2021	12.31.2020
Cash and bank accounts	222,641	231,372	228,711
Financial investments with immediate liquidity	2,455,816	3,241,473	2,994,057
	2,678,457	3,472,845	3,222,768

These comprise cash on hand, deposits with banks and short-term highly liquid investments, which can be redeemed in cash within 90 days from the investment date. Temporary short-term investments are recorded at cost at the reporting date, plus income net of income tax earnings accrued. Cash and cash equivalents are subject to an insignificant risk of change in value.

Financial investments of the Company refer to Bank Deposit Certificates - CDBs and Repurchase Agreements, which are the sale of a security with the commitment of the seller (Bank) to repurchase it, and of the purchaser to resell it in the future. Investments, depending on the incidence of IOF and the liquidity period negotiated at the time of contracting, have post-fixed interest rates between 94.0% and 102% of Interbank Deposit Certificate ("CDI").

6. Bonds and Securities

The Company holds securities that yield variable interest rates. The term of these securities ranges from 3 to 55 months from the end of the financial year.

Category	Index	12.31.2022	12.31.2021
Units in Funds (a)	CDI	353,454	284,852
Bank Deposit Certificates - CDB	96% to 101% of CDI	77,602	61,635
National Treasury Bills - LTN	10.92% p.a.	-	14,571
		431,056	361,058
	Current	93	16,121
	Noncurrent	430,963	344,937

Interbank Deposit Certificate - CDI

(a) These are fixed income funds in the Parent Company and reserve accounts intended to comply with contracts with BNDES.

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7. Trade Accounts Receivable

	Balances falling due	Overdue up to 90 days	Overdue for more than 90 days	Total 12.31.2022	Total 12.31.2021
Customers					
Residential	312,468	172,243	28,385	513,096	858,070
Industrial	115,555	17,612	45,689	178,856	329,910
Commercial	194,959	41,274	24,027	260,260	442,902
Rural	78,099	20,194	3,352	101,645	151,459
Public Entities	36,506	2,200	401	39,107	58,532
Public lighting	28,140	188	-	28,328	55,943
Public service	37,698	952	643	39,293	62,350
Unbilled - captives	462,426	-	-	462,426	948,418
Energy installments plan - captives customers (7.1)	289,821	43,230	70,467	403,518	343,667
Low income subsidy - Eletrobras	28,342	-	-	28,342	17,712
Free consumers	202,525	2,396	3,710	208,631	174,495
Other receivables	64,835	24,866	24,489	114,190	157,526
Bonus for voluntary consumption reduction (7.4)	(2,754)	-	-	(2,754)	(134,890)
	1,848,620	325,155	201,163	2,374,938	3,466,094
Concessionaires, permission holder and trading companies					
Bilateral contracts	276,448	1,400	300	278,148	210,632
Regulated contracts	196,603	3,148	5,319	205,070	223,237
CCEE (7.2)	76,962	-	119,665	196,627	467,529
Energy supplies	550,013	4,548	125,284	679,845	901,398
Charges from using transmission grid	508,242	8,499	13,518	530,259	362,070
Gas distribution	123,839	3,440	11,491	138,770	90,465
(-) Expected credit losses (7.3)	(21,001)	(19,893)	(231,049)	(271,943)	(304,601)
	3,009,713	321,749	120,407	3,451,869	4,515,426
				Current	3,342,050
				Noncurrent	4,433,193
					109,819
					82,233

7.1 Energy installments plan – captive customers

The trade accounts receivable renegotiated are discounted to present value as of December 31, 2022, taking into consideration the future value, the maturity dates, the dates of settlement and the discount rate of 1.10% p.m. (1,16% p.m. on December 31, 2021).

7.2 Electricity Trading Chamber - CCEE

Balance receivable deriving from the positive position in the monthly settlement of the spot market centralized by CCEE. Amounts are received in the second month following the recognition of revenue or offset against future settlements when the result is negative for the subsidiary.

Of the total presented, R\$119,665 refer to the controversial portion resulting from the effects of the injunction for exclusion of responsibility of HPP Colíder. As a result of unforeseeable circumstances and force majeure, the power plant had its commercial start-up delayed, which was initially scheduled for January 2015. The Company is contesting in court, filing a request for exclusion of liability so that the mandatory supply of energy contracted by the plant, in the period in delay, could be postponed. Expected credit losses were recorded in the same amount as the receivable balance, as presented in Note 7.3.

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Copel GeT filed an administrative request for the exclusion of liability at Aneel, which was denied, and subsequently, on December 18, 2017, it filed an ordinary lawsuit with a request for advance protection with the Court, requesting the reversal of the agency's decision. On April 6, 2018, the Federal Court of the 1st Region fully granted the preliminary injunction applied for in the interlocutory appeal to suspend the enforcement of any burden or penalty to Copel as a result of noncompliance with the deadlines originally provided for in the Concession Agreement until a final unappealable ruling is rendered. Aneel filed an internal appeal against this decision and is awaiting judgment by the Federal Regional Court. The main action awaits its judgment on the merits since February 25, 2019.

The contracted energy of the plant is 125 MW average. For overdue periods the contract was fulfilled and, due to the fact it is awaiting a decision on the merits of the lawsuit, the Company recognized the revenue limited to the financial covenants of the agreement and the regulatory rules, as well as the cost of energy to cover the contractual guarantee.

7.3 Expected credit losses

	Balance as of January 1, 2020	Additions/ (Reversals)	Write offs	Other (a)	Balance as of December 31, 2020	Additions/ (Reversals)	Write offs	Other (a)	Balance as of December 31, 2021	Additions/ (Reversals)	Write offs (b)	Balance as of December 31, 2022
Customers												
Residential	41,824	65,937	(60,365)	-	47,396	117,928	(115,056)	-	50,268	112,457	(100,199)	62,526
Industrial	97,954	22,487	(31,575)	-	88,866	20,413	(66,848)	-	42,431	(12,993)	3,398	32,836
Commercial	70,925	29,092	(31,294)	-	68,723	35,628	(46,057)	-	58,294	22,510	(48,764)	32,040
Rural	3,389	4,788	(4,240)	-	3,937	6,407	(7,384)	-	2,960	4,327	(3,460)	3,827
Public Entities	4,890	9	(1,815)	-	3,084	184	(2,887)	-	381	116	39	536
Public lighting	3	20	(15)	-	8	11	(8)	-	11	7	-	18
Public service	265	124	(246)	-	143	(16)	(154)	-	(27)	2,254	(277)	1,950
Unbilled - captives customers	1,180	409	-	-	1,589	885	-	-	2,474	(1,487)	-	987
Adjustment to present value	(1,441)	791	-	-	(650)	(854)	-	-	(1,504)	(1,146)	-	(2,650)
	218,989	123,657	(129,550)	-	213,096	180,586	(238,394)	-	155,288	126,045	(149,263)	132,070
Concessionaires, permission holder and trading companies												
CCEE (7.2)	119,665	-	-	-	119,665	-	-	-	119,665	-	-	119,665
Concessionaires and permission holder	20,425	392	(284)	-	20,533	1,224	(1,994)	-	19,763	(5,353)	(4,583)	9,827
	140,090	392	(284)	-	140,198	1,224	(1,994)	-	139,428	(5,353)	(4,583)	129,492
Telecommunications	5,149	3,609	(6,260)	(2,498)	-	3,042	(3,153)	111	-	-	-	-
Gas distribution	12,528	238	(509)	-	12,257	(2,611)	239	-	9,885	1,064	(568)	10,381
	376,756	127,896	(136,603)	(2,498)	365,551	182,241	(243,302)	111	304,601	121,756	(154,414)	271,943

(a) Reclassification to Assets classified as held for sale (Note 39).

(b) Net losses from recovered invoice balances.

7.4 Incentive program for the voluntary reduction of electricity consumption

Bonus granted to consumers eligible for the Incentive Program for the Voluntary Reduction of Electric Energy Consumption, as part of government actions to combat the 2021 water crisis, corresponding to the total energy saved between September and December 2021. The Company recorded, on December 31, 2021, a credit of R\$134,890 referring to the amount to be returned to customers, in exchange for a credit receivable from CCEE (Note 11). On December 31, 2022, there is still R\$2,754 to be returned to consumers and R\$2,917 to be reimbursed by CCEE.

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8. Net Sectorial Financial Assets and Liabilities

The Sectorial Financial Assets and Liabilities comprise the differences calculated between the balances considered in the tariff coverage to cover energy costs, charges and other financial components, and the actual costs incurred, resulting in a balance to be received by the distributor or to be refunded to consumers. The current balance consists of amounts approved by Aneel in the 2022 tariff adjustment and amounts that will be ratified in the next tariff events.

	Balance as of January 1, 2022	Operating revenues		Financial results	Tariff flags	Statement of Financial Position	Balance as of December 31, 2022
		Constitution	Amortization	Updating		Constitution	
Portion A							
Electricity purchased for resale - Itaipu	1,286,966	344,732	(914,566)	102,517	-	-	819,649
Electricity purchased for resale - CVA Energy	(475,842)	(540,360)	429,160	(36,149)	41,132	-	(582,059)
Transport of energy using the transmission system - basic grid	180,521	213,107	(152,329)	12,467	-	-	253,766
Transport of energy purchased from Itaipu	14,018	8,125	(11,823)	386	-	-	10,706
ESS	531,280	417,465	(324,194)	46,467	(443,689)	-	227,329
CDE	(18,786)	392,608	(201,781)	28,452	-	-	200,493
Proinfa	10,501	77,631	(53,235)	7,181	-	-	42,078
Other financial components							
Refunds of Pis and Cofins (8.2)	(337,350)	-	1,164,877	-	-	(1,593,100)	(765,573)
Neutrality	81,177	94,338	(81,461)	4,544	-	-	98,598
Offset of bilateral contracts under CCEAR	(184)	(239)	385	(148)	-	-	(186)
Hydrological risk	(604,152)	(463,625)	570,582	(27,611)	-	-	(524,806)
Tariff refunds	(198,997)	(66,898)	101,685	(11,250)	-	-	(175,460)
Overcontracting	(78,596)	522,321	53,319	15,420	(76,140)	-	436,324
Itaipu Bonus	(26,451)	46,915	(6,240)	(4,568)	-	(4,713)	4,943
Water shortage account (8.1)	-	-	76,949	(2,293)	-	(145,844)	(71,188)
CDE Eletrobras (8.2)	-	165,214	-	(13,803)	-	(335,511)	(184,100)
Other	110,196	86,068	(100,867)	13,933	-	(1,701)	107,629
	474,301	1,297,402	550,461	135,545	(478,697)	(2,080,869)	(101,857)
Current assets	383,740						190,699
Noncurrent assets	383,740						190,699
Current liabilities	(139,770)						(433,914)
Noncurrent liabilities	(153,409)						(49,341)

	Balance as of January 1, 2021	Operating revenues		Financial results	Rate flags	Statement of Financial Position	Balance as of December 31, 2021
		Constitution	Amortization	Updating		Constitution	
Portion A							
Electricity purchased for resale - Itaipu	463,176	1,133,849	(348,804)	38,745	-	-	1,286,966
Electricity purchased for resale - CVA Energy	(100,053)	640,205	128,545	(1,303)	(1,143,236)	-	(475,842)
Transport of energy using the transmission system - basic grid	176,877	164,203	(170,538)	9,979	-	-	180,521
Transport of energy purchased from Itaipu	19,746	10,933	(17,746)	1,085	-	-	14,018
ESS	19,131	728,954	(23,429)	2,374	(195,750)	-	531,280
CDE	(1,872)	22,765	(41,260)	1,581	-	-	(18,786)
Proinfa	(145)	22,155	(11,812)	303	-	-	10,501
Other financial components							
Refunds of Pis and Cofins (Note 13.2.1)	-	-	364,650	-	-	(702,000)	(337,350)
Neutrality	77,265	60,608	(57,925)	1,229	-	-	81,177
Offset of bilateral contracts under CCEAR	36,395	(383)	(36,196)	-	-	-	(184)
Hydrological risk	(474,111)	(562,663)	443,644	(11,022)	-	-	(604,152)
Tariff refunds	(193,669)	(97,684)	100,956	(8,600)	-	-	(198,997)
Overcontracting	130,677	(99,743)	(23,230)	(2,220)	(84,080)	-	(78,596)
Itaipu Bonus	-	60,065	-	220	-	(86,736)	(26,451)
Other	4,804	89,875	22,330	(213)	-	(6,600)	110,196
	158,221	2,173,139	329,185	32,158	(1,423,066)	(795,336)	474,301
Current assets	173,465						383,740
Noncurrent assets	173,465						383,740
Current liabilities	(188,709)						(139,770)
Noncurrent liabilities	-						(153,409)

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8.1 Water shortage account

In view of the 2021 water shortage, one of the government measures designed to mitigate the financial impacts on the electricity sector was the contracting of a financial transaction to cover additional costs temporarily assumed by distributors in the period (Decree No. 10939/2022). The funds were allocated to the Water shortage account (Aneel's Regulatory Resolution No. 1008/2022). On May 9, 2022, Copel DIS received R\$145,844, recognized as a financial component in the annual tariff adjustment process, with the amount monetary restated by the Selic rate. The amount will be passed on to consumers through monthly installments approved by Aneel and collected into the CDE Water shortage account as of the next tariff adjustment process, to be carried out in June 2023, over a four-year period (Note 30.3.1).

8.2 Annual tariff adjustment

In Copel DIS's annual tariff adjustment process (Note 30.4), R\$1,593,100 were considered for tariff reduction (R\$702,000 in 2021), resulting from a lawsuit filed by the Company regarding State VAT (ICMS) exclusion from Contribution tax on gross revenue for social integration program (PIS) and for social security financing (Cofins) tax bases (Note 12.2.1).

Also, in view of Centrais Elétricas Brasileiras S.A. - Eletrobrás privatization, it was determined that 50% of the added value arising from the grant bonus of Eletrobrás hydropower plants renewed service concession arrangements would be passed on to the affordable energy tariffs. The amount allocated to Copel DIS in the 2022 tariff adjustment process was R\$335,511, which was received by the Company on July 29, 2022.

9. Accounts Receivables - Concessions

	12.31.2022	12.31.2021
Power distribution service concession (9.1)	1,442,819	1,200,708
Piped gas distribution service concession (9.2)	-	233,026
Bonus from the grant of concession agreements under the quota system (9.3)	766,832	730,851
Generation concession agreements (9.4)	68,642	102,220
	2,278,293	2,266,805
	Current	5,121
	Noncurrent	2,261,684
	8,603	5,121
	2,269,690	2,261,684

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9.1 Power distribution service concession

Balance as of January 1, 2021	960,518
Transfers from contract assets (Note 10.1)	125,492
Transfers to intangible assets (Note 17.1)	8,385
Transfers to other receivables (assets held for disposal)	(2,407)
Fair value recognition	108,733
Loss on disposal	(13)
Balance as of December 31, 2021	1,200,708
Transfers from contract assets (Note 10.1)	168,072
Transfers to other receivables (assets held for disposal)	(5,048)
Fair value recognition	79,169
Loss on disposal	(82)
Balance as of December 31, 2022	1,442,819

Balance corresponding to the estimated portion of investments made in the public service infrastructure whose useful life exceeds the concession period and which, according to the contractual provision, will be indemnified by the Granting Authority at the end of the concession.

9.2 Piped gas distribution service concession

Balance as of January 1, 2021	189,416
Transfers from contract assets (Note 10.2)	8,310
Transfers to intangible assets (Note 17.3)	1,398
Fair value recognition	33,909
Loss on disposal	(7)
Balance as of December 31, 2021	233,026
Transfers from intangible assets (Note 17.3)	(243,628)
Fair value recognition	10,772
Loss on disposal	(170)
Balance as of December 31, 2022	-

As a result of the renewal of the concession described in Note 2.1.1, the balance of these accounts receivable was fully transferred to intangible assets.

9.3 Bonus from the grant of concession agreements under the quota system

Balance as of January 1, 2021	671,204
Transfers to electricity grid use charges - customers	(74,835)
Interest (Note 30.1)	134,482
Balance as of December 31, 2021	730,851
Transfers to electricity grid use charges - customers	(82,458)
Interest (Note 30.1)	118,439
Balance as of December 31, 2022	766,832

On January 5, 2016, Copel GeT entered into a 30-year concession agreement of HPP GPS, in accordance with Law No. 12,783/2013, with payment of the Bonus from the Grant - BO to the Granting Authority, amounting to R\$574,827, as per Aneel Invitation to Bid 12/2015.

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The amount of the bonus for the grant was recognized as a financial asset due to the unconditional right of Copel GeT to receive the amount paid with inflation adjustment based on IPCA and interest during the concession period.

9.4 Power generation concession contract

Balance as of January 1, 2021	81,202
Remeasurement	18,414
Reversal of impairment	2,604
Balance as of December 31, 2021	102,220
Remuneration	1,934
Fair value adjustment	(35,512)
Balance as of December 31, 2022	68,642

Residual balance of the electricity generation assets of HPP GPS and HPP Mourão I. Copel GeT depreciated the plants until 2015, the expiration date of the concessions, and the remaining balance was reclassified to accounts receivable related to the concession and subsequently measured at the best estimate of fair value.

On December 17, 2015, Copel GeT expressed to Aneel its interest in receiving the indemnifiable amount, with proof of the realization of the respective investments, and on July 22, 2022, it filed the updated indemnifiable amount evaluation report. The Company awaits a statement from Aneel.

10. Contract assets

	12.31.2022	12.31.2021
Power distribution service concession (10.1)	2,332,171	1,798,195
Piped gas distribution service concession (10.2)	30,032	29,815
Power transmission concession (10.3)	5,310,476	5,060,038
	7,672,679	6,888,048
	Current	220,660
	Noncurrent	7,452,019
		148,488
		6,739,560

10.1 Power distribution service concession contract

	Assets	Special liabilities	Total
Balance as of January 1, 2021	1,144,780	(29,819)	1,114,961
Acquisitions	1,798,266	-	1,798,266
Customers contributions	-	(160,826)	(160,826)
Transfers to intangible assets (Note 17.1)	(943,905)	122,346	(821,559)
Transfers to accounts receivable - concessions (Note 9.1)	(140,120)	14,628	(125,492)
Loss on disposal	(7,155)	-	(7,155)
Balance as of December 31, 2021	1,851,866	(53,671)	1,798,195
Acquisitions	2,092,117	-	2,092,117
Customers contributions	-	(243,916)	(243,916)
Transfers to intangible assets (Note 17.1)	(1,332,118)	194,794	(1,137,324)
Transfers to accounts receivable - concessions (Note 9.1)	(197,912)	29,840	(168,072)
Loss on disposal	(8,829)	-	(8,829)
Balance as of December 31, 2022	2,405,124	(72,953)	2,332,171

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Balance composed of works in progress mainly related to the construction and expansion of substations, distribution lines and networks and measuring equipment, measured at historical cost, net of special liabilities. As these works are concluded, the amounts are transferred to Accounts receivable related to the concessions and Intangible assets, according to the form of remuneration. During the construction phase, loans, financing and debentures costs are capitalized. In 2022, these costs totaled R\$17,903, at an average rate of 0.38% p.a. (R\$12,785, at an average rate of 0.38% p.a., in 2021).

10.2 Piped gas distribution service concession contract

Balance as of January 1, 2021	27,254
Acquisitions	14,269
Transfers to intangible assets (Note 17.3)	(3,398)
Transfers to accounts receivable - concessions (Note 9.2)	(8,310)
Balance as of December 31, 2021	29,815
Acquisitions	13,955
Transfers to intangible assets (Note 17.3)	(13,738)
Balance as of December 31, 2022	30,032

10.3 Transmission service concession contract

	Concession assets	RBSE assets	Total
Balance as of January 1, 2021	3,007,234	1,343,348	4,350,582
Realization of gains/losses in business combinations	722	-	722
Transfers to electricity grid use charges - customers	(315,358)	(250,520)	(565,878)
Transfers to property, plant and equipment	(1,483)	-	(1,483)
Transfers from litigations	3,376	-	3,376
Remuneration	621,366	242,872	864,238
Construction revenue	187,733	-	187,733
Construction income	3,097	-	3,097
Loss from inefficiency (10.3.1)	125,699	91,952	217,651
Balance as of December 31, 2021	3,632,386	1,427,652	5,060,038
Realization of gains/losses in business combinations	721	-	721
Transfers to electricity grid use charges - customers	(389,939)	(213,378)	(603,317)
Transfers to property, plant and equipment	(3,822)	-	(3,822)
Transfers from litigations	(1,558)	-	(1,558)
Remuneration	509,722	201,926	711,648
Construction revenue	89,166	-	89,166
Construction income	1,458	-	1,458
Gain from efficiency (10.3.1)	56,142	-	56,142
Balance as of December 31, 2022	3,894,276	1,416,200	5,310,476

In June 2022, Technical Note No. 85/2022 was issued by the Superintendence of Tariffs of Aneel, which deals with the analysis of requests for reconsideration of the payment of the financial component and reprofiling of the RBSE Asset, with a monocratic decision (Order No. 1,762/22) deliberated by an Aneel director on the referred topic. This decision was suspended by the collegiate and the terms of the mentioned Technical Note will be discussed by the Aneel Board of Directors in a meeting with no scheduled date yet, so that assumptions, methodologies and calculations considered so far, approved by means of Aneel Resolution No. 2,847 of April 22, 2021, are effective and remain appropriate.

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10.3.1 Gain (loss) due to efficiency or inefficiency in the implementation and operation of transmission infrastructure

In the construction and operation of the transmission infrastructure, possible positive or negative impacts are expected due to delays and additional costs due to environmental issues, variation in costs, mainly with cables and structures when indexed to foreign currency, additional easement costs and land negotiations, potential earthworks for unforeseen events, early maturity of commercial transactions and RAP revision/readjustment according to the regulatory standards and contractual provisions. Changes in the original project that affect its profitability are recognized directly in the statement of income when incurred, except for the part of RAP related to the operation and maintenance performance of the assets that is recognized as the services are performed. On June 21, 2022, Aneel approved the 2nd tariff review of the Costa Oeste and Marumbi contracts, resulting in a gain of R\$30,654 (in 2021, the gains refer mainly to the reprofiling of RBSE assets and the tariff review of some Copel GeT contracts).

10.3.2 Assumptions adopted for the calculation of contract assets

	12.31.2022		12.31.2021	
	Concession assets	RBSE assets	Concession assets	RBSE assets
Construction margin	1.65%	N/A	1.65%	N/A
Operating and maintenance margin	1.65%	N/A	1.65%	N/A
Remuneration rate (a)	9.58% p.a.	9.45% p.a.	9.56% p.a.	9.54% p.a.
Contract correction index	IPCA (b)	IPCA	IPCA (b)	IPCA
Annual RAP, according to Ratifying Resolution	523,713	242,836	456,499	192,288

(a) Average rate of contracts

(b) Contract 075/2001 - LT 230 kV Bateias - Jaguariaíva, from Copel GET, and contract 002/2005 - LT 525 kV Ivaiporã - Londrina, from Uirapuru, are adjusted by the IGPM.

11. Other Receivables

	12.31.2022	12.31.2021
Fair value in the purchase and sale of power (Note 34.2.12)	1,081,758	855,775
Services in progress (a)	369,916	319,179
CDE Transfer (11.2)	83,649	68,999
Credits on purchases of gas (11.1)	45,673	73,229
Reimbursement of coal consumption values by CDE	58,367	33,107
Disposals and decommissioning in progress	39,768	42,509
Credits - gas concession (11.3)	32,825	-
Advance payments to employees	20,768	20,141
Contractual advances to suppliers	12,709	15,528
Bonus for voluntary consumption reduction (Note 7.4)	2,917	134,892
Employees transferred compensation to be recovered	1,261	1,316
Other receivables	79,221	101,747
	1,828,832	1,666,422
	Current	897,380
	Noncurrent	931,452
		749,816
		916,606

(a) Refers, most of which, to the Research and Development and Energy Efficiency programs, which upon conclusion are offset against the respective liability recorded for this purpose.

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11.1 Credits on purchases of gas - Compagas

It refers to the acquisition of contracted and guaranteed gas volumes, higher than those effectively withdrawn and used, for which the contract provides for future compensation. Compagas has the right to use and offset this gas within one year after the expiration of the contract. According to the contractual provisions and consumption perspectives, Compagas estimates to fully compensate the contracted volumes up to 2023. The contracts with Petrobras foresee the right to assign this asset. The Company reviewed the estimated recoverable value of the ship or pay credit to be offset and recorded impairment, as shown in note 31.4.

11.2 CDE Transfer

Values of the Energy Development Account - CDE to cover tariff discounts on tariffs, defined in Law No. 10,438/2002 and Decree No. 7,891/2013. The values are stipulated in the Annual Tariff Adjustment/Revision and, monthly, the Company estimates the differences to be compensated in the next tariff adjustment.

11.3 Credits - gas concession

Compagas credits recorded to neutralize the economic impacts on the Company's results due to gas price differences and/or difference in margin between the prices contained in the supply tariffs applied to consumers and those billed by suppliers to the concessionaire. The recovery of these values is determined by the Regulatory Agency of Paraná - Agepar, in the process of revising and updating the tariff.

12. Taxes

12.1 Deferred income tax and social contribution

	Balance as of January 1, 2021	Recognized in income	Other (a)	Reclassi- fication (a)	Recognized comprehensive income	Balance as of December 31, 2021	Recognized in income	Other (b)	Recognized comprehensive income	Balance as of December 31, 2022
Noncurrent assets										
Provisions for legal claims	499,375	7,291	-	(2,205)	-	504,461	132,175	-	-	636,636
Provision for allocation of PIS and Cofins credits	-	-	-	-	-	-	629,427	-	-	629,427
Post-employment benefits	507,032	(766)	-	16,875	(93,881)	429,260	22,724	-	(88,548)	363,436
Impairment of assets	310,606	(6,456)	-	(1,753)	-	302,397	(17,486)	-	-	284,911
Tax losses and negative tax basis	215,389	54,416	(148,005)	1,210	-	123,010	73,260	-	-	196,270
Research and development and energy efficiency programs	152,498	(13,649)	-	-	-	138,849	(11,766)	-	-	127,083
Expected credit losses	123,182	(21,476)	-	(2,994)	-	98,712	(11,412)	-	-	87,300
Social security contributions - injunction on judicial deposit	70,992	3,673	-	78	-	74,743	7,516	-	-	82,259
Amortization - concession	47,209	5,220	-	-	-	52,429	5,220	-	-	57,649
Provisions for performance and profit sharing	160,459	(45,866)	-	-	-	114,593	(100,957)	-	-	13,636
Concession contracts	21,061	(1,292)	-	-	-	19,769	(1,067)	-	-	18,702
Voluntary retirement program	10,815	13,493	-	-	-	24,308	(22,551)	-	-	1,757
Others	149,662	1,457	1,062	5,905	-	158,086	23,792	-	-	181,878
	2,268,280	(3,955)	(146,943)	17,116	(93,881)	2,040,617	728,875	-	(88,548)	2,680,944
(-) Noncurrent liabilities										
Concession contracts	900,505	808,372	94,221	-	-	1,803,098	52,617	8,155	-	1,863,870
Deemed cost of property, plant and equipment	350,491	(23,994)	-	-	-	326,497	(18,810)	-	-	307,687
Accelerated depreciation	75,955	26,369	-	-	-	102,324	25,832	-	-	128,156
Derivative financial instruments	117,682	(12,178)	-	-	-	105,504	11,134	-	-	116,638
Escrow deposits monetary variation	61,727	3,392	-	-	-	65,119	7,708	-	-	72,827
Transaction cost on loans and financing and debentures	23,203	4,833	-	-	-	28,036	2,280	-	-	30,316
Others	31,951	(20,343)	-	-	-	11,608	19,725	-	3,500	34,833
	1,561,514	786,451	94,221	-	-	2,442,186	100,486	8,155	3,500	2,554,327
Net	706,766	(790,406)	(241,164)	17,116	(93,881)	(401,569)	628,389	(8,155)	(92,048)	126,617
Assets presented in the Statement of Financial Position	1,011,866					963,259				1,644,299
Liabilities presented in the Statement of Financial Position	(293,666)					(1,364,828)				(1,517,682)

(a) Effects of the business combination and discontinued operation detailed in the Financial Statements as of December 2021.

(b) Effects of the business combination (Note 1.1.1).

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12.1.1 Projection for realization of deferred income tax and social contribution:

The projection of deferred tax credits realization recorded in noncurrent assets and liabilities is based on the realization period of each item of deferred assets and liabilities and tax losses, also based on projections of future results. These projections were evaluated by the Supervisory Board and approved by the Board of Directors on March 21, 2022.

The criteria used for the realization of each item are related to the predictability of realization of the main value that gave rise to the temporary difference. When the expectation of realization of the item is difficult to predict, mainly because it is not under the control of the Company, such as provisions for litigation, the Company adopts history of realization to project its future realization. The realization of the amounts of income tax and social contribution losses follow the potential compensation considering future profits and the limit defined by the legislation.

Following are the items that were the basis for the setup of the main credits, as well as their form of realization:

- Provision for allocation of PIS and Cofins credits: will be carried out as the amounts are passed on in the tariff review and readjustment processes approved by the regulatory body, if any, or by the reversal of the respective provision;
- Provisions for post-employment benefits: realized as the payments are made to the Copel Foundation or reversed according to new actuarial estimates;
- Provisions for legal claims: realized according to court decisions or by the reversal when the possible risk of the shares is reviewed;
- Impairment of assets: realized through the amortization and/or depreciation of the impaired asset;
- Deemed cost: realized through the amortization and/or depreciation of the valued asset;
- Amounts related to the concession agreement: realized over the term of the agreement;
- Amounts related to tax losses and negative tax basis: recovered by offsetting against future taxable income;
- Other amounts: realized when they meet the deductibility criteria provided for in tax legislation, or upon reversal of the recorded amounts.

The projected realization of the deferred taxes is shown below:

	Assets	Liabilities
2023	360,933	(232,236)
2024	417,270	(282,299)
2025	486,215	(228,450)
2026	128,402	(227,274)
2027	102,221	(178,671)
2028 to 2030	234,464	(454,087)
after 2030	951,439	(951,310)
	2,680,944	(2,554,327)

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12.1.2 Unrecognized tax credits

As of December 31, 2022, Company did not recognize income tax and social contribution credits on income tax and social contribution tax losses in the amount of R\$197,540 (R\$68,826, as of December 31, 2021) for not having reasonable assurance of generation of future taxable profits sufficient to allow the utilization of these tax credits.

12.2 Other taxes recoverable and other tax obligations

	12.31.2022	12.31.2021
Current assets		
Recoverable ICMS (VAT)	128,288	111,101
Recoverable PIS/Pasep and Cofins taxes (a)	1,110,659	1,396,645
Other recoverable taxes	747	1,118
	1,239,694	1,508,864
Noncurrent assets		
Recoverable ICMS (VAT)	171,374	141,951
Recoverable PIS/Pasep and Cofins taxes (a)	2,421,176	2,967,756
Other recoverable taxes	34,743	33,839
	2,627,293	3,143,546
Current liabilities		
ICMS (VAT) payable (Note 12.2.3)	149,506	290,627
ICMS installment payment (Note 12.2.4)	10,437	-
PIS/Pasep and Cofins payable	70,423	42,340
IRRF on interest on capital	11,372	33,592
Special Tax Regularization Program - Pert	57,046	52,168
Other taxes	4,822	22,206
	303,606	440,933
Noncurrent liabilities		
Social security contributions - injunction on judicial deposit	242,248	220,108
ICMS installment payment (Note 12.2.4)	37,883	-
Special Tax Regularization Program - Pert	347,029	369,526
Other taxes	6,331	5,176
	633,491	594,810

(a) The balance contains amounts referring Pis and Cofins credit on ICMS (Notes 12.2.1 and 12.2.2)

12.2.1 Pis and Cofins credit on ICMS - Copel Distribuição

On August 12, 2009, Copel DIS filed for a writ of mandamus No. 5032406-35.2013.404.7000 with the 3rd Federal Court of Curitiba applying for the granting of an order to stop including ICMS in the PIS and Cofins tax base on June 16, 2020, a final unappealable ruling was handed down by the 2nd Panel of the Federal Regional Court of the 4th Region recognizing the right of Copel DIS to exclude from the PIS and Cofins tax base the full amount of ICMS included in the energy supply and distribution invoices. The ruling also recognized that the limitation period, in this case, is of five years and that, therefore, Copel has the right to recover the amounts that have been paid during the five years preceding the filing of the writ of mandamus until the date of the final unappealable decision.

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Based on this favorable decision, Copel DIS recognized the tax credit updated in assets, which has been recovered through offsetting with taxes payable since June 2021, from the qualification of the credit originating from Cofins with the Brazilian Federal Revenue Service. The credit originating from PIS was qualified by the Brazilian Federal Revenue Service on August 25, 2022 and is ready to be used through offsetting.

On May 13, 2021, the Federal Supreme Court concluded the judgment of the motions for clarification filed by the Federal Government in Extraordinary Appeal 574.706/PR, partially granting the following terms: (i) relating to ICMS excluded from the PIS and Cofins calculation basis, the understanding that it is the highlighted ICMS prevailed; and (ii) modulate the effects of the judgment whose production will take place after March 15, 2017, except for the judicial and administrative actions filed up to the date of the session in which the judgment was delivered. Therefore, the final decision on this matter did not impact the final and unappealable decision in favor of Copel DIS, maintaining the treatment and amounts recorded.

The following table shows the movement of the asset until December 31, 2022:

Balance as of January 1, 2021		5,655,754
Monetary variation		125,483
Offsetting with taxes payable		(1,425,972)
Balance as of December 31, 2021		4,355,265
Monetary variation		294,952
Offsetting with taxes payable		(1,165,601)
Balance as of December 31, 2022		3,484,616
	Current	1,148,897
	Noncurrent	2,335,719

The asset balance will continue to be offset against future federal tax debts.

a) Liabilities to be refunded to consumers

The Company recorded a liability to be refunded to consumers related to the recovery of tax credits for the last 10 years, counting from the date of the final and unappealable decision, considering the current legislation, the statute of limitations period defined in the civil code and the jurisprudence of the courts.

On February 09, 2021, Aneel opened Public Consultation No. 05/2021 aimed at discussing how to return tax credits to consumers, proposing that the amounts to be returned for each tariff cycle (credits with the Brazilian Federal Revenue Office, added to any judicial deposits already received by the concessionaire/permissionaire) are deducted from the electricity bill, through apportionment by the set of consumers.

Additionally, Aneel Order No. 361/2021 established that in exceptional situations, in which there is a possibility of a significant tariff increase, part of the PIS and Cofins credits may be used in advance of the conclusion of the public consultation, limited to 20% of the total involved in lawsuits filed by distributors.

In the tariff adjustment of June 24, 2022, the total of R\$1,593,100 was considered as a financial item, so this balance was transferred to the sectorial financial liabilities account, as shown in the following table:

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Balance as of January 1, 2021		3,927,824
Monetary variation		100,971
(-) Transfer to sectorial financial liabilities (Note 8)		(702,000)
Balance as of December 31, 2021		3,326,795
Monetary variation		261,463
(-) Transfer to sectorial financial liabilities (Note 8)		(1,593,100)
Balance as of December 31, 2022		1,995,158
	Current	550,527
	Noncurrent	1,444,631

The balance of the liability will be refunded to the consumer as the tax credits in the asset are offset.

b) Provision for allocation of PIS and Cofins credits

On June 27, 2022, Federal Law No. 14,385 was enacted, which defines the allocation of mandatory tax amounts collected in excess by the providers of the public electricity distribution service, due to the recognition by the judiciary that ICMS should be excluded from the PIS and Cofins calculation basis.

As detailed earlier in this note, Copel DIS has recognized the right to exclude the full amount of ICMS from the PIS and Cofins calculation basis and has already transferred part of these amounts to consumers, through reductions in the tariff adjustments approved by Aneel.

In this context, despite the lack of regulation of this Law, based on the review of the risk assessment carried out by Management, Copel DIS decided to recognize an additional provision, with no immediate cash effect, referring to the period between the 11th and the 16th year from the date of the final and unappealable decision of the lawsuit.

The Management of Copel DIS understands that the refund to consumers is limited to the tax credit amounts of the last 10 years from the date of the final and unappealable decision and, therefore, is evaluating the appropriate measures to be taken, including legal measures, considering the shelter given to unappealable decisions and applicable limitation periods.

On December 12, 2022, the Brazilian Association of Electric Energy Distributors - Abradee filed a Direct Action of Unconstitutionality - ADI with the Federal Supreme Court - STF, questioning Law No. 14,385/2022, which has not yet been judged. The Company awaits the unfolding of the ADI.

The table below shows the changes in the provision until December 31, 2022:

Balance as of January 1, 2022		-
Provision for allocation of PIS and Cofins credits		810,563
Monetary variation		1,011,370
Balance as of June 30, 2022		1,821,933
Monetary variation		29,324
Balance as of December 31, 2022		1,851,257

Any allocation of this provision will occur only after the asset's tax credits are offset.

12.2.2 PIS and Cofins credit on ICMS - Compagas

Balance arising from the final and unappealable decision of the lawsuit in which Compagas discussed the

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exclusion of ICMS from the PIS and Cofins calculation basis. In view of the favorable decision, Compagas recorded assets of R\$107,453 in September 2019. Most of these credits have already been recovered and the restated balance on 12.31.2022 is R\$28,505 (R\$75,192 on December 31, 2021) with achievement expectation in 2023.

12.2.3 ICMS on electricity operations

Supplementary Law No. 194/2022 was published on June 23, 2022, prohibiting that ICMS rates be set on electricity transactions at a level higher than on general transactions, considering the essentiality of related goods and services. Furthermore, it set forth that ICMS is not levied on transmission and distribution services and sector charges related to electric energy transactions. In compliance with the law, and after issue of state tax authorities' opinions, the Company implemented the necessary changes in September 2022 to comply with the legislation. However, on February 9, 2023, the Brazilian Supreme Court - STF granted States, in a preliminary decision, in the records of Direct Action of Unconstitutionality - ADI 7195, suspension of the article that excluded such items from the taxed portion of the electricity bill. Considering this decision, the Company resumed ICMS taxation on said services and sector charges. On March 3, 2023, the preliminary injunction was approved by the Plenary of the STF.

12.2.4 Incentive installment payment program for ICMS tax credits in the State of Paraná

On September 27, 2022, the Company adhered to the installment payment program for previously recognized ICMS, established by the State of Paraná through State Law No. 20946/2021, regulated by State Decree No. 10766/2022, wherein R\$92,249 debts were entered in its report of tax position, updated until September 2022 with fine, interest and monetary restatement. By adhering to said program, the Company reduced R\$41,696 in charges, with a consolidated balance of R\$50,553 at the adhesion date, to be paid in 60 monthly installments until September 2027, according to the mentioned program regulation. The Company has been paying the monthly installments on a regular basis, restated by the Selic rate.

12.3 Reconciliation of provision for income tax (IRPJ) and social contribution (CSLL)

The income tax and social contribution credits to be recovered presented in the balance sheet of December 31, 2022, in the amount of R\$482,887, refer mainly to the calculation of negative balances that will be offset against federal taxes payable.

The table below demonstrates the reconciliation of IRPJ and CSLL recorded in income for the year:

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	12.31.2022	12.31.2021	12.31.2020
Income before IRPJ and CSLL	950,199	5,118,677	5,119,537
(-) Equity in income	(478,576)	(366,315)	(193,547)
	471,623	4,752,362	4,925,990
IRPJ and CSLL (34%)	(160,352)	(1,615,803)	(1,674,837)
Tax effects on:			
Interest on equity (JSCP)	335,697	226,928	276,808
Dividends	250	437	243
Non deductible expenses	(26,221)	(25,336)	(17,133)
Tax incentives	13,767	43,720	28,572
Unrecognized tax loss and negative basis of CSLL	(128,661)	(29,002)	(39,421)
Setting up and/or offset of income tax and social contribution losses of prior years	-	85,723	-
Difference between tax bases of deemed profit and taxable profit	35,677	49,638	121,242
Effect of non taxable monetary variation (Selic) on undue tax payments	100,282	-	-
Others	28,683	4,063	19,161
Current IRPJ and CSLL	(429,267)	(469,226)	(1,260,469)
Deferred IRPJ and CSLL	628,389	(790,406)	(24,896)
Effective rate - %	-42.2%	26.5%	26.1%

13. Prepaid Expenses

	12.31.2022	12.31.2021
Program for incentive to alternative energy sources - Proinfra	30,538	35,837
Insurance premiums	20,919	17,692
Others	8,629	147
	60,086	53,676
	Current	53,649
	Noncurrent	27

14. Judicial Deposits

	12.31.2022	12.31.2021
Taxes claims (14.1)	444,134	405,739
Labor claims	125,862	106,376
Civil claims		
Civil claims	39,597	53,438
Easements	14,726	18,407
Customers	4,862	3,867
	59,185	75,712
Other	3,277	3,304
	632,458	591,131

14.1 Tax judicial deposits

Of the balance on December 31, 2022, R\$241,681 (R\$218,143 on December 31, 2021) refers to the challenge in court of the levy of social security contribution (INSS payable) on certain salary amounts. The liability is recorded under Other Tax Obligations (Note 12.2).

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15. Investments

15.1 Changes in investments

	Balance as of January 1, 2022	Equity	Investment/ AFAC	Capital decrease	Amorti- zation	Dividends and JSCP	Other (a)	Balance as of December 31, 2022
Joint Ventures (15.3)								
Voltaia São Miguel do Gostoso I	108,990	2,157	4,829	-	-	-	-	115,976
Voltaia São Miguel do Gostoso - authorization rights	9,304	-	-	-	(367)	-	-	8,937
Caiuá	106,977	23,806	-	-	-	(5,486)	-	125,297
Integração Maranhense	166,563	32,824	-	-	-	(6,885)	-	192,502
Matrinchá	811,771	162,298	-	-	-	(42,541)	-	931,528
Guaraciaba	407,615	82,251	-	-	-	(22,767)	-	467,099
Paranaíba	226,923	47,623	-	-	-	(10,567)	-	263,979
Mata de Santa Genebra	710,989	56,140	-	(61,536)	-	(13,333)	-	692,260
Cantareira	437,330	45,293	-	-	-	(9,254)	-	473,369
Solar Paraná	7,035	170	-	-	-	(49)	-	7,156
	2,993,497	452,562	4,829	(61,536)	(367)	(110,882)	-	3,278,103
Associates								
Dona Francisca Energética (15.4)	27,057	5,648	-	-	-	(4,662)	-	28,043
Foz do Chopim Energética (15.4)	19,102	20,370	-	-	-	(22,356)	-	17,116
Other	1,937	(3)	-	-	-	-	-	1,934
	48,096	26,015	-	-	-	(27,018)	-	47,093
Investment property	541	-	-	-	(4)	-	(2)	535
	3,042,134	478,577	4,829	(61,536)	(371)	(137,900)	(2)	3,325,731

(a) Transfer of assets destined for disposal.

AFAC - Advance for future capital increase

JSCP - Interest on equity

	Balance as of January 1, 2021	Equity	Investment/ AFAC	Amorti- zation	Dividends and JSCP	Other (a)	Balance as of December 31, 2021
Joint Ventures (17.3)							
Voltaia São Miguel do Gostoso I	107,721	1,269	-	-	-	-	108,990
Voltaia São Miguel do Gostoso - authorization rights	9,671	-	-	(367)	-	-	9,304
Caiuá	95,362	13,765	-	-	(2,150)	-	106,977
Integração Maranhense	148,581	20,255	-	-	(2,273)	-	166,563
Matrinchá	734,503	96,614	-	-	(19,346)	-	811,771
Guaraciaba	361,170	57,363	-	-	(10,918)	-	407,615
Paranaíba	203,681	35,112	-	-	(11,870)	-	226,923
Mata de Santa Genebra	661,430	63,173	-	-	(13,614)	-	710,989
Cantareira	359,686	53,492	30,870	-	(6,718)	-	437,330
Solar Paraná	6,831	104	100	-	-	-	7,035
	2,688,636	341,147	30,970	(367)	(66,889)	-	2,993,497
Associates							
Dona Francisca Energética (15.4)	28,147	8,574	-	-	(9,664)	-	27,057
Foz do Chopim Energética (15.4)	9,986	16,596	-	-	(7,480)	-	19,102
Other	1,940	(3)	-	-	-	-	1,937
	40,073	25,167	-	-	(17,144)	-	48,096
Investment property	808	-	-	(5)	-	(262)	541
	2,729,517	366,314	30,970	(372)	(84,033)	(262)	3,042,134

(a) Transfer of assets destined for disposal.

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15.2 Subsidiaries with non-controlling interests

15.2.1 Summarized financial information

	Compagás		Elejor		UEG Araucária	
	12.31.2022	12.31.2021	12.31.2022	12.31.2021	12.31.2022	12.31.2021
ASSETS	1,083,713	827,901	848,198	813,670	334,418	776,201
Current assets	282,714	355,500	224,833	166,890	97,586	515,430
Noncurrent assets	800,999	472,401	623,365	646,780	236,832	260,771
LIABILITIES	1,083,713	827,901	848,198	813,670	334,418	776,201
Current liabilities	419,277	220,216	111,142	107,772	45,115	221,853
Noncurrent liabilities	107,306	99,784	771,897	746,843	16,322	13,771
Equity	557,130	507,901	(34,841)	(40,945)	272,981	540,577

	Compagás			Elejor			UEG Araucária		
	12.31.2022	12.31.2021	12.31.2020	12.31.2022	12.31.2021	12.31.2020	12.31.2022	12.31.2021	12.31.2020
STATEMENT OF INCOME									
Net operating revenue	1,297,034	783,277	535,206	194,287	171,263	194,849	98,508	2,250,577	589,909
Operating costs and expenses	(1,076,181)	(654,643)	(452,495)	(86,033)	(86,871)	(67,323)	(365,522)	(1,879,198)	(647,516)
Financial results	28,440	9,817	(764)	(113,102)	(171,888)	(172,049)	11,407	8,952	203
Income tax and social contribution	(70,092)	(38,860)	(22,967)	4,158	33,061	15,154	(11,885)	(42,248)	(19,920)
Net income (loss)	179,201	99,591	58,980	(690)	(54,435)	(29,369)	(267,492)	338,083	(77,324)
Other comprehensive income	1,433	294	(343)	6,795	-	-	(103)	-	(205)
Total comprehensive income	180,634	99,885	58,637	6,105	(54,435)	(29,369)	(267,595)	338,083	(77,529)
STATEMENTS OF CASH FLOWS									
Cash flow s from operating activities	280,480	178,800	101,708	45,249	127,510	22,097	(94,401)	312,676	23,491
Cash flow s from investing activities	(427,175)	(14,273)	(17,120)	(7,364)	(31,095)	(208)	(139,033)	(14,579)	1,317
Cash flow s from financing activities	(2,887)	(64,545)	(115,625)	-	-	(8,151)	(147)	(64,331)	32,879
TOTAL EFFECTS ON CASH AND CASH EQUIVALENTS	(149,582)	99,982	(31,037)	37,885	96,415	13,738	(233,581)	233,766	57,687
Cash and cash equivalents at the beginning of the year	210,641	110,659	141,696	148,031	51,616	37,878	298,572	64,806	7,119
Cash and cash equivalents at the end of the year	61,059	210,641	110,659	185,916	148,031	51,616	64,991	298,572	64,806
CHANGE IN CASH AND CASH EQUIVALENTS	(149,582)	99,982	(31,037)	37,885	96,415	13,738	(233,581)	233,766	57,687

In order to balance Compagas short-term financial capacity, which has negative net working capital, Management is monitoring and adopting measures to lengthen the debt.

The loss recorded at Elejor in 2021 and 2022 is due to the monetary restatement on the Accounts payable related to concessions, which increased significantly because of the increase in the General Market Price Index - IGPM (Note 25). The loss at UEG Araucária is due to the improvement in the hydrological scenario which, consequently, reduced the plant's dispatches during 2022.

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15.2.2 Changes in equity attributable to non-controlling shareholders

Participation in capital stock	Compagás 49%	Elejor 30%	UEG Araucária 18.8%	Total
Balance as of January 1, 2020	273,580	12,858	59,360	345,798
Net income (loss)	28,898	(8,812)	(14,538)	5,548
Other comprehensive income	(168)	-	(39)	(207)
Additional dividends proposed	(51,799)	-	-	(51,799)
Dividends	(7,933)	-	-	(7,933)
Balance as of December 31, 2020	242,578	4,046	44,783	291,407
Net income (loss)	48,800	(16,331)	63,560	96,029
Other comprehensive income	144	-	-	144
Dividends	(42,653)	-	(6,716)	(49,369)
Balance as of December 31, 2021	248,869	(12,285)	101,627	338,211
Net income (loss)	87,809	(207)	(50,288)	37,314
Other comprehensive income	702	2,041	(22)	2,721
Dividends	(24,187)	-	-	(24,187)
Distribution of dividends with retained earnings	(40,198)	-	-	(40,198)
Balance as of December 31, 2022	272,995	(10,451)	51,317	313,861

15.3 **Summarized information on the main joint ventures**

	Voltalia	Caiuá	Integração Maranhense	Matrinchã	Guaraciaba	Paranaíba	Mata de Santa Genebra	Cantareira
Balance as of December 31, 2022								
ASSETS	238,907	327,819	588,279	2,935,068	1,568,964	1,921,848	3,587,501	1,805,583
Current assets	10,883	38,421	78,790	427,118	211,094	223,010	539,668	226,945
Cash and cash equivalents	10,797	13,440	28,997	136,878	56,436	56,518	32,903	73,866
Other current assets	86	24,981	49,793	290,240	154,658	166,492	506,765	153,079
Noncurrent assets	228,024	289,398	509,489	2,507,950	1,357,870	1,698,838	3,047,833	1,578,638
LIABILITIES	238,907	327,819	588,279	2,935,068	1,568,964	1,921,848	3,587,501	1,805,583
Current liabilities	2,220	22,569	59,771	225,502	154,404	125,681	113,772	92,290
Financial liabilities	-	7,273	12,774	130,033	42,260	59,606	70,775	59,850
Other current liabilities	2,220	15,296	46,997	95,469	112,144	66,075	42,997	32,440
Noncurrent liabilities	-	49,542	135,645	808,485	461,297	718,700	2,091,971	747,233
Financial liabilities	-	28,705	40,415	578,340	397,181	475,804	1,668,794	423,563
Other noncurrent liabilities	-	20,837	95,230	230,145	64,116	242,896	423,177	323,670
Equity	236,687	255,708	392,863	1,901,081	953,263	1,077,467	1,381,758	966,060
STATEMENT OF INCOME								
Net operating revenue	-	62,864	100,482	518,428	266,855	231,960	415,526	188,348
Operating costs and expenses	(78)	(5,876)	(4,022)	(33,073)	(40,926)	(20,181)	(68,472)	(10,885)
Financial results	1,291	(1,605)	(2,286)	(59,543)	(37,598)	(48,430)	(177,322)	(37,815)
Equity in earnings of investees	2,502	-	-	-	-	-	-	-
Income tax and social contribution	(258)	(6,802)	(27,185)	(94,589)	(20,473)	31,030	(57,676)	(47,212)
Net income (loss)	3,457	48,581	66,989	331,223	167,858	194,379	112,056	92,436
Other comprehensive income	-	-	-	-	-	-	-	-
Total comprehensive income	3,457	48,581	66,989	331,223	167,858	194,379	112,056	92,436
Investment interest - %	49.0	49.0	49.0	49.0	49.0	24.5	50.1	49.0
Investment book value	115,976	125,297	192,502	931,528	467,099	263,979	692,260	473,369

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On December 31, 2022, the interest of Copel in the commitments assumed by its joint ventures is equivalent to R\$978 and in the contingent liabilities classified as a possible loss is equivalent to R\$413,034 (R\$250,262 as of December 31, 2021), of which the amount of R\$180,706 (R\$187,243 as of December 31, 2021) refers to Mata de Santa Genebra.

In June 2022, Copel GeT recorded R\$133,922 in equity in earnings of investees resulting from the effects of the tariff review of Caiuá, Integração Maranhense, Matrinchã and Guaraciaba.

	Voltaíia	Caiuá	Integração Maranhense	Matrinchã	Guaraciaba	Paranaíba	Mata de Santa Genebra	Cantareira
Balance as of December 31, 2021								
ASSETS	224,632	284,870	515,495	2,610,094	1,413,231	1,829,340	3,203,892	1,715,776
Current assets	3,711	30,304	65,219	367,428	194,283	193,190	681,494	196,424
Cash and cash equivalents	3,667	6,117	16,501	96,346	70,543	32,665	387,027	52,354
Other current assets	44	24,187	48,718	271,082	123,740	160,525	294,467	144,070
Noncurrent assets	220,921	254,566	450,276	2,242,666	1,218,948	1,636,150	2,522,398	1,519,352
LIABILITIES	224,632	284,870	515,495	2,610,094	1,413,231	1,829,340	3,203,892	1,715,776
Current liabilities	2,206	14,562	53,132	126,211	101,042	85,964	123,884	78,982
Financial liabilities	-	7,386	13,169	91,811	34,529	51,453	45,898	52,397
Other current liabilities	2,206	7,176	39,963	34,400	66,513	34,511	77,986	26,585
Noncurrent liabilities	-	51,986	122,438	827,205	480,320	817,159	1,660,867	744,285
Financial liabilities	-	35,606	52,653	685,525	428,314	522,289	1,630,306	456,180
Other noncurrent liabilities	-	16,380	69,785	141,680	52,006	294,870	30,561	288,105
Equity	222,426	218,322	339,925	1,656,678	831,869	926,217	1,419,141	892,509
STATEMENT OF INCOME								
Net operating income	-	43,128	71,868	396,622	229,117	285,483	426,573	233,888
Operating costs and expenses	(64)	(5,609)	(10,508)	(24,341)	(7,185)	(17,537)	(72,970)	(24,727)
Financial results	162	(2,348)	(3,954)	(83,280)	(44,131)	(62,138)	(162,110)	(43,794)
Equity in income of subsidiaries	2,506	-	-	-	-	-	-	-
Income tax and social contribution	(17)	(7,078)	(16,072)	(91,830)	(60,617)	(62,638)	(65,399)	(56,201)
Net income (loss)	2,587	28,093	41,334	197,171	117,184	143,170	126,094	109,166
Other comprehensive income	-	-	-	-	-	-	-	-
Total comprehensive income	2,587	28,093	41,334	197,171	117,184	143,170	126,094	109,166
Investment interest - %	49.0	49.0	49.0	49.0	49.0	24.5	50.1	49.0
Investment book value	108,990	106,979	166,564	811,773	407,617	226,924	710,991	437,330

	Voltaíia	Caiuá	Integração Maranhense	Matrinchã	Guaraciaba	Paranaíba	Mata de Santa Genebra	Cantareira
Balance as of December 31, 2020								
STATEMENT OF INCOME								
Net operating income	-	17,927	31,418	328,171	109,978	478,147	364,070	196,039
Operating costs and expenses	(66)	(34,584)	11,706	(160,795)	(8,317)	(18,801)	(125,569)	(23,533)
Financial results	32	(3,389)	(5,229)	(71,164)	(38,883)	(48,184)	(91,947)	(40,630)
Equity in income of subsidiaries	(4,893)	-	-	-	-	-	-	-
Income tax and social contribution	-	1,752	(9,991)	(30,178)	(22,084)	(125,646)	(49,560)	(44,805)
Net income (loss)	(4,927)	(18,294)	27,904	66,034	40,694	285,516	96,994	87,071
Other comprehensive income	-	-	-	-	-	-	-	-
Total comprehensive income	(4,927)	(18,294)	27,904	66,034	40,694	285,516	96,994	87,071

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15.4 Summarized information of the main associates

	Dona Francisca		Foz do Chopim	
	12.31.2022	12.31.2021	12.31.2022	12.31.2021
ASSETS	175,415	180,425	51,449	55,900
Current assets	10,148	13,570	11,730	13,308
Noncurrent assets	165,267	166,855	39,719	42,592
LIABILITIES	175,415	180,425	51,449	55,900
Current liabilities	22,373	19,938	3,596	2,495
Noncurrent liabilities	31,266	42,988	-	-
Equity	121,776	117,499	47,853	53,405
Investment interest - %	23.03	23.03	35.77	35.77
Investment book value	28,043	27,057	17,116	19,102

	Dona Francisca			Foz do Chopim		
	12.31.2022	12.31.2021	12.31.2020	12.31.2022	12.31.2021	12.31.2020
STATEMENT OF INCOME						
Net operating revenue	66,163	66,797	70,314	77,779	60,943	55,740
Operating costs and expenses	(33,460)	(26,605)	(26,171)	(18,664)	(10,775)	(21,260)
Financial results	(5,172)	(664)	208	449	(1,703)	(5,527)
Income tax and social contribution	(3,009)	(2,298)	(2,343)	(2,617)	(2,060)	(2,035)
Net income	24,522	37,230	42,008	56,947	46,405	26,918
Other comprehensive income	-	-	-	-	-	-
Total comprehensive income	24,522	37,230	42,008	56,947	46,405	26,918

On December 31, 2022, the interest of Copel in the contingent liabilities of its associates is equivalent to R\$2,581 (R\$2,166 as of December 31, 2021).

16. Property, Plant and Equipment

16.1 Property, plant and equipment by asset class

	Cost	Accumulated	12.31.2022	Cost	Accumulated	12.31.2021
		depreciation			depreciation	
In service						
Reservoirs, dams and aqueducts	8,200,744	(4,925,970)	3,274,774	8,161,702	(4,776,639)	3,385,063
Machinery and equipment	8,951,061	(3,060,695)	5,890,366	8,409,689	(2,840,114)	5,569,575
Buildings	2,001,801	(1,160,549)	841,252	1,993,695	(1,125,862)	867,833
Land	510,681	(59,157)	451,524	508,164	(49,046)	459,118
Vehicles and aircraft	35,457	(33,115)	2,342	33,871	(32,756)	1,115
Furniture and fixtures	17,007	(10,871)	6,136	16,400	(10,966)	5,434
(-) Impairment (16.4)	(785,205)	-	(785,205)	(710,509)	-	(710,509)
(-) Special Obligations	(748)	330	(418)	(792)	290	(502)
	18,930,798	(9,250,027)	9,680,771	18,412,220	(8,835,093)	9,577,127
In progress						
Cost	575,080	-	575,080	752,846	-	752,846
(-) Impairment (16.4)	(186,383)	-	(186,383)	(187,382)	-	(187,382)
	388,697	-	388,697	565,464	-	565,464
	19,319,495	(9,250,027)	10,069,468	18,977,684	(8,835,093)	10,142,591

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16.2 Changes in property, plant and equipment

	Balance as of January 1, 2022	Additions / Impairment	Depreciation	Loss on disposal	Transfers	Balance as of December 31, 2022
In service						
Reservoirs, dams and aqueducts	3,385,063	-	(149,331)	-	39,042	3,274,774
Machinery and equipment	5,569,575	-	(333,396)	(29,678)	683,865	5,890,366
Buildings	867,833	-	(35,834)	(333)	9,586	841,252
Land	459,118	-	(10,111)	(381)	2,898	451,524
Vehicles and aircraft	1,115	-	(389)	-	1,616	2,342
Furniture and fixtures	5,434	-	(584)	(111)	1,397	6,136
(-) Impairment (16.4)	(710,509)	(74,696)	-	-	-	(785,205)
(-) Special Obligations	(502)	-	125	-	(41)	(418)
	9,577,127	(74,696)	(529,520)	(30,503)	738,363	9,680,771
In progress						
Cost	752,846	559,318	-	(12,338)	(724,746)	575,080
(-) Impairment (16.4)	(187,382)	999	-	-	-	(186,383)
	565,464	560,317	-	(12,338)	(724,746)	388,697
	10,142,591	485,621	(529,520)	(42,841)	13,617	10,069,468

	Balance as of January 1, 2021	Additions / Impairment	Depreciation	Loss on disposal	Transfers	Copel Telecom Disposal	Other (b)	Balance as of December 31, 2021
In service								
Reservoirs, dams and aqueducts	3,481,391	-	(174,810)	2,147	76,335	-	-	3,385,063
Machinery and equipment	5,647,220	-	(375,430)	(26,345)	174,615	(605,042)	754,557	5,569,575
Buildings	872,575	-	(38,629)	(506)	35,060	(667)	-	867,833
Land	451,908	-	(10,777)	(763)	18,848	(98)	-	459,118
Vehicles and aircraft	1,892	-	(835)	(68)	134	(8)	-	1,115
Furniture and fixtures	6,816	-	(1,079)	(46)	1,562	(1,819)	-	5,434
(-) Impairment (16.4)	(925,521)	215,012	-	-	-	-	-	(710,509)
(-) Impairment Copel TEL	(27,928)	1,989	-	-	-	25,939	-	-
(-) Special Obligations	(251)	-	89	-	(340)	-	-	(502)
(-) Reclassification (a)	(622,988)	-	-	-	41,293	581,695	-	-
	8,885,114	217,001	(601,471)	(25,581)	347,507	-	754,557	9,577,127
In progress								
Cost	795,816	406,173	-	(42,655)	(335,975)	(70,513)	-	752,846
(-) Impairment (16.4)	(120,308)	(67,074)	-	-	-	-	-	(187,382)
(-) Impairment Copel TEL	(3,853)	3,103	-	-	-	750	-	-
(-) Reclassification (a)	(61,309)	-	-	-	(8,454)	69,763	-	-
	610,346	342,202	-	(42,655)	(344,429)	-	-	565,464
	9,495,460	559,203	(601,471)	(68,236)	3,078	-	754,557	10,142,591

(a) Reclassification to Assets classified as held for sale (Note 39).

(b) Effects of acquisition of Vilas Complex (Note 1.2 of Financial Statements as of December 31, 2021)

During the construction phase, loans, financing and debentures costs are capitalized. In 2022, these costs totaled R\$13,468, at an average rate of 0.32% p.a. (R\$953, at an average rate of 0.02% p.a., in 2021).

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16.3 Joint operations - consortiums

The amounts recorded under property, plant and equipment referring to the share of interest of Copel GeT in consortiums are shown below:

Joint operations	Share Copel GeT (%)	Annual average depreciation rate (%)	12.31.2022	12.31.2021
HPP Gov. Jayme Canet Júnior (Mauá) - Consórcio Energético Cruzeiro do Sul	51.0			
In service			859,882	859,926
(-) Accumulated depreciation		2.90	(288,728)	(263,792)
In progress			19,899	20,527
			591,053	616,661
HPP Baixo Iguaçu	30.0			
In service			693,487	692,395
(-) Accumulated depreciation		3.28	(87,278)	(64,519)
In progress			55,863	56,027
			662,072	683,903
			1,253,125	1,300,564

16.4 Impairment of generation segment assets

The cash-generating units of the generation segment were tested based on the analysis of impairment indicators, assumptions representing the best estimates of the Company's Management, the methodology provided for in IAS 36 and the measurement of value in use.

The calculation of the value in use was based on discounted operating cash flows over the time of concessions, maintaining the Company's current commercial conditions. The rate used to discount the cash flows was set and updated considering the WACC (Weighted Average Cost of Capital) and CAPM (Capital Asset Pricing Model) methodologies, by font type, for the generation business, considering usual market parameters.

Internal references such as the budget approved by the Company, historical or past data, updating of the timeframe of work and amount of investments for projects in course support the design of key assumptions by Company Management. In the same framework, external references such as level of consumption of electric power and the availability of water resources support the key information about estimated cash flows.

Several assumptions used by Company Management when determining future cash flows can be affected by uncertain events, which, in turn, may give rise to variation in results. Changes in the political and economic model, for example, may lead to upward trend when projecting country risk-rating, increasing the discount rates used in tests.

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The tests considered the following key assumptions:

- Growth compatible with historical data and perspective for the Brazilian economy growth;
- Updating specific after-tax discount rates for the segment tested, obtained through the methodology usually applied by the market, taking into consideration the weighted average cost of capital;
- Projected revenue in accordance with the agreements in force and future market expectations, without any expectation for renewal of concession/authorization;
- Expenses broken into cash generating units, projected in view of the budget approved by the Company;
- Updating of regulatory charges.

The Company considered all its generation projects as independent cash generating units.

The projects with impairment balances recorded on December 31, 2022 are the following:

	Property, Plant and Equipment			Value in use
	Cost	Depreciation	Impairment	
HPP Colíder	2,558,634	(320,171)	(632,559)	1,605,904
UEGA	686,498	(384,810)	(108,132)	193,556
Consórcio Tapajós (a)	14,879	-	(14,879)	-
Power plants in Paraná	1,052,717	(130,051)	(216,018)	706,648
	4,312,728	(835,032)	(971,588)	2,506,108

(a) Project under development

The table below shows the changes in the impairment:

	Balance as of January 1, 2021	Impairment / Reversal	Balance as of December 31, 2021	Impairment / Reversal	Balance as of December 31, 2022
In service					
HPP Colíder	(683,193)	43,664	(639,529)	6,970	(632,559)
UEGA	(138,777)	138,777	-	(108,132)	(108,132)
Power plants in Paraná	(103,551)	32,571	(70,980)	26,466	(44,514)
	(925,521)	215,012	(710,509)	(74,696)	(785,205)
In progress					
Consórcio Tapajós	(14,464)	(415)	(14,879)	-	(14,879)
Power plants in Paraná	(105,844)	(66,659)	(172,503)	999	(171,504)
	(120,308)	(67,074)	(187,382)	999	(186,383)
	(1,045,829)	147,938	(897,891)	(73,697)	(971,588)

16.4.1 HPP Colíder

In December 2022, the value in use calculation considered the Company's assumptions and budgets and the after-tax discount rate of 5.71% p.a. (in 2021, 5.77% p.a.), which derives from the WACC methodology for the electricity generation segment. The revision of the expected revenue from the sale of energy, which offset increases in operating costs and regulatory charges, and the variation in the book value, enabled the partial reversal of the impairment.

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16.4.2 UEG Araucária

In December 2022, the value in use calculation considered the Company's assumptions and budgets, review of the expected dispatch, update of the Variable Unit Cost - CVU and the after-tax discount rate of 7.00% p.a. (in 2021, 7.69% p.a.), which derives from the WACC methodology for the electricity generation segment, plus the additional risk associated with revenue variation. Due to the review of the assumptions, mainly the reduction in the expectation of dispatch from the plant in relation to December 31, 2021, when an increase in demand from the plant was expected because of unfavorable hydrological conditions, impairment was recognized in 2022, considering the significant change in the hydrological scenario of the country.

16.4.3 TPP Figueira

In December 2022, the value in use calculation considered the Company's assumptions and budgets, the after-tax discount rate of 6.23% p.a. (in 2021, 5.77% p.a.), which derives from the WACC methodology for the segment of electric energy generation for thermal sources, the postponement of the start-up of the plant in December 2022 (in 2021, the expectation was for April of 2022), the revision of the expected revenue from the sale of energy and compensation for the asset's residual balance, changes in operating costs and Capex, and the revision of the coal balance to be refunded to the CDE account. By reviewing the set of assumptions, the partial reversal of the impairment was recognized.

16.4.4 Other plants in the State of Paraná

In December 2022, value in use calculation of generation assets in the State of Paraná considered: i) Company assumptions and budgets; ii) after-tax discount rate of 5.71% p.a. (in 2021, 5.77% p.a.), which derives from the WACC methodology for the electricity generation segment; and iii) review of regulatory charges and operating costs that were offset by the expected sale of uncontracted energy. By reviewing the set of assumptions and the variation in the book value, it was possible to reverse part of the impairment balance.

16.4.5 Cash generating units that do not show reversal or provision for impairment

The plants that did not suffer impairment have a recoverable value greater than the book value of the property, plant and equipment assets. The following table presents the percentage in which the recoverable value ("RV") exceeds the book value ("BV") of the assets and demonstrates the sensitivity analysis increasing by 5% and 10% the discount rate for assessing the risk of impairment of each plant.

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Cash-generating units	Discount rate	RV/BV-1	RV/BV-1 (5% Variation)	RV/BV-1 (10% Variation)	Impairment Risk
Wind power Assets					
São Bento Complex (a)	8.06%	59.64%	55.18%	50.93%	-
Brisa I Complex (b)	8.06%	58.38%	53.76%	49.35%	-
Brisa II Complex (c)	8.06%	55.70%	50.85%	46.24%	-
Bento Miguel Complex (d)	8.06%	15.96%	12.23%	8.70%	-
Cutia Complex (e)	8.06%	11.67%	8.36%	5.21%	-
Jandaíra Complex (f)	5.61%	29.61%	25.92%	22.41%	-
Vilas Complex (g)	5.44%	43.11%	38.61%	34.35%	-
Hydric Assets					
Foz do Areia	5.71%	29.95%	29.58%	29.21%	-
Segredo	5.71%	96.90%	94.04%	91.24%	-
Caxias	5.71%	73.31%	70.52%	67.81%	-
Guaricana	5.71%	31.92%	30.77%	29.63%	-
Chaminé	5.71%	61.48%	60.03%	58.61%	-
Apucarantina	5.71%	28.85%	27.83%	26.81%	-
Mauá	5.71%	106.38%	101.73%	97.25%	-
Marumbi	5.71%	30.16%	22.67%	20.19%	-
Cavernoso II	5.71%	28.09%	24.87%	21.79%	-
Bela Vista	7.67%	56.29%	49.96%	44.51%	-
Elejor	7.00%	9.45%	6.89%	1.82%	-

(a) Contemplates the GE Boa Vista, GE Farol, GE Olho D'Água e GE São Bento do Norte w ind farms.

(b) Contemplates the Nova Asa Branca I, Nova Asa Branca II, Nova Asa Branca III e Nova Eurus IV w ind farms.

(c) Contemplates the Santa Maria, Santa Helena e Ventos de Santo Uriel w ind farms.

(d) Contemplates the São Bento do Norte I, São Bento do Norte II, São Bento do Norte III, São Miguel I, São Miguel II and GE São Miguel III w ind farms.

(e) Contemplates the Cutia, Guajiru, Jangada, Maria Helena, Potiguar, Esperança e Paraíso dos Ventos w ind farms.

(f) Contemplates the Jandaíra I, Jandaíra II, Jandaíra III e Jandaíra IV w ind farms.

(g) Contemplates the Potiguar B61, Potiguar B141, Potiguar B142, Potiguar B143 e Ventos de Vila Paraiba IV w ind farms.

16.5 New plants under construction

16.5.1 SHP Bela Vista

With estimated investment of R\$224,673, this small hydroelectric power plant (SHP), with installed capacity of 29.81 MW and assured energy of 18.61 MW average, was built on the Chopim River, in the municipalities of São João and Verê, located in the southwest region of the State of Paraná.

The participation in the A-6 auction held on August 31, 2018, led to sale of 14.7 MW average in regulated contracts at the original price of R\$195.70/MWh. The energy sale contracts provide for beginning of energy supply on January 1, 2024, with a 30-year term and annual adjustment by reference to IPCA variation.

The works started in August 2019 and the entry into commercial operation of three generating units took place in 2021. The generating center (Stream Diver) has been cleared for start of test operation as of March 28, 2023.

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16.5.2 Jandaíra Wind Complex

With an estimated investment of R\$411,610, this wind farm, with an installed capacity of 90.1 MW and a assured energy of 47.6 MW average, is being built in the municipalities of Pedra Preta and Jandaíra, in the state of Rio Grande do Norte. The participation in the new power generation auction A-6, held on October 18, 2019, led to the sale of 14.4 MW average in regulated contracts at the original price of R\$98.00/MWh. The energy sale contracts provided for beginning of energy supply on January 1, 2025, with a 20-year term and annual adjustment by reference to IPCA variation.

With all the necessary licenses, the civil works started in January 2021. The complex, with 26 generating units divided into 4 wind farms, began the commercial operation of the entire wind complex during the year 2022.

16.6 Depreciation rates

Depreciation rates (%)	12.31.2022	12.31.2021	12.31.2020
Average generation segment rates (Note 16.6.1)			
General equipment	6.25	6.25	6.26
Machinery and equipment	3.68	3.68	3.39
Generations	3.42	3.42	3.73
Reservoirs, dams and ducts	2.67	2.56	2.68
Hydraulic turbines	2.89	2.90	2.93
Gas and steam turbines	4.00	4.00	4.00
Gas processing	3.00	3.00	3.00
Wind power plant unit	4.94	4.98	4.94
Buildings	3.07	3.15	3.15
Average rates for central government assets			
Buildings	3.33	3.33	3.35
Machinery and office equipment	6.25	6.27	6.25
Furniture and fixtures	6.25	6.30	6.25
Vehicles	14.29	14.29	14.29

16.6.1 Assets with depreciation rates limited to the concession term

The assets of the original project of the Mauá, Colíder, Baixo Iguaçu, Cavernoso II plants and SHP Bela Vista, of Copel GeT, and of the Santa Clara and Fundão plants, of Elejor, are considered by the Granting Authority, without full guarantee of indemnification for their residual value at the end of the concession term. This interpretation is based on the Concessions Law No. 8,987/1995 and Decree No. 2,003/1996, which regulate the generation of electricity by independent generators. Accordingly, from the entry into operation of these assets, including land, depreciation is recognized at the highest rate among that determined by the useful lives of the assets or the rate calculated based on the concession period.

As provided for in the concession contracts, subsequent investments not foreseen in the original project, as long as approved by the Granting Authority and not yet amortized, will be indemnified at the end of the concession period and depreciated at the rates established by the useful lives of the assets, as from the date of their entry in operation.

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In the same way, wind generation assets, whose electric energy produced is intended for sale in the Independent Electric Energy Production modality, as established in articles 12, 15 and 16 of Law No. 9,074/1995, are also depreciated at the highest rate between the one determined by the useful life of the assets or the rate calculated based on the authorization period.

17. Intangible assets

	12.31.2022	12.31.2021
Concession agreement - distribution of electricity (17.1)	7,257,827	6,596,184
Generation concession agreements/ authorization (17.2)	2,252,615	2,473,858
Concession agreement - piped gas distribution (17.3)	726,107	96,145
Other intangible assets (17.4)	41,178	49,373
	10,277,727	9,215,560

Management did not identify evidence that would justify the need to recognize impairment of intangible assets in 2022 and 2021.

17.1 Power distribution service concession

	Intangible asset in service	Special liabilities in service	Total
Balance as of January 1, 2021	8,953,486	(2,750,099)	6,203,387
Transfers from accounts receivable - concessions (Note 10.1)	-	(8,385)	(8,385)
Transfers from contract assets (Note 10.1)	943,905	(122,346)	821,559
Transfers to other receivables	(3,563)	-	(3,563)
Amortization quotas - concession (a)	(522,525)	146,697	(375,828)
Amortization quotas - PIS/Pasep and Cofins credits	(10,363)	-	(10,363)
Loss on disposal	(30,623)	-	(30,623)
Balance as of December 31, 2021	9,330,317	(2,734,133)	6,596,184
Transfers from contract assets (Note 10.1)	1,332,118	(194,794)	1,137,324
Transfers to other receivables	(955)	-	(955)
Amortization quotas - concession (a)	(564,252)	153,503	(410,749)
Amortization quotas - PIS/Pasep and Cofins credits	(10,483)	-	(10,483)
Loss on disposal	(53,494)	-	(53,494)
Balance as of December 31, 2022	10,033,251	(2,775,424)	7,257,827

(a) Amortization during the concession period after the transfer to intangible assets in service of useful life of the assets, whichever the lower.

The balance refers to the portion of infrastructure that will be used during concession, net of special liabilities. The special liabilities represent the resources related to the financial participation of consumers, the Federal, State and Municipal Governments, destined to investments in projects related to the concession, and are not onerous liabilities or shareholder credits.

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17.2 Generation concession agreements

	Concession contract (a)		Concession and authorization rights/ goodwill	Total
	in service	in progress		
Balance as of January 1, 2021	195,622	-	358,218	553,840
Effect of acquisition of control of Vilas Complex	-	-	277,120	277,120
Technical goodwill arising from the business combination - Vilas Complex	-	-	94,221	94,221
ANEEL grant - use of public property	63,446	1,823	-	65,269
Amortization quotas - concession and authorization (b)	(72,148)	-	(14,987)	(87,135)
Capitalizations for intangible in service	1,823	(1,823)	-	-
Hydrological Risk Renegotiation - GSF	1,570,543	-	-	1,570,543
Balance as of December 31, 2021	1,759,286	-	714,572	2,473,858
Effect of acquisition of control of Vilas Complex (Note 1.1.1)	-	-	23,982	23,982
Technical goodwill arising from the business combination - Vilas Complex (Note 1.1.1)	-	-	8,154	8,154
Amortization quotas - concession and authorization (b)	(228,509)	-	(24,870)	(253,379)
Balance as of December 31, 2022	1,530,777	-	721,838	2,252,615

(a) Includes the balances of use of public asset and hydrological risk renegotiation

(b) Amortization during the concession/authorization as of the start of commercial operations of the enterprises.

17.3 Piped gas distribution service concession

Balance as of January 1, 2021	132,366
Transfers from contract assets (Note 10.2)	3,398
Transfers from accounts receivable - concessions (Note 9.2)	(1,398)
Amortization quotas - concession	(38,221)
Balance as of December 31, 2021	96,145
Additions - renewal of the concession	413,410
Transfers from contract assets (Note 10.2)	13,738
Transfers to accounts receivable - concessions (Note 9.2)	243,628
Amortization quotas - concession	(40,690)
Loss on disposal	(124)
Balance as of December 31, 2022	726,107

The additions and the balance transferred from the Accounts receivable related to the concession are due to the renewal of the Compagas concession (Note 2.1.1). The amount recorded as an Intangible asset will be amortized as of the concession renewal, over the expected useful life of the asset (30 years for gas distribution operation assets and 10 years for other assets), limited to the final term of the concession.

17.4 Other intangible assets

Assets consisting of software purchased from third parties or generated internally, measured at total acquisition cost minus amortization expenses.

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	in service	in progress	Total
Balance as of January 1, 2021	19,209	20,654	39,863
Effect of acquisition of control of Vilas Complex	10,275	-	10,275
Acquisitions	-	10,375	10,375
Transfers from property, plant and equipment	986	482	1,468
Capitalizations for intangible in service	4,453	(4,453)	-
Amortization quotas (a)	(7,770)	-	(7,770)
Amortization quotas - PIS/Pasep and Cofins credits	(5)	-	(5)
Partial division of assets	(5,047)	(526)	(5,573)
(-) Reclassification (b)	141	599	740
Balance as of December 31, 2021	22,242	27,131	49,373
Acquisitions	-	8,319	8,319
Transfers from property, plant and equipment	(9,795)	-	(9,795)
Capitalizations for intangible in service	5,561	(5,561)	-
Amortization quotas (a)	(5,160)	-	(5,160)
Loss on disposal	-	(1,559)	(1,559)
Balance as of December 31, 2022	12,848	28,330	41,178

(a) Annual amortization rate: 20%.

(b) Reclassification to Assets classified as held for sale (Note 39).

18. Payroll, Social Charges and Accruals

	12.31.2022	12.31.2021
Social security liabilities		
Taxes and social contribution	42,829	46,245
Social security charges on paid vacation and 13th salary	15,547	17,792
	58,376	64,037
Labor liabilities		
Payroll, net (a)	47,462	-
Vacation	95,930	107,471
Provisions for performance and profit sharing	47,726	364,701
Voluntary dismissal program	2,895	68,601
Other liabilities	400	-
	194,413	540,773
	252,789	604,810

(a) Refers to the provision for the salary adjustment referring to the Collective Labour Agreement approved in January 2023, with retroactive effects to October 2022 (base date of the agreement).

19. Accounts Payable to Suppliers

	12.31.2022	12.31.2021
Energy power	1,208,733	1,303,386
Materials and supplies	626,710	770,629
Natural gas for resale	93,696	60,121
Charges for use of grid system	286,331	576,848
	2,215,470	2,710,984
	Current	2,090,022
	Noncurrent	125,448
	2,090,022	2,585,735
	125,448	125,249

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20. Loans and Financing

Contracts	Company	Allocation	Guarantees	Issue Date	Number of installment	Final maturity	Payment of charges	Contractual financial charges p.a.	Effective interest rate p.a.	Contract amount	12.31.2022	12.31.2021
FOREIGN CURRENCY												
National Treasury Department (STN - Secretaria do Tesouro Nacional)												
Par Bond (a)	Copel	Debt negotiation	Guarantees deposited	05.20.1998	1	04.11.2024	Half-yearly	6.0% + 0.20%	6.0% + 0.20%	17,315	-	89,058
Discount Bond (a)				05.20.1998	1	04.11.2024	Half-yearly	1% + 0.20%	1% + 0.20%	12,082	-	61,514
Total foreign currency											-	150,572
LOCAL CURRENCY												
Banco do Brasil												
CCB 306.401.381 (b)	Copel HOL	Working capital.	Credit assignment	07.21.2015	2	03.25.2023	Quarterly	135.00% of DI	145.46% of DI	640,005	-	641,207
CCB 265.901.903	Copel DIS			06.29.2022	2	06.24.2025	Quarterly	DI + spread 1,25%	DI + spread 2,14%	750,000	751,673	-
											751,673	641,207
Caixa Econômica Federal												
Commercial paper	Copel GET	Partial amortization of the 3 rd , 4 th and 5 th debenture issues and meeting various short-term obligations, including energy purchases, regulatory obligations and dividends.	Personal guarantee	09.10.2022	2	09.10.2025	Half-yearly	DI + spread 1,22%	DI + spread 1,31%	1,000,000	1,037,946	-
											1,037,946	-
Caixa Econômica Federal												
415.855-22/14	Copel DIS	Rural Electricity Program - <i>Luz para Todos</i> .	Own revenue; issue of promissory notes and commercial duplicates.	03.31.2015	120	12.08.2026	Monthly	6.0%	6.0%	16,984	7,664	9,580
											7,664	9,580
Banco do Nordeste do Brasil												
35202166127989	Jandaíra I	Implementation of Jandaíra Wind Complex.	Bank guarantee	05.31.2021	192	06.15.2038	Monthly	2.7086% + IPCA ⁽¹⁾	3.0107% + IPCA	21,687	17,969	7,312
35202164527986	Jandaíra II			05.31.2021	192	06.15.2038	Monthly	2.2161% + IPCA ⁽¹⁾ and 2.7086% + IPCA ⁽¹⁾	3.0107% + IPCA	56,421	46,644	18,424
35202162927987	Jandaíra III			05.31.2021	192	06.15.2038	Monthly	2.7086% + IPCA ⁽¹⁾	3.0107% + IPCA	65,158	53,843	21,645
35202160027984	Jandaíra IV			05.31.2021	192	06.15.2038	Monthly	2.2161% + IPCA ⁽¹⁾ and 2.7086% + IPCA ⁽¹⁾	3.0107% + IPCA	65,421	54,053	22,058
35201915725525	Potiguar B141	Implementation of Vilas Wind Complex.	Fiduciary assignment of credit rights; fiduciary assignment of rights under the O&M contract; fiduciary assignment of rights arising from the authorization; pledge of shares; fiduciary alienation of project machinery and equipment; 100% bank guarantee; fiduciary assignment of the Debt Service Reserve Accounts; fiduciary assignment of the operating reserve account (O&M); Shareholder support agreement	04.04.2019	216	04.15.2039	Monthly	IPCA + 2.3323%	IPCA + 2.3323%	92,138	89,685	94,781
35201922425522	Potiguar B142			04.04.2019	216	04.15.2039	Monthly	IPCA + 2.3323%	IPCA + 2.3323%	92,213	89,709	94,809
35201928525533	Potiguar B143			04.11.2019	216	04.15.2039	Monthly	IPCA + 2.3323%	IPCA + 2.3323%	92,138	89,376	94,453
35201910625534	Ventos de Vila Paraiba IV			04.18.2019	216	05.15.2039	Monthly	IPCA + 2.3323%	IPCA + 2.3323%	92,138	91,004	96,237
352020148727169	Potiguar B61			08.11.2020	216	08.15.2040	Monthly	IPCA + 1.4865%	IPCA + 1.4865%	163,886	186,552	176,324
												718,835
Banco do Brasil - BNDES Transfer												
21/02000-0	Copel GeT	Implementation of Mauá HPP.	Revenue from energy sales from the plant.	04.16.2009	179	01.15.2028	Monthly	2.13% above TJLP	2.13% above TJLP	169,500	60,720	72,109
											60,720	72,109

(a) On March 10, 2022, the debt was redeemed in advance, net of the collateral and escrow deposits.

(b) Debt renegotiated in March 2021, with changes in the amortization dates and the amount of financial charges.

(c) Commercial paper, single series, for public distribution with restricted efforts. Guarantor: Copel. Trustee: Pentágono S.A. DTVM.

(1) - IPCA used in the calculation of interest and not in the update of the principal.

(continued)

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BNDES													
820989.1		Implementation of Mauá HPP.	Revenue from energy sales from the plant.	03.17.2009	179	01.15.2028	Monthly	1.63% above TJLP	1.63% above TJLP	169,500	60,719	72,109	
1120952.1		Implementation of transmission line between Foz do Iguaçu and Cascavel Oeste substations.	Assignment of receivables; revenue from energy transmission services.	12.16.2011	168	04.15.2026	Monthly	1.82% and 1.42% above TJLP	1.82% and 1.42% above TJLP	44,723	11,186	14,431	
1220768.1		Implementation of Cavernoso II SHP.	Revenue from energy sales from the plant.	09.28.2012	192	07.15.2029	Monthly	1.36% above TJLP	1.36% above TJLP	73,122	32,012	36,593	
13211061		Implementation of Colider HPP.		12.04.2013	192	10.15.2031	Monthly	0% and 1.49% above TJLP	6.43% and 7.68%	1,041,155	615,968	680,413	
13210331		Implementation of Cerquillo III substation.		12.03.2013	168	08.15.2028	Monthly	1.49% and 1.89% above TJLP	1.49% and 1.89% above TJLP	17,644	7,502	8,758	
15206041	Copel GeT	Implementation of transmission line Assis - Paraguaçu Paulista II.		12.28.2015	168	06.15.2030	Monthly	2.42% above TJLP	9.04%	34,265	16,139	18,151	
15205921		Implementation of transmission lines Londrina - Figueira and Salto Osório - Foz do Chopim.	Assignment of receivables	12.28.2015	168	12.15.2029	Monthly	2.32% above TJLP	8.93%	21,584	9,542	10,822	
18205101		Implementation of Baixo Iguaçu HPP.		11.22.2018	192	06.15.2035	Monthly	1.94% above TJLP	8.50%	194,000	159,948	171,447	
19207901- A+B+E+F+G+H		Implementation of transmission facilities for the line: substation Medianeira; substation Curitiba Centro and Curitiba Uberaba and substation Andirá Leste.		06.03.2020	279	12.15.2043	Monthly	IPCA + 4.8165%	IPCA + 4.8570%	206,882	200,932	185,532	
19207901- C+D+H+J		Implementation of transmission facilities for the line: transmission line Curitiba Leste - Blumenal and Baixo Iguaçu - Realeza.		06.03.2020	267	12.15.2043	Monthly	IPCA + 4.8165%	IPCA + 4.8570%	225,230	188,869	162,773	
14205611-C	Copel DIS	Preservation of business, improvements, operating support and general investments in the expansion and consolidation of projects and social investment programs of companies (ISE).	Surety of Copel; assignment of revenues and indemnity rights under the concession.	12.15.2014	113	06.15.2024	Monthly	6.0%	6.0%	78,921	11,757	19,595	
14.2.1271.1	Santa Maria			06.01.2015	192	08.15.2031	Monthly	1.66% above TJLP	8.26%	71,676	34,125	37,771	
14.2.1272.1	Santa Helena		Surety of Copel; pledge of shares; assignment of receivables and revenues.	06.01.2015	192	08.15.2031	Monthly	1.66% above TJLP	8.26%	82,973	37,027	40,983	
11211521	GE Farol			03.19.2012	192	06.15.2030	Monthly	2.34% above TJLP	2.34% above TJLP	54,100	29,888	33,570	
11211531	GE Boa Vista	Construction and implementation of wind generating plants.		03.19.2012	192	06.15.2030	Monthly	2.34% above TJLP	2.34% above TJLP	40,050	22,096	24,818	
11211541	GE S.B. do Norte		Pledge of shares; assignment of receivables from energy sales from the project; assignment of machinery and equipment.	03.19.2012	192	06.15.2030	Monthly	2.34% above TJLP	2.34% above TJLP	90,900	50,112	56,287	
11211551	GE Olho D'Água			03.19.2012	192	06.15.2030	Monthly	2.34% above TJLP	2.34% above TJLP	97,000	53,519	60,113	
18204611	Cutia		Pledge of shares; assignment of receivables.	10.10.2018	192	07.15.2035	Monthly	2.04% above TJLP	8.37%	619,405	543,337	563,569	
13212221 - A	Costa Oeste	Implementation of transmission line between Cascavel Oeste and Umuarama Sul substations and implementation of Umuarama Sul substation.		12.03.2013	168	11.30.2028	Monthly	1.95% + TJLP	1.95% + TJLP	27,634	12,842	14,898	
13212221 - B			Assignment of receivables; 100% of pledged shares.	12.03.2013	106	09.30.2023	Monthly	3.5%	3.5%	9,086	598	1,396	
14205851 - A	Marumbi	Implementation of transmission line between Curitiba and Curitiba Leste and implementation of Curitiba Leste substation.		07.08.2014	168	06.30.2029	Monthly	2.00% + TJLP	2.00% + TJLP	33,460	16,981	19,444	
14205851 - B				07.08.2014	106	04.30.2024	Monthly	6.0%	6.0%	21,577	3,020	5,285	
Total local currency											4,694,957	2,238,758	
											Gross debt	4,694,957	3,738,269
											(-) Transaction cost	(44,594)	(59,825)
											Net debt	4,650,363	3,678,444
											Current	278,838	579,770
											Noncurrent	4,371,525	3,098,674

DI - Interbank Deposit Rate
IPCA - Inflation Index
TJLP - Long term interest rate

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20.1 Breakdown of loans and financing by currency and index

		12.31.2022	%	12.31.2021	%
	change in currencies in the period (%)				
Foreign currency					
U.S. Dollar	(6.50)	-	-	150,572	4.09
		-	-	150,572	4.09
	indexes at period end (%)				
Local currency					
TJLP	7.20	1,755,556	37.75	1,916,561	52.11
CDI	13.65	1,772,718	38.12	639,555	17.39
TR	0.21	-	-	-	-
IPCA	5.79	1,099,050	23.63	935,900	25.44
Without indexer (annual fixed rate)	-	23,039	0.50	35,856	0.97
		4,650,363	100.00	3,527,872	95.91
		4,650,363	100.00	3,678,444	100.00

20.2 Maturity of noncurrent installments

12.31.2022	Gross debt	(-) Transaction cost	Net debt
2024	608,001	(8,902)	599,099
2025	1,604,933	(5,666)	1,599,267
2026	230,905	(2,171)	228,734
2027	232,594	(2,172)	230,422
2028	215,888	(2,182)	213,706
After 2028	1,514,960	(14,663)	1,500,297
	4,407,281	(35,756)	4,371,525

20.3 Changes in loans and financing

	Foreign currency	Local currency	Total
Balance as of January 1, 2020	108,983	3,033,400	3,142,383
Funding	-	263,000	263,000
Charges	6,928	176,337	183,265
Monetary and exchange variations	31,189	5,869	37,058
Amortization - principal	-	(253,700)	(253,700)
Payment - charges	(6,763)	(176,712)	(183,475)
Balance as of December 31, 2020	140,337	3,048,194	3,188,531
Effect of acquisition of control of Vilas Complex	-	514,272	514,272
Funding	-	134,313	134,313
(-) Transaction costs	-	(1,647)	(1,647)
Charges	6,218	191,398	197,616
Monetary and exchange variations	10,266	31,091	41,357
Amortization - principal	-	(202,577)	(202,577)
Payment - charges	(6,249)	(187,172)	(193,421)
Balance as of December 31, 2021	150,572	3,527,872	3,678,444
Effect of acquisition of control of Vilas Complex (Note 1.1.1)	-	25,398	25,398
Funding	-	1,891,954	1,891,954
(-) Transaction costs	-	(19,781)	(19,781)
Charges	953	390,569	391,522
Monetary and exchange variations	(14,378)	34,978	20,600
Amortization - principal	(134,894)	(865,425)	(1,000,319)
Payment - charges	(2,253)	(337,455)	(339,708)
Balance as of December 31, 2022	-	4,650,363	4,650,363

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20.4 Covenants

Loans and financing agreements contain clauses that require economic and financial ratios to be maintained within pre-determined parameters, requiring annual fulfillment and other conditions to be complied with, such as not changing the Company's interest in the capital stock of subsidiaries that would represent change of control without prior consent. The non-compliance with the contracted conditions may result in fines or in the declaration of the early maturity of debts.

As of December 31, 2022, all ratios and covenants have been fully met. The subsidiary Cutia Empreendimentos Eólicos S.A. calculated Debt Service Coverage Ratio - ICSD of 1.15 and, therefore, needed to supplement the Reserve Account with at least R\$5,736. The deposit was made on March 13, 2023, before the contractually defined deadline.

The Company expects that all financial indicators, measured annually, will be met in 2023.

The financial covenants contained in the agreements are presented below:

Company	Contractual Instrument	Annual financial ratios	Limit
Copel GeT	BNDES Finem No. 820989.1 - Mauá Banco do Brasil No. 21/02000-0 - Mauá	EBITDA / Net financial results	≥ 1.3
	Commercial paper	Debt service coverage ratio Consolidated net debt / Consolidated ebitda	≥ 1.5 ≤ 3.5
Copel DIS	BNDES Finem No. 14205611	Financial indebtedness / EBITDA	≤ 4.0
Santa Maria	BNDES Finem No. 14212711	Debt service coverage ratio	≥ 1.3
Santa Helena	BNDES Finem No. 14212721		
São Bento Energia, Investimento e Participações GE Boa Vista S.A. GE Farol S.A. GE Olho D'Água S.A. GE São Bento do Norte S.A.	BNDES Assignment Agreement BNDES Finem No. 11211531 BNDES Finem No. 11211521 BNDES Finem No. 11211551 BNDES Finem No. 11211541	Debt service coverage ratio	≥ 1.3
Cutia	BNDES Finem No. 18204611	Debt service coverage ratio (a)	≥ 1.2
Costa Oeste	BNDES Finem No. 13212221	Debt service coverage ratio	≥ 1.3
Marumbi	BNDES Finem No. 14205851	Debt service coverage ratio	≥ 1.3

Financing for businesses - Finem

(a) financial ratio calculated based on the amounts of the consolidated financial statements of Cutia Empreendimentos Eólicos S.A. The contract establishes that, should the index be in the range between 1.10 and 1.20, the value of the funds invested in the Reserve Account must be complemented so that the total reaches the index of 1.20, within 2 days of the release of the financial statements.

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21. Debentures

Company	Issue	Characteristics	Allocation	Guarantees	Issue Date	Number of installment	Final maturity	Payment of charges	Contractual financial charges p.a.	Effective interest rate p.a.	Contract amount	12.31.2022	12.31.2021	
Copel	8 th	(a)	Payment of the 6 th issue of debentures and working capital increase	Personal guarantee	06.14.2019	1	06.14.2022	Half-yearly	106.0% of DI	110.93% of DI	500,000	-	502,400	
	3 rd	(a)	Working capital or used to make investments in the issuer.		10.20.2017	3	10.20.2022	Half-yearly	126.0% of DI	131.21% of DI	1,000,000	-	339,767	
	4 th		Full early redemption of the 4 th issue of the Company's trade promissory notes and partial payment of the 1 st amortization installment of the 2 nd issue of debentures.		07.23.2018	3	07.23.2023	Half-yearly	126.0% of DI	133.77% of DI	1,000,000	357,573	690,311	
Copel GeT	5 th	(b)	Reimbursement of expenses related to the construction of the Transmission Lines Araraquara II - Taubaté, Assis - Londrina and Foz do Chopim.	Personal guarantee	09.25.2018	5	09.15.2025	Half-yearly	IPCA + 7.6475%	IPCA + 8.3295%	290,000	225,643	284,483	
	6 th (1 st serie)	(c)	Full early redemption of the 5 th issue of the Company's trade promissory notes and partial payment of the 2 nd amortization installment of the 2 nd issue of debentures.		07.15.2019	2	07.15.2024	Half-yearly	109.0% of DI	111.25% of DI	800,000	852,816	825,358	
	6 th (2 nd serie)		Reimbursement of expenses related to the Colider HFP and Baixo Iguaçu HFP projects		07.15.2019	1	07.15.2025	Half-yearly	IPCA + 3.90%	IPCA + 4.46%	200,000	251,363	237,650	
	7 th (1 st serie)		Reinforcement of the Issuer's working capital; amortization and/or reimbursement of cash of the principal portion of the 3 rd and 4 th issue of debentures.		10.15.2021	2	10.15.2026	Half-yearly	DI + spread 1.38%	DI + spread 1.45%	1,133,363	1,166,982	1,148,216	
	7 th (2 nd serie)		Investments for expansion, renovation or improvement and/or reimbursement of expenses within the scope of the Projects: Improvements of Gov. Bento Munhoz da Rocha Netto HFP; Implementation of the Assets of Lot "E", from Aneel Auction No. 05/2015; Investments in Mata de Santa Genebra Transmissão S.A. and Bela Vista Geração de Energia S.A.		10.15.2021	3	10.15.2031	Half-yearly	IPCA + 5.7138%	IPCA + 6.1033%	366,637	397,825	374,658	
Copel DIS	3 rd		(a)	Working capital or used to make investments in the issuer.	Personal guarantee	10.20.2017	2	10.20.2022	Half-yearly	126.0% of DI	130.85% of DI	500,000	-	254,824
	4 th	Working capital and payment of the 1 st installment of amortization of the 2 nd issue of debentures.		09.27.2018		3	09.27.2023	Half-yearly	DI + spread 2.70%	CDI + 3.96%	1,000,000	346,895	684,185	
	5 th (1 st serie)	(c)	Investment for expansion, renovation or improvement and reimbursement of expenses of the Issuer's electricity distribution network linked to concession contract No. 46/1999 of ANEEL.	11.15.2019		3	11.15.2027	Half-yearly	IPCA + 4.20%	IPCA + 4.61%	500,000	618,209	584,489	
	5 th (2 nd serie)		Reinforcement of working capital and recomposition of cash by the final amortization of the 2 nd issue of debentures.	11.15.2019		2	11.15.2022	Half-yearly	DI + spread 1.45%	CDI + 1.65%	350,000	-	177,187	
	6 th (1 st serie)		Reinforcement of working capital and amortization of the first installment of the principal of the debentures of each of the Issuer's following issues: 3 rd , 4 th and 5 th Issue.	06.16.2021		2	06.15.2026	Half-yearly	CDI + spread 1.95%	CDI + 2.02%	1,000,000	1,006,449	1,005,102	
	6 th (2 nd serie)		Investment for expansion, renovation or improvement and reimbursement of expenses of the Issuer's electricity distribution network linked to concession contract No. 46/1999 of ANEEL.	06.16.2021		3	06.15.2031	Half-yearly	IPCA + 4.7742%	IPCA + 5.1564%	500,000	559,894	529,366	
	7 th (1 st serie)		(e)	Reinforcement of working capital; redemption of 3 rd issue debentures; amortization of the 2 nd installment of the principal of the 4 th and 5 th issuance.		05.15.2022	2	05.15.2025	Half-yearly	CDI + 1.21%	CDI + 1.28%	300,000	305,380	-
	7 th (2 nd serie)			Investments for expansion, renovation or improvement and/or reimbursement of expenses of the issuer's electricity distribution network, linked to Aneel's Concession Agreement No. 46/1999.		05.15.2022	2	05.15.2027	Half-yearly	CDI + 1.36%	CDI + 1.42%	901,450	917,789	-
7 th (3 rd serie)	Investments for expansion, renovation or improvement and/or reimbursement of expenses of the issuer's electricity distribution network, linked to Aneel's Concession Agreement No. 46/1999.	05.15.2022		3	05.15.2032	Half-yearly	IPCA + 6.1732%	IPCA + 6.6587%	298,550	301,830	-			
Brisa Potiguar	2 nd (1 st serie)	(d)	Implementation of wind generating plants.	Real and personal guarantee and pledge of Copel GeT shares.	03.24.2016	192	07.15.2032	Monthly	TJLP + 2.02%	TJLP + 2.02%	147,575	91,468	100,240	
	2 nd (2 nd serie)				03.24.2016	192	07.15.2032	Monthly	IPCA + 9.87%	IPCA + 10.92%	153,258	126,067	131,630	
Cutia	1 st	(b)	Construction and implementation of wind generating plants.	Personal guarantee	03.20.2019	26	12.15.2031	Half-yearly	IPCA + 5.8813%	IPCA + 6.83%	360,000	360,894	370,903	
											Gross debt	7,887,077	8,240,769	
											(-) Transaction cost	(83,222)	(93,152)	
											Net debt	7,803,855	8,147,617	
											Current	1,346,347	2,144,485	
											Noncurrent	6,457,508	6,003,132	

- (a) Simple debentures, single series, not convertible into shares, unsecured, for public distribution with restricted placement efforts, according to CVM No. 476. Guarantor: Copel. Trustee: Pentágono S.A. DTVM.
(b) Simple debentures, single series, not convertible into shares, with security interest and additional personal guarantee, for public distribution with restricted efforts, pursuant to CVM Instruction No. 476. Guarantor: Copel. Trustee: Pentágono S.A. DTVM.
(c) Simple debentures, two series, not convertible into shares, unsecured, for public distribution with restricted placement efforts, according to CVM No. 476. Guarantor: Copel. Trustee: Pentágono S.A. DTVM.
(d) Simple debentures, two series, not convertible into shares, issued privately. Companies: Nova Asa Branca I, Nova Asa Branca II, Nova Asa Branca III, Nova Eurus and Ventos de Santo Uriel. Guarantor: Copel. They have no trustee.
(e) Simple debentures, three series, not convertible into shares, unsecured, with additional personal guarantee, for public distribution with restricted placement efforts, pursuant to CVM Instruction No. 476. Guarantor: Copel. Trustee: Pentágono S.A. DTVM.

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21.1 Maturity of noncurrent installments

12.31.2022	Gross debt	(-) Transaction cost	Net debt
2024	670,831	(13,890)	656,941
2025	1,798,427	(11,436)	1,786,991
2026	1,789,732	(9,168)	1,780,564
2027	718,578	(7,584)	710,994
2028	62,857	(5,997)	56,860
After 2028	1,482,417	(17,259)	1,465,158
	6,522,842	(65,334)	6,457,508

21.2 Changes in debentures

Balance as of January 1, 2020	8,429,710
Funding	453,951
Charges and monetary variations	(1,046,295)
Amortization - principal	(422,295)
Payment - charges	(657,590)
Balance as of December 31, 2020	6,757,481
Funding	3,000,000
(-) Transaction costs	(35,030)
Charges and monetary variations	658,653
Amortization - principal	(1,852,048)
Payment - charges	(361,073)
Reclassification (a)	(20,366)
Balance as of December 31, 2021	8,147,617
Funding	1,500,000
(-) Transaction costs	(14,445)
Charges and monetary variations	1,112,287
Amortization - principal	(2,051,481)
Payment - charges	(890,123)
Balance as of December 31, 2022	7,803,855

(a) Reclassification to Assets classified as held for sale (Note 39).

21.3 Covenants

The issued debentures contain clauses that require the maintenance of certain economic and financial ratios within pre-determined parameters, requiring annual fulfillment and other conditions to be complied with, such as not changing the Company's interest in the capital stock that would represent change of control without prior consent from the debenture holders; not paying out dividends or interest on capital if it is in arrears in relation to honoring any of its financial obligations or not maintaining the financial ratios as determined without prior written consent of the debenture holders. The non-compliance with the contracted conditions may imply the need to request consent from the debenture holders or the declaration of early maturity of the debts.

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As of December 31, 2022, all ratios and covenants have been fully met, except for the subsidiaries Ventos de Santo Uriel and Nova Asa Branca III, which have a debt of R\$72,588 on December 31, 2022, and that did not meet the ICSD of 1.3. However, the Company preventively requested and received, on December 30, 2022, according to letter from BNDES AE/DEENE2 No. 061/2022, the commitment of the development banking institution not to declare the early maturity of the debenture deeds, based on the performance of this index in fiscal year 2022.

Additionally, the subsidiary Cutia Empreendimentos Eólicos S.A. calculated ICSD of 1.15 and, therefore, needed to supplement the Reserve Account with at least R\$5,736. The deposit was made on March 13, 2023, before the contractually defined deadline.

The Company expects that all financial indicators, measured annually, will be met in 2023.

The financial covenants contained in the debenture agreements are presented as follows:

Company	Contractual Instrument	Annual financial ratio	Limit
Copel GeT	4 th issue of Debentures	Consolidated net debt / Consolidated ebitda Debt service coverage ratio	≤ 3.5 ≥ 1.5
	5 th issue of Debentures		
	6 th issue of Debentures		
	7 th issue of Debentures		
Copel DIS	4 th issue of Debentures	Debt service coverage ratio	≥ 1.3
	5 th issue of Debentures		
	6 th issue of Debentures		
	7 th issue of Debentures		
Nova Asa Branca I Nova Asa Branca II Nova Asa Branca III Nova Eurus IV Ventos de Santo Uriel	2 nd issue of Debentures	Debt service coverage ratio	≥ 1.3
Cutia	1 st issue of Debentures	Debt service coverage ratio (a)	≥ 1.2

(a) financial ratio calculated based on the amounts of the consolidated financial statements of Cutia Empreendimentos Eólicos S.A. The contract establishes that, should the index be in the range between 1.10 and 1.20, the value of the funds invested in the Reserve Account must be complemented so that the total reaches the index of 1.20, within 2 days of the release of the financial statements.

22. Post-employment Benefits

The Company sponsors private retirement and pension plans (Unified Plan and Plan III) and Healthcare Plan for medical and dental care ("ProSaúde II" and "ProSaúde III" Plans) for their active employees and their legal dependents. The lifetime sponsorship of the Healthcare Plan for retirees, pensioners and legal dependents is only applied to "Prosaúde II" plan participants. Fundação Copel de Previdência e Assistência is the entity that manages these plans.

22.1 Pension plan

The Unified Plan is a Defined Benefit plan - BD in which the income is predetermined, according to each individual's salary. This plan is closed for new participants since 1998.

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The Plan III, the only plan available for new participants, is a Variable Contribution - CV plan in the contributory phase and, after retirement, it becomes a Defined Benefit - BD plan.

22.2 Healthcare Plan

The Company allocates resources for the coverage of healthcare expenses incurred by their employees and their dependents, within rules, limits and conditions set in "ProSaúde II" and "ProSaúde III" Plans' regulations. Coverage includes periodic medical exams in both plans and is extended to all retirees and pensioners for life only in the "ProSaúde II" plan.

22.3 Statement of financial position and statement of income

Amounts recognized in liabilities, under Post-employment benefits, are summarized below:

	12.31.2022	12.31.2021
Pension plans	949	965
Healthcare plans	1,069,088	1,294,209
	1,070,037	1,295,174
	Current	68,836
	Noncurrent	1,226,338

Amounts recognized in the statement of income are shown below:

	12.31.2022	12.31.2021	12.31.2020
Employees			
Pension plans	55,607	59,052	57,977
Healthcare plan - post employment	140,293	116,504	94,349
Healthcare plan - active employees	68,897	71,795	75,192
	264,797	247,351	227,518
Management			
Pension plans	1,236	1,300	977
Healthcare plan	148	122	139
	1,384	1,422	1,116
	266,181	248,773	228,634

22.4 Changes in post-employment benefits

Balance as of January 1, 2021	1,493,614
Appropriation of actuarial calculation	116,504
Appropriation of pension and healthcare contributions	130,308
Adjustment related to actuarial (gains) losses	(246,626)
Amortizations	(198,626)
Balance as of December 31, 2021	1,295,174
Appropriation of actuarial calculation	140,293
Appropriation of pension and healthcare contributions	127,878
Adjustment related to actuarial (gains) losses (a)	(291,742)
Amortizations	(201,566)
Balance as of December 31, 2022	1,070,037

(a) Adjustments arising from the transfer of liabilities from Copel Serviços to Copel and other subsidiaries.

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22.5 Actuarial valuation in accordance with IAS 19

22.5.1 Actuarial assumptions

The actuarial assumptions used to determine the amounts of liabilities and costs are shown below:

	2022		2021	
	Real	Nominal	Real	Nominal
Economic				
Inflation p.y.	-	5.10%	-	5.50%
Expected rate of discount/return p.y.				
Unified Plan - Defined Benefit	6.10%	11.51%	5.20%	10.99%
Unified Plan - Balance	6.12%	11.53%	5.20%	10.99%
Plan III	6.13%	11.54%	5.30%	11.09%
Assistance Plan	6.13%	11.54%	5.30%	11.09%
Salary growth/medical costs				
Unified Plan p.y.	0.00%	5.10%	0.00%	5.50%
Plan III p.y.	1.00%	6.15%	1.00%	6.56%
Assistance Plan - Aging Factor	3.30%	-	5.80%	-
Demographic				
Mortality Table		AT - 2000		AT - 2000
Mortality table of individuals with permanent disability		WINKLEVOSS		WINKLEVOSS
Table of new disability benefit vested		TASA 1927		TASA 1927

22.5.2 Number of participants and beneficiaries

	Social Security Plans					
	Unified Plan		Plan III		Assistance Plan	
	12.31.2022	12.31.2021	12.31.2022	12.31.2021	12.31.2022	12.31.2021
Number of active participants	10	18	6,031	6,645	5,775	6,276
Number of inactive participants	4,170	4,229	5,369	5,018	9,059	8,910
Number of dependent people	-	-	-	-	20,867	21,621
Total	4,180	4,247	11,400	11,663	35,701	36,807

22.5.3 Life expectancy after the average age of participants - Annuity Table AT-2000 (in years)

The average age of inactive participants of the healthcare and pension plans of the Company is 68.27 and 67.08 years, respectively.

	Unified Plan	Plan III
As of December 31, 2022		
Retired participants	19.60	23.42
Pensioner participants	12.48	25.97
As of December 31, 2021		
Retired participants	11.60	23.47
Pensioner participants	13.22	27.02

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22.5.4 Actuarial evaluation

Based on the revision of the assumptions, the amounts of the Unified Plan and Plan III as of December 31, 2022, totaled a surplus of R\$595,847 and R\$74,421 (R\$653,654 and R\$10,111, of December 31, 2021). Applicable ruling legislation does not allow any significant reduction in contributions or refunds to the Company based on the current surplus of these plans. For this reason, the Company did not record assets in its balance sheet as of December 31, 2022, reflecting any right to reduce contributions, refund of surplus or other amounts.

	Unified Plan	Plan III	Assistance Plan	12.31.2022	12.31.2021
Total liabilities or partially covered	6,029,530	3,457,537	1,234,771	10,721,838	10,973,812
Fair value of the plan assets	(6,625,377)	(3,531,958)	(165,683)	(10,323,018)	(10,343,368)
Plan coverage status	(595,847)	(74,421)	1,069,088	398,820	630,444
Unrecognized asset	595,847	74,421	-	670,268	663,765
	-	-	1,069,088	1,069,088	1,294,209

The Company adjusted their assistance liabilities through the actuarial report issued on December 31, 2022, as presented in the Statements of Comprehensive Income.

22.5.5 Changes in actuarial liabilities

	Unified Plan	Plan III	Assistance Plan
Present value of net actuarial obligations as of January 1, 2021	6,760,824	3,344,723	1,714,637
Cost of services	252	2,006	7,368
Cost of interest	481,656	246,256	125,132
Benefits paid	(511,621)	(233,908)	-
Actuarial (gain) losses	(585,510)	(21,984)	(356,019)
Present value of net actuarial obligations as of December 31, 2021	6,145,601	3,337,093	1,491,118
Cost of services	169	2,018	6,172
Cost of interest	673,724	364,901	155,389
Benefits paid	(523,792)	(264,096)	(342)
Actuarial (gain) losses	(266,172)	17,621	(417,566)
Present value of net actuarial obligations as of December 31, 2022	6,029,530	3,457,537	1,234,771

22.5.6 Changes in actuarial assets

	Unified Plan	Plan III	Assistance Plan
Fair value of the Plan's assets as of January 1, 2021	7,568,268	3,629,780	222,148
Return estimated for assets	837,120	133,837	6,366
Contributions and distributions	26,661	136,730	-
Benefits paid	(511,621)	(233,908)	-
Actuarial gain (losses)	(1,121,173)	(319,235)	(31,605)
Fair value of the Plan's assets as of December 31, 2021	6,799,255	3,347,204	196,909
Return estimated for assets	743,845	274,486	26,390
Contributions and distributions	29,808	151,606	-
Benefits paid	(523,792)	(264,096)	-
Actuarial gain (losses)	(423,739)	22,758	(57,616)
Fair value of the Plan's assets as of December 31, 2022	6,625,377	3,531,958	165,683

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22.5.7 Estimated costs

The estimated net periodic plan costs (income) for 2023 for each plan are shown below:

	Unified Plan	Plan III	Assistance Plan
Cost of current service	205	3,966	6,879
Estimated cost of interest	700,311	397,093	141,876
Expected return on plan assets	(769,615)	(410,063)	(18,629)
Expected employee contributions	(89)	(1,983)	-
Costs (income or loss)	(69,188)	(10,987)	130,126

22.5.8 Sensitivity analysis

The following table shows the effect of a one percent increase or decrease in the assumed care costs, in the aggregate of the cost of service and cost of interest components and the accumulated post-employment benefit obligation.

	Projected scenarios	
	Increase by 1%	Decrease in 1%
Sensitivity of long-term interest rate		
Impacts on the obligations of the pension	(826,777)	823,400
Impacts on the obligations of healthcare program	(195,345)	185,544
Sensitivity of growth rate of the medical costs		
Impacts on the obligations of healthcare program	82,208	(80,982)
Impact on cost of service for the following financial year of healthcare program	392	(386)
Sensitivity of the service cost		
Impacts on the obligations of the pension	320	(313)
Impacts on the obligations of healthcare program	1,040	(883)

22.5.9 Benefits payable

The estimated benefits to be paid by the Company in the next five years and the total benefits for the following fiscal years are shown below:

	Unified Plan	Plan III	Assistance Plan	Total
2023	317,523	153,226	81,010	551,759
2024	316,790	152,659	81,114	550,563
2025	316,908	152,239	79,756	548,903
2026	316,481	151,790	76,382	544,653
2027	315,703	151,358	73,076	540,137
2028 to 2052	3,885,982	2,598,345	759,895	7,244,222

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22.5.10 Asset allocation and investment strategy

The asset allocation for the Company pension and healthcare plans at the end of 2022 and the allocation goal for 2023, by asset category, are shown below:

	Goal for 2023 (*)	2022
Fixed income	77.2%	71.1%
Variable income	5.3%	10.0%
Loans	1.2%	1.2%
Real estate	5.6%	2.7%
Investment structuring	8.7%	10.2%
Investments abroad	2.0%	4.8%
	100.0%	100.0%

(*) Target based on the total investment of each plan.

In addition, information on the allocation of assets of pension plans sponsored by the Company:

	Unified Plan		Plan III	
	target (%) (*)	minimum (%)	target (%)	minimum (%)
Fixed income	86.0%	60.0%	67.0%	40.0%
Variable income	3.0%	2.0%	8.0%	3.0%
Loans	0.5%	0.0%	2.0%	0.0%
Real estate	5.5%	0.0%	6.0%	0.0%
Investment structuring	5.0%	0.0%	13.0%	0.0%
Investments abroad	0.0%	0.0%	4.0%	0.0%

(*) Target 2022.

Management of Fundação Copel decided to keep a more conservative approach investing in variable income in relation to the allowed legal limit, which is 70%.

22.5.11 Additional information

The Company made contributions to Plan III (variable contribution plan) for all active employees on December 31, 2022, 2021 and 2020, in the amounts of R\$72,353, R\$64,883 and R\$67,515, respectively.

23. Sectorial Charges Payable

	12.31.2022	12.31.2021
Energy Development Account - CDE	41,122	41,786
Global Reversal Reserve - RGR	5,366	8,834
Tariff flags (Note 30.3.2)	-	147,766
	46,488	198,386

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24. Research and Development and Energy Efficiency

In accordance with Law No. 9,991/2000 and supplementary regulations, concession operators and licensees of electric power generation and transmission are required to allocate annually the percentage of 1% of their net operating regulatory revenue to research and development of the electricity sector activities, and the electric power distribution concession operators must segregate this same percentage into the research and development and energy efficiency programs of the electricity sector.

The registered balances of Research and Development - R&D and Energy Efficiency Program - EEP are shown in the table below.

	Disbursed and not completed	Balance to be collected	Balance to disburse	Balance as of 12.31.2022	Balance as of 12.31.2021
Research and Development - R&D					
FNDCT	-	6,588	-	6,588	7,584
MME	-	3,314	-	3,314	3,790
R&D	229,290	1,322	29,631	260,243	286,029
	229,290	11,224	29,631	270,145	297,403
Energy efficiency program - EEP					
Procel	-	11,960	-	11,960	19,883
EEP	128,851	1,906	201,896	332,653	309,811
	128,851	13,866	201,896	344,613	329,694
	358,141	25,090	231,527	614,758	627,097
			Current	370,244	292,495
			Noncurrent	244,514	334,602

National Fund for Scientific and Technological Development - FNDCT
National Program of Electricity Conservation - Procel

24.1 Changes in R&D and EEP balances

	FNDCT	MME	R&D	Procel	EEP	Total
Balance as of January 1, 2021	8,085	4,041	332,746	5,855	314,284	665,011
Additions	50,804	25,399	50,796	12,801	51,206	191,006
Performance agreement	-	-	-	-	3,010	3,010
Interest rate (Note 32)	-	-	3,664	1,227	9,923	14,814
Payments	(51,305)	(25,650)	(15,966)	-	(56,176)	(149,097)
Concluded projects	-	-	(85,211)	-	(12,436)	(97,647)
Balance as of December 31, 2021	7,584	3,790	286,029	19,883	309,811	627,097
Additions	39,044	19,535	39,070	11,298	45,191	154,138
Performance agreement	-	-	-	-	2,552	2,552
Interest rate (Note 32)	-	-	6,197	3,799	24,648	34,644
Transfers	-	-	-	(3,685)	3,685	-
Payments	(40,040)	(20,011)	(8,061)	(19,335)	(29,740)	(117,187)
Concluded projects	-	-	(62,992)	-	(23,494)	(86,486)
Balance as of December 31, 2022	6,588	3,314	260,243	11,960	332,653	614,758

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25. Accounts Payable Related to Concessions

	Company	Grant	Signature	Closing	Discount rate	Annual Adjustment	12.31.2022	12.31.2021	
HPP Mauá	Copel GeT	06.29.2007	07.03.2007	05.2047	5.65% p.y.	IPCA	21,587	20,495	
HPP Colider	Copel GeT	12.29.2010	01.17.2011	01.2046	7.74% p.y.	IPCA	30,518	27,376	
HPP Baixo Iguaçu	Copel GeT	07.19.2012	08.20.2012	01.2047	7.74% p.y.	IPCA	9,050	8,595	
HPP Guaricana	Copel GeT	03.03.2020	03.03.2020	03.2025	7.74% p.y.	IPCA	2,200	2,894	
HPP Fundação and HPP Santa Clara	Elejor	10.23.2001	10.25.2001	05.2037	11.00% p.y.	IGPM	874,187	844,599	
							937,542	903,959	
							Current	105,003	104,963
							Noncurrent	832,539	798,996

Discount rate applied to calculate present value

Real and net discount rate, compatible with the estimated long-term rate, not being linked to the expectation of return from the project.

Payment to the federal government

Monthly installments equivalent to 1/12 of the annual payment restated, as defined in the concession agreement.

25.1 Changes in accounts payable related to concessions

Balance as of January 1, 2021	731,864
Additions	65,269
Adjust to present value	78,203
Monetary variations	117,053
Payments	(88,430)
Balance as of December 31, 2021	903,959
Additions	1,855
Adjustment to present value	27,063
Monetary variations	112,890
Payments	(108,225)
Balance as of December 31, 2022	937,542

25.2 Nominal value and present value of accounts payable related to concession

	Nominal value	Present value
2023	115,062	105,003
2024	115,106	94,974
2025	114,304	85,101
2026	114,036	76,626
After 2026	1,583,477	575,838
	2,041,985	937,542

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26. Right-of-use asset and lease liability

26.1 Right-of-use asset

	Balance as of January 1, 2022	Additions	Remeasurement adjustment	Amorti- zation	Loss on disposal	Balance as of December 31, 2022
Real estate	120,929	25,365	2,405	(10,679)	(1,531)	136,489
Vehicles	67,833	87,644	2,755	(45,044)	(170)	113,018
Equipment	15,294	3,986	1,536	(8,943)	-	11,873
	204,056	116,995	6,696	(64,666)	(1,701)	261,380

	Balance as of January 1, 2021	Additions	Remeasurement adjustment	Amorti- zation	Loss on disposal	Others (a)	Balance as of December 31, 2021
Real estate	23,384	87,921	10,748	(10,053)	(13,079)	22,008	120,929
Vehicles	90,316	7,920	2,255	(33,000)	(142)	484	67,833
Equipment	18,821	2,424	612	(6,695)	(1,239)	1,371	15,294
	132,521	98,265	13,615	(49,748)	(14,460)	23,863	204,056

(a) Reclassification to Assets classified as held for sale (Note 39) and effect of business combination.

26.2 Lease liability

26.2.1 Changes in lease liability

Balance as of January 1, 2021	138,361
Effect of acquisition of control of Vilas Complex	22,381
Additions	98,265
Remeasurement adjustment	13,615
Charges	13,459
Amortization - principal	(53,120)
Payment - charges	(7,145)
Loss on disposal	(14,799)
Reclassification (a)	1,717
Balance as of December 31, 2021	212,734
Additions	116,995
Remeasurement adjustment	6,696
Charges	20,462
Amortization - principal	(60,200)
Payment - charges	(21,151)
Loss on disposal	(1,780)
Balance as of December 31, 2022	273,756
	Current
	64,870
	Noncurrent
	208,886

(a) Reclassification to Assets classified as held for sale (Note 39).

The Company defines the discount rate based on the nominal interest rate applied to the last fundraising, disregarding subsidized or incentivized funding. The interest rates applied range from 3.58% to 14.87% p.a.

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26.2.2 Maturity of noncurrent installments

2024	51,452
2025	33,745
2026	34,241
2027	10,196
2028	9,845
After 2028	169,140
Undiscounted amounts	308,619
Imputed interest	(99,733)
Lease liabilities balance	208,886

26.2.3 Potential right to Pis/Cofins recoverable

The following table shows the potential PIS/Cofins recoverable rights embedded in the leasing consideration, according to the expected payment periods.

Cash Flows	Nominal value	Present value
Lease consideration	439,629	273,756
Potencial Pis/Cofins	33,321	21,593

26.3 Impact of forecast inflation on discounted cash flows

In accordance with IFRS 16, in measuring and remeasuring lease liabilities and right-of-use assets, the Company used the discounted cash flow method without considering forecast future inflation, according to the prohibition imposed by the standard.

However, given the current reality of long-term interest rates in the Brazilian economic environment, the table below shows the comparative balances between the information recorded in accordance with IFRS 16 and the amount that would be recorded considering forecast inflation:

	Balance in accordance with IFRS 16	Inflation projected balance	%
Lease liabilities	273,756	322,949	17.97%
Right to use assets	261,380	295,521	13.06%
Financial expense	20,356	25,061	23.11%
Amortization expense	64,666	70,005	8.26%

26.4 Commitments from leases and rentals

For leases of low value assets, such as computers, printers and furniture, short-term leases, as well as for leases of land for development of wind power generation projects, whose payment is made based on variable remuneration, the amounts are recognized in the statement of income as operating costs and/or expenses (Note 31.6). The balance of commitments from leases and rentals is shown below:

	Less than 1 year	1 to 5 years	Over 5 years	12.31.2022
Commitments from leases and rentals	11,753	50,444	250,757	312,954

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26.5 Receivables from leases

	Less than 1 year	1 to 5 years	Over 5 years	Total 12.31.2022
Facilities sharing	1,393	5,572	18,480	25,445

27. Other Accounts Payable

	12.31.2022	12.31.2021
Fair value in the purchase and sale of power (Note 34.2.12)	738,703	545,468
Generation deviation - wind projects (Note 34.2.11)	184,813	108,031
Payments/returns to consumers	50,652	45,579
Public lighting rate collected	52,520	32,895
Aneel Order No. 084/2017 provision	38,145	34,113
Obligations to customers in gas sales operations (a)	33,223	35,130
Financial offset for the use of water resources	28,511	12,066
Pledges in guarantee	29,924	35,285
Acquisition of equity interest	294	46,361
Other liabilities	90,068	75,364
	1,246,853	970,292
	Current	370,383
	Noncurrent	599,909

(a) Refers to amounts paid for the purchase of contracted gas volumes not yet taken by customers.

28. Provisions for Legal Claims and Contingent Liabilities

The Company is responsible for several legal and administrative proceedings before different courts. Based on assessments made by the Company's legal counsel, Management makes provisions for legal claims in which the losses are rated probable, when the criteria for recognition of provisioning, described in Note 4.11, are met.

The Company's management believes it is impracticable to provide information regarding the timing of any cash outflows related to the lawsuits for which the Company is responsible on the date of preparation of the financial statements, in view of the unpredictability and dynamics of the Brazilian judicial, tax and regulatory systems, and that the final resolution depends on the conclusions of the lawsuits. For this reason, this information is not provided.

On February 8, 2023, when analyzing and judging Topics 881 and 885 of general repercussion (generally binding decision), the STF understood that a final and unappealable decisions (the so-called "res judicata") on taxes paid on ongoing basis loses its effects if the STF decides otherwise on a constitutionality-related action or an appeal for which it hands down a generally binding decision, since according to the legislation and case law, a decision, even if res judicata, should only produce effects whilst the factual and legal framework which justified it lasts. The Company has no lawsuits that meet the requirements defined by the STF. Therefore, there are no impacts on its financial statements.

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28.1 Change in provision for legal claims

	Balances as of January 1, 2022	Income		Construction cost	Additions to assets	Settlements	Transfer/ Others	Balances as of December 31, 2022	
		Provision for litigations							Additions (Rev.)
		Additions	Reversals						
Tax									
Cofins	110,059	15,109	(1,604)	-	-	-	-	123,564	
Others	71,056	23,705	(820)	-	-	(9,764)	(5,991)	78,186	
	181,115	38,814	(2,424)	-	-	(9,764)	(5,991)	201,750	
Labors	569,756	108,902	(2,778)	-	-	(139,416)	-	536,464	
Employee benefits	37,148	13,270	(19,672)	-	-	(620)	-	30,126	
Civil									
Civil and administrative claims	433,437	592,796	(3,925)	-	-	(67,055)	2,858	958,111	
Easements	138,069	3,594	(90)	(722)	627	(2,754)	-	138,724	
Expropriations and property	125,028	2,195	(8,113)	4,305	36,924	(5,427)	-	154,912	
Customers	3,755	2,113	(630)	-	-	(1,488)	-	3,750	
Environmental	5,902	497	(1,130)	-	-	-	-	5,269	
	706,191	601,195	(13,888)	3,583	37,551	(76,724)	2,858	1,260,766	
Regulatory	103,155	5,137	(84,111)	-	-	(15,688)	-	8,493	
	1,597,365	767,318	(122,873)	3,583	37,551	(242,212)	(3,133)	2,037,599	

	Balances as of January 1, 2021	Income		Construction cost	Additions to assets	Settlements	Transfer/ Others (a)	Balances as of December 31, 2021	
		Provision for litigations							Additions/(Rev.)
		Additions	Reversals						
Tax									
Cofins	107,148	4,123	(1,212)	-	-	-	-	110,059	
Others	66,725	10,046	(205)	-	-	(127)	(5,383)	71,056	
	173,873	14,169	(1,417)	-	-	(127)	(5,383)	181,115	
Labors	596,248	94,845	(21,647)	-	-	(105,777)	6,087	569,756	
Employee benefits	52,401	4,685	(19,623)	-	-	(761)	446	37,148	
Civil									
Civil and administrative claims	387,895	129,730	(9,218)	-	-	(74,989)	19	433,437	
Easements	111,553	1,616	-	15,702	36,771	(27,573)	-	138,069	
Expropriations and property	133,888	680	(15,031)	(7,268)	12,943	(184)	-	125,028	
Customers	3,973	895	(706)	-	-	(407)	-	3,755	
Environmental	7,174	4,992	(4,964)	-	-	-	(1,300)	5,902	
	644,483	137,913	(29,919)	8,434	49,714	(103,153)	(1,281)	706,191	
Regulatory	88,699	20,694	(5,971)	-	-	(267)	-	103,155	
	1,555,704	272,306	(78,577)	8,434	49,714	(210,085)	(131)	1,597,365	

(a) Reclassification mainly to Liabilities associated with assets classified as held for sale (Note 39).

28.2 Details of provisions for legal claims and contingent liabilities

The following table shows the details of the provisions for legal claims recorded and, in addition, the amounts of contingent liabilities, which are present obligations arising from past events, but without provisions recognized because it is not probable an outflow of resources that incorporate economic benefits to settle the obligation.

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	Description	Provisions		Contingent liabilities	
		12.31.2022	12.31.2021	12.31.2022	12.31.2021
Tax					
Cofins	Requirement of the Federal Revenue Service for the period from August 1995 to December 1996, due to the termination of a judicial decision that has recognized the Company's exemption from Cofins.	123,564	110,059	9,550	7,914
INSS	Tax requirements related to the social security contribution.	30,899	29,813	46,901	107,840
Federal taxes	Administrative requirements and questions from Receita Federal do Brasil (Federal Revenue Service).	2,100	1,721	50,025	77,058
ICMS (VAT)	Administrative requirements and questions from the State regarding the payment of ICMS (VAT) on the Company's invoices.	4,035	-	24,930	43,346
IPTU	Tax Requirement on Urban Territorial Property (IPTU) on properties affected by the public electricity service.	9,332	-	152,113	118,981
ISS	City halls tax requirement as ISS on construction services provided by third parties.	181	170	56,731	83,536
Other	Taxes, fees and other federal, state and municipal taxes in which the Company discusses the levy or not, as well as its bases and amounts for payment	31,639	39,352	149,518	122,314
		201,750	181,115	489,768	560,989
Labor					
	Charging of overtime, hazardous work, transfer surcharge, equalization / salary adjustment, among others, by employees and former employees of Copel; collection of indemnity installments and others, by ex-employees of contractors and outsourced companies (subsidiary responsibility).	536,374	569,756	372,138	275,230
Employee benefits					
	Labor claims filed by former retired employees against Fundação Copel, which will consequently cause repercussions for the Company and its wholly-owned subsidiaries, to the extent that additional contributions are required.	30,126	37,148	12,716	3,524
Regulatory					
Aneel Order nº 288/2002	Legal actions against Aneel Dispatch No. 288/2002 involving the companies Companhia Estadual de Energia Elétrica - CEEE and Dona Francisca Energética S.A.	-	82,670	-	-
ESBR	ESBR filed Ordinary Lawsuit No. 10426-71.2013.4.01.4100 against ANEEL in the Federal Court of Rondônia, whose ruling: (i) acknowledged the exclusion of liability for the 535-day schedule overrun in the construction of the Jirau Hydropower Station; (ii) declares any obligations, penalties and costs imposed on ESBR as a result of the schedule overrun to be unenforceable, and (iii) annuls ANEEL Resolution 1,732/2013, which had recognized a schedule overrun of only 52 days. An appeal has been brought by ANEEL, pending judgment by the Federal Court of the 1st Region. The practical consequence of the ruling was, at the time it exempted ESBR, to expose the distributors with whom it entered into power trading contracts (CCEARs) to the Short-Term Market and to the high value of the Settlement Price of the Differences (Preço de Liquidação das Diferenças - PLD, in Portuguese) in the period, including Copel DIS. This occurred because the rules for the sale of electricity require that all energy consumed should have a corresponding contractual coverage. If the lawsuits are judged unfavorably against Copel, the amount will be classified as Sectorial Financial Asset to be recovered through tariff rates.	-	-	1,130,845	1,066,486
Colíder exclusion of liability	Discussion on the value of the Tariff for use of the transmission system - TUST and monetary adjustment on energy values referring to the exclusion of liability period. As a result of the court injunction that excluded the delay period for the Colíder HPP from being responsible for the delivery of energy contracted in the Regulated Contracting Environment - ACR, CCEE proceeded to credit, valued to PLD, the energy previously backed to comply with ACR. However, in the event of failure in the lawsuit, the Company must return the amounts credited, updated by the IGPM.	-	-	320,044	295,931
Other	Aneel's notifications about possible breaches of regulatory standards	8,493	20,485	45,718	38,099
		8,493	103,155	1,496,607	1,400,516

(continued)

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	Description	Provisions		Contingent liabilities	
		12.31.2022	12.31.2021	12.31.2022	12.31.2021
Civil					
Tobacco growers	Actions whose main cause is the lack of electricity causing loss of production.	73,366	79,092	71,237	68,104
Arbitration	Arbitration protected by secrecy and confidentiality, in the early stage of award settlement.	629,056	165,158	338,779 ^(a)	670,704
PIS / Cofins credit	Contingent liability related to the allocation of PIS and Cofins tax credits recognized by the Company. With the enactment of Law No. 14,385/2022, the Management of Copel and its legal advisors reassessed the risk and Copel DIS recorded the provision, as detailed in Note 12.2.1.	-	-	-	1,775,347
Civil and administrative law	Other actions involving billing, supposed irregular procedures, administrative contracts and contractual fines, indemnity for accidents with the electric power network and accident with vehicles.	154,550	131,519	530,959	383,597
Indemnification to third parties (civil)	Actions for indemnity for resulting from damages caused during the construction of power plants. The execution of the sentence began without the previously determined accounting expertise. In the 1 st degree, Copel challenged the execution and presented an insurance policy as a guarantee until a decision on the performance of an expert examination and excess of the value. As there was still no favorable position on the merits, the risk was reassessed with a change in the provisioned balance.	101,076	57,663	98,940	29,592
Easements	Discussion between the amount determined by Copel for payment and the amount claimed by the property owner and/or when the owner's documentation supporting title to the property may not be registered (when probate proceedings are still in progress, properties have no registry number with the land registry, etc.), intervention in third-party adverse possession, either as a confronter, or in case of a property where there are areas of easement of passage, in order to preserve the limits and boundaries of expropriated areas.	138,841	138,075	31,063	29,100
Expropriations and property	Discussion between the amount assessed by Copel for payment and the amount claimed by the owner, and / or when the owner's documentation does not present conditions for registration (inventories in progress, properties without registration, among others); actions for repossession of real estate owned by the concessionaire; intervention in the adverse possession of third parties, as a confrontant, in order to preserve the limits and confrontations of the expropriated areas.	154,943	93,679	38,030	70,198
Indemnification to third parties (expropriations)	Expropriation lawsuit for construction of electric substation and expropriation of property flooded of power plant, settled in the second quarter of 2022.	-	31,348	-	-
Consumers	Lawsuits seeking compensation for damages caused in household appliances, industrial and commercial machines, lawsuits claiming damages for pain and suffering caused by service interruption and lawsuits filed by industrial consumers, challenging the lawfulness of the increase in electricity prices while Plano Cruzado (anti-inflation economic plan) was in effect and claiming reimbursement for the amounts paid by the Company.	3,758	3,755	1,911	3,964
Environmental	Public civil and class actions whose purpose is to obstruct the progress of environmental licensing for new projects or to recover permanent preservation areas located around the hydroelectric power plant dams unlawfully used by private individuals. If the outcome of the lawsuits is unfavorable to the Company, Management estimates only the cost to prepare new environmental studies and to recover the areas owned by Copel GeT. They also include the Commitment Agreements (Termos de Ajuste de Conduta - TAC, in Portuguese), which refer to the commitments agreed-upon and approved between the Company and the relevant bodies, for noncompliance with any condition provided for by the Installation and Operating Licenses.	5,266	5,902	226,608	206,647
		1,260,856	706,191	1,337,527	3,237,253
		2,037,599	1,597,365	3,708,756	5,477,512

(a) refers to the estimate of possible loss of a total, monetarily restated, of R\$2,966,787 of the plaintiff's claim.

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29. Equity

29.1 Capital

Capital consists of common and preferred shares. Each common share entitles its holder to one vote in the general shareholders' meetings. Preferred shares have two classes "A" and "B" and have restricted voting rights as per § 7 of article 5 of the Bylaws. According to Article 17 and following paragraphs of Federal Law No. 6,404/1976, dividends paid to preferred shares must be at least 10% higher than those paid to common shares. Class "A" preferred shares have priority in the reimbursement of capital and in the distribution of minimum dividends of 10% p.a. (non-cumulative), calculated based on the capital represented by this class of shares. Class "B" preferred shares have priority in the reimbursement of capital and the right to the distribution of dividends, calculated as 25% of adjusted profit or loss for the year, pursuant to the corporate legislation and to the Company's Bylaws, calculated proportionately to the capital represented by the shares of this class. Dividends for Class "B" have priority only over the common shares and are only paid out of the remaining profits payment of priority dividends of class "A" shares.

On December 31, 2022, paid in capital is R\$10,800,000 (R\$10,800,000 as of December 31, 2021). Its composition by shares (without par value) and the main shareholders are shown below, already considering the number of shares updated after the split and the conversion period of the UNITs Program ratified and approved by Management in 2021:

12.31.2022	Number of shares in units							
	Common		Class "A" Preferred		Class "B" preferred		Total	
	number of shares	%	number of shares	%	number of shares	%	number of shares	%
State of Paraná	734,298,319	69.66	-	-	115,945,012	6.90	850,243,331	31.07
BNDSPAR	131,161,562	12.44	-	-	524,646,248	31.24	655,807,810	23.96
Free float:								
B3	137,163,852	13.02	674,880	21.58	905,448,728	53.92	1,043,287,460	38.13
NYSE	32,642,912	3.10	-	-	130,571,648	7.78	163,214,560	5.96
Latibex	222,167	0.02	-	-	1,796,243	0.11	2,018,410	0.07
Other shareholders	18,601,648	1.76	2,453,120	78.42	927,411	0.05	21,982,179	0.81
	1,054,090,460	100.00	3,128,000	100.00	1,679,335,290	100.00	2,736,553,750	100.00

12.31.2021	Number of shares in units							
	Common		Class "A" Preferred		Class "B" preferred		Total	
	number of shares	%	number of shares	%	number of shares	%	number of shares	%
State of Paraná	734,304,512	69.66	-	-	115,969,784	6.91	850,274,296	31.07
BNDSPAR	131,161,562	12.44	-	-	524,646,248	31.24	655,807,810	23.96
Free float:								
B3	126,653,784	12.02	661,760	21.16	863,944,649	51.44	991,260,193	36.23
NYSE	43,115,100	4.09	-	-	172,460,400	10.27	215,575,500	7.88
Latibex	228,667	0.02	-	-	1,782,043	0.11	2,010,710	0.07
Other shareholders	18,626,835	1.77	2,466,240	78.84	532,166	0.03	21,625,241	0.79
	1,054,090,460	100.00	3,128,000	100.00	1,679,335,290	100.00	2,736,553,750	100.00

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12.31.2020	Number of shares in units							
	Common		Class "A" Preferred		Class "B" preferred		Total	
	number of shares	%	number of shares	%	number of shares	%	number of shares	%
State of Paraná	850,285,980	58.63	-	-	-	-	850,285,980	31.07
BNDES	382,987,750	26.41	-	-	272,820,060	21.26	655,807,810	23.96
Free float:								
B3	197,200,880	13.59	767,830	23.50	774,780,030	60.40	972,748,740	35.56
NYSE	1,163,450	0.08	-	-	233,148,470	18.17	234,311,920	8.56
Latibex	-	-	-	-	1,721,110	0.13	1,721,110	0.06
Other shareholders	18,672,740	1.29	2,499,690	76.50	505,760	0.04	21,678,190	0.79
	1,450,310,800	100.00	3,267,520	100.00	1,282,975,430	100.00	2,736,553,750	100.00

29.2 Legal reserve and profit retention reserve

The legal reserve is constituted based on 5% of the net income for the year, before any allocation, limited to 20% of the share capital.

The profit retention reserve aims to cover the Company's investment program, pursuant to article 196 of Law 6,404/1976. It is constituted by retaining the remainder of net income for the year, after constituting the legal reserve and proposing interest on own capital and dividends.

29.3 Proposed dividend distribution

	12.31.2022	12.31.2021	12.31.2020
Calculation basis for dividends			
Net income for the year	1,112,007	4,952,573	3,904,202
Legal Reserve (5%)	(55,600)	(247,629)	(195,210)
Realization of equity evaluation adjustment	36,513	46,575	59,630
	1,092,920	4,751,519	3,768,622
Proposed dividends			
Interest on own capital - gross value	970,000	522,809	807,500
Interim dividends	-	1,197,003	-
Dividends - PNA shares	258	-	-
Complement to reach the mandatory minimum	-	-	211,057
Additional proposed dividends (a)	-	1,368,675	1,507,449
	970,258	3,088,487	2,526,006
Gross value of dividends per class of shares:			
Ordinary shares	357,961	1,120,747	1,278,126
Class "A" preferred shares	1,407	3,658	4,155
Class "B" preferred shares	610,890	1,964,082	1,243,725
Gross value of dividends per share:			
Ordinary shares	0.33393	1.06323	0.88128
Class "A" preferred shares	0.44976	1.16956	1.27172
Class "B" preferred shares	0.36732	1.16956	0.96941
Gross value of dividends per share - Units (b)	1.80322	5.74147	-

(a) In April 2022 and 2021 the General Assembly resolved to pay the proposed additional dividend, which occurred in June 2022 and August 2021.

(b) The Units are made up of 1 Ordinary share and 4 Class "B" preferred shares.

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Pursuant to the legal and statutory provisions in force and management's resolution, the basis for calculating dividends is obtained from the adjusted net income that corresponds to the net income for the year less the portion allocated to the legal reserve, plus the realization amount of equity adjustments for the year.

According to the Company's Dividend Policy, regular dividend calculation will be based on the Financial Leverage Ratio defined at the end of each fiscal year. For an index below 1.5, the dividend corresponds to 65% of the adjusted net income; for an index between 1.5 and 2.7, the dividend corresponds to 50% of the adjusted net income; for an index above 2.7, the dividend corresponds to 25% of the adjusted net income (mandatory minimum). These amounts, except for the mandatory minimum dividend, will be limited to the cash flow available for the same fiscal year, equivalent to the cash flow from operating activities, less net cash flow used in investing activities. Management may also propose extraordinary dividends, limited to balance of the Company's distributable profit reserves, conditioned to resolution and approval in Shareholders' Meeting, after hearing the Supervisory Board.

The 205th Special General Meeting, held on November 21, 2022, approved, in accordance with the Corporate Bylaws and the Dividend Policy, the distribution of R\$970,000 in the form of Interest on own capital - JSCP, as follows: R\$79,000 from net income for the first half of 2022 and R\$891,000 from the retained profits reserve. These JSCP amounts, net of taxes, are classified as mandatory dividends for 2022, according to the criteria established in article 88 of the Company's Corporate Bylaws, and the difference is considered both for payment of regular dividends for 2022 and for extraordinary dividends provided for in the Company's Dividend Policy. Additionally, on December 31, 2022, R\$258 were recorded to supplement the priority dividends for class "A" preferred shares (PNA), in compliance with Copel's Articles of Incorporation determinations. Of the R\$970,258, R\$600,000 were paid on November 30, 2022. The payment date of R\$370,258 will be defined at the 68th General Shareholders' Meeting to be held in April 2023

29.4 Equity valuation adjustments

Fair values of fixed assets - deemed costs - were recognized on the first-time adoption of IFRS. The line item "Equity value adjustments" was the balancing item of this adjustment, net of deferred income tax and social contribution. The realization of such adjustments is recorded in the retained earnings line item, to the extent of the depreciation or possible disposal of the measured fixed assets.

Adjustments arising from the changes in fair value involving financial assets, as well as actuarial gains and losses, are also recorded in this line item:

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Balance as of January 1, 2020	591,927
Actuarial liabilities	
Post employment benefits	(271,345)
Taxes on adjustments	92,190
Realization of equity evaluation adjustment	
Deemed cost of fixed assets	(90,347)
Taxes on adjustments	30,717
Attributed to non-controlling interest	207
Balance as of December 31, 2020	353,349
Actuarial liabilities	
Post employment benefits	246,626
Taxes on adjustments	(93,881)
Realization of equity evaluation adjustment	
Deemed cost of fixed assets	(70,569)
Taxes on adjustments	23,994
Actuarial liability - investment realization	(33,205)
Attributed to non-controlling interest	(144)
Balance as of December 31, 2021	426,170
Actuarial liabilities	
Post employment benefits	291,740
Taxes on adjustments	(88,548)
Realization of equity evaluation adjustment	
Deemed cost of fixed assets	(55,322)
Taxes on adjustments	18,809
Actuarial gain - realization (a)	(3,541)
Other adjustments	
Gains on financial assets - subsidiaries	10,295
Taxes on other adjustments	(3,500)
Attributed to non-controlling interest	(2,721)
Balance as of December 31, 2022	593,382

(a) realization of Copel SER's actuarial gain after the transfer of all employees to Copel's other wholly-owned subsidiaries.

29.5 Earnings per share - basic and diluted

	Continuing operations	Total 12.31.2022	Continuing operations	Discontinued operations	Total 12.31.2021	Continuing operations	Discontinued operations	Total 12.31.2020
Basic and diluted numerator								
Basic and diluted earnings allocated by classes of shares, allocated to controlling shareholders:								
Common shares	409,399	409,399	1,417,379	482,241	1,899,620	1,935,144	40,607	1,975,751
Class "A" preferred shares	1,575	1,575	4,478	1,430	5,908	5,783	100	5,883
Class "B" preferred shares	701,033	701,033	2,345,340	701,705	3,047,045	1,883,054	39,514	1,922,568
	1,112,007	1,112,007	3,767,197	1,185,376	4,952,573	3,823,981	80,221	3,904,202
Basic and diluted denominator								
Weighted average of shares (in thousands):								
Common shares	1,054,090,460	1,054,090,460	1,176,755,935	1,176,755,935	1,176,755,935	1,450,310,800	1,450,310,800	1,450,310,800
Class "A" preferred shares	3,128,000	3,128,000	3,171,194	3,171,194	3,171,194	3,268,067	3,268,067	3,268,067
Class "B" preferred shares	1,679,335,290	1,679,335,290	1,556,626,621	1,556,626,621	1,556,626,621	1,282,974,883	1,282,974,883	1,282,974,883
	2,736,553,750	2,736,553,750	2,736,553,750	2,736,553,750	2,736,553,750	2,736,553,750	2,736,553,750	2,736,553,750
Basic and diluted earnings per share attributable to controlling shareholders								
Common shares	0.38839	0.38839	1.20448	0.40981	1.61429	1.33430	0.02800	1.36229
Class "A" preferred shares	0.50343	0.50343	1.41173	0.45079	1.86252	1.76982	0.03080	1.80062
Class "B" preferred shares	0.41745	0.41745	1.50668	0.45079	1.95747	1.46773	0.03080	1.49852

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30. Net Operating Revenue

	Gross revenues	PIS/Pasep and Cofins	ICMS (VAT)	Sectorial charges	Service tax (ISSQN)	Net revenue		
						12.31.2022	12.31.2021	12.31.2020
Electricity sales to final customers	11,392,957	(865,989)	(2,042,838)	(974,093)	-	7,510,037	7,237,677	6,652,824
Electricity sales to distributors	4,644,150	(650,271)	(18,876)	(62,086)	-	3,912,917	6,051,854	3,779,830
Use of the main distribution and transmission grid	9,843,657	(784,691)	(1,595,850)	(2,634,275)	-	4,828,841	5,295,074	4,372,596
Construction income	2,176,158	-	-	-	-	2,176,158	1,951,559	1,414,067
Fair value of assets from the indemnity for the concession	89,941	-	-	-	-	89,941	142,642	57,341
Distribution of piped gas	1,669,588	(121,925)	(288,104)	-	(63)	1,259,496	712,267	502,655
Result of sectorial financial assets and liabilities	1,847,863	(170,927)	-	-	-	1,676,936	2,270,859	676,939
Other operating revenue	534,325	(54,579)	-	-	(6,351)	473,395	322,355	366,434
Recovery of Pis/Pasep and Cofins on ICMS	-	-	-	-	-	-	-	810,563
	32,198,639	(2,648,382)	(3,945,668)	(3,670,454)	(6,414)	21,927,721	23,984,287	18,633,249

The reduction in Electricity sales to distributors revenue is mainly due to the reduction in dispatches from the UEGA thermoelectric plant, in view of the improvement in the hydrological scenario.

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30.1 Revenue by type and/or class of customers

	12.31.2022	12.31.2021	12.31.2020
Electricity sales to final customers	11,392,957	12,296,456	9,524,897
Residential	3,441,726	4,098,156	3,098,969
Industrial	954,280	1,230,945	970,638
Trade, services and other activities	1,930,820	2,202,475	1,701,260
Rural	768,128	873,560	613,419
Public entities	262,000	276,383	195,259
Public lighting	253,758	339,524	233,558
Public service	351,613	400,341	290,482
Free consumers	2,692,303	2,203,320	1,729,603
Donations and grants	738,329	671,752	691,709
Electricity sales to distributors	4,644,150	7,034,152	4,330,982
Bilateral contracts	2,923,509	2,390,859	2,386,929
Regulated contracts	1,033,405	1,026,124	916,377
Electric Energy Trade Chamber - CCEE	568,797	3,482,687	933,369
Effective interest - grant bônus (Note 9.3)	118,439	134,482	94,307
Use of the main distribution and transmission grid	9,843,657	10,088,231	8,780,612
Residential	2,899,387	3,011,507	2,788,725
Industrial	1,174,082	1,456,377	1,273,320
Trade, services and other activities	1,735,174	1,771,496	1,628,098
Rural	662,963	623,280	548,682
Public entities	231,753	205,247	180,814
Public lighting	195,319	213,433	205,904
Public service	218,738	214,501	195,597
Free consumers	1,819,152	1,440,922	1,164,020
Concessionaires and generators	86,160	79,493	61,720
Operating and maintenance income - O&M and interest income	820,929	1,071,975	733,732
Construction income	2,176,158	1,951,559	1,414,067
Power distribution service concession	2,048,022	1,700,889	1,154,488
Power gas distribution service concession	12,024	11,222	7,438
Power transmission concession (a)	116,112	239,448	252,141
Fair value of assets from the indemnity for the concession	89,941	142,642	57,341
Distribution of piped gas	1,669,588	950,850	679,304
Result of sectorial financial assets and liabilities	1,847,863	2,502,324	746,052
Other operating revenue	534,325	358,997	406,539
Leasing and rent (30.2)	374,801	253,049	176,452
Fair value in the purchase and sale of power	32,747	-	137,463
Income from rendering of services	59,048	91,932	44,182
Other income	67,729	14,016	48,442
GROSS OPERATING REVENUE	32,198,639	35,325,211	25,939,794
(-) Pis/Pasep and Cofins	(2,648,382)	(2,839,713)	(2,038,541)
Recovery of Pis/Pasep and Cofins on ICMS (Note 12.2.1)	-	-	810,563
(-) ICMS (VAT)	(3,945,668)	(4,984,945)	(4,216,720)
(-) Service tax (ISSQN)	(6,414)	(7,509)	(4,504)
(-) Sectorial charges (30.3)	(3,670,454)	(3,508,757)	(1,857,343)
NET OPERATING REVENUE	21,927,721	23,984,287	18,633,249

(a) The balance contains the amount of construction revenue, the construction margin and the efficiency gain or loss as detailed in Note 10.3.

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30.2 Leases and rentals

30.2.1 Revenue from leases and rentals

	12.31.2022	12.31.2021	12.31.2020
Equipment and structures	373,036	251,953	175,673
Facilities sharing	1,529	738	415
Real estate	236	358	364
	374,801	253,049	176,452

30.3 Regulatory charges

	12.31.2022	12.31.2021	12.31.2020
Energy Development Account - "CDE" - Power distribution service concession (30.3.1)	2,670,262	1,737,716	1,530,998
Other charges - rate flags (30.3.2)	724,414	1,480,361	81,159
Research and development and energy efficiency - R&D and EEP	154,138	191,006	144,474
Global Reversion Reserve - RGR quota	42,103	44,372	62,057
Energy Development Account - "CDE" - Power transmission concession	65,460	42,973	27,315
Inspection fee	14,077	12,329	11,340
	3,670,454	3,508,757	1,857,343

30.3.1 Energy Development Account - CDE - power distribution concession

CDE, created by Law no. 10438/2002, amended by Law No. 12783/2013, which aims to promote energy development in the national territory, has as one of its fund sources the tariff charge attributed to end consumers in the tariff processes and periodically paid by the distributor. Annual charge amounts are defined by Aneel through approval resolutions and managed by CCEE.

As of June 2021, the Company began paying CDE Covid Account amounts provided for in Decision No. 939/2021, in the monthly amount of R\$29,032, to repay the loan transaction taken out by CCEE, which intended to cover deficits or anticipate distributor revenues. The repayment will be made over 54 months, from June 2021 to December 2025.

On February 24, 2023, Aneel published Decision No. 510, which confirmed the specific amounts of CDE water shortage (Note 8.1) for payment of the financial transaction contracted to cover the additional costs demanded in the water crisis period, according to Regulatory Resolution No. 1008/2022. The monthly amount determined for Copel DIS is R\$6,454, to be paid to CCEE as of June 2023.

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The balance is as follows:

Resolutions	Period	12.31.2022	12.31.2021	12.31.2020
"CDE USO"	Quotas (a)	2,321,875	1,534,490	1,531,713
	Covid Account (b)	183,444	107,009	-
	(-) Preliminary injunctions	-	-	(715)
		2,505,319	1,641,499	1,530,998
"CDE ENERGIA"	Covid Account (b)	164,943	96,217	-
		2,670,262	1,737,716	1,530,998

(a) "CDE Uso": Resolution No. 3,034/2022 (may-dec/22), Resolution No. 3,004/2021 (jan-apr/22); Resolution No. 2,814/2020 and Aneel Technical Note No. 12/2021 (jan-feb/21); Resolution No. 2,834/2021 (mar-dec/21); Resolution No. 2.664/2019 (jan-dec/20).

(b) "CDE Uso" e "CDE Energia" - Covid Account: Order No. 939/2021.

30.3.2 Tariff flag

The tariff flag system was created by Aneel Regulatory Resolution No. 547/2013, effective from 2015, to indicate whether an increase in the electric energy value to be passed on to end consumers would apply depending on the conditions for electricity generation.

The water crisis scenario prevailed from September 2021 to April 2022, with the application of red flag and water shortage modalities to cover the higher energy generation costs. From May to December 2022, after improving water conditions, application of the green flag prevailed, with no increase in energy bills.

30.4 **Copel DIS annual tariff adjustment**

Aneel ratified the result of the 2022 Annual Tariff Adjustment of Copel Distribuição through Approval Resolution No. 3,049, of June 21, 2022, authorizing an average readjustment of 4.90% perceived by consumers (9.89% in the readjustment of June 2021), and which was fully applied to tariffs as of June 24, 2022, with the average readjustment for high voltage consumers being 9.32% and 2.68% for low voltage consumers (respectively, 9.57 % and 10.04% in 2021).

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31. Operating Costs and Expenses

	Operational costs	Selling expenses	General and administrative expenses	Other operational expenses, net	12.31.2022	12.31.2021	12.31.2020
Non-manageable costs and expenses							
Electricity purchased for resale (31.1)	(8,096,910)	-	-	-	(8,096,910)	(9,503,743)	(6,829,530)
Charge of the main distribution and transmission grid	(2,520,527)	-	-	-	(2,520,527)	(2,501,641)	(1,525,567)
Materials and supplies for power electricity	(120,409)	-	-	-	(120,409)	(1,854,948)	(404,496)
Natural gas and supplies for gas business	(939,516)	-	-	-	(939,516)	(506,065)	(354,701)
	(11,677,362)	-	-	-	(11,677,362)	(14,366,397)	(9,114,294)
Manageable costs and expenses							
Personnel and management (31.2)	(683,018)	(6,637)	(337,207)	-	(1,026,862)	(1,550,857)	(1,601,895)
Pension and healthcare plans (Note 22.3)	(181,080)	(1,028)	(84,073)	-	(266,181)	(248,773)	(228,634)
Materials	(80,822)	(7)	(11,618)	-	(92,447)	(69,822)	(72,680)
Third-party services (31.3)	(600,781)	(5,784)	(194,178)	-	(800,743)	(706,599)	(558,041)
Credit losses, provisions and reversals (31.4)	(84,387)	(125,132)	-	(621,697)	(831,216)	(184,990)	(201,415)
Other operational costs and expenses, net (31.6)	(253,486)	(48,150)	(119,162)	(113,696)	(534,494)	(365,285)	(369,154)
	(1,883,574)	(186,738)	(746,238)	(735,393)	(3,551,943)	(3,126,326)	(3,031,819)
Other							
Depreciation and amortization	(1,218,259)	(2)	(57,483)	(25,238)	(1,300,982)	(1,082,539)	(1,009,913)
Construction cost (31.5)	(2,149,212)	-	-	-	(2,149,212)	(1,899,844)	(1,417,504)
	(3,367,471)	(2)	(57,483)	(25,238)	(3,450,194)	(2,982,383)	(2,427,417)
	(16,928,407)	(186,740)	(803,721)	(760,631)	(18,679,499)	(20,475,106)	(14,573,530)

31.1 Electricity purchased for resale

	12.31.2022	12.31.2021	12.31.2020
Purchase of Energy in the Regulated Environment - CCEAR	3,538,507	3,872,427	3,107,956
Itaipu Binacional	1,460,955	1,787,691	1,766,058
Electric Energy Trade Chamber - CCEE	370,207	1,673,116	1,176,798
Bilateral contracts	2,609,713	2,578,241	1,087,439
Program for incentive to alternative energy sources - Proinfra	437,461	271,435	221,406
Micro and mini generators	675,804	360,371	161,324
Fair value in the purchase and sale of power	-	35,818	-
(-) PIS/Pasep/Cofins taxes on electricity purchased for resale	(995,737)	(1,075,356)	(691,451)
	8,096,910	9,503,743	6,829,530

31.2 Personnel and management

	12.31.2022	12.31.2021	12.31.2020
Personnel			
Salaries and management fees	655,094	691,660	696,837
Social charges on payroll	217,267	227,381	227,485
Meal and education allowance	98,963	102,957	107,052
Voluntary retirement program	(9,315)	139,232	66,905
	962,009	1,161,230	1,098,279
Management			
Salaries and management fees	18,717	18,118	18,465
Social charges on payroll	3,872	3,832	3,233
Other expenses	256	254	237
	22,845	22,204	21,935
Provisions for performance and profit sharing of employees and administrators	42,008	367,423	481,681
	1,026,862	1,550,857	1,601,895

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31.3 Third party services

	12.31.2022	12.31.2021	12.31.2020
Maintenance of electrical system	338,283	319,162	206,688
Maintenance of facilities	97,216	103,726	97,889
Communication, processing and transmission of data	91,713	64,772	42,244
Consumer service / call center	83,203	66,733	56,583
Meter reading and bill delivery	53,660	52,831	48,895
Consulting and audit	53,344	38,832	41,043
Other services	83,324	60,543	64,699
	800,743	706,599	558,041

31.4 Credit losses, provisions and reversals

	12.31.2022	12.31.2021	12.31.2020
Provision for legal claims (Note 28)	626,602	190,071	150,269
Impairment of assets			
Power generation concession contract	9,061	(2,604)	(10,502)
Gas operations (Note 11.1)	1,629	15,688	-
Property, plant and equipment - generation segment	73,697	(147,938)	(37,609)
Expected credit losses (Trade accounts and Other receivables)	125,132	125,226	92,587
Tax credits estimated losses (reversal of losses)	(4,905)	4,547	(1,298)
Provision (reversal) for losses on equity interests	-	-	7,968
	831,216	184,990	201,415

31.5 Construction costs

	12.31.2022	12.31.2021	12.31.2020
Materials	1,229,643	1,088,808	781,807
Third party services	704,105	626,540	460,952
Personnel	171,369	155,182	140,108
Other	44,095	29,314	34,637
	2,149,212	1,899,844	1,417,504

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31.6 Other operating costs and expenses, net

	12.31.2022	12.31.2021	12.31.2020
Financial offset for the use of water resources	142,270	85,545	63,841
Taxes	61,856	43,308	37,847
Net losses (gains) in the decommissioning and disposal of assets	58,260	(61)	44,020
Collection charge	47,923	50,371	49,903
Insurance	42,460	33,678	26,593
Leasing and rent	39,128	21,067	9,705
Fair value of power generation concession assets	26,451	-	-
Aneel inspection fee	17,332	16,892	-
Compensation	14,703	48,679	38,423
Donations, contributions, grants, tax incentives (a)	8,117	41,152	22,136
Advertising and publicity			
<i>Associação das Emissoras de Radiodifusão do Paraná - AERP</i>	11,789	11,400	11,455
Publicity	10,593	11,953	9,598
Sponsorship	2,620	897	1,126
<i>Talento Olímpico Paranaense - TOP</i>	4,665	4,750	4,750
Other net income, costs and expenses	46,327	(4,346)	49,757
	534,494	365,285	369,154

(a) The balance includes the Company's social investments in education, culture, health, sports, among others, including incentive donations used as a tax benefit.

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32. Financial Results

	12.31.2022	12.31.2021	31.12.2020
Financial income			
Return on financial investments	463,255	163,888	80,704
Arrears charges on bills	274,308	326,217	271,966
Remuneration of net sectorial assets and liabilities (Note 8)	146,753	35,902	20,168
Monetary variation over the Itaipu power purchase	43,946	30,043	42,729
Recognition of tax credit	33,908	21,640	-
Monetary variation and adjustment to present value of accounts payable related to the concession (Note 25.1)	2,720	5,373	2,322
Interest and monetary variation of CRC transfer (a)	-	255,777	341,964
Exchange variation on loan collateral	-	9,243	35,089
Derivatives fair value - forward contract	-	-	24,511
Other financial income	109,800	125,594	160,100
(-) Pis/Pasep and Cofins taxes on financial income	(41,853)	(41,628)	(84,434)
	1,032,837	932,049	895,119
(-) Financial expenses			
Monetary and exchange variation and debt charges	1,479,057	855,814	607,569
Monetary variation and adjustment to present value of accounts payable related to the concession (Note 25.1)	142,673	200,629	192,848
PIS/Pasep/Cofins taxes on interest on capital	107,720	34,382	27,748
Interest on R&D and EEP (Note 24.1)	34,644	14,814	12,550
Monetary variation over the Itaipu power purchase	27,584	58,814	75,478
Remuneration of net sectorial assets and liabilities (Note 8)	11,208	3,744	62
Derivatives fair value - forward contract	2,907	20,401	-
Interest and monetary variation of CRC transfer (a)	-	1,788	-
Other financial expenses	181,711	69,024	57,142
	1,987,504	1,259,410	973,397
	(954,667)	(327,361)	(78,278)
Restatement of PIS/Cofins credits/ (provision for allocation of PIS/Cofins credits) - (Note 12.2.1)	(1,011,370)	-	944,549
Net	(1,966,037)	(327,361)	866,271

(a) The balance of the Account for Compensation of Income and Losses - CRC was settled by the Paraná State Government on August 10, 2021, as detailed in Note 8 of the Financial Statements of December 31, 2021.

33. Operating Segments

Operating segments are business activities that generate revenues and incur expenses, whose operating results are regularly reviewed by the executive boards of the Company and by key strategic decision-makers responsible for allocating funds and assessing performance.

33.1 Products and services from which the reportable segments have their revenues generated

The Company operates in reportable segments identified by Management, through the chief officers of each business area, taking into consideration the regulatory environments, the strategic business units and the different products and services. These segments are managed separately, since each business and each company require different technologies and strategies.

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Until December 31, 2022, all sales have been to customers within the Brazilian territory, in addition, all noncurrent assets are also located in the national territory. The Company did not identify any customer who individually accounts for more than 10% of their total net revenue until December 31, 2022.

The Company evaluates the performance of each segment, based on information derived from the accounting records. The accounting policies of the operating segments are the same as those described in Note 4 of these financial statements.

33.2 Company's reportable segments

Power generation and transmission (GET) - its attribution is to produce electricity from hydraulic, wind, and thermal projects (**GER**) and to provide services of transmission and transformation of electric power, being responsible for the construction, operation and maintenance of substations, as well for the energy transmission lines (**TRA**); for managers, the assets and liabilities of the generation and transmission segments are shown on an aggregate basis while their result is presented separately;

Power distribution (DIS) - its attribution is to provide public electricity distribution services, being responsible for the operation and maintenance of the distribution infrastructure, as well as providing related services;

Power sale (COM) - its attribution is to trade energy and related services;

GAS - its attribution is to provide public service of piped natural gas distribution;

Holding and Services - its attribution is the provision of services and participation in other companies.

33.3 Assets by reportable segment

ASSETS	Electric Energy			GAS	Holding and Services	Intersegment operations	Total
	GET	DIS	COM				
12.31.2022							
TOTAL ASSETS	24,917,856	20,538,815	1,808,971	1,083,713	2,244,405	(890,060)	49,703,700
CURRENT ASSETS	3,237,725	4,937,240	990,867	282,714	1,311,618	(1,432,915)	9,327,249
NONCURRENT ASSETS	21,680,131	15,601,575	818,104	800,999	932,787	542,855	40,376,451
Long term assets	6,819,202	8,200,557	809,498	59,505	732,365	(178,982)	16,442,145
Investments	3,163,152	534	-	-	162,045	-	3,325,731
Property, plant and equipment	10,054,763	-	541	-	14,164	-	10,069,468
Intangible assets	1,559,776	7,257,827	6,193	726,107	5,987	721,837	10,277,727
Right-of-use asset	83,238	142,657	1,872	15,387	18,226	-	261,380

ASSETS	Electric Energy			GAS	Holding and Services	Reclassifications (a)	Intersegment operations	Total
	GET	DIS	COM					
12.31.2021								
TOTAL ASSETS	24,844,335	20,804,701	1,519,017	827,901	3,243,736	(1,451,159)	(250,996)	49,537,535
CURRENT ASSETS	3,316,406	6,448,051	755,227	355,500	2,356,145	(652,886)	(1,388,571)	11,189,872
NONCURRENT ASSETS	21,527,929	14,356,650	763,790	472,401	887,591	(798,273)	1,137,575	38,347,663
Long term assets	6,639,545	7,664,328	757,873	362,649	694,197	(129,077)	(246,193)	15,743,322
Investments	2,887,272	540	-	-	154,322	-	-	3,042,134
Property, plant and equipment	10,123,352	-	305	-	18,934	(651,458)	651,458	10,142,591
Intangible assets	1,799,391	6,596,184	4,038	96,145	5,230	(8,202)	722,774	9,215,560
Right-of-use asset	78,369	95,598	1,574	13,607	14,908	(9,536)	9,536	204,056

(a) Reclassifications arising from the divestment process of Copel Telecomunicações (Note 39).

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STATEMENT OF INCOME	Electric Energy				TEL (a)	GAS	HOL	Reclassi- fications (a)	Inter- segment operations	Total
	GET		DIS	COM						
	GER	TRA								
12.31.2020										
CONTINUING OPERATIONS										
NET OPERATING REVENUES	4,030,979	1,186,215	12,363,459	2,420,657	386,634	535,206	-	(355,843)	(1,934,058)	18,633,249
Net operating revenues - third-parties	2,599,807	875,240	12,312,047	2,323,825	355,845	522,328	-	(355,843)	-	18,633,249
Net operating revenues - betw een segments	1,431,172	310,975	51,412	96,832	30,789	12,878	-	-	(1,934,058)	-
OPERATING COSTS AND EXPENSES	(2,348,409)	(536,968)	(10,674,981)	(2,262,053)	(363,673)	(452,495)	(107,059)	203,779	1,968,329	(14,573,530)
Energy purchased for resale	(260,650)	-	(5,856,372)	(2,239,388)	-	-	-	-	1,526,880	(6,829,530)
Charges for use of the main transmission grid	(489,921)	-	(1,370,814)	-	-	-	-	-	335,168	(1,525,567)
Personnel and management	(277,905)	(168,828)	(994,037)	(15,007)	(82,817)	(35,998)	(27,303)	-	-	(1,601,895)
Pension and healthcare plans	(38,196)	(23,972)	(146,422)	(1,493)	(11,207)	(4,663)	(2,681)	-	-	(228,634)
Materials and supplies	(9,695)	(3,466)	(58,196)	(28)	(1,364)	(580)	(715)	1,364	-	(72,680)
Raw materials and supplies for generation	(415,405)	-	-	-	-	-	-	-	10,909	(404,496)
Natural gas and supplies for gas business	-	-	-	-	-	(354,701)	-	-	-	(354,701)
Third party services	(118,562)	(24,863)	(405,854)	(1,493)	(66,426)	(11,633)	(32,025)	66,426	36,389	(558,041)
Depreciation and amortization	(583,958)	(11,812)	(374,851)	(75)	(147,190)	(31,452)	(2,345)	107,497	34,273	(1,009,913)
Provision (reversal) for litigations	(53,216)	(24,529)	(55,118)	(62)	336	(85)	(17,259)	(336)	-	(150,269)
Impairment of assets	48,111	-	-	-	54,945	-	-	(54,945)	-	48,111
Other estimated losses, provisions and reversals	(5,872)	(4,149)	(88,159)	(839)	(18,088)	(238)	-	18,088	-	(99,257)
Construction cost	-	(255,578)	(1,154,488)	-	-	(7,438)	-	-	-	(1,417,504)
Other operating costs and expenses, net	(143,140)	(19,771)	(170,670)	(3,668)	(91,862)	(5,707)	(24,731)	65,685	24,710	(369,154)
EQUITY IN EARNINGS OF INVESTEEES	9,629	176,848	-	(93)	-	-	7,163	-	-	193,547
PROFIT (LOSS) BEFORE FINANCIAL INCOME AND TAX	1,692,199	826,095	1,688,478	158,511	22,961	82,711	(99,896)	(152,064)	34,271	4,253,266
Financial income	121,129	21,977	1,334,983	11,469	24,968	13,599	340,404	(24,939)	(3,922)	1,839,668
Financial expenses	(408,795)	(97,417)	(291,002)	(96)	(58,317)	(14,363)	(165,647)	58,317	3,923	(973,397)
OPERATING PROFIT (LOSS)	1,404,533	750,655	2,732,459	169,884	(10,388)	81,947	74,861	(118,686)	34,272	5,119,537
Income tax and social contribution	(337,564)	(149,962)	(878,278)	(57,947)	2,357	(22,967)	125,293	43,108	(9,405)	(1,285,365)
NET INCOME (LOSS) - CONTINUING OPERATIONS	1,066,969	600,693	1,854,181	111,937	(8,031)	58,980	200,154	(75,578)	24,867	3,834,172
Result of discontinued operations	-	-	-	-	-	-	-	75,578	-	75,578
NET INCOME (LOSS)	1,066,969	600,693	1,854,181	111,937	(8,031)	58,980	200,154	-	24,867	3,909,750

(a) TEL segment discontinued in 2021; reclassifications arising from the divestment process of Copel Telecomunicações (Note 39).

33.5 Additions to noncurrent assets by reportable segment

12.31.2022	Electric Energy			GAS	Holding and Services	Total
	GET	DIS	COM			
Contract assets	-	1,848,201	-	13,955	-	1,862,156
Property, plant and equipment	480,852	-	290	-	4,479	485,621
Intangible assets	4,368	-	2,318	-	1,633	8,319
Right-of-use asset	17,020	91,584	227	5,408	2,756	116,995

12.31.2021	Electric Energy			TEL (a)	GAS	Holding and Services	Total
	GET	DIS	COM				
Contract assets	-	1,604,400	-	-	14,269	-	1,618,669
Property, plant and equipment	497,773	-	126	59,292	-	2,012	559,203
Intangible assets	5,607	-	2,300	179	-	2,289	10,375
Right-of-use asset	37,987	40,469	1,536	11,406	3,243	3,624	98,265

(a) TEL segment discontinued in 2021, after the divestment process of Copel Telecomunicações (Note 39).

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34. Financial Instruments

34.1 Categories and determination of fair value of financial instruments

	Note	Level	12.31.2022		12.31.2021	
			Book value	Fair value	Book value	Fair value
Financial assets						
Fair value through profit or loss						
Cash and cash equivalents (a)	5	1	2,678,457	2,678,457	3,472,845	3,472,845
Bonds and securities (b)	6	1	-	-	14,571	14,571
Bonds and securities (b)	6	2	431,056	431,056	346,487	346,487
Accounts receivable - distribution concession (c)	9.1 and 9.2	3	1,442,819	1,442,819	1,433,734	1,433,734
Accounts receivable - generation concession (c)	9.4	3	68,642	68,642	102,220	102,220
Derivatives fair value - forward contracts (d)	11	3	-	-	2,907	2,907
Fair value in the purchase and sale of power (d)	11	3	1,081,758	1,081,758	855,775	855,775
Other temporary investments (e)		1	15,372	15,372	14,072	14,072
Other temporary investments (e)		2	10,247	10,247	5,913	5,913
			5,728,351	5,728,351	6,248,524	6,248,524
Amortized cost						
Collaterals and escrow accounts (a)			157	157	182	182
Collateral and escrow deposits - STN			-	-	142,764	115,643
Trade accounts receivable (a)	7		3,451,869	3,451,869	4,515,426	4,515,426
Sectorial financial assets (a)	8		381,398	381,398	767,480	767,480
Accounts receivable - concessions - bonus from the grant (g)	9.3		766,832	866,653	730,851	828,673
			4,600,256	4,700,077	6,156,703	6,227,404
Fair value through other comprehensive income						
Certified Emission Reductions - CERs (j)	29.4		10,295	10,295	-	-
			10,295	10,295	-	-
Total financial assets			10,338,902	10,438,723	12,405,227	12,475,928
Financial liabilities						
Fair value through profit or loss						
Fair value in the purchase and sale of power (d)	27	3	738,703	738,703	545,468	545,468
			738,703	738,703	545,468	545,468
Amortized cost						
Sectorial financial liabilities (a)	8		483,255	483,255	293,179	293,179
ICMS installment payment (f)	12.2.4		48,320	43,419	-	-
Special Tax Regularization Program - Pert (f)	12.2		404,075	340,025	421,694	361,080
PIS and Cofins to be refunded to consumers (a)	12.2.1		1,995,158	1,995,158	3,326,795	3,326,795
Accounts payable to suppliers (a)	19		2,215,470	2,215,470	2,710,984	2,710,984
Loans and financing (f)	20		4,694,957	4,171,789	3,738,269	3,313,645
Debentures (h)	21		7,887,077	7,688,396	8,240,769	8,240,769
Accounts payable related to concession (i)	25		937,542	1,051,710	903,959	1,009,867
			18,665,854	17,989,222	19,635,649	19,256,319
Total financial liabilities			19,404,557	18,727,925	20,181,117	19,801,787

Different levels are defined as follows:

Level 1: Obtained from quoted prices (not adjusted) in active markets for identical assets and liabilities;

Level 2: obtained through other variables in addition to quoted prices included in Level 1, which are observable for the assets or liabilities;

Level 3: obtained through assessment techniques which include variables for the assets or liabilities, which however are not based on observable market data.

Determining fair values

- Equivalent to their respective book values due to their nature and terms of realization.
- Fair value is calculated based on information made available by the financial agents and the market values of the bonds issued by the Brazilian government
- Financial assets with fair values similar to book values (Note 4.4).

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- d) The fair values of assets and liabilities are equivalent to their book values (Note 4.15).
- e) Investments in other companies, stated at fair value, which is calculated according to the price quotations published in an active market, for assets classified as level 1 and determined in view of the comparative assessment model for assets classified as level 2.
- f) The cost of the highest value of the last funding carried out by the Company, CDI + spread of 1.22%, is used as a basic assumption for the discount of the expected payment flows.
- g) Receivables related to the concession agreement for providing electricity generation services under quota arrangements, having their fair value calculated by expected cash inflows, discounted at the rate established by Aneel auction notice 12/2015 (9.04%).
- h) Calculated according to the quotation of the last trade in the secondary market through the average price of the Unit Price - PU on December 31, 2022, obtained from the Brazilian Association of Financial and Capital Market Entities - Anbima.
- i) The actual pre-tax discount rate of 8.65% p.a. was used, compatible with the rate estimated by the Company for long-term projects.
- j) Financial assets with fair values similar to book values (Note 4.2).

34.2 Financial risk management

The Company's business activities are exposed to the following risks arising from financial instruments:

34.2.1 Credit risk

Credit risk is the risk of the Company incurring losses due to a customer or counterparty in a financial instrument, resulting from failure in complying with their contractual obligations.

Exposure to credit risk	12.31.2022	12.31.2021
Cash and cash equivalents (a)	2,678,457	3,472,845
Bonds and securities (a)	431,056	361,058
Pledges and restricted deposits linked (a)	157	142,946
Trade accounts receivable (b)	3,451,869	4,515,426
Sectorial financial assets (c)	381,398	767,480
Accounts receivable - distribution concession (c)	1,442,819	1,433,734
Accounts receivable - concessions - bonus from the grant (d)	766,832	730,851
Accounts receivable - generation concessions (e)	68,642	102,220
Other temporary investments (f)	25,619	19,985
	9,246,849	11,546,545

- a) The Company manages the credit risk of its assets in accordance with the Management's policy of investing virtually all of its funds in federal banking institutions. As a result of legal and/or regulatory requirements, in exceptional circumstances the Company may invest funds in prime private banks.

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- b)** Risk of losses resulting from difficulties to receive amounts billed to customers related to internal and external factors. To mitigate this type of risk, the Company manages its accounts receivable, detecting the classes of consumers most likely to default, implementing specific collection policies and suspending the supply and/or recording of energy and the provision of service, as established in contract and regulatory standards.
- c)** Management considers the risk of this credit to be reduced, since the agreements signed guarantee the unconditional right to receive cash at the end of the concession to be paid by the Granting Authority, corresponding to the costs and investments not recovered through the tariff.
- d)** Management considers the risk of such credit to be low, as the contract for the sale of energy by quotas guarantees the receipt of an Annual Generation Revenue - RAG, which includes the annual amortization of this amount during the concession term.
- e)** For the generation concession assets, Aneel published Normative Resolution 596/2013, which deals with the definition of criteria for calculating the New replacement value (Valor novo de reposição – VNR), for the purposes of indemnification. In July 2021, Normative Resolution No. 942/2021 was published, regulating the calculation of these amounts through the presentation of appraisal reports to be prepared by accredited companies. In August 2022, Copel filed with Aneel the assessment reports related to the residual values, with a base date of July 2015, for the HPP Governador Parigot de Souza - GPS and HPP Mourão - MOU, which are awaiting inspection and subsequent validation by the regulatory agency. Management's expectation of indemnification for these assets supports recoverability of the balances recorded.
- f)** Risk arising from the possibility of the Company incurring losses due to stock market volatility. This type of risk involves external factors and is being managed through periodic assessments of the variations in the market.

34.2.2 Liquidity risk

The liquidity risk of the Company consists of the possibility of having insufficient funds, cash or other financial assets, to settle obligations on their scheduled maturity dates.

The Company manages liquidity risk by relying on a set of methodologies, procedures and instruments applied to secure ongoing control over financial processes to ensure proper management of risks.

Investments are financed by incurring medium and long-term debt with financial institutions and capital markets.

Short, medium and long-term business projections are made and submitted to Management bodies for evaluation. The budget for the next fiscal year is annually approved.

Medium and long-term business projections cover monthly periods over the next five years. Short-term projections consider daily periods covering only the next 90 days.

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The Company permanently monitors the volume of funds to be settled by controlling cash flows to reduce funding costs, the risk involved in the renewal of loan agreements and compliance with the financial investment policy, while concurrently keeping minimum cash levels.

The following table shows the expected undiscounted settlement amounts in each time range. Projections were based on financial indicators linked to the related financial instruments and forecast according to average market expectations as disclosed in the Central Bank of Brazil Focus Report, which provides the average expectations of market analysts for these indicators for the current year and for the next 3 years. From 2027 on, the 2026 indicators are repeated throughout the forecast period.

	Interest (a)	Less than 1 month	1 to 3 months	3 months to 1 year	1 to 5 years	Over 5 years	Total
12.31.2022							
Loans and financing	Note 20	39,138	176,621	474,493	3,593,649	2,481,487	6,765,388
Debentures	Note 21	95,407	42,366	1,928,303	6,695,007	2,333,033	11,094,116
Accounts payable related to concession	Rate of return + IGP-M and IPCA	9,674	19,371	87,865	508,869	2,258,292	2,884,071
Accounts payable to suppliers	-	1,919,501	206,735	23,031	66,203	-	2,215,470
PIS and Cofins to be refunded to consumers	Note 12.2.1	-	-	387,721	1,365,327	357,912	2,110,960
Special Tax Regularization Program - Pert	Selic	4,776	9,665	45,279	282,820	170,426	512,966
ICMS installment payment	Selic	874	1,767	8,259	46,722	-	57,622
Sectorial financial liabilities	Selic	36,543	74,240	353,022	59,037	-	522,842
Lease liability	Note 26	8,146	15,893	67,566	174,725	364,729	631,059
		2,114,059	546,658	3,375,539	12,792,359	7,965,879	26,794,494

(a) Effective interest rate - weighted average.

As disclosed in Notes 20.4 and 21.3, the Company has loans and financing agreements and debentures with covenants that if breached may have their payment accelerated.

34.2.3 Market risk

Market risk is the risk that the fair value or the future cash flows of a financial instrument shall oscillate due to changes in market prices, such as currency rates, interest rates and stock price. The purpose of managing this risk is to control exposures within acceptable limits, while optimizing return.

a) **Foreign currency risk (US Dollar)**

This risk comprises the possibility of losses due to fluctuations in foreign exchange rates, which may reduce assets or increase liabilities denominated in foreign currencies.

The effect of the exchange rate variation resulting from the power purchase agreement with Itaipu is transferred to customers in Copel DIS's next tariff adjustment.

The exchange rate risk posed by the purchase of gas arises from the possibility of Compagas reporting losses on the fluctuations in foreign exchange rates, increasing the amount in Reais of the accounts payable related to the gas acquired from Petrobras. This risk is mitigated by the monitoring and transfer of the price fluctuation through tariff, when possible. The Company monitors these fluctuations on an ongoing basis.

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Sensitivity analysis of foreign currency risk

The Company has developed a sensitivity analysis to measure the impact of the devaluation of the US dollar on its financial liabilities subject to currency risk.

The valuation of the financial instruments considers the possible effects on profit and loss and equity of the risks evaluated by the Company's Management on the reporting date for the financial instruments, as recommended by IFRS 7 - Financial Instruments: Disclosure. Based on the equity position and the notional value of the financial instruments outstanding at the date of these financial statements, it is estimated that these effects will approximate the amounts stated in the above table in the column for the forecast probable scenario, since the assumptions used by the Company are similar to those previously described.

For the baseline scenario, the accounting balances recorded on the date of these financial statements were considered and for the probable scenario, the Company considers the balance updated with the exchange rate variation - prevailing at the end of the period (R\$/US\$5.25) based on the median market expectation for 2023 according to the Central Bank of Brazil Focus Report. Additionally, the Company continues to monitor scenarios 1 and 2, which consider a deterioration of 25% and 50%, respectively, in the main risk factor of the financial instrument in relation to the level used in the probable scenario, because of extraordinary events that may affect the economic scenario.

Foreign exchange risk	Risk	Baseline 12.31.2022	Projected scenarios		
			Probable	Scenario 1	Scenario 2
Financial liabilities					
Suppliers					
Itaipu	USD appreciation	(284,930)	(1,764)	(73,437)	(145,111)
Acquisition of gas	USD appreciation	(93,696)	(580)	(24,149)	(47,718)
		(378,626)	(2,344)	(97,586)	(192,829)

b) Interest rate and monetary variation risk

This risk comprises the possibility of losses due to fluctuations in interest rates or other indicators, which may reduce financial income or increase financial expenses related to the assets and liabilities raised in the market.

The Company has not entered derivative contracts to cover this risk but has been continuously monitoring interest rates and market indexes to observe any need for contracting.

Sensitivity analysis of interest rate and monetary variation risk

The Company has developed a sensitivity analysis to measure the impact of variable interest rates and monetary variations on its financial assets and liabilities subject to these risks.

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The valuation of the financial instruments considers the possible effects on profit and loss and equity of the risks evaluated by the Company's Management on the reporting date for the financial instruments, as recommended by IFRS 7 - Financial Instruments: Disclosure. Based on the equity position and the notional value of the financial instruments outstanding at the date of these financial statements, it is estimated that these effects will approximate the amounts stated in the above table in the column for the forecast probable scenario, since the assumptions used by the Company are similar to those previously described.

For the baseline scenario, the accounting balances recorded on the date of these financial statements were considered and for the probable scenario, the Company considers the balances updated with the variation of the indicators (CDI/Selic - 12.50%, IPCA - 5.78%, IGP-M - 4.60% and TJLP - 7.05%) estimated as market average projections for 2023 according to the Central Bank of Brazil Focus Report, except TJLP that considers the Company's internal projection. Additionally, the Company continues to monitor scenarios 1 and 2, which consider a deterioration of 25% and 50%, respectively, in the main risk factor of the financial instrument in relation to the level used in the probable scenario, because of extraordinary events that may affect the economic scenario.

Interest rate risk and monetary variation	Risk	Baseline	Projected scenarios		
		12.31.2022	Probable	Scenario 1	Scenario 2
Financial assets					
Bonds and securities	Low CDI/SELIC	431,056	53,883	40,433	26,942
Collaterals and escrow accounts	Low CDI/SELIC	157	19	14	10
Sectorial financial assets	Low Selic	381,398	47,675	35,756	23,837
Accounts receivable - concessions	Low IPCA	2,209,651	127,718	95,788	63,859
Accounts receivable - generation concessions	Undefined (a)	68,642	-	-	-
		3,090,904	229,295	171,991	114,648
Financial liabilities					
Loans and financing					
Banco do Brasil	High CDI	(751,673)	(93,959)	(117,449)	(140,939)
Banco Itaú	High CDI	(1,037,946)	(129,743)	(162,179)	(194,615)
BNDES	High TJLP	(1,712,943)	(120,787)	(150,983)	(181,180)
BNDES	High IPCA	(389,801)	(22,530)	(28,163)	(33,796)
Banco do Nordeste	High IPCA	(718,835)	(41,549)	(51,936)	(62,323)
Banco do Brasil - BNDES Transfer	High TJLP	(60,720)	(4,282)	(5,352)	(6,422)
Other	No risk	(23,039)	-	-	-
Debentures	High CDI/SELIC	(4,953,884)	(619,235)	(774,044)	(928,853)
Debentures	High IPCA	(2,841,725)	(164,252)	(205,315)	(246,378)
Debentures	High TJLP	(91,468)	(6,450)	(8,062)	(9,675)
Sectorial financial liabilities	High Selic	(483,255)	(60,407)	(75,509)	(90,610)
ICMS installment payment	High Selic	(48,320)	(6,040)	(7,550)	(9,060)
Special Tax Regularization Program - Pert	High Selic	(404,075)	(50,509)	(63,137)	(75,764)
Accounts payable related to concession	High IGP-M	(874,187)	(40,213)	(50,266)	(60,319)
Accounts payable related to concession	High IPCA	(63,355)	(3,662)	(4,577)	(5,493)
		(14,455,226)	(1,363,618)	(1,704,522)	(2,045,427)

(a) Risk assessment still requires ruling by the Concession grantor.

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34.2.4 Electricity shortage risk

Most of the installed capacity in Brazil currently comes from hydroelectric generation, which makes Brazil and the geographic region in which we operate subject to unpredictable hydrological conditions, due to non-cyclical deviations of mean precipitation. Unsatisfactory hydrological conditions may cause, among other things, the implementation of comprehensive programs of electricity savings, such as rationalization or even a mandatory reduction of consumption, which is the case of rationing.

Between September 2020 and August 2021, the National Interconnected System - SIN presented the worst record of Affluent Natural Energies in the aggregate of its uses. The Brazilian Ministry of Mines and Energy and other sector bodies worked to maximize the thermoelectric dispatch out of the cost merit order, as well as the easing of restrictions on the system's hydroelectric operation. Additionally, considering the strong wind generation in the Northeast, biomass generation in the Southeast and the rainy season with affluent natural energies that raised the reservoirs to comfortable values, it is estimated that the risk of energy shortages in 2023 and 2024 is minimized.

The energy supply guarantee criteria are currently established by the National Energy Policy Council - CNPE through Resolution 29/2019. With reason, the responsible bodies keep the energy deficit risk indicators within the safety margin in all subsystems.

34.2.5 Risk of Generation Scaling Factor - GSF impacts

The Energy Reallocation Mechanism - MRE is a system of redistribution of electric power generated, characteristic of the Brazilian electric sector, which has its existence by the understanding, at the time, that there is a need for a centralized operation associated with a centrally calculated optimal price known as PLD. Since generators have no control over their production, each plant receives a certain amount of virtual energy which can be compromised through contracts. This value, which enables the registration of bilateral contracts, is known as assured energy (GF) and is also calculated centrally. Unlike PLD, which is calculated on a weekly basis, GF, as required by Law, is recalculated every five years, with a limit of increase or decrease, restricted to 5% by revision or 10% in the concession period.

The contracts need to have guarantee. This is done, especially, through the allocation of power generated received from the MRE or purchase. The GSF is the ratio of the entire hydroelectric generation of the MRE participants to the GF sum of all the MRE plants. Basically, the GSF is used to calculate how much each plant will receive from generation to back up its GF. Thus, knowing the GSF of a given month the company will be able to know if it will need to back up its contracts through purchases.

Whenever GSF multiplied by GF is less than the sum of contracts, the company will need to buy the difference in the spot market. However, whenever GSF multiplied by GF is greater than the total contracts, the company will receive the difference to the PLD.

The low inflows that have been recorded since 2014, as well as problems with delays in the expansion of the transmission system have resulted in low GSF values, resulting in heavy losses for the companies holding hydroelectric projects participating in the MRE.

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For plants with contracts in the Free Contracting Environment - ACL, the main way to manage the low GSF risk is not to compromise the entire GF with contracts, as well as the timely repurchase of intra-annual energy approaches currently adopted by the Company.

For the contracts in the Regulated Contracting Environment - ACR, Law 13,203/2015 allowed the generators to contract insurance for electricity demand (load), by means of payment of a risk premium. Copel adopted this approach to protect contracts related to energy generated by the HPP Mauá, HPP Baixo Iguaçu, HPP Colíder and SHP Cavernoso II.

For the distribution segment, the effects of the GSF are perceived in the costs associated with quotas of Itaipu, of Angra, of the plants whose concessions were renewed in accordance with Law 12,783/2013 and the plants that renegotiated the hydrological risk in the ACR, in accordance with Law 13,203/2015. This is a financial risk, since there is guarantee of neutrality of expenses with energy purchases through a tariff transfer.

It should be noted that, at least conjuncturally, the GSF risks are greatly reduced due to the improvement in the hydrological scenario in 2022 concomitant with the low load growth.

34.2.6 Risk of non-renewal of concessions - generation and transmission

The extension of energy generation and transmission concessions, achieved by Law No. 9,074/1995, is regulated by Law No. 12,783/2013, which was amended by Law No. 14,052/2020, with regard to the deadline for requesting the extension of concessions.

According to the mentioned law, the concession operator should request extension of concession at least 36 months before the end date of the contract or act of granting for hydroelectric power plants and electric power transmission enterprises, and 24 months before the end date of the contract or act of granting for thermoelectric plants. The Granting Authority may advance effects of extension by up to 60 months counted as of contract or grant date and may also define initial tariff or revenue, which includes the definition of the tariff or initial revenues for the generation and transmission ventures (RAG - Annual Generation Revenue and RAP - Permitted Annual Revenue, respectively).

Concessions for hydroelectric power generation and electric power transmission may be extended, at the discretion of the Granting Authority, only once, for a period of up to 30 years. Thermoelectric power generation concessions have an extension term limited to 20 years.

In 2018, Decree No. 9.271/2018 was published, amended by Decrees No. 10.135/2019, No. 10.893/2021 and No. 11.307/2022, which regulated the granting of concession contracts in the electricity sector associated with privatization through sale of control by holder of a public service concession for electricity generation, having as one of the conditioning factors the alteration of the exploration regime to Independent Power Producer (IPP). According to the Decree, the manifestation of sale of the concession must take place within up to 42 months from the date of the related formal agreement, and any sale must take place within up to 12 months from the concession end date. If sale of control of the venture does not occur within the specified period, the plant must be subject to auction by the Granting Authority and the same concessionaire can participate in the auction, if it meets the qualification conditions.

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Some of the generation projects of Copel had their concession period extended due to the effects of the GSF renegotiation, which established the compensation through an extension of the concession period of the plants contemplated by Law No. 13,203/2015, resulting in the approval of the extension period of the concession of these plants through of Ratifying Resolutions No. 2,919/2021 and No. 2,932/2021.

For HPP Governador Bento Munhoz da Rocha Netto - GBM (1,676 MW), whose concession will end in 2024, the Company has not expressed any interest in extending the concession, as internal studies have shown that the extension through early change of the exploration regime would be economically and financially disadvantageous in relation to exploration of the plant under the current regime until concession end. On March 3, 2020, Copel GeT transferred the concession of HPP GBM to the subsidiary F.D.A. Geração de Energia Elétrica S.A. with the purpose of divesting the control of this concessionaire and, thus, allow a new concession grant for 30 years, as provided for in Decree No. 9.271/2018. The process of transforming Copel into a "Corporation" is underway, as described in Note 1, which will allow the Company to maintain 100% interest in the plant.

With respect to HPP São Jorge, whose concession ends in 2026, Copel did not express interest in the renewal and intends, at the end of the concession, to request Aneel to convert the granting of concession into granting of registration.

Regarding TPP Figueira concession, which expired in March 2019, the Company awaits the conclusion of the process, which is in progress at Aneel and MME. The plant went through a modernization process that provided direct benefits such as improved energy efficiency and reduced emissions of pollutants in the atmosphere, compared to the old plant. The plant was released for commercial operation on December 7, 2022, through Order No. 3,502/2022.

According to the Law No. 14,052/2020, the Company may express its intention to extend the concession of the HPP Apucarantina until January 2024, and the HPP Guaricana and HPP Chaminé until July and August 2025, respectively. If the Company does not express an interest in the extension of the current regime at its final term, be granted to the Company in the condition of registration, and the other concessions, at their final term, must be returned to the Granting Authority.

Regarding the transmission segment, the only Copel GeT concession to expire in the next ten years is the Concession Contract No. 75/2001, referring to Transmission Line Bateias-Jaguariaíva 230 kV, which will expire on August 17, 2031.

Additionally, regarding the extension of transmission concession contracts, on December 29, 2022 Decree No. 11,314 was published, determining that the extension of transmission concessions may be carried out only when the bidding process is unfeasible or results in damage to the public interest and will be carried out without the advance indemnity of the assets linked to the provision of the service, conditioned to the acceptance by the concessionaire in relation to the revenue and other conditions of the amendment to be prepared by Aneel.

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34.2.7 Risk on non-renewal of concessions – distributions of electricity

The fifth amendment to Copel DIS concession contract No. 46/1999 imposes economic and financial efficiency covenants and indicators that consider the duration and frequency of service interruptions (DECi and FECi). Failure to comply with the conditions will result in termination of the concession (clause eighteen, subclause one), with due regard for the provisions of the contract, particularly the right to full defense and adversary system.

On November 17, 2020, Aneel approved Normative Resolution No. 896, consolidated by Normative Resolution No. 948/2021, which establishes the indicators and procedures for monitoring efficiency in relation to the continuity of supply and the economic-financial management of public electricity distribution service concessions from the year 2021.

According to Aneel Technical Note No. 068/2021 and Authorizing Resolution No. 10,231/2021, as of 2022 the quality targets will become the indicators DEC (System Average Interruption Duration Index) and FEC (Customer Average Interruption Duration Index).

Indicators and penalties

Year	Indicator	Criteria	Penalties
From 2021	Economic - financial efficiency	in the base year	Capital Increase (a) Limitation on distribution of dividends and interest on capital Restrictive regime for contracts with related parties
		2 consecutive years	Concession termination
	Quality Indicators	in the base year	Results plan
		2 consecutive years	Limitation on distribution of dividends and interest on capital
		3 consecutive years	Concession termination

(a) Within 180 days from the end of each fiscal year, in the totality of the insufficiency that occurs to reach the Minimum Economic and Financial Sustainability Parameter.

Targets set for Copel Distribuição as of 2021

Year	Economic and Financial Management	Realized	Quality - limits		Quality - performed	
			DECi	FECi	DECi	FECi
2021	{Net Debt / [EBITDA (-) QRR ≥ 0]} ≤ 1 / (1,11 * Selic)	Achieved	9.29	6.84	7.20	4.76
Year	Economic and Financial Management	Realized	DEC	FEC	DEC	FEC
2022	{Net Debt / [EBITDA (-) QRR ≥ 0]} ≤ 1 / (1,11 * Selic)	-	9.19	6.80	7.98	5.29

Net Debt: Gross Debt deducted from Financial Assets, with the exception of Financial Assets and Financial Liabilities in administrative or judicial discussion. The accounts that make up the Gross Debt and Financial Assets are defined in the attachment VIII to Aneel Resolution No 948/2021.

QRR: Regulatory Reinstatement Share or Regulatory Depreciation Expense. This value will be the one defined in the last Periodic Tariff Review, updated by the variation of the Regulatory Portion B and calculated on a pro rata basis.

Recurring EBITDA: Earnings Before Interest (Financial Result), Taxes (Income Taxes), Depreciation and Amortization.

The Company monitors concession indicators in order to anticipate actions that ensure efficiency gains and compliance with regulatory requirements and the result is disclosed in the Regulatory Financial Statements.

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34.2.8 Risk of non-extension of the gas distribution concession

Upon termination of the concession by the end of the contractual term, the assets linked to the gas distribution services will revert to the Granting Authority, the State of Paraná, and the Company will be compensated for the assets related to the concession that have not yet been amortized, evaluated at their book value monetarily restated up to that date.

34.2.9 Risk of overcontracting and undercontracting of electricity

Under the current regulatory model, the agreement for purchase of electric power by distributors is regulated by Law 10,484/2014 and Decree 5,163/2004, which determine that the purchase of energy must be in the volume necessary to serve 100% of the distributor market.

The difference between the costs remunerated by the tariff and those actually incurred in the power purchases are fully passed on to captive consumers, as long as the distributor presents a contracting level between 100% and 105% of its market. plus the amounts of involuntary overcontracting recognized by the regulator.

Copel DIS estimates that it will end the year with a contracting level of 111.4%, however, it considers that it has sufficient amounts of "involuntary over-contracting" to accommodate the estimated contracting for the year. Thus, there is no risk of penalization for over-contracting.

34.2.10 Gas shortage risk

The natural gas market in Paraná, made up of Compagas consumers (non-thermoelectric market) and the Araucária Thermoelectric Power Plant (UEG Araucária), is supplied by contracts with Petrobras that use the transport infrastructure of the Brazil-Bolivia gas pipeline (Gasbol). Compagas signed a contract with Petrobras for the supply of natural gas, effective from 2022 to 2025, which will make it possible to meet the demand that was not contracted for 2022, as well as part of the estimated demand between 2023 and 2025. UEG Araucária, meanwhile, negotiates and signs short-term natural gas contracts as a result of its merchant operation regime.

In the current situation of the natural gas sector in Brazil, the Novo Mercado de Gás program, coordinated by the Ministry of Mines and Energy, aims to open the natural gas market to make it dynamic, competitive, integrated with the electrical and industrial sectors. The supply of natural gas is growing and coming from diverse sources, and the great challenge for the sector still focuses on enabling new producers and traders to access infrastructure and the consumer market, currently served mostly by Petrobras. Finally, the new gas law, Law No. 14.134/2021, represents another important step in opening up the Brazilian gas market, in order to make it more competitive and with greater potential for expansion.

A possible shortage in the supply of gas could result in losses for Copel due to a reduction in revenue from the natural gas distribution service by Compagas or penalties for non-compliance with the obligations contained in the concession contract. Furthermore, in this scenario, UEG Araucária would probably be kept out of operation. However, the Company considers this risk to be low in view of the situation of the *Novo Mercado de Gás* and the enactment of Law No. 14,134/2021.

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34.2.11 Risk of non-performance of wind farms

The power generation purchase and sale contracts for wind power are subject to performance clauses, which provide for a minimum annual and four-year generation of the assured energy committed in the auction. Ventures are subject to climatic factors associated with wind velocity uncertainties. Non-compliance with what is stated in the agreement may jeopardize future revenues of the Company. The balance recorded in liabilities referring to the non-performance is demonstrated in note 27.

34.2.12 Risk related to price of power purchase and sale transactions

The Company operates in the electricity purchase and sale market to achieve results with variations in the price of electricity, respecting the risk limits pre-established by Management. This activity, therefore, exposes the Company to the risk by the volatility of future electricity prices.

Future electricity purchase and sale transactions are recognized at fair value through profit or loss, according to Note 4.15.1, based on the difference between the contracted price and the market price of operations on the balance sheet date.

The table below shows the notional values of the electricity commercialization contracts on the date of these financial statements, which have an average maturity of 139 months for purchase contracts and 25 months for sales contracts:

	Purchase	Sale
2023	606,571	645,966
2024	752,615	810,145
2025	742,114	794,957
2026	738,024	734,063
2027	673,274	620,858
2028 to 2040	4,130,827	4,577,941
	7,643,425	8,183,930

The fair value was estimated using the prices defined internally by the Company, which represented the best estimate of the future market price. The discount rate used is based on the NTN-B rate of return disclosed by Anbima on December 31, 2022, without inflation, adjusted for credit risk and additional project risk.

The balances referring to these outstanding transactions at the date of these financial statements are stated below.

	Assets	Liabilities	Net
Current	288,419	(244,064)	44,355
Noncurrent	793,339	(494,639)	298,700
	1,081,758	(738,703)	343,055

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Sensitivity analysis of energy purchase and sale operations

The Company developed a sensitivity analysis to measure the impact of changes in future prices. For the base scenario, the accounting balances recorded on the date of these financial statements were considered and for the probable scenario, the Company considers the balances updated with the market price curve and NTN-B rate on December 31, 2022. Additionally, the Company continues to monitor scenarios 1 and 2, which consider the 25% and 50% rise or fall applied to future prices considered in the probable scenario, because of extraordinary events that may affect the economic scenario.

	Price variation	Baseline 12.31.2022	Projected scenarios		
			Probable	Scenario 1	Scenario 2
Unrealized gains (losses) on energy purchase and sale operations	Increase	343,055	343,055	369,579	396,104
	Decrease	343,055	343,055	316,528	290,003

34.2.13 Counterparty risk in the energy market

Since free energy market still does not have a counterparty acting as guarantor of all agreements (clearing house), there is a bilateral risk of default. Thus, the Company is exposed to the risk of failure in the supply of energy contracted by the buyer/seller. In the event of such failure, the Company is obliged to sell/acquire energy at the spot market price, being further subject to regulatory penalties and loss of amounts paid.

The Company follows a policy that establishes limits for possible operations with each counterparty, after analyzing its credit worthiness, maturity and history.

In addition, even if our policy is more restrictive and the counterparties present good financial condition, the Company is exposed to systemic events in which the default of one agent ends up affecting other energy trading companies in a "domino effect" until reaching the Company's counterparties.

34.3 Capital management

The Company seeks to keep a strong capital base to maintain the trust of investors, creditors and market and ensure the future development of the business. Management also strives to maintain a balance between the highest possible returns with more adequate levels of borrowings and the advantages and the assurance afforded by a healthy capital position. Thus, it maximizes the return for all stakeholders in its operations, optimizing the balance of debts and equity.

The Company monitors capital by using an index represented by adjusted consolidated net debt divided by adjusted consolidated EBITDA (Earnings before interest, taxes, depreciation and amortization), for the last twelve months. The corporate limit established in the debt deeds provides for the annual maintenance of the index below 3.5, and the eventual expectation of non-compliance of that indicator gives rise to actions by the Management to correct the course of the calculations until the end of each year.

As of December 31, 2022 and 2021, the ratio attained is shown below:

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	12.31.2022	12.31.2021
Loans and financing	4,650,363	3,678,444
Debentures	7,803,855	8,147,617
(-) Cash and cash equivalents	(2,678,457)	(3,472,845)
(-) Bonds and securities (current)	(93)	(16,121)
(-) Bonds and securities (noncurrent) - debt contract guarantees	(290,602)	(237,183)
(-) Collaterals and escrow accounts STN	-	(142,764)
Adjusted net debt	9,485,066	7,957,148
Net income from continuing operations	1,149,321	3,859,045
Equity in earnings of investees	(478,577)	(366,314)
Deferred IRPJ and CSLL	(628,389)	790,406
Provision for IRPJ and CSLL	429,267	469,226
Financial expenses (income), net	1,966,037	327,361
Depreciation and amortization	1,300,982	1,082,539
Hydrological Risk Renegotiation - GSF	-	(1,570,543)
Provision for allocation of PIS and Cofins credits	810,563	-
(-/+ Impairment)	84,387	(134,854)
Ebitda from discontinued operations	-	1,872,381
Adjusted ebitda	4,633,591	6,329,247
Adjusted net debt/Adjusted ebitda	2.05	1.26

34.3.1 Debt to equity ratio:

Indebtedness	12.31.2022	12.31.2021
Loans and financing	4,694,957	3,738,269
Debentures	7,887,077	8,240,769
(-) Cash and cash equivalents	(2,678,457)	(3,472,845)
(-) Bonds and securities	(431,056)	(361,058)
Net debt	9,472,521	8,145,135
Equity	21,131,225	22,175,235
Debt to equity ratio	0.45	0.37

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35. Related Party Transactions

Related parties / Nature of operation	Assets		Liabilities		Revenue		Cost / Expense			
	12.31.2022	12.31.2021	12.31.2022	12.31.2021	12.31.2022	12.31.2021	12.31.2020	12.31.2022	12.31.2021	12.31.2020
Controlling shareholder										
State of Paraná - dividends payable	-	-	109,777	916,379	-	-	-	-	-	-
CRC Transfer (Note 32 - a)	-	-	-	-	-	253,990	341,964	-	-	-
Energia Solidária Program (a)	9,735	5,590	-	-	-	-	-	-	-	-
Tarifa Rural Noturna Program (a)	8,353	10,378	-	-	-	-	-	-	-	-
Employees transferred (b)	305	19	-	-	-	-	-	-	-	-
Meteorological System of Paraná - Simepar (c)	-	-	298	938	-	-	-	(7,422)	(10,759)	(8,573)
Entities with significant influence (d)										
BNDES and BNDESPAR - dividends payable	-	-	76,684	733,939	-	-	-	-	-	-
Financing (Note 20)	-	-	2,097,606	2,216,516	-	-	-	(190,881)	(174,210)	(151,850)
Debentures - Compagás	-	-	-	-	-	-	-	-	(312)	(1,681)
Debentures - wind farms (Note 21)	-	-	216,811	231,071	-	-	-	(28,085)	(32,249)	(25,891)
State of Paraná investee										
Sanepar (e)	-	-	448	436	-	-	-	(7,599)	(8,252)	(6,589)
Use of water taken from plants' reservoirs	-	-	-	-	485	477	620	-	-	-
Joint ventures										
Voltaia São Miguel do Gostoso (f)	-	-	-	-	112	102	-	-	-	-
Dividends	1,032	1,032	-	-	-	-	-	-	-	-
Caiuá Transmissora de Energia (g) (h) (i)	313	279	1,400	1,144	3,619	3,275	3,100	(19,760)	(17,439)	(16,267)
Dividends	5,486	2,150	-	-	-	-	-	-	-	-
Integração Maranhense Transmissora (h) (i)	-	-	120	183	-	-	-	(2,671)	(2,294)	(2,029)
Dividends	6,885	2,274	-	-	-	-	-	-	-	-
Matrinchã Transmissora de Energia (h) (i)	-	-	1,355	1,065	-	-	-	(16,038)	(13,442)	(11,259)
Dividends	41,577	10,091	-	-	-	-	-	-	-	-
Guaraciaba Transmissora de Energia (h) (i)	-	-	671	489	-	-	-	(7,331)	(6,185)	(5,348)
Dividends	50,137	27,198	-	-	-	-	-	-	-	-
Paranaíba Transmissora de Energia (h) (i)	-	-	869	726	-	-	-	(10,502)	(9,170)	(8,141)
Dividends	5,400	4,973	-	-	-	-	-	-	-	-
Cantareira Transmissora de Energia (h) (i)	-	-	660	596	-	-	-	(8,184)	(6,569)	(5,912)
Dividends	9,254	6,718	-	-	-	-	-	-	-	-
Mata de Santa Genebra Transmissão (h) (i) (j)	3,236	1,473	1,401	1,245	19,318	18,795	17,636	(17,427)	(12,390)	(7,636)
Dividends	13,333	13,614	-	-	-	-	-	-	-	-
Associates										
Dona Francisca Energética S.A. (k)	15	15	1,356	2,745	174	164	162	(16,089)	(16,239)	(17,078)
Dividends	852	86	-	-	-	-	-	-	-	-
Foz do Chopim Energética Ltda. (l)	302	518	-	-	3,493	3,010	2,537	-	-	-
Key management staff										
Fees and social security charges (Note 31.2)	-	-	-	-	-	-	-	(22,845)	(22,204)	(21,935)
Pension and healthcare plans (Note 22.3)	-	-	-	-	-	-	-	(1,384)	(1,422)	(1,116)
Other related parties										
Fundação Copel										
Administrative property rental	-	-	102,410	84,367	-	-	-	(10,713)	(6,827)	(1,159)
Pension and healthcare plans (Note 22.3)	-	-	1,070,037	1,295,174	-	-	-	-	-	-
Lactec (m)	3	5	1,131	2,385	645	594	719	(5,050)	(4,002)	(2,702)
Tecpar (n)	-	-	-	-	2,021	2,014	777	-	-	-
Celepar (o)	-	-	-	-	719	-	-	(11)	(8)	(40)

a) *Energia Solidária* Program, created by state law No. 20.943/2021, replacing the *Luz Fraterna* Program, establishes the payment of electricity consumption to benefit low-income families, residing in the State of Paraná, whose properties - consumer units - are used exclusively for residential purposes, whether in urban or rural areas, and fulfill the requirements established in articles 2 and 3 of this law.

In March 2018, the amount of R\$159,274 was settled. The principal interest, fine and monetary restatement totaled R\$158,849. For these charges on electricity bills for the period of September 2010 to June 2015, a lawsuit was filed against the State of Paraná on November 5, 2018, relating to the payment of invoices under the State Law No. 14,087/2003. We highlight that despite the negotiations maintained by Management, seeking to settle this debt, uncertainties still exist regarding the realization of this asset and, therefore, this asset was not recognized, in compliance with the current accounting standards. For the tax treatment, as determined by the Brazilian Federal Revenue Office in the Normative Instruction No. 1,753/2017, the Company has taxed this revenue. Copel and the State of Paraná appealed the decision.

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The case is expected to be processed and sent to the Court of Justice of Paraná, for judgment at the appeal level. Management reinforces that it is making all necessary efforts and taking all appropriate measures to preserve the Company's interests.

Tarifa Rural Noturna Program, regulated by Decree No. 1,288/2019, provides for the payment to Copel Distribuição, by the State Government, of the amount corresponding to 60% of the active electricity tariff and of the charges resulting from this service, including the additional tariff flag, owned by the beneficiary consumers, included in the denominated night period consumption, as specified in the decree.

- b)** Reimbursement of wages and social charges for employees transferred to the Paraná State Government. Balances presented are net of expected credit loss.
- c)** The Sistema Meteorológico do Paraná - Simepar is a supplementary unit of the Independent Social Service Paraná Technology, linked to the State Department of Science, Technology and Higher Education. Simepar has contracts with Copel for services of weather forecast, meteorological reports, ampacity analysis, mapping and analyses of winds and atmospheric discharges.
- d)** BNDES is the parent company of BNDES Participações S.A. - BNDESPAR, which owns Copel shares (Note 29.1). On December 22, 2018, the shareholder agreement between the State of Paraná and BNDESPAR, signed on December 22, 1998, was ended. BNDES and BNDESPAR acquired all the debentures issued by the subsidiaries Nova Asa Branca I, Nova Asa Branca II, Nova Asa Branca III, Nova Eurus IV and Ventos de Santo Uriel.
- e)** Basic sanitation provided by Sanepar.
- f)** Contracts for connection to the transmission system signed by Copel GeT, Costa Oeste, Marumbi and Uirapuru, with maturities between 2031 and 2048.
- g)** Operation and maintenance services agreement provided by Copel GeT, maturing on May 10, 2026. Transmission System Connection Agreement - CCT executed by Copel DIS, expiring by the end of the concession agreement of the distribution or transmission company, whichever takes place first.
- h)** Charges for use of the transmission system due by Copel GeT, FDA, UEG Araucária and wind farms.
- i)** Copel DIS maintains a Contract for the Use of Transmission System (Cust) with ONS and power transmission concession operators whose subject matter is the contracting of Transmission System Use Amount (Must). Contracting is permanent and is regulated by Aneel Normative Resolution 666/2015. Amounts are defined for four subsequent years, with annual reviews.
- j)** Agreements entered by Copel GeT: for operation and maintenance services, maturing on February 1, 2028, and facility sharing, maturing on January 1, 2043.
- k)** Connection to the transmission system contracts entered by Copel GeT, Costa Oeste, Marumbi and Uirapuru, maturing on between the years 2031 and 2048. Power purchase and sale agreement made by Copel GeT, maturing on March 31, 2025.

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l) Contracts entered into by Copel GeT: for operation and maintenance, maturing on May 23, 2025, and connection to the transmission system, maturing on January 1, 2043.

m) The Institute of Technology for Development (Lactec) is a Public Interest Civil Society Organization (OSCIP), of which Copel is an associate. Lactec has service and R&D contracts with Copel GeT, FDA. UEG Araucária and Copel DIS, which are subjected to prior or later control and approval by Aneel. Copel COM provides services and sells energy to the institute.

n) Energy sale agreement signed between Copel COM and the Institute of Technology of Paraná – Tecpar (public company of the State Government that supports innovation and economic and social development in Paraná and Brazil).

o) Energy sales and service agreements contracts entered with the Information Technology Company of Paraná - Celepar (mixed capital company that is part of the indirect administration of the Paraná State Government).

The relevant transactions with related parties are shown above. Transactions arising from operations in a regulated environment are billed according to the criteria and definitions established by the regulatory agents and other transactions are recorded according to the market prices practiced by the Company.

Copel's direct and indirect subsidiaries have short and long-term energy purchase and sale agreements entered with each other, carried out in accordance with the criteria and definitions of the regulated environment. Both the balances of existing transactions and the balances of commitments are eliminated from each other when preparing the Company's consolidated financial statements.

In addition, Copel GeT has energy purchase commitments with Dona Francisca in the amount of R\$47,935 (R\$63,899 on December 31, 2021), and Copel COM has energy sale commitments signed with agencies and / or entities related to the Paraná State Government, totaling R\$25,050 (R\$31,309 on December 31, 2021).

Regarding the compensation of key management personnel, the Company does not have additional obligations beyond the short-term benefits disclosed in the table above and in the notes referenced.

35.1 Guarantees awarded to related parties

Sureties and guarantees granted by Copel to its subsidiaries for financing and debentures are informed in Notes 20 and 21.

Copel provided financial guarantees, in the form of corporate guarantee letter, for power purchase and transport agreements made by Copel GeT and its subsidiaries, in the total amount of R\$4,449 (R\$4,339 on December 31, 2021) and made by Copel COM (Copel Mercado Livre), in the amount of R\$329,725 (R\$192,707 on December 31, 2021).

Sureties and guarantees granted by Copel and Copel GeT for financing, and debentures of joint ventures are reported below:

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Company	Operation	Final maturity	Amount approved	Balance (a)	Interest %	Amount guarantees
(1) Caiuá Transmissora	Financing BNDES	02.15.2029	84,600	27,025	49.0	(b)
(2) Cantareira Transmissora	Debentures	08.15.2032	100,000	90,896	49.0	(b)
(3)	Financing	09.15.2032	426,834	369,048		(b)
(4) Guaraciaba Transmissora	Financing BNDES	01.15.2031	440,000	291,436	49.0	(b)
(5)	Debentures	12.15.2030	118,000	127,116		(b)
(6)	Financing BNDES	06.15.2029	691,440	314,749		(b)
(7) Matrinchã Transmissora	Debentures (2 nd)	06.15.2029	180,000	205,146	49.0	(b)
(8)	Debentures (3 rd)	12.15.2038	135,000	150,774		(c)
(9) IMTE Transmissora	Financing	02.12.2029	142,150	48,562	49.0	(b)
(10) Mata de Santa Genebra	Debentures (2 nd)	11.15.2030	210,000	1,651,487	50.1	827,395
(11)	Debentures (3 rd)	11.15.2041	1,500,000			
(12) Paranaíba Transmissora	Financing	10.15.2030	606,241	410,534	24.5	(b)
(13)	Debentures	03.15.2028	120,000	91,172		(b)
						827,395

(a) Gross debt balance, discounted from restricted cash that is already guaranteed by the companies themselves.

(b) For these contracts, the corporate guarantee and/or the letter of guarantee were exonerated, leaving only the pledge of Copel GeT shares.

(c) The guarantees to be provided in the 3rd issue will only be presented after the maturity of the Debentures of the 2nd issue and the Financing with BNDES.

Corporate guarantee provided by Copel: (10) (11)

Operation guarantee: pledge of shares held by Copel Get in the ventures.

36. Commitments

The main commitments related to long-term contracts not yet incurred, and therefore not recognized in these financial statements, are as follows:

	12.31.2022	12.31.2021
Energy purchase and transportation contracts	108,768,267	132,307,398
Additions to property, plant and equipment		
Construction of Jandaíra wind farm complex	-	147,682
Acquisition of assets for electricity distribution	1,187,336	1,374,177
Gas purchase contracts	3,875,135	1,841,767

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37. Insurance

The specification by risk modality and effective date of the main insurance policies can be seen below:

Policy	End of term	Insured amount
Operational risks - Cutia and Bento Miguel	03.29.2024	2,209,803
Named perils	08.24.2023	2,130,270
Operational risks - HPP Baixo Iguaçu	05.31.2023	2,042,375
Operational risks - HPP Colíder	12.01.2023	1,892,320
Operational risks - HPP Governador Jayme Canet Junior	01.21.2024	1,594,472
Operational risks - Ventos de Serra do Mel II e IV	11.28.2023	1,075,284
Fire - owned and rented facilities	08.24.2023	854,464
Operational risks - Brisa Potiguar	06.27.2023	766,454
Operational risks - UEG Araucária (a)	05.31.2024	764,335
Operational risks - Elejor	09.07.2023	728,426

(a) The insured amount of operational risks - UEG Araucária have been translated from USD into BRL, with the current rate R\$5.2177 as of December 31, 2022.

In addition to the insurance policies listed above, the Company takes out other insurance policies with lower values, such as: Directors and Officers liability (D&O), general civil liability, court award payment guarantee, sundry perils, national and international transportation, life, aircraft and vehicles. Additionally, the Company has an indemnity contract, in addition to the D&O insurance. The guarantee insurances taken out by the subsidiaries, joint ventures and associates have Copel and/or Copel GeT as a guarantor, within the limits of their share of interest in each project.

38. Additional information to the Statement of Cash Flows

38.1 Transactions not involving cash

Of the total additions of Contract assets (shown in Notes 10.1 and 10.2) and acquisitions of Property, plant and equipment (shown in Note 16.2), R\$175,783 (R\$240,718 on December 31, 2021, and R\$104,834 on December 31, 2020) and R\$8,055 (R\$19,855 on December 31, 2021, and R\$21,773 on December 31, 2020), respectively, represent the amount of purchases made in installments and not settled through the end of the reporting exercise.

According to Note 26, the additions and remeasurement adjustment occurred in right-of-use assets totaled R\$123,691 (R\$111,880 on December 31, 2021, and R\$104,977 on December 31, 2020), with a corresponding entry in lease liabilities.

The mentioned transactions did not involve cash and, for this reason, are not being presented in the statement of cash flows.

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39. Discontinued operations

On August 3, 2021, the Company concluded the sale of 100% of the interest in Copel Telecomunicações S.A., with the receipt of the updated amount of R\$2,506,837 and the transfer of assets and liabilities and the direction of the business to the buyer, Bordeaux Fundo de Investimento em Participações Multistrategy.

On December 31, 2021, the income, costs and expenses, as well as the movement in cash flow resulting from these assets and liabilities, were presented in separate lines, as a discontinued operation, both in the Statement of Income and in the Statement of Cash Flows, in compliance with the requirements of IFRS 5.

The details of these values, as well as the profit resulting from this operation, are presented in the tables below:

Statements of income from discontinued operations	12.31.2021	12.31.2020
Net operating revenue	228,379	355,843
Operating costs	(19,266)	(100,684)
GROSS OPERATING PROFIT	209,113	255,159
Other operational expenses / income	(62,539)	(103,095)
PROFIT BEFORE FINANCIAL RESULTS AND TAXES	146,574	152,064
Financial results	(25,748)	(33,378)
OPERATING PROFIT	120,826	118,686
Income tax and social contribution	(47,648)	(43,108)
NET INCOME	73,178	75,578
Gain on the share sales operation	1,723,913	-
Income tax on sales gains	(446,716)	-
Deferred income tax on sales gains	(160,818)	-
NET INCOME FROM DISCONTINUED OPERATIONS	1,189,557	75,578

Statements of cash flows from discontinued operations	12.31.2021	12.31.2020
Net income	1,189,557	75,578
Adjustments to reconcile net income	(803,687)	282,914
Changes in assets and liabilities	(19,255)	(16,958)
Taxes and charges paid	(18,044)	(73,050)
Cash flows from operational activities	348,571	268,484
Additions to property, plant and equipment and intangible assets	(62,485)	(73,573)
Disposal Copel Telecom receipt	2,506,837	-
Cash flows from investment activities	2,444,352	(73,573)
Payment of loans and financing and lease	(1,850)	(20,038)
Cash flows from financing activities	(1,850)	(20,038)
Changes in cash and cash equivalents	2,791,073	174,873

40. Subsequent events

40.1 Acquisition of Aventura and Santa Rosa & Mundo Novo Wind Complexes

On January 30, 2023, Copel GeT completed the acquisition of 100% of the shares of companies belonging to the Aventura and Santa Rosa & Mundo Novo Wind Complexes shown in the table below, with payment of R\$1,005,173 to the seller, EDP Renováveis Brasil S.A. At the transaction closing date, the shares were transferred to Copel GeT, and the appointment and investiture new managers of the Companies were approved.

Santa Rosa & Mundo Novo Wind Complex	Aventura Wind Complex
SRMN Holding S.A.	Aventura Holding S.A.
Central Eólica SRMN I S.A.	Central Eólica Aventura II S.A.
Central Eólica SRMN II S.A.	Central Eólica Aventura III S.A.
Central Eólica SRMN III S.A.	Central Eólica Aventura IV S.A.
Central Eólica SRMN IV S.A.	Central Eólica Aventura V S.A.
Central Eólica SRMN V S.A.	

The acquisition is in line with the sustainable growth strategy in renewable energy, expanding the generation matrix diversification in line with the Company's Strategic Planning and Investment Policy. The transaction includes the Locked box mechanism, in which all cash generated from January 1, 2022 to the closing date will remain in the cash of the acquired Companies.

Transaction closing was subject to the satisfaction of certain conditions precedent, which were fully complied with by January 30, 2023, including: obtaining approval from the Brazilian Antitrust Enforcement Agency (CADE), declarations and guarantees, compliance with covenants and obligations, third-party consent, absence of material adverse effect.

It is also important to highlight the need for unconditional and unrestricted consent from counterparties to change the control of the acquired Companies, including regarding credit limits for maintenance of financing agreements by the Companies, in accordance with National Monetary Council (CMN) Resolution No. 4995, of March 24, 2022, a condition that was only fulfilled in January 2023.

The complexes are located in the state of Rio Grande do Norte, the largest wind energy hub in the country, and have a 260.4 MW installed capacity, with 157.8 MWm of assured energy. The companies have long-term financing (maturities up to 2043) taken out from Banco do Nordeste - BNB, at IPCA rates + 2.19% p.a. (Aventura Complex) and IPCA + 1.98% p.a. (Santa Rosa & Mundo Novo Complex).

The seller is developing projects in the vicinity of the Aventura Complex wind farms which, during construction and/or operation, may potentially affect the volume of electricity generated by the wind farms (wake effect) in the future. The seller estimates that these undertakings may start up operations as of January 2027. If the wake effect materializes so that the acquired wind farms generate energy below what was agreed between the parties, the seller will have the obligation to indemnify Copel. Otherwise, if the energy generation is greater, Copel must indemnify the seller. The amount of this indemnification is limited to R\$4,167 for both situations, monetarily restated.

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The tables below show the book value and fair value of the net assets acquired, including the effect of deferred taxes (technical goodwill). The fair value was determined based on a preliminary purchase price allocation (PPA) report. Therefore, information is under review and may change. However, no significant changes are expected.

Aventura Wind Complex	Book value	Fair value adjustment	Fair value at the acquisition date
Assets identified	518,158	255,675	773,833
Cash and cash equivalents	51,789	-	51,789
Trade accounts receivable	7,150	-	7,150
Recoverable taxes	3,823	-	3,823
Other receivables	2,917	-	2,917
Property, plant and equipment	452,475	-	452,475
Intangible assets	4	255,675	255,679
Liabilities assumed	330,102	93,002	423,104
Suppliers	6,950	-	6,950
Loans and financing	317,928	-	317,928
Tax obligations	2,879	-	2,879
Other accounts payable	2,345	-	2,345
Contingent Liabilities	-	9,891	9,891
Deferred income tax and social contribution	-	83,111	83,111
Net assets acquired	188,056	162,673	350,729

Santa Rosa & Mundo Novo Wind Complex	Book value	Fair value adjustment	Fair value at the acquisition date
Assets identified	840,938	366,360	1,207,298
Cash and cash equivalents	67,440	-	67,440
Trade accounts receivable	23,961	-	23,961
Recoverable taxes	5,747	-	5,747
Other receivables	9,157	-	9,157
Property, plant and equipment	734,633	-	734,633
Intangible assets	-	366,360	366,360
Liabilities assumed	625,811	131,100	756,911
Suppliers	56,611	-	56,611
Loans and financing	557,810	-	557,810
Tax obligations	7,579	-	7,579
Other accounts payable	3,811	-	3,811
Contingent Liabilities	-	10,155	10,155
Deferred income tax and social contribution	-	120,945	120,945
Net assets acquired	215,127	235,260	450,387

Contingent liabilities mainly refer to tax risks for which management believes that providing information regarding the timing of any cash outflows is impracticable, in view of the unpredictability and dynamics of the Brazilian legal, tax and regulatory systems. A final outcome depends on the conclusions of legal proceedings.

The table below shows the consideration transferred for assets acquired and technical goodwill calculated as a result of the recognized deferred tax liability in the business combination:

Total of net assets acquired	403,183	397,933	801,116
Goodwill			204,057
Consideration amount			1,005,173

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40.2 Technical Inspection at HPP GBM

On March 25, 2023, the scheduled stoppage for inspection of the generating unit 3 of HPP GBM, a plant belonging to FDA, subsidiary of Copel GET, was concluded. An isolated fault was identified in the upper wear ring of the turbine rotor, so that this generating unit will remain unavailable to carrying out a diagnosis on the cause of the incident and the respective actions for its repair, when the return forecast for this generating unit will be updated. Eventual financial impacts related to non-generation or any reduction in the plant's assured energy can only be estimated after the completion of this work.

41. Condensed individual financial information of Companhia Paranaense de Energia - Copel

In order to attend Rule 12-04 of Regulation S-X of the Securities and Exchange Commission (the “SEC”), Management has incorporated the condensed individual financial information of Companhia Paranaense de Energia - Copel in these financial statements, as part of the Form 20-F.

These information were prepared considering the same accounting policies as described in Note 3 and 4 to Company's consolidated financial statements. Investments in subsidiaries are recognized in the individual financial statements based on the equity method. Initially recorded at cost, their carrying amount is increased or decreased by the recognition of the investor's interest in profit, loss and other comprehensive income generated by subsidiaries after acquisition. When required, for the calculation of equity in earnings of investees, the subsidiaries financial statements are adjusted to align their policies with the Parent Company's accounting policies.

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41.1 Condensed statements of financial position

ASSETS	12.31.2022	12.31.2021
Current assets		
Cash and cash equivalents	199,877	626,052
Bonds and securities	93	91
Dividends receivables (41.5.3)	824,143	1,558,212
Other current receivables	977	1,150
Income tax and social contribution	107,523	3,991
Prepaid expenses	855	528
Receivable from related parties (41.5.1)	47,404	5,374
	1,180,872	2,195,398
Noncurrent assets		
Other temporary investments	25,619	19,985
Judicial deposits	138,747	131,519
Other current receivables	18	7,658
Income Tax and Social Contribution	-	30,000
Deferred tax assets	333,877	165,484
Other noncurrent recoverable taxes	39,810	38,659
Receivables from related parties (41.5.1)	-	150,572
	538,071	543,877
Investments (41.5.2)	20,339,344	21,144,478
Property, Plant and Equipment, net	7,948	4,112
Intangible Assets	4,724	3,473
Right-of-use asset	4,586	3,165
	20,894,673	21,699,105
Total assets	22,075,545	23,894,503

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LIABILITIES	12.31.2022	12.31.2021
Current liabilities		
Payroll, social charges and accruals	6,605	36,454
Related parties (41.5.1)	1,838	2,292
Suppliers (41.5.6)	5,373	3,353
Income tax and social contribution	-	1,813
Other taxes payable	28,690	34,956
Loans and financing	-	321,157
Debentures	-	501,716
Dividends payable	344,251	260,995
Post employment benefits	2,957	229
Lease liability	436	301
Other accounts payable	558	548
	390,708	1,163,814
Noncurrent liabilities		
Related parties (41.5.1)	5,851	5,851
Other taxes due	3,676	3,260
Loans and financing	-	468,970
Post employment benefits	23,890	13,922
Lease liability	4,373	2,957
Other accounts payable	25,241	50,943
Provisions for legal claims (41.5.4)	804,442	347,762
	867,473	893,665
Equity		
Share capital	10,800,000	10,800,000
Equity valuation adjustments	593,382	426,170
Legal reserves	1,512,687	1,457,087
Retained earnings	7,911,295	7,785,092
Additional dividends proposed	-	1,368,675
	20,817,364	21,837,024
Total liabilities and equity	22,075,545	23,894,503

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41.2 Condensed statements of income

	12.31.2022	12.31.2021	12.31.2020
Operating revenues (expenses)			
General and administrative expenses	(111,665)	(126,172)	(79,762)
Other revenues (expenses), net	(441,601)	(86,344)	(24,423)
Result of equity in investees	1,620,451	3,689,345	3,551,254
	1,067,185	3,476,829	3,447,069
Operating income before financial results	1,067,185	3,476,829	3,447,069
Financial income (expenses)			
Financial revenues	57,658	304,809	335,485
Financial expenses	(177,375)	(112,332)	(86,076)
	(119,717)	192,477	249,409
Operating income	947,468	3,669,306	3,696,478
Income tax and social contribution			
Income tax and social contribution	-	67,641	-
Deferred income tax and social contribution	164,539	30,250	127,503
	164,539	97,891	127,503
Net income from continuing operations	1,112,007	3,767,197	3,823,981
Discontinued operations			
Net income (loss) from discontinued operations	-	1,185,376	80,221
Net income	1,112,007	4,952,573	3,904,202
Basic and diluted net earning per share attributed to controlling shareholders - continuing operations - expressed in Brazilian Reais			
Common shares	0.38839	1.20448	0.72523
Class A preferred shares	0.50343	1.41173	0.89086
Class B preferred shares	0.41745	1.50668	0.79778
Basic and diluted net earning per share attributed to controlling shareholders - expressed in Brazilian Reais			
Common shares	0.38839	1.61429	0.69440
Class A preferred shares	0.50343	1.86252	0.85790
Class B preferred shares	0.41745	1.95747	0.76388

41.3 Condensed statement of comprehensive income

	12.31.2022	12.31.2021	12.31.2020
NET INCOME	1,112,007	4,952,573	3,904,202
Other comprehensive income			
Items that will never be reclassified to profit or loss			
Gain (losses) on actuarial liabilities			
Post employment benefits	(11,336)	(3,257)	(779)
Post employment benefits - equity	209,991	154,751	(178,434)
Taxes on other comprehensive income	3,854	1,107	265
Items that may be reclassified to profit or loss			
Adjustments related to financial assets - equity	4,757	-	-
Total comprehensive income, net of taxes	207,266	152,601	(178,948)
TOTAL COMPREHENSIVE INCOME	1,319,273	5,105,174	3,725,254

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41.4 Condensed statements of cash flows

	12.31.2022	12.31.2021	12.31.2020
Net cash generated from operating activities	3,079,427	2,892,312	761,050
Cash flow from investing activities			
Financial investments	(5,636)	2,399	5,349
Loans and financing granted to related parties	(146,063)	-	(40,000)
Receipt of loans and financing granted to related parties	100,000	33,899	7,015
Additions in investments	(4,829)	(503,202)	(68,127)
Capital reduction of investees.	-	82,330	228
Additions to property, plant and equipment	(4,436)	(1,847)	(1,800)
Additions to intangible	(1,592)	(1,771)	(1,045)
Net cash used in investing activities from continuing operations	(62,556)	(388,192)	(98,380)
Net cash generated by investment activities from discontinued operations	-	2,506,837	-
Net cash generated (used) from investing activities	(62,556)	2,118,645	(98,380)
Cash flow from financing activities			
Issue of loans with related parties	-	-	280,000
Amortization of principal - loans and financing	(774,899)	-	(38,500)
Amortization of principal - debentures	(500,000)	(300,000)	(300,000)
Amortization of principal - Lease liabilities	(378)	(317)	(329)
Amortization of principal of related parties liabilities	-	(280,000)	-
Dividends and interest on capital paid	(2,167,769)	(3,847,288)	(586,445)
Net cash used in financing activities	(3,443,046)	(4,427,605)	(645,274)
Total effects on cash and cash equivalents	(426,175)	583,352	17,396
Cash and cash equivalents at the beginning of the period	626,052	42,700	25,304
Cash and cash equivalents at the end of the period	199,877	626,052	42,700
Change in cash and cash equivalents	(426,175)	583,352	17,396

41.5 Additional individual information related to Companhia Paranaense de Energia - Copel

41.5.1 Related Parties

	12.31.2022	12.31.2021
Assets		
Jandaíra wind complex - loan agreement (a)	47,404	-
Structure sharing (b)	-	5,374
Copel Distribuição (c)	-	150,572
	47,404	155,946
Liabilities		
Structure sharing (b)	1,838	2,292
Elejor advance	5,851	5,851
	7,689	8,143

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a) Loan agreement - Jandaíra Complex

On May 17, 2022, a loan agreement was signed between Copel and the companies of the Jandaíra Wind Complex, with the approval of limits plus IOF and interest of CDI + 1.38% per year, to provide resources for financing the company activities and business. The contracts are valid until May 17, 2024. Of the overall approved amount of R\$49,400, the amount of R\$46,063 was transferred, and the financial income for the year ended December 31, 2022 is R\$1,313.

b) Structure sharing

Balances mainly refer to contracts for sharing personnel and management expenses entered between Copel and its direct and indirect subsidiaries.

c) Copel DIS - Financing transferred - STN

Refers to the National Treasury Department - STN financing, signed by Copel and transferred to Copel DIS, settled on March 10, 2022.

41.5.2 Investments

	12.31.2022	12.31.2021
Copel Geração e Transmissão	12,790,070	12,662,224
Copel Distribuição	6,610,274	7,558,556
Copel Comercialização	418,780	389,863
Compagas	284,135	259,031
UEG Araucária	55,414	109,737
Elejor	9,990	10,744
Copel Serviços	8,635	-
Other investments (a)	162,046	154,323
	20,339,344	21,144,478

(a) The information regarding joint ventures, associates and other investments are presented in Note 15.

41.5.3 Dividends receivable

	12.31.2022	12.31.2021
Subsidiaries		
Copel Geração e Transmissão	372,899	638,378
Copel Distribuição	265,574	824,833
Copel Comercialização	39,626	20,785
Compagas	136,246	65,821
UEG Araucária	7,746	7,251
Joint Ventures and Associates		
Voltália	1,032	1,032
Dona Francisca	831	86
Solar Paraná	48	-
Other investments	141	26
	824,143	1,558,212

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41.5.4 Provisions for legal claims

	12.31.2022	12.31.2021
Tax Claim	159,235	144,208
Labor	3,514	2,437
Employee benefits	745	587
Civil	640,948	175,356
Regulatory	-	25,174
	804,442	347,762

41.5.5 Restriction of transfer of funds from subsidiaries

The subsidiaries described below qualify as either concessionaires of public services or independent power producers. As such, any transfer of funds to the respective Parent Company, in the form of loans or advances, requires approval by the regulator. This regulatory restriction does not apply to cash dividends determined in accordance with the Brazilian Corporate Law. Total restricted subsidiaries net assets are composed as follows:

	12.31.2022	12.31.2021
Copel Geração e Transmissão	12,790,070	12,662,224
Copel Distribuição	6,610,274	7,558,556
Compagas	557,130	507,901
UEG Araucária	272,981	540,577
	20,230,455	21,269,258

41.5.6 Liquidity

The following table shows the expected undiscounted settlement values of the Copel liabilities, in each time range:

	Less than 1 month	1 to 3 months	3 months to 1 year	1 to 5 years	Over 5 years	Total
12.31.2022						
Suppliers	5.351	22	-	-	-	5.373
	5.351	22	-	-	-	5.373

CORPORATE BYLAWS OF COMPANHIA PARANAENSE DE ENERGIA

Approved and consolidated by the 203rd
Extraordinary Shareholders' meeting, of
November 26, 2021.

Registration as Corporate Taxpayer (CNPJ): 76.483.817/0001-20

Commercial Registry Number: 41300036535

Brazilian SEC Registration: 1431-1

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Note: The original text was filed at the Commercial Registry of the State of Paraná - CRSP under number 17,340, on June 16, 1955 and published in the Official Newspaper of the State of Paraná - ONS PR of June 25, 1955.

CHAPTER I - NAME, LIFE TERM, HEAD OFFICE AND CORPORATE PURPOSES

Article 1 Companhia Paranaense de Energia, hereinafter referred to as "Copel" or "Company", is a mixed capital publicly-held company, legal entity under private law whose major stakeholder is the State of Paraná. The Company was incorporated by State Decree no. 14,947/1954, as authorized by State Law no. 1,384/1953, being governed by these Bylaws, Federal Laws no. 6,404/1976 and 13,303/2016, and further applicable legal provisions.

Article 2 The Company's term is indefinite.

Article 3 Copel is headquartered in and subject to the jurisdiction of the city of Curitiba, in the state of Paraná, Brazil, and may establish branches, agencies and offices in the country and abroad.

Article 4 The Company's corporate purposes are:

- I** researching and studying, technically and economically, any sources of energy, providing solutions for sustainable development;
- II** researching, studying, planning, constructing, and developing the production, transformation, transportation, storage, distribution, and trade of energy in any of its forms, chiefly electric power, as well as fuels and energetic raw materials;
- III** studying, planning, designing, constructing, and operating dams and their reservoirs, as well as other undertakings for multiple uses of water resources;
- IV** providing services in energy trading, energy infrastructure, information and technical assistance concerning the rational use of energy to business undertakings with the aim of implementing and developing economic activities deemed relevant for the development of the State, upon approval by the Board of Directors; and
- V** developing activities in the areas of energy generation, electronic data transmission, electronic communications and control, cellular telephone systems, and other endeavors that may be deemed relevant to the Company and the State of Paraná, being authorized, for such aims, upon approval by the Board of Directors, and for the aims set forth in sub-items II and III above, to join, preferably holding major stakes or controlling interest, consortia or concerns with private companies, pension funds or other private entities, to participate in bidding processes of new concessions and/or already established special purpose companies to exploit already existing concessions, having taken into consideration, besides the projects' general features, their respective social and environmental impacts.

Paragraph 1 The Company may, in order to achieve its corporate purpose, establish subsidiaries, take control of a company and hold stocks of other companies related to its corporate purpose, in accordance with state law, upon approval by the Board of Directors.

Paragraph 2 In order to achieve its corporate purpose, and within its area of operations, the Company may open, install, maintain, transfer or extinguish branches, facilities, offices, representations or any other establishments, as well as appoint representatives, in compliance with the applicable laws and regulations.

Paragraph 3 With the admission of the Company to the special listing segment of B3 (Brasil, Bolsa, Balcão), called Level 2 of Corporate Governance, the Company, its shareholders, senior managers (members of the Board of Directors and of the Executive Board) and members of the Supervisory Board are subject to the provisions on the Regulation of Level 2 Listing (Level 2 Regulation).

Paragraph 4 The provisions of B3's Corporate Governance Level 2 Regulations shall prevail over the provisions of the Bylaws, in the event of prejudice to the rights of the addressees of the public offerings provided for in these Bylaws.

CHAPTER II - CAPITAL STOCK AND SHARES

Article 5 Underwritten paid up capital is R\$10,800,000,000.00 (ten billion and eight hundred million reais), represented by 2,736,553.750 (two billion, seven hundred and thirty-six million, five hundred and fifty-three thousand and seven hundred and fifty) shares, with no par value, composed of 1,054,090.460 (one billion, fifty-four million, ninety thousand and four hundred and sixty) ordinary shares and 1,682,463.290 (one billion, six hundred and eighty-two million, four hundred and sixty-three thousand and two hundred and ninety) preferred shares of which 3,128,000 (three million and one hundred and twenty-eight thousand) shares are class "A" and 1,679,335.290 (one billion, six hundred and seventy-nine million, three hundred and thirty-five thousand, two hundred and ninety) shares are class "B".

Paragraph 1 Upon approval by the Board of Directors, after consulting with the Supervisory Board, in accordance with current legislation, the capital stock may be increased, irrespective of any amendment to the Bylaws, up to the limit of 4,000,000,000 (four billion) shares, exclusively for the capitalization of profits and reserves or, in the event the General Meeting decides to issue subscription warrants, convertible debentures or grant stock options to managers and employees, the exercise of the respective conversion or subscription rights.

Paragraph 2 The shares are registered, book-entry, kept in deposit accounts, in an authorized financial institution. All shares shall be registered.

Paragraph 3 The Company is authorized to choose the financial institution, by resolution of the Board of Directors, to keep the book entry shares in deposit accounts.

Paragraph 4 Upon approval by the Board of Directors, the Company may purchase its own shares, in compliance with the rules set down by the Securities Commission.

Paragraph 5 The capital stock may be increased upon issuance of class "B" preferred shares, regardless of any proportional relation to the existing share classes or ordinary shares, up to the limit provided for in Federal Law no. 6,404/1976, and further amendments.

Paragraph 6 The preferred shares, with restricted voting rights, pursuant to § 7 below, shall be of classes "A" and "B", and shall confer on their holders the following preferences and advantages:

- I** The class "A" preferred shares shall have priority in the distribution of a minimum annual dividend of ten percent, to be equally allotted among them, such dividends being determined upon the paid-in capital proper to such share type and class on December 31 of the previous financial year and which shall be imputed to the mandatory dividend provided for in Article 88;
- II** The class "B" preferred shares shall have priority in the distribution of a minimum annual dividend, to be equally allotted among them, in the amount of, at least, twenty-five percent of the net profit duly adjusted, as provided for in Federal Law no. 6,404/1976, and further amendments, and determined upon the paid-in capital proper to such share type and class on December 31 of the previous financial year.

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- III The above mentioned dividends awarded to class “B” preferred shares shall have priority of distribution only in relation to ordinary shares and shall be paid from the remaining profits after the dividends of the class “A” preferred shares have been distributed.
 - IV The dividends to be paid per preferred share, independently of its class, shall be at least ten percent higher than the dividends to be paid per common share, as provided for in Federal Law no. 6,404/1976, and further amendments;
 - V The preferred shares shall acquire voting rights if, for three consecutive financial years, those shares are not granted the minimum dividends to which they are entitled; and
 - VI Preferred shares assure their holders the right to be included in a public offer for the acquisition of shares as a result of the Sale of Company Control at the same price and under the same conditions offered to the Selling Controlling Shareholder.

Paragraph 7 Each preferred share confers on its holder the right to restricted voting, exclusively, in the following matters:

- I transformation, incorporation, merger or spin-off of the Company;
- II approval of agreements between the Company and the Controlling Shareholder, directly or through third parties, as well as other companies in which the Controlling Shareholder has an interest, whenever, by virtue of legal or statutory provision, they are resolved in a General Meeting;
- III valuation of assets destined to the payment of the Company's capital increase;
- IV choice of specialized institution or company to determine the Economic Value of the Company, pursuant to Article 101 of these Bylaws;
- V alteration or revocation of bylaws provisions that alter or modify any of the requirements set forth in item 4.1 of B3's Level 2 Corporate Governance Regulations, with the exception that this voting right shall prevail while the Level 2 Corporate Governance Agreement is in effect; and
- VI exclusion or amendment aimed at suppressing the right provided for in item XXIX of Article 28, as well as in this item, except that such amendment shall depend on the approval of the majority of the preferred shares at a special meeting called for this purpose.

Paragraph 8 The Company may issue multiple shares and bonds that provisionally represent them. Shareholders may replace simple securities of their shares with multiple securities, as well as convert them at any time into those securities, at the expense of the interested party, the expenses of conversion.

Paragraph 9 The shares issued by the Company may be converted into another type and class, subject to the following rules:

- I the class "A" preferred shares may be converted into class "B" preferred shares at any time;
- II the common shares may be converted into preferred class "B" shares, in accordance with the terms, conditions and procedures defined by the Board of Directors, for the sole purpose of forming Units, as defined in Article 105;

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- III the class "B" preferred shares may be converted into common shares, in accordance with the terms, conditions and procedures defined by the Board of Directors, with the sole purpose of creating Units, as defined in Article 105; and
 - IV the common shares and the class "B" preferred shares may under no circumstances be converted into class "A" preferred shares.

Paragraph 10 Issues of shares, subscription warrants, debentures or other securities, up to the limit of the authorized capital, may be approved with the exclusion of the preemptive right or reduction of the term for its exercise, not less than 30 (thirty) days, under the terms of Federal Law 6,404/1976 and subsequent amendments.

Paragraph 11 Debentures may be simple or convertible into shares, pursuant to Federal Law 6,404/1976 and subsequent amendments.

CHAPTER III - SHAREHOLDERS' MEETING - SM

Article 6 The Shareholders' Meeting is the Company's highest decision-making body, with power to decide upon all matters related to the corporate purpose, and shall be governed by current legislation.

Article 7 The Shareholders' Meeting shall be convened by the Board of Directors or, when authorized by law, by the Executive Board, by the Supervisory Board or by shareholders.

Article 8 The minimum notice for a Shareholders' Meeting shall be thirty days. Should there be no quorum for its opening, there shall be a second calling at least eight days prior to the meeting, pursuant to Federal Law no. 6,404/1976. All documents concerning the agenda for the meeting shall be made available to shareholders on the date of its calling, including electronically.

Sole Paragraph. In order to be brought before the Shareholders' Meeting, a matter must be properly specified in the notice of meeting, the inclusion of general subjects in the agenda of the Shareholders' Meeting not being permitted.

Article 9 The Shareholders' Meeting shall be opened and presided over by the Chairman of the Board of Directors, or by a deputy appointed by him or her, or by a shareholder elected at that time by his or her peers.

Paragraph 1 The quorum required for the opening and passing of resolutions at the Shareholders' Meetings shall be that established by the current legislation.

Paragraph 2 The Chairman of the Meeting shall select from those present one shareholder to act as secretary.

Article 10 The Annual Shareholders' Meeting shall be held every year within the first four months subsequent to the end of the financial year, in order to decide on matters set in accordance with legal provisions. Extraordinary Shareholders' Meetings may be called whenever necessary.

Sole Paragraph The Ordinary General Meeting and the Extraordinary General Meeting may be called and held cumulatively at the same place, date and time, in a single minute.

Article 11 At General Meetings, each ordinary share shall give the right to one (1) vote. Exclusively in matters where the preferred shares have restricted voting rights, pursuant to these Bylaws, each preferred share shall give the right to one (1) vote.

Article 12 A shareholder may participate of Shareholders' Meetings or authorize another person to act for him or her by proxy. Such proxy, with limited powers, along with pertinent documents, shall be presented before or at the time of the meeting, in accordance with legal requirements.

Article 13 The Shareholders' Meeting minutes shall be drawn up pursuant to current legislation.

Article 14 Unless otherwise required by law, the Shareholders' Meeting shall be held to decide on the following matters:

- I** increase in capital stock beyond the limit authorized in these Bylaws;
- II** valuation of assets contributed by the shareholder for the capital stock;
- III** transformation, merger, incorporation, spin-off, dissolution and liquidation of the Company;
- IV** amendment of these Bylaws;
- V** election and dismissal, at any time, of members of the Board of Directors, the Fiscal Council and alternate members and the Nominating and Evaluation Committee;
- VI** setting the remuneration of Directors, Fiscal Directors and members of Statutory Committees;
- VII** approval of the financial statements, the allocation of the income for the year and the distribution of dividends, in accordance with the dividend policy;
- VIII** authorization for the Company to file civil liability suits against the Senior Managers for damages caused to their assets;
- IX** disposal of real estate directly linked to the rendering of services and the granting of liens on them;
- X** exchange of shares or other securities;
- XI** issuance of debentures convertible into shares, including those of controlled companies;
- XII** issuance of any other securities and securities convertible into shares, in Brazil or abroad; and;
- XIII** election and removal, at any time, of liquidators, upon inspection of their liquidation accounts.
- XIV** indemnity policy and general conditions of the indemnity agreement, being also responsible for validating the indemnity in cases where the amounts have a significant impact on the company's financial structure, and situations in which more than half of the managers are potential beneficiaries concomitantly due to the same fact, as defined in the indemnity policy.

CHAPTER IV - MANAGEMENT OF THE COMPANY

Article 15 The management of the Company shall be entrusted to the Board of Directors and to the Executive Board.

SECTION I - THE BOARD OF DIRECTORS - BD

Article 16 The Board of Directors is the strategic decision-making body in charge of the direction of the Company's business.

Number, nomination and term of office

Article 17 The Board of Directors shall be composed of 09 (nine) full members, elected and dismissed by the General Meeting, all with a unified term of office of 02 (two) years, with a maximum of 03 (three) consecutive term of office permitted under the terms of Federal Law 6,404/1976 and other applicable rules, including the possibility of separate election by minority shareholders and holders of preferred shares, as well as the adoption of multiple voting.

Paragraph 1 Whenever the election of the Board of Directors is carried out cumulatively through the multiple vote system and the holders of common or preferred shares exercise the right to elect a Director, the State of Paraná shall be

assured the right to elect a Director in a number equal to the number elected by the other shareholders and employees, plus one, regardless of the number of Directors established in the caput.

Paragraph 2 The right to elect two (02) Board Members shall be ensured to minority shareholders, if a greater number is not covered by the multiple vote process established in the legislation in force.

Paragraph 3 Shareholders holding preferred shares that meet the percentages and requirements set forth in article 141, §§ 4 and 5 of Federal Law 6,404/1976 shall be entitled to elect one (1) director.

Paragraph 4 The Board of Directors of the wholly-owned subsidiaries shall be composed of three (3) members, containing at least the Chief Subsidiary Officer of the respective wholly-owned subsidiary and one (1) chief officer of the Company, in compliance with the provisions of Paragraph 5 below.

Paragraph 5 The Company's Chief Executive Officer may join the Board of Directors as its Executive Secretary, upon election at a General Meeting.

Paragraph 6 The positions of Chairman of the Board of Directors and of the Company's Chief Executive Officer or of the main Chief Officer responsible for the running of the company may not be accumulated by the same person.

Paragraph 7 The Chairman of the Board of Directors shall be appointed by the controlling shareholder and designated by the General Meeting that elects him/her, being replaced, in his/her absences and impediments, by the director chosen by the majority of his/her peers

Paragraph 8 The indications to the Board of Directors must comply with the requirements and prohibitions imposed by Federal Laws 6,404/1976 and 13,303/2016, the policy and internal norm for the indication of members of statutory bodies, in addition to meeting the following parameters:

I have, at least, 03 (three) independent directors, being this number, in any hypothesis, equal or superior to 25% (twenty-five percent) of the total members of the body. Such directors shall be expressly declared as independent in the minutes of the General Meeting that elects them, in accordance with the definition of B3's Corporate Governance Level 2 Regulation and the provisions of Federal Law 13,303/2016, being also considered as independent the director(s) elected by means of the faculty provided for in article 141, paragraphs 4 and 5 and article 239, both of Federal Law 6,404/1976 and subsequent amendments;

II when, as a result of compliance with the percentage referred to in the above paragraph, there is a fractional number of directors, rounding shall be carried out in accordance with B3's Corporate Governance Level 2 Regulations.

III have, between 03 (three) to 05 (five) board members, including those mentioned in item I, that meet, cumulatively, the conditions provided for in Federal Law No. 13,303/2016, to compose the Statutory Audit Committee, depending on its composition according to Art. 51, § 2 of these Bylaws;

IV at least one (01) of the directors mentioned in this Paragraph 8 shall have recognized experience in corporate accounting matters to join the Chartered Audit Committee provided for in these Bylaws

Article 18 One (1) representative of the employees is guaranteed participation in the Board of Directors, with a mandate coinciding with that of the other directors.

Paragraph 1 The director representing the employees shall be elected under the terms established in the pertinent legislation, by ballot regulated according to the Company's rules, under the same eligibility criteria provided for the other directors.

Paragraph 2 The candidate elected employee representative shall take office for the term established in this article, reelection being allowed for one (1) time only.

Article 19 The investiture of members in the Board of Directors shall comply with the conditions established in Federal Laws no. 6,404/1976 and no. 13,303/2016 and other applicable legal provisions.

Vacancies and replacements

Article 20 In the event of vacancy of a position in the Board of Directors before term expiration, the Board of Directors shall call a Shareholders' Meeting to elect a replacement to serve for the remainder of the term of office.

Paragraph 1 In compliance with the applicable legal requirements and prohibitions, the remaining Directors shall appoint a substitute for the vacant member until the first General Assembly, pursuant to Federal Law 6,404/1976.

Paragraph 2 Should all the positions of the Board of Directors fall vacant, a Shareholders' Meeting shall be convened by the Executive Board.

Paragraph 3 In the event of vacancy of a position in the Board of Directors filled through cumulative voting, a Shareholders' Meeting shall be called to elect replacements for all the positions filled through this system, to serve for the remainder of the term of office.

Article 21 The position of member of the Board of Directors is personal and does not allow for alternates, including the member representing the employees.

Procedure

Article 22 Ordinary meetings of the Board of Directors shall be held once a month. Extraordinary meetings shall be convened whenever necessary, as provided for in article 25 of these Bylaws.

Article 23 The meetings of the Board of Directors shall be called by its Chairman, or by the majority of its members, by letter, sent to all Directors by post or electronic mail, with indication of the matters to be brought before the Board.

Paragraph 1 The meeting notices sent to Directors' electronic addresses or by post shall be considered valid, being incumbent on the members of the Board to keep their registration with the Company up to date.

Paragraph 2 Ordinary meetings shall be convened at least seven days prior to the meeting date.

Paragraph 3 The meetings of the Board of Directors shall be installed with the presence of the majority of its members in office, the chairmanship of the proceedings being the responsibility of the Chairman of the Board of Directors or, in his absence, of the director chosen by the majority of his peers.

Article 24 Members of the Board of Directors may, if necessary, attend ordinary and extraordinary meetings remotely, through conference call or videoconference, provided that effective participation and authenticity of Director's vote is secured. The member of the Board of Directors who participates remotely in a meeting shall be considered present, and the vote of such member shall be taken into account for all legal purposes, being recorded on the minutes of such meeting.

Article 25 Should it be extremely urgent, the Chairman of the Board of Directors may convene extraordinary meetings at any time, provided that formally justified before the members of the Board of Directors, and with a minimum 48-hour notice prior to the

date of the meeting, by letter, sent to all Directors by post, electronic mail or other means of communication. Members of the Board may participate through conference call or videoconference, or any other suitable means of expressing the absent member's will, whose vote shall be considered valid for all legal purposes, without prejudice to the recording and signing of the meeting minutes.

Article 26 The vote of a majority of members of the Board of Directors present at a meeting shall be the act of the Board of Directors. In the event of a tie, the member of the Board of Directors presiding the meeting shall hold the casting vote.

Article 27 The Chairman of the Board of Directors shall appoint someone for the secretary services, and the minutes of the Board of Directors' meetings shall contain all resolutions, being duly entered in the minutes book, in accordance with the Board of Directors' Rules of Procedure.

Sole Paragraph. The minutes of the Board of Directors' meetings containing resolutions intended to affect third parties shall be filed at the Commercial Registry and published afterwards pursuant to current legislation, except for confidential matters, which shall be recorded on a separate document, not to be disclosed.

Powers and duties

Article 28 In addition to the powers and duties set forth by law, the Board of Directors shall:

- I** establish the general orientation of the Company's business, including approval and monitoring of the business plan, strategic and investment planning, defining objectives and priorities in meeting public policies compatible with the Company's area of operation and its corporate purpose, seeking development with sustainability;
- II** elect, dismiss, take notice of resignation and replace the Company's Officers, establishing their duties, supervising their management and:
 - a)** examine at any time the Company's books and papers, contracts or any other acts;
 - b)** approve and supervise the fulfillment of specific goals and results to be achieved by the members of the Executive Board; and
 - c)** annually evaluate the execution of the long-term strategy, publishing its conclusions and informing them to the Legislative Assembly and the State Audit Court, except for information of a strategic nature, the disclosure of which may be proven to be prejudicial to the Company's interests;
- III** state its opinion on the management reports and on the accounts rendered by the Executive Board;
- IV** call the General Meeting when deemed necessary or in the cases provided for under the terms of the legislation in force;
- V** approve and monitor annual and multi-year plans and programs with the corporate budget of expenditures and investments of the Company and its wholly-owned subsidiaries, indicating the sources and investments of funds;
- VI** authorize the hiring of independent auditing, as well as the termination of the respective contract, upon recommendation by the Statutory Audit Committee, including other services of its independent auditors, recommended by the Statutory Audit Committee, when the overall compensation represents more than five percent (5%) of the compensation for independent audit services;
- VII** approve the annual internal auditing work plans and discuss with external auditors their work plan, relying on the support of the Statutory Audit Committee for this purpose;
- VIII** appoint and dismiss the chief responsible for the Internal Audit, after recommendation of the Statutory Audit Committee;

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- IX** periodically monitor the effectiveness of the risk management and internal control systems established for the prevention and mitigation of the main risks to which the Company is exposed, including the risks related to the integrity of accounting and financial information and those related to the occurrence of corruption and fraud, pursuant to Federal Law No. 13,303/2016;
- X** approve Copel's Code of Conduct and Integrity Program and monitor decisions involving corporate governance practices, relationships with stakeholders and the Code of Ethics of the State's Senior Management;
- XI** analyze, based on direct reporting by the Chief Governance, Risk and Compliance Officer, the situations in which the Chief Executive Officer is suspected of being involved in irregularities or when he or she fails to take the necessary measures in relation to the situation reported to him or her;
- XII** establish guidelines for people management;
- XIII** perform annual individual and collective evaluation of its performance and of the other members of the statutory bodies, observing the provisions of Federal Law No. 13,303/2016, counting on the methodological and procedural support of the Nomination and Evaluation Committee;
- XIV** approve the transactions between related parties, within the criteria and limits defined by the Company and in compliance with the specific policy, with the support of the Statutory Audit Committee;
- XV** constitute, install and dissolve unpaid advisory committees to the Board of Directors, appoint and dismiss their members, as well as appoint and dismiss the members of the statutory advisory committees to the Board of Directors, unless otherwise provided for in these Bylaws;
- XVI** approve the Rules of Procedure of the Board of Directors, the Executive Board and the advisory committees, statutory and non-statutory, as well as any amendments;
- XVII** approve and monitor the general policies of the Company and their respective changes, as well as monitor the application with respect to:
- a)** risk management;
 - b)** integrity;
 - c)** transactions with related parties;
 - d)** corporate governance;
 - e)** sustainability;
 - f)** climate change;
 - g)** equity stakes;
 - h)** people management;
 - i)** labor health and safety;
 - j)** nomination of members of statutory bodies and annual performance evaluation;
 - k)** communication and spokespersons;
 - l)** negotiation of shares issued by the company itself;
 - m)** dividends;
 - n)** donations and sponsorships;
 - o)** disclosure of relevant information and facts; and
 - p)** investor relations;
- XVIII** set the maximum limit of the Company's indebtedness. A deadline for its compliance with the existing covenants in the contracts already signed may be set;
- XIX** upon proposal of the Board of Executive Officers, authorize, when the value of the transaction exceeds two percent (2%) of the net equity, the accounting provisions and, previously, the execution of any legal transactions, including the acquisition, alienation or encumbrance of assets, assignment in lending of permanent assets, the constitution of in rem

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- burdens and the rendering of guarantees, the assumption of obligations in general, waiver, transaction and also association with other legal entities;
- XX** establish the matters and values for its decision-making authority and that of the Board of Directors, including the delegation of the approval of legal transactions within its jurisdiction to the limits it defines, with due regard for the private jurisdiction established by law;
- XXI** deliberate on the proposal of allocation of the results to be presented to the General Meeting, observing the provisions of the dividend policy;
- XXII** resolve on the distribution of interim dividends, interquartile dividends and interest on equity based on profit reserves and net income for the current fiscal year recorded in interim, semi-annual or quarterly financial statements, provided that the provisions of the legislation, these Bylaws and the Company's dividend policy are complied with;
- XXIII** resolve on the increase of the share capital within the limit authorized by these Bylaws, establishing the respective subscription and payment conditions;
- XXIV** authorize the launching and approval of the subscription of new shares, in accordance with the provisions of these Bylaws, establishing all the conditions of issuance;
- XXV** authorize the issuance of bonds, in the domestic or foreign market, to raise funds, in the form of debentures not convertible into shares, promissory notes, commercial papers, bonds and others, including for public offerings of distribution, in accordance with the provisions of subsection XXXIII of this Article;
- XXVI** approve contributions to corporate investments that imply an increase in the net equity of businesses in which the company holds shares, including the delegation of this approval within the company;
- XXVII** resolve on investment projects and participation in new business, other companies, consortiums, joint ventures, wholly-owned subsidiaries and other forms of association and ventures, as well as the approval of the incorporation, closure or amendment of any companies, consortiums or ventures;
- XXVIII** deliberate on matters that, by virtue of a legal provision or by determination of the General Meeting, are within its competence, including approval of the Integrated or Sustainability Report and environmental, social and governance indicators; Bidding and Contracts Regulations of the Company; in addition to approving and signing the Annual Letter of Public Policies and Corporate Governance, pursuant to the Law;
- XXIX** ensure the observance of the regulations in force issued by the National Electrical Energy Agency - Aneel, through normative acts, as well as through the regulatory clauses contained in the concession contract to which Copel Distribuição S.A. is a signatory, ensuring the full application on the base dates of the tariff values established by the granting power;
- XXX** approve the contracting of civil liability insurance on behalf of the members of the Company's statutory bodies, representative employees and proxies and the execution of indemnity agreements, observing the indemnity policy and the general conditions of indemnity agreements approved by the General Shareholders' Meeting;
- XXXI** request periodic internal audit on the activities of the closed complementary pension entity that manages the Company's benefit plan;
- XXXII** perform the regulatory functions of the Company's activities. The Board of Directors may call upon itself any matter not comprised in the private jurisdiction of the General Meeting or of the Board of Executive Officers and resolve on the cases not covered by these Bylaws;
- XXXIII** issue a favorable or unfavourable opinion to any public offer for acquisition of shares whose object is the shares issued by the Company, by means of
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- a prior grounded statement, disclosed within fifteen (15) days of publication of the public offer notice, which shall address, at least (i) the convenience and opportunity of the public offer for acquisition of shares with respect to the interest of all shareholders and in relation to the liquidity of the securities held by them; (ii) the results of the tender offer on the Company's interests; (iii) the strategic plans disclosed by the offeror in relation to the Company; (iv) other points that the Board of Directors deems pertinent, as well as the information required by the applicable rules established by the Brazilian Securities and Exchange Commission;
- XXXIV** define a list of three companies specialized in economic valuation for the preparation of a valuation report of the Company's shares, in the event of a public offering for the acquisition of the shares to cancel the registration as a publicly-held company or to delist from Level 2 of B3's Corporate Governance;
- XXXV** establish terms, procedures and rules applicable to the conversion of shares issued by the Company, in accordance with these Bylaws and the applicable legislation;
- XXXVI** set deadlines, procedures and rules applicable to the issuance of Units, in accordance with these Bylaws and the applicable legislation;
- XXXVII** grant leave of absence to the Company's Chief Executive Officer and the Chairman of the Board of Directors;
- XXXVIII** approve the change in the Company's complete address, within the Municipality of its Headquarters, as defined in Article 3.

Article 29 It is incumbent upon the Chairman of the Board of Directors, in addition to the duties provided for in the Rules of Procedure, to grant leave of absence to its members, to preside over meetings, to set work directives, as well as to coordinate the process of performance assessment of each member of the Board of Directors, of that body as a whole, and of the statutory committees, as provided for in these Bylaws.

SECTION II - EXECUTIVE BOARD

Article 30 The Executive Board is the executive body for the Company's administration and representation, in charge of ensuring the regular operation of the Company in accordance with the general guidelines set forth by the Board of Directors.

Number, term of office and investiture

Article 31 The Executive Board shall be composed of six members, all residing in the country, elected by the Board of Directors for a two-year term, reappointment being permitted for a maximum of three consecutive terms, as follows: a Chief Executive Officer; a Chief Business Management Officer; a Chief Financial and Investor Relations Officer; a Chief Legal and Regulatory Officer; a Chief Business Development Officer; and a Chief Governance, Risk and Compliance Officer. The Company may also have a Chief Assistant Communications Officer, whose duties shall be defined in the Rules of Procedure of the Executive Board, approved by the Board of Directors.

Sole Paragraph Nominations to the Executive Board must comply with the requirements and prohibitions imposed by Federal Laws 6,404/1976 and 13,303/2016 and by the company's policy and rule for nomination of members of statutory bodies.

Article 32 It is a condition for the investiture in an executive position of the Company the assumption of commitment to specific goals and results to be achieved, which must be approved by the Board of Directors, which is responsible for overseeing their compliance.

Powers and duties

Article 33 The Executive Board has the powers to practice the acts necessary for the regular operation of the Company and the achievement of its corporate purpose, in compliance with the legal and statutory provisions contained in its Rules of Procedure.

Sole Paragraph. Subject to the provisions of Article 46, it is incumbent on the Executive Board to manage the Company's business in a sustainable manner, it being incumbent on it to present, up to the last ordinary meeting of the Board of Directors of the previous year:

- I. business plan for the following year;
- II. the bases, guidelines and long-term strategies for the preparation of the strategic planning, annual and multi-annual plans and programs, including the analysis of risks and opportunities for a minimum horizon of 05 (five) years; and
- III. the Company's costing and investment budgets for the following annual year, aiming at the achievement of corporate strategies.

Article 34 The powers and duties of the Chief Executive Officer are:

- I. to direct and coordinate the Company;
- II. to represent the Company, actively and passively, in or out of court. The CEO may appoint, for this purpose, attorneys-in-fact with special powers, including powers to receive initial summons and notices, pursuant to Article 38 and following of these Bylaws;
- III. to direct and coordinate matters related to business planning and performance;
- IV. to ensure the attainment of the Company's targets, established in accordance with the general guidelines of the General Meeting and Board of Directors;
- V. to present the Company's annual business report to the Ordinary General Meeting, after the Board of Directors has been heard;
- VI. to direct and coordinate the work of the Executive Board;
- VII. to call and chair the meetings of the Executive Board;
- VIII. to grant leave of absence to the other members of the Executive Board and appoint a substitute in the event of absence or temporary impediment;
- IX. to resolve matters of conflict of interest or conflict of jurisdiction between Officers;
- X. propose to the Board of Directors the appointment of Chief Officers, in compliance with the requirements and prohibitions established in internal policies and rules;
- XI. to resolve on adhesion and permanence in voluntary commitments assumed by Copel Holding and its wholly-owned subsidiaries; and
- XII. to exercise other duties conferred by the Board of Directors, in compliance with the legislation in force and under the terms of these Bylaws.

Article 35 The powers and duties of the remaining Chief Officers are:

- I. To manage the activities that are the object of their area of activity, established in the Rules of Procedure of the Executive Board;
- II. to participate in the meetings of the Executive Board, contributing to the definition and application of the policies to be followed by the Company and to report on the relevant matters of its respective area of activity; and
- III. comply and cause compliance with the general guidance of the Company's business, established by the Board of Directors with respect to the management of its specific area of activity.

Paragraph 1 The other individual duties of the Chief Officers shall be detailed in the Rules of Procedure of the Executive Board.

Paragraph 2 In addition to the duties established in these Bylaws, it is incumbent on the chief officers to assist the Chief Executive Officer in the management of the Company's business, as well as to ensure cooperation and support to the other chief officers within the scope of their respective duties, aiming at the achievement of the Company's objectives and interests.

Paragraph 3 The chief officers shall perform their duties in the Company, being permitted the concomitant and unpaid exercise in management positions of the wholly-owned subsidiaries and controlled companies.

Article 36 The Chief Governance, Risk and Compliance Office is responsible for verifying compliance with obligations and risk management, being its duties related to corporate risk management and internal controls, compliance, integrity, code of conduct and integrity program, among others defined in the Rules of Procedure of the Executive Board.

Paragraph 1 The Chief Governance, Risk and Compliance Officer may report directly to the Board of Directors in situations where it is suspected that the Chief Executive Officer is involved in irregularities or when he or she fails to take the necessary measures in relation to the situation reported to him or her.

Paragraph 2 For the exercise of its duties, the Chief Governance, Risk and Compliance Office shall have its independent performance assured and access to all necessary information and documents.

Article 37 The Chief Financial and Investor Relations Officer is responsible for providing information to the investing public, the Brazilian Securities and Exchange Commission, the Securities and Exchange Commission of the United States of America and the Stock Exchanges on which the Company is listed, and for keeping the Company's registration as a publicly-held company up to date, in compliance with all applicable laws and regulations.

Representation of the Company

Article 38 The Company shall be committed to third parties by:

- I** the signature of two Chief Officers, one of them being either the Chief Executive Officer or the Chief Financial and Investor Relations Officer, and the other, the Chief Officer whose powers and duties comprise the matter in question;
- II** the signature of one Chief Officer and one attorney in fact, in accordance with the power conferred to such agent by the corresponding power of attorney;
- III** the signature of two attorneys in fact, in accordance with the power conferred to such agents by the corresponding power of attorney;
- IV** the signature of one attorney in fact, in accordance with the power conferred to such agent by the corresponding power of attorney, for the performance of certain specified acts.

Sole Paragraph. The Chief Financial and Investor Relations Officer may individually represent the Company before the Brazilian Securities and Exchange Commission, the Securities and Exchange Commission of the United States of America, B3, the financial institution providing the Company's share bookkeeping services and organized market management entities in which the Company's securities are admitted to trading.

Article 39. The chief officers may constitute mandataries of the Company, and the instrument must specify the acts or operations they may carry out and the duration of the mandate. Only the powers of attorney for the forum in general shall have an undetermined term.

Paragraph 1 The powers of attorney granted by the Company must be signed by two (2) chief officers acting jointly, specifying the powers granted and with a maximum term of validity of one (1) year.

Paragraph 2 The proxy instruments shall expressly specify the special powers, acts or operations granted, within the limits of the powers of the chief officers that grant them, as well as the duration of the proxy for a determined period of validity, not being possible its substitution, except in the case of a power of attorney for purposes of judicial representation of the Company, which may be for an indefinite period of time and with the possibility of substitution under the conditions set forth in the said instrument.

Article 40 Any of the chief officers may individually represent the Company, when the act to be performed imposes singular representation and in cases where the use of the electronic signature makes it impossible for two or more persons to sign the same document, upon authorization of the Executive Board.

Vacancies and replacements

Article 41 In vacancies, absences or temporary impediments of any Chief Officer, the Chief Executive Officer shall appoint another member of the Executive Board to replace such Chief Officer, in combination with his or her original position.

Paragraph 1 In his or her absence and temporary impediments, the Chief Executive Officer shall be replaced by the Chief Officer appointed by him or herself. Should there be no appointment, the remaining Chief Officers shall elect, at the time, a replacement.

Paragraph 2 Chief Officers shall not be absent from office for more than thirty consecutive days, except in case of medical leave or when otherwise authorized by the Board of Directors.

Paragraph 3 Chief Officers may request the Board of Directors for an unpaid leave, for a period not exceeding three months, to be recorded on the minutes of the meeting in which such leave was approved.

Article 42 In the event of decease, resignation or definitive impediment of any member of the Executive Board, the Board of Directors shall, within thirty days from the occurrence of the vacancy, elect a replacement, who shall serve for the remainder of the term of office.

Sole Paragraph Until the election is held, the Executive Board may appoint a temporary replacement. The election may be waived if the vacancy occurs in the year in which the term of office of the Executive Board ends.

SECTION III - EXECUTIVE BOARD MEETING - EBM

Procedure

Article 43 Ordinary meetings of the Executive Board shall be held every fortnight. Extraordinary meetings shall be convened whenever necessary, by the Chief Executive Officer or two other Chief Officers.

Paragraph 1 A majority of the total number of Chief Officers shall constitute a quorum for the opening of the meetings of the Executive Board. The vote of a majority of members of the Executive Board present at a meeting shall be the act of the Executive Board. In the event of a tie, the Chief Executive Officer shall hold the casting vote.

Paragraph 2 Each Chief Officer present shall be granted the right to a single vote, even when occupying two or more Chief Officer positions. The proxy vote shall not be accepted.

Paragraph 3 The resolutions of the Executive Board shall be recorded on the meeting minutes, being duly entered in the minutes book and signed by all those present at the meeting.

Paragraph 4 The Chief Assistant Communications Officer, if elected, may participate in Board meetings, but shall not have the right to vote.

Article 44 Members of the Executive Board may, if necessary, attend ordinary and extraordinary meetings remotely, through conference call or videoconference, provided that effective participation and authenticity of Chief Officers' vote is secured. The Chief Officer who participates remotely of a meeting shall be considered present, and the vote of such member shall be taken into account for all legal purposes, being recorded on the minutes of such meeting.

Article 45 The Chief Executive Officer shall appoint someone for the secretary services, and the minutes of the Executive Board meetings shall contain all resolutions, to be duly entered in the minutes book.

Powers and duties

Article 46 In addition to the powers and duties established by law, the Executive Board is responsible for:

- I** managing the Company's business in a sustainable manner, considering its corporate purpose, economic, social, environmental, climate change and corporate governance factors, as well as related risks and opportunities, in all activities under its responsibility;
- II** complying with and enforcing the applicable legislation, these Bylaws, the Company's internal policies and rules and the resolutions of the Shareholders' Meeting and of the Board of Directors;
- III** drawing up and submitting for the approval of the Board of Directors, issuing previously an opinion on:
 - a)** annual and multi-annual plans and programs, aligning investment expenditures with the respective projects, considering the analysis of risks and opportunities for a minimum horizon of 05 (five) years;
 - b)** the Company's budget, with the indication of sources and applications of funds as well as their changes;
 - c)** the investment projects, participation in new businesses, other companies, consortia, joint ventures, wholly-owned subsidiaries and other forms of association and undertakings, as well as the approval of the constitution, closure or alteration of any companies, undertakings or consortia;
 - d)** the performance of the Company's activities;
 - e)** quarterly, the Company's reports along with its financial statements;
 - f)** annually, the management report, along with the balance sheet and other financial statements and their notes, accompanied by the independent auditors' report and the proposal for allocation of the financial year's income;
 - g)** the Integrated Report or the Company's Sustainability Report, the Annual Letter of Public Policies and Corporate Governance and other corporate reports to be subscribed by the Board of Directors;
 - h)** the Rules of Procedure for the Executive Board, Company's regulations and general policies;
 - i)** the revisions of the Code of Conduct and the Company's Integrity Program, in accordance with the applicable legislation;

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- j) transactions between related parties, within the criteria and limits defined by the Company;
 - k) the internal bidding regulations and contracts.
- IV** approving:
- a) the technical and economic assessment criteria for investment projects with the respective responsibility delegation plans for their implementation and execution;
 - b) the chart of accounts;
 - c) the annual corporate insurance plan; and
 - d) residually, within statutory and regimental limits, all Company activities which do not fall under the exclusive purview of the Chief Executive Officer, the Board of Directors or the Shareholders' Meeting;
 - e) indication of the Company's representatives in the statutory bodies of the companies in which it or its wholly-owned subsidiaries have or will have direct or indirect participation;
 - f) corporate participation in class associations and non-governmental entities; and
 - g) proposal related to the personnel policy.
- V** authorizing, subject to the limits and guidelines established by law and by the Board of Directors and within the limits established by internal regulations and by the Rules of Procedure of the Executive Board:
- a) waivers or judicial or extrajudicial transactions to settle disputes or resolve pending matters. A value threshold may be set for the delegation of such powers to the Chief Executive Officer or any other Chief Officer; and
 - b) entering into any legal transactions when the value of the transaction does not exceed two percent (2%) of the net equity, without prejudice to the powers attributed by the Bylaws to the Board of Directors, including the acquisition, sale or encumbrance of assets, the obtaining of loans and financing, the assumption of obligations in general and also the association with other legal entities.
- Sole Paragraph** When the accumulated value of the acquisition, disposal or encumbrance of assets, obtaining of loans and financing, assumption of obligations in general and also the association with other legal entities reaches 5% (five percent) of the Company's net equity, during the fiscal year, submit a report for deliberation by the Board of Directors.
- VI** establish the premises and approve the organizational structures of the Company and of its wholly-owned subsidiaries;
 - VII** negotiating and entering into management agreements between the Company and its wholly-owned subsidiaries and special purpose companies;
 - VIII** establishing and monitor governance practices, internal controls, guidelines and policies for its wholly-owned subsidiaries, in directly or indirectly controlled companies and, in the case of direct or indirect minority interests, proportional to the relevance, materiality and risks of the business of which they are participants;
 - IX** authorizing the opening, installation, transfer and extinction of branches, premises, offices, representations or any other establishments;
 - X** indicating, should it decide, the wholly-owned subsidiary responsible for performing the activities related to the management of the companies in which the Company and its wholly-owned subsidiaries hold equity interest, observing the duty of those auditing practices based on governance and control practices proportional to the relevance, materiality and risks of the business of which they are participants; and
 - XI** guiding the vote to be cast by the Company at the General Meetings of the wholly-owned subsidiaries and other companies and associations in which the Company holds direct interest.
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Sole Paragraph The Executive Board may appoint proxies or grant powers to the other management levels of the Company and of the shared structure in which it participates, by means of internal regulation or by means of a skillful instrument, including jointly with the Wholly-owned Subsidiaries, within the limits and individual powers attributed to the chief officers, such as the execution of agreements, covenants, cooperation terms, in addition to other instruments that generate obligation for the Company or its wholly-owned subsidiaries, except for acts that cannot be delegated by law provided they have been previously approved within the limits established herein.

Article 47 The Rules of Procedure of the Executive Board shall establish the powers and duties of each Chief Officer and may condition the practice of certain acts on previous approval by the Executive Board Meeting.

CHAPTER V - STATUTORY COMMITTEES

Article 48 The Company shall have a Statutory Audit Committee, a Nomination and Evaluation Committee, an Investment and Innovation Committee, a Sustainable Development Committee and a Minority Shareholders' Interest Committee.

Sole paragraph. Any remunerated committee must be statutory, being necessary, for its creation the alteration of the Bylaws by the General Shareholders' Meeting.

SECTION I - STATUTORY AUDIT COMMITTEE - SAC

Article 49 The Statutory Audit Committee is an independent, permanent advisory committee to the Board of Directors.

Article 50 The Statutory Audit Committee shall be the same one for the Company and its wholly-owned subsidiaries, exercising its powers and responsibilities with the companies controlled directly or indirectly by the Company, upon resolution of the Board of Directors.

Article 51 The powers and duties, the procedures and the number of members of the Statutory Audit Committee shall comply with current legislation and shall be laid down in the Rules of Procedure specific for such Committee, duly approved by the Board of Directors.

Paragraph 1 The members of the Statutory Audit Committee shall elect, at their first meeting, the Chairman among its independent members, who shall implement the resolutions approved by such Committee, to be duly entered in the minutes book.

Paragraph 2 The Statutory Audit Committee shall be composed of three to five members of the Board of Directors, elected and dismissed by such Board, whose unified term of office shall be of two years, reelection being permitted for no more than three consecutive times, subject to the requirements hereunder:

- I** having the majority of independent members of the Board of Directors, pursuant to Federal Law no.13,303/2016;
- II** at least one member of the Statutory Audit Committee shall have recognized professional experience in matters of corporate accounting, auditing and finance, allowing such member to be considered a financial expert according to the current legislation;
- III** At least 01 (one) of the Committee members shall be a member of the Board of Directors;

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- IV** at least one (1) of the Committee members shall not be a member of the Board of Directors and shall be chosen from among market people of outstanding experience and technical capacity; and
 - V** the chairman of the Committee shall be a member of the Board of Directors.

Paragraph 3 The members of the Statutory Audit Committee shall observe the minimum conditions imposed by Federal Law 13,303/2016 to occupy the said position.

Paragraph 4 The Statutory Audit Committee shall meet: (i) ordinarily, once a month; (ii) quarterly with the Supervisory Board, Board of Directors, Internal Audit and independent audit; and (iii) extraordinarily, whenever necessary, deciding by majority vote, with record in minutes to be disclosed, on the Company's website and in accordance with the applicable legislation, except when the Board of Directors believes that its publication may put at risk the legitimate interest of the Company, when it will disclose only its statement.

Paragraph 5 The Internal Audit shall be functionally linked to the Board of Directors through the Statutory Audit Committee.

Article 52 The Statutory Audit Committee shall have operational autonomy and an annual or by project allocation of the Company's budget, subject to the limits set forth by the Board of Directors, to carry out or assign consultancy services, evaluations and investigations within the scope of its activities, including the hiring of external independent specialists.

SECTION II - NOMINATION AND EVALUATION COMMITTEE - NEC

Article 53 The Nomination and Evaluation Committee is a permanent statutory body, auxiliary to the company's shareholders, with the prerogatives as provided for in Federal Law No. 13,303/2016 and its Rules of Procedure, responsible for verifying compliance of the processes of nomination and evaluation of members of the Board of Directors, the Supervisory Board, the Executive Board and statutory committees with the current legislation.

Paragraph 1 The Nomination and Evaluation Committee shall consist of three (3) to five (5) members, elected and dismissed by the General Shareholders' Meeting, with a unified term of office of two (2) years, from the date of their election, with a maximum of two (2) consecutive reappointments allowed, with the following composition:

- a)** at least two (02) and at most three (03) members chosen by the controlling shareholder;
- b)** at least one (01) and at most two (02) members appointed by the minority shareholders; and
- c)** the controlling shareholder shall be guaranteed the right to elect the majority of the members of the Committee.

Paragraph 2 Copel's Nomination and Evaluation Committee shall be the same one for Copel Holding and its wholly-owned subsidiaries, and may be extended to controlled companies, affiliates and other companies in which Copel has an interest.

Paragraph 3 The members of the Nomination and Evaluation Committee shall state opinion on the fulfilment of requirements and the absence of prohibitions regarding the election of members of the Board of Directors, the Executive Board, the Supervisory Board and the statutory committees, thus assisting shareholders with the appointment of such members.

Paragraph 4 The Nomination and Evaluation Committee shall verify the conformity of the evaluation process of the members of the Board of Directors, the Supervisory Board and the Statutory Committees, in accordance with the parameters of Federal Law 13,303/2016.

Article 54 The powers and duties, and the procedures of the Statutory Audit Committee shall comply with current legislation and shall be laid down in the Rules of Procedure specific for such Committee, duly approved by the Committee itself.

Paragraph 1 The Nominating and Evaluation Committee shall meet whenever necessary and shall decide by majority vote, and in accordance with the provisions of its Rules of Procedure it shall record in the meeting minutes its resolutions, including dissents and protests of its members, and such meeting minutes shall be disclosed on the Company's website in accordance with the applicable legislation, without prejudice to the disclosure of other resolutions that the Committee deems necessary.

Paragraph 2 The Chairman of the Nomination and Evaluation Committee shall be elected by the peers at the first meeting of the committee and he or she shall be responsible for carrying out the deliberations of the body.

SECTION III - INVESTMENT AND INNOVATION COMMITTEE - IIC

Article 55 The Investment and Innovation Committee is an independent and permanent advisory body, auxiliary to the Board of Directors.

Article 56 Copel's Nomination and Evaluation Committee shall be the same one for Copel Holding and its wholly-owned subsidiaries, and may be extended to directly or indirectly controlled companies, upon resolution of the Board of Directors.

Article 57 The powers and duties, the composition and the procedures of the Investment and Innovation Committee shall comply with current legislation and shall be laid down in the Rules of Procedure specific for such Committee, duly approved by the Board of Directors.

Paragraph 1 The Chairman of the Investment and Innovation Committee, who shall be responsible for complying with the body's resolutions, registered in the minutes book, shall be a member of the Board of Directors and shall be elected at the first meeting after the election of the members of the Committee.

Paragraph 2 The Investment and Innovation Committee shall consist of three members of the Board of Directors, elected and dismissed by that body, whose unified term of office shall be of two years, reelection being permitted for no more than three consecutive times, as follows:

I. 01 (one) of them the executive secretary of the Board of Directors; and

II. 01 (one) member of the Board of Directors, representing minority shareholders.

All with a unified term of office of two (2) years, with a maximum of three (3) consecutive terms permitted.

Paragraph 3 The members of the Investment and Innovation Committee shall observe the minimum conditions imposed by Federal Law 13,303/2016 to occupy the said position.

Paragraph 4 The Investment and Innovation Committee shall meet ordinarily, deciding by majority vote and it shall record the resolutions in the meeting minutes, including dissents and protests of its members, as established in the Rules of Procedure of the committee.

Article 58 The Investment and Innovation Committee shall be granted operational autonomy and budget allocation, either annually or per project, within limits approved by the

Board of Directors, to conduct, within its scope, its activities, including the hiring and use of independent external specialists.

SECTION IV - SUSTAINABLE DEVELOPMENT COMMITTEE - SDC

Article 59 The Sustainable Development Committee is an independent and permanent advisory body, auxiliary to the Board of Directors.

Article 60 Copel's Sustainable Development Committee shall be the same one for Copel Holding and its wholly-owned subsidiaries, and may be extended to directly or indirectly controlled companies, upon resolution of the Board of Directors.

Article 61 The powers and duties, the composition and the procedures of the Sustainable Development Committee shall comply with current legislation and shall be laid down in the Rules of Procedure specific for such Committee, duly approved by the Board of Directors.

Paragraph 1 The Chairman of the Sustainable Development Committee, who shall be responsible for complying with the body's resolutions, registered in the minutes book, shall be a member of the Board of Directors and shall be elected at the first meeting after the election of the members of the Committee.

Paragraph 2 The Sustainable Development Committee shall consist of three to five members, elected and dismissed by the Board of Directors, whose unified term of office shall be of two years, reelection being permitted for no more than three consecutive times, as follows:

I at least two (02) members of the Board of Directors, one (01) of them being the executive secretary of the body;

II 01 (one) member of the Nomination and Evaluation Committee; and

III up to 01 (one) external member with recognized professional experience in matters of the Committee responsibility.

Paragraph 3 The members of the Sustainable Development Committee shall observe the minimum conditions imposed by Federal Law 13,303/2016 to occupy the said position.

Paragraph 4 The Sustainable Development Committee shall meet ordinarily, deciding by majority vote and it shall record the resolutions in the meeting minutes, including dissents and protests of its members, as established in the Rules of Procedure of the committee.

Article 62 The Sustainable Development Committee shall be granted operational autonomy and budget allocation, either annually or per project, within limits approved by the Board of Directors, to conduct, within its scope, its activities, including the hiring and use of independent external specialists.

SECTION V - THE MINORITY SHAREHOLDERS' INTEREST COMMITTEE - MIC

Article 63 The Minority Shareholders' Interest Committee is an independent and permanent advisory body, auxiliary to the Board of Directors.

Article 64 The powers and duties, the composition and the procedures of the Minority Shareholders' Interest Committee shall comply with current legislation and shall be laid down in the Rules of Procedure specific for such Committee, duly approved by the Board of Directors.

Paragraph 1 The Chairman of the Minority Shareholders' Interest Committee, who shall be responsible for complying with the body's resolutions, shall be elected by the Board of Directors.

Paragraph 2 The Minority Shareholders' Interest Committee shall consist of three members of the Board of Directors, representing the minority shareholders, elected and dismissed by the Board of Directors, whose unified term of office shall be of two years, reelection being permitted for no more than three consecutive times.

Paragraph 3 The members of the Minority Shareholders' Interest Committee shall observe the minimum conditions imposed by Federal Law 13,303/2016 to occupy the said position.

Paragraph 4 The Minority Shareholders' Interest Committee shall meet whenever necessary, according to the matters within its competence, and shall decide by majority vote, with record of the minutes, including dissent and protests of its members, as established in the Rules of Procedure of the committee.

Article 65 The Minority Shareholders' Interest Committee shall be granted operational autonomy and budget allocation, either annually or per project, within limits approved by the Board of Directors, to conduct, within its scope, its activities, including the hiring and use of independent external specialists.

CHAPTER VI - SUPERVISORY BOARD - SB

Article 66 The Company shall have a permanent Supervisory Board, which shall act collectively and individually, with the powers and duties set forth by Federal Laws no. 6,404/1976 and no. 13, 303/2016, and further applicable legal provisions.

Article 67 The Supervisory Board shall meet ordinarily once a month and, extraordinarily, whenever necessary, when called by any of its members or by the Board of Directors, drawing up minutes in the minutes book.

Number and Procedures

Article 68 The Supervisory Board shall consist of five members and an equal number of alternates, elected by the Shareholders' Meeting, whose unified term of office shall be of two years, reelection being permitted for no more than two consecutive times.

Paragraph 1 The Supervisory Board of Copel's wholly-owned subsidiary companies shall be composed by three members, and three respective alternates, nominated by the controlling shareholder for the Supervisory Board of the holding company.

Paragraph 2 The Chairman of the Supervisory Board shall be elected by the peers at the first meeting after the election of its members, being the chairman responsible for complying with the body's resolutions.

Paragraph 3 The powers and duties, and the procedures of the Supervisory Board shall comply with current legislation and shall be laid down in the Rules of Procedure specific for such body, duly approved by the Board itself.

Paragraph 4 The members of the Supervisory Board shall be natural persons, residing in the country, whose academic background is compatible with their position as members of such body and who have held, for at least three years, senior management or advisory positions in the public administration or acted as members of the Supervisory Board in private companies.

Paragraph 5 In addition to the persons listed in the paragraphs of Article 147 of Federal Law 6,404/1976, members of the Board of Directors and employees of the Company or of a controlled company or the same group, and the spouse or relative, up to the third degree, of a director of the Company shall not be elected as members of the Supervisory Board.

Paragraph 6 The following shall not be appointed members of the Supervisory Board:

- I** representatives of the regulatory bodies Copel is subject to, ministers of state, secretaries of state, municipal secretaries, holders of non-permanent positions connected with the public service, advising or of special nature in the public administration, political party, statutory officers and sitting members of the legislature in any state of the country, even when on leave;
- II** individuals who have taken part in the decision-making structure of a political party or who have organized, structured or developed an electoral campaign in the last 36 months;
- III** individuals who hold a position in a trade union organization;
- IV** individuals who have signed an agreement or entered into a partnership, as suppliers or buyers, or have offered or required goods or services of any kind from the State of Paraná or from Copel within less than three years prior to the nomination to the Supervisory Board;
- V** individuals who have or may have any form of conflict of interest with the State of Paraná or with Copel.

Paragraph 6 The prohibitions set forth in I of Paragraph 5 shall be imposed on blood and non-blood relatives up to the third degree of relationship of the abovementioned individuals.

Article 69 The powers and duties, the functioning and the procedures of the Supervisory Board shall comply with the legislation in force and shall be detailed in the Rules of Procedure, which shall be approved by the body itself.

Paragraph 1 The function of member of the Supervisory Board is indelegable.

Paragraph 2 The members of the Supervisory Board have the same duties as the administrators dealt with in articles 153 to 156 of Federal Law 6,404/1976 and are liable for damages resulting from omission in the performance of their duties and from acts practiced with guilt or malice, or with violation of the law or the Bylaws.

Vacancies and replacements

Article 70 In the event of vacancy, resignation or removal of a member of the Supervisory Board, the alternate shall take over until a replacement to serve for the remainder of the term of office is elected.

Representation of the Company and Issuance of opinions

Article 71 The chairman of the Supervisory Board, or at least one of the members, shall attend the meetings of the General Shareholders' Meeting and respond to requests for information made by shareholders.

Sole paragraph. The opinions and representations of the Supervisory Board, or of any of its members, may be presented and read at the General Shareholders' Meeting, regardless of publication and even if the matter is not on the agenda.

CHAPTER VII - COMMON RULES APPLICABLE TO STATUTORY BODIES

Taking office, impediments and prohibitions

Article 72 In order to take office, members of the statutory bodies shall observe the minimum conditions imposed by Federal Laws 6,404/1976 and 13,303/2016, as well as comply with the Company's Nomination Policy.

Article 73 Members of the statutory bodies shall take office by signing the declaration of office, to be duly entered in the minutes book.

Paragraph 1 The declaration of office must be signed within thirty days of the election or nomination of the members of the statutory bodies, under penalty of being declared void, unless justified by the body to which the member has been elected. Such declaration shall contain one address, for the purpose of receiving summons and subpoenas of administrative and judicial proceedings related to management acts of such members, being only an alteration of such address allowed, through written communication to the Company.

Paragraph 2 In order to take office, members of the statutory bodies shall submit a declaration of assets, pursuant to current legislation, which shall be updated annually and upon expiration of their term of office.

Article 74 The inauguration of the members of the Board of Directors and of the Executive Board shall be conditioned to the prior subscription of the "Statement of Consent of the Directors", and the inauguration of the members of the Supervisory Board shall be conditioned to the prior subscription of the "Statement of Consent of the Members of the Supervisory Board", under the terms of the "Level 2 Regulations" of B3, as well as to the compliance with the applicable legal requirements.

Article 75 The term of office of the members of the Executive Board, the Board of Directors, the Supervisory Board and the Company's statutory committees shall be of two years, reelection being permitted for no more than:

- I two consecutive times, for members of the Supervisory Board and the Nomination and Evaluation Committee; and
- II three consecutive times, for members of the Executive Board, the Board of Directors, the Statutory Audit Committee, The investment and Innovation Committee, The Sustainable Development Committee and the Minority Shareholders' Interest Committee.

Sole paragraph Upon reaching the limit of renewals referred to in clauses I and II of the caption sentence of this Article, the member's return to the statutory body in the same Company may only be carried out after the expiration of a term equivalent to one term of office, except for the Statutory Audit Committee, which may only be carried out after the expiration of a three (3) year term.

Article 76 The Company's Senior Managers, members of the Supervisory Board and Statutory Committees shall adhere to the policy for negotiating assets issued by the Company itself, and to the policy for disclosure of information and relevant facts, in compliance with the rules of the Brazilian Securities and Exchange Commission (CVM), by signing the respective term.

Article 77 The shareholder and the members of the Executive Board, the Board of Directors, the Supervisory Board and the statutory committees who, for any reason, have a direct, indirect or conflicting interest with the Company in the passing of a given resolution shall abstain from discussing and voting it, even as representatives of third

parties, the reason for such abstention being duly recorded on the meeting minutes, indicating the nature and extent of such interest.

Article 78 Members of the statutory bodies may resign voluntarily or be removed *ad nutum*, in compliance with the applicable legislation and these Bylaws.

Article 79 The term of office of the members of statutory bodies shall be automatically extended until such time when newly elected members take office, except in cases of resignation or removal of a former member.

Article 80 In addition to the cases set forth by law, the position shall be considered vacant when:

- I a member of the Board of Directors, the Supervisory Board or the statutory committees fails to attend two consecutive meetings or three nonconsecutive meetings out of the last twelve, without proper justification for such absences;
- II a member of the Executive Board is absent from office for a period of more than thirty consecutive days, except in the case of leave of absence or upon due authorization of the Board of Directors.

Article 81 The collective and individual performance assessment of the members of the Board of Directors, the statutory committees, the Executive Board and the Supervisory Board of Copel and its wholly-owned subsidiaries shall be carried out annually, with the support of the Nomination and Evaluation Committee and an independent institution, if deemed necessary, according to previously established procedures, in compliance with the Company's Assessment Policy and the requirements set forth in Federal Law No. 13,303/2016.

Article 82 A majority of the total number of members shall constitute a quorum for the meetings of the statutory bodies. The vote of a majority of members of the statutory body present at a meeting shall be the act of such body. Meeting minutes shall summarize resolutions passed, to be duly entered in the minutes book.

Paragraph 1 In case of a decision that is not unanimous, justification for the dissenting vote may be recorded, noting that the dissenting member who makes his or her dissent in the minutes of the meeting or, if this is not possible, gives immediate written notice of his or her position may be exempted from responsibility.

Paragraph 2 In meetings of the Board of Directors or the Executive Board, the member presiding such meeting shall hold the casting vote, besides his or her own.

Article 83 A member of a statutory body may, when invited, attend a meeting of another statutory body, without voting rights.

Article 84 The statutory bodies shall hold in-person meetings, participation through conference call or videoconference also being permitted, in compliance with these Bylaws and the specific Rules of Procedure of the statutory body.

Compensation

Article 85 The compensation of members of the statutory bodies shall be established annually by the Shareholders' Meeting. Such members shall not be entitled to additional compensation or benefits resulting from the replacement of another member, owing to vacancies, absences or temporary impediments, in accordance with the provisions in these Bylaws.

Sole Paragraph The compensation of the members of the Supervisory Board, established by the General Shareholders' Meeting that elects them, shall observe the minimum legally established, in addition to the mandatory reimbursement of transportation and stay expenses necessary to perform the function.

Article 86 Members of the direct or indirect public administration shall not receive compensation for participation in more than two Boards of Directors or Supervisory Boards of the Company or of its subsidiaries.

Sole Paragraph. The Chief Executive Officer shall not receive compensation for his or her position as a member of the Board of Directors.

CHAPTER VIII - FINANCIAL YEAR, FINANCIAL STATEMENTS, PROFITS, RESERVES AND DIVIDEND PAYOUT

Article 87 The fiscal year coincides with the calendar year. At the end of each fiscal year the financial statements shall be prepared in compliance with the rules contained in Federal Law No. 6,404/1976, and in the rules of the Securities and Exchange Commission, including the mandatory independent audit of such statements by an auditor registered at that Securities Commission.

Paragraph 1 The Company shall prepare its quarterly financial statements and disclose them on its website.

Paragraph 2 At the end of each financial year, the Company shall prepare its financial statements as established in the law. The guidelines hereunder shall be followed concerning the results of the financial year:

- I before any allocation to profit sharing payment can be made, the accumulated losses and income tax provision shall be deducted from yearly profit;
- II five percent of the net profit ascertained during the year shall be used to form the legal reserve, which shall not exceed twenty percent of the capital stock;
- III the interest upon investments made with the Company's own capital in construction works in progress may be entered as a special reserve; and
- IV other reserves may be built by the Company, according to the requirements and up to the limits provided for in the law.

Article 88 Shareholders shall be entitled, in each fiscal year, to receive dividends and/or interest on equity, which may not be less than twenty-five percent (25%) of net income adjusted in accordance with Federal Law No. 6,404/1976.

Paragraph 1 Based on retained earnings, profit reserves and net income for the current fiscal year, recorded in interim semi-annual or quarterly financial statements, the Board of Directors may resolve on the distribution of interim dividends, interquartile dividends or interest on shareholders' equity, provided that they comply with the dividend policy and without prejudice to subsequent ratification by the General Shareholders' Meeting.

Paragraph 2 Intermediate and interquartile dividends and interest on equity distributed pursuant to paragraph 1, above, shall be imputed to the mandatory dividend related to the fiscal year in which they are declared, in compliance with the applicable legislation.

Paragraph 3 The dividend shall not be mandatory in the fiscal year in which the Board of Directors informs the Ordinary General Meeting, with the opinion of the Supervisory Board, that it is incompatible with the financial condition of the Company.

Paragraph 4 The profits that cease to be distributed pursuant to paragraph 3 shall be recorded as a special reserve and, if not absorbed by losses in subsequent years, shall be distributed as soon as the Company's financial condition so permits.

Paragraph 5 Pursuant to the law, management documents relating to the immediately preceding fiscal year shall be submitted to the State Audit Court by April 30 of each year.

Paragraph 6 When interest on equity is distributed, the percentage provided for in the caption sentence shall be considered reached in relation to the amount distributed net of taxes, under the terms of the applicable legislation.

Article 89 In compliance with Federal Law no. 6,404/1976, in a financial year the minimum mandatory dividend is paid out, the Shareholders' Meeting shall set an annual limit on profit sharing by members of the Executive Board.

CHAPTER IX - DISSOLUTION AND LIQUIDATION

Article 90 The Company shall dissolve and go into liquidation in the cases provided for by law, and the General Shareholders' Meeting shall establish the manner of liquidation and elect the liquidator, or liquidators, and the Supervisory Board, if its operation is requested by shareholders who make up the quorum established by law or regulation issued by the Securities and Exchange Commission, in compliance with the legal formalities, establishing their powers and compensation.

CHAPTER X - DEFENSE MECHANISMS

Article 91 The members of the Executive Board, Board of Directors, Supervisory Board and statutory committees are liable for damages or losses caused in the exercise of their duties, in the cases provided for by law.

Article 92 The Company shall ensure, in cases where there is no incompatibility with its own interests, the legal defense in judicial and administrative proceedings proposed by third parties against members and former members of statutory bodies, during or after the respective terms of office, for acts performed in the exercise of the office or of its functions.

Paragraph 1 The same protection established in the caption of this article shall be extended to employees acting as Company's agents and representatives who shall have been named as defendants in judicial and administrative proceedings exclusively for the performance of acts within the scope of authority granted to them by the Company or of duties delegated to them by the Senior Managers.

Paragraph 2 Legal assistance shall be secured by the Company's legal office or through the corporate legal insurance plan, or, should those be unattainable, by a law firm hired at the discretion of the Company.

Paragraph 3 Should the Company fail to provide legal assistance, upon formal request by the interested party, as established in paragraph 2, the agent may hire an attorney whom he or she trusts, at his or her own expense, and shall be entitled to reimbursement of reasonable incurred expenses associated with the provision of legal services, fixed within the current market price for such legal counselling, after due approval by the Board of Directors, if, at the end of the legal proceedings, such interested party is acquitted or discharged from any liability.

Paragraph 4 In the event that an attorney is hired, pursuant to paragraph 3 of this article, the Board of Directors may decide to pay attorney's fees in advance.

Article 93 The Company may enter into indemnity agreements, in compliance with the applicable legislation and the guidelines defined by the Board of Directors in a specific policy.

Paragraph 1 The contracts pursuant to the caption sentence of this Article shall not indemnify acts performed:

- I outside the exercise of the attributions or powers of its signatories;
- II with bad faith, malice, serious fault, or fraud;
- III in their own interest or in the interest of third parties, to the detriment of the company's social interest;
- IV other cases foreseen in the policy and in the respective indemnity agreement;

Paragraph 2 The indemnity contract coverage applies in case there is no civil liability insurance coverage, as foreseen in Article 95 of these By-Laws.

Article 94 The Company shall ensure timely access to all documentation needed for legal assistance. Additionally, the Company shall meet all court costs, including notary and filing fees of any kind, administrative expenses and court deposits, when legal assistance is provided by Company's legal office.

Article 95 Should any of the interested parties mentioned in article 91 of these Bylaws be found guilty or liable, by a final and unappealable judgment, for violation of the law or of these Bylaws, or for negligence or willful misconduct, they shall reimburse the Company of all costs and expenses incurred with legal assistance, in addition to any damages or losses arising from their actions.

Article 96 The Company may maintain a permanent civil liability insurance for the members of the statutory bodies, pursuant to article 91 of these Bylaws, as established by the Board of Directors and in the insurance policy, for the purpose of covering costs of proceedings and attorneys' fees for judicial and administrative proceedings filed against such parties in order to safeguard them from incurring liability arising from the exercise of their duties in the Company throughout their term of office.

CHAPTER XI - DISPOSAL OF THE COMPANY'S CONTROL

Article 97 The loss of the qualification of a controlling shareholder by the State of Paraná may only occur in accordance with the applicable constitutional and legal procedures, including, without limitation, if applicable, the need for prior legislative authorization. Provided the constitutional and legal requirements are met, the Disposal of the Company's Control, in addition to specifically applicable rules, shall observe the provisions of this Chapter.

Article 98 The Disposal of the Company's Control, either through a single operation or through successive operations, shall be contracted under the condition, suspensive or resolutive, that the Acquirer undertakes to make a public offer for the acquisition of the shares of the other shareholders of the Company, in compliance with the conditions and terms provided for in the legislation in force and in Level 2 Corporate Governance Regulations of B3, so as to ensure them equal treatment to that given to the Selling Controlling Shareholder.

Sole Paragraph The public offering referred to in this Article shall also be required: (i) in the event of onerous assignment of subscription rights of shares and other securities or rights related to securities convertible into shares, which may result in the Disposal of the Company's Control; or (ii) in the event of disposal of the control of a company that holds the Company's Controlling Power, in which case the Selling Controlling Shareholder shall be obliged to declare to B3 the value attributed to the Company in such disposal and attach documentation evidencing such value.

Article 99 The one who acquires the Controlling Power, due to a private share purchase agreement with the Controlling Shareholder, involving any quantity of shares, shall be obliged to: (i) make the public offer referred to in Article 98 above; and (ii) pay, on the terms set forth below, an amount equivalent to the difference between the price of the public offer and the amount paid per share eventually acquired on the stock exchange in the six (6) months prior to the date of acquisition of the Controlling Power, duly restated to the date of payment. Such amount shall be distributed among all persons who sold shares of the Company on the trading sessions in which the Acquirer made the acquisitions, proportionally to the daily net sales balance of each one, and B3 shall operate the distribution, pursuant to its regulations.

Article 100 The Company shall not register any transfer of shares to the Purchaser or to the one(s) that may hold the Controlling Power, until the Purchaser(s) sign(s) the Instrument of Consent of the Controlling Shareholders referred to in the Level 2 Corporate Governance Regulation of B3.

Article 101 No shareholders' agreement providing for the exercise of the Controlling Power may be registered at the Company's headquarters until its signatories have signed the Instrument of Consent of the Controlling Shareholders referred to in B3's Corporate Governance Level 2 Regulations.

Article 102 In the public offer for acquisition of shares, to be made by the Controlling Shareholder or by the Company, for cancellation of registration as a publicly-held company, the minimum price to be offered shall correspond to the Economic Value ascertained in the valuation report prepared pursuant to Paragraphs 1 and 2 of this Article, respecting the applicable legal and regulatory rules.

Paragraph 1 The appraisal report referred to in the main section of this Article shall be prepared by a specialized institution or company, with proven experience and independence as to the decision-making power of the Company, its Senior Managers and/or the Controlling Shareholder(s), in addition to meeting the requirements of Paragraph 1 of Article 8 of Federal Law 6,404/1976, and shall contain the responsibility set forth in Paragraph 6 of this same Article.

Paragraph 2 The choice of the institution or specialized company responsible for determining the Company's economic value is the private jurisdiction of the General Shareholders' Meeting, as of the presentation, by the Board of Directors, of a three-name list, and the respective resolution, not recording blank votes, and each share, regardless of type or class, shall be entitled to one vote, be taken by the majority of votes of shareholders representing the Free Float present at that meeting, which, if installed at the first call, must be attended by shareholders representing at least twenty percent (20%) of the total Free Float, or which, if installed at the second call, may be attended by any number of shareholders representing the Free Float.

CHAPTER XII - EXITING LEVEL 2 CORPORATE GOVERNANCE OF B3

Article 103 In the event of a resolution to delist the Company from the Corporate Governance Level 2 so that the securities issued by the Company are registered for trading outside the Corporate Governance Level 2, or by virtue of a corporate reorganization operation, in which the company resulting from such reorganization does not have its securities admitted for trading at the Corporate Governance Level 2 within one hundred and twenty (120) days as from the date of the General Shareholders' Meeting that approved the said operation, the Controlling Shareholder shall make a public offer for acquisition of the shares belonging to the other shareholders of the Company, at least for the respective economic value, to be ascertained in an appraisal report prepared pursuant to paragraphs 1 and 2 of Article 102, in compliance with the applicable legal and regulatory rules.

Sole paragraph The Controlling Shareholder shall be released from carrying out the public offering for acquisition of shares referred to in the caption sentence of this Article if the Company exits Level 2 of Corporate Governance due to the execution of the agreement for the Company's participation in the special segment of B3 called Novo Mercado ("New Market") or if the Company, resulting from corporate reorganization, obtains authorization for trading securities on Novo Mercado, within one hundred and twenty (120) days, as of the date of the General Shareholders' Meeting that approved the referred transaction.

Article 104 In the event that there is no Controlling Shareholder, if it is decided to remove the Company from Level 2 of Corporate Governance so that the securities issued by it become registered for trading outside Level 2 of Corporate Governance, or due to a corporate reorganization operation, in which the company resulting from this reorganization does not have its securities admitted to trading on Level 2 of Corporate Governance or on the New Market within one hundred and twenty (120) days as of the date of the General Shareholders' Meeting that approved the said operation, the withdrawal shall be conditioned to a public offering for acquisition of shares under the same conditions set forth in the Article above.

Paragraph 1 The referred General Shareholders' Meeting shall define the person(s) responsible for carrying out the public offering, who, present at the meeting, shall expressly assume the obligation to make the offer.

Paragraph 2 In the absence of a definition of those responsible for carrying out the public offer for acquisition of shares, and in the event of a corporate reorganization operation, in which the company resulting from such reorganization does not have its securities admitted to trading at Level 2 of Corporate Governance, it shall be incumbent upon the shareholders who voted in favor of the corporate reorganization to carry out the said offer.

Article 105 The Company's withdrawal from B3's Corporate Governance Level 2 due to non-compliance with the obligations contained in the Level 2 Regulations is conditioned to the execution of a public offer for acquisition of shares, at least for the economic value of the shares, to be ascertained in an appraisal report dealt with in Article 102 of these Bylaws, respecting the applicable legal and regulatory rules.

Paragraph 1 The Controlling Shareholder shall carry out the public offer for acquisition of shares provided for in the caption sentence of this Article.

Paragraph 2 In the event that there is no Controlling Shareholder and the exit from Level 2 of Corporate Governance of B3 referred to in the caption sentence of this Article, the shareholders that have voted in favor of the resolution that implied the respective non-compliance shall make the public offer for acquisition of shares provided for in the caption sentence of this Article.

Paragraph 3 In the event that there is no Controlling Shareholder and the departure from Level 2 of Corporate Governance of B3 referred to in the caption sentence occurs due to an act or fact of management, the Company's Senior Managers shall call a General Meeting of shareholders whose agenda shall be to resolve on how to remedy the non-compliance with the obligations contained in the Level 2 Regulations or, as the case may be, to resolve on the Company's exit from Level 2 of Corporate Governance.

Paragraph 4 Should the General Shareholders' Meeting mentioned in Paragraph 3 above resolve on the Company's withdrawal from Level 2 Corporate Governance of B3, the said General Shareholders' Meeting shall define the person(s) responsible for holding the public offer for acquisition of shares pursuant to the caption sentence, who, present at the meeting, shall expressly assume the obligation to hold the offer.

CHAPTER XIII - UNIT EMISSION

Article 106 The Company may sponsor the issuance of depositary receipts, representing 1 (one) common share and 4 (four) class "B" preferred shares "Units".

Paragraph 1 Units may be issued: (i) at the request of shareholders holding shares in the amount required for the composition of Units, in compliance with the terms, rules and procedures established by the Board of Directors; (ii) by resolution of the Board of Directors, in case of capital increase within the authorized capital limit with the issuance of new shares to be represented by Units; and (iii) in the cases provided for in Articles 109 and 110 of these Bylaws.

Paragraph 2 Only shares free of liens and encumbrances may be deposited for the issuance of Units.

Paragraph 3 The Company may hire a financial institution to issue Units.

Article 107 The holders of Units shall have the same rights and advantages as the shares represented by them, including the payment of dividends, interest on equity and any other bonus, payment or proceeds to which they may be entitled.

Sole Paragraph The holders of Units shall have the right to participate in General Shareholders' Meetings and to exercise in them all prerogatives granted to the shares represented by Units, upon evidence of their ownership and compliance with the rules of shareholder representation provided for in these Bylaws.

Article 108 The Units are book-entry, observing that, from the issuance of the Units, the deposited shares will be registered in a deposit account opened in the name of the holder of the shares before the depositary financial institution.

Paragraph 1 Except in the event of cancellation of Units, ownership of shares represented by Units may only be transferred through the transfer of Units.

Paragraph 2 The holder of the Units shall have the right to request, at any time, the cancellation of the Units and the consequent delivery of the respective deposited shares to the depositary financial institution, in compliance with the terms, rules and procedures to be established by the Board of Directors.

Paragraph 3 Units subject to liens, encumbrances or embarrassments may not be the object of a cancellation request.

Paragraph 4 The Board of Directors may, at any time, suspend for a determined period, not exceeding 30 (thirty) days, the possibility of cancellation of Units referred to in Paragraph 2 above, in the event of the beginning of a public offering of primary and/or secondary distribution of Units, in the local and/or international market.

Article 109 In the event of a split, grouping, bonus or issue of new shares through the capitalization of profits or reserves, the following rules shall be observed with respect to Units:

I in the event of an increase in the number of shares issued by the Company, the depositary financial institution shall register the deposit of the new shares and shall credit new Units to the account of the respective holders, so as to reflect the new number of shares held by the holders of Units, always observing the proportion provided for in Article 106 of these Bylaws, and the shares that are not liable to constitute Units shall be credited directly to the shareholders, without the issue of Units; and

II in the event of a reduction in the number of shares issued by the Company, the depositary financial institution shall debit the Unit deposit accounts of the holders of the grouped shares, automatically cancelling Units in a sufficient number to reflect

the new number of shares held by the holders of Units, always observing the proportion provided for in Article 106 of these Bylaws, and the shares that are not capable of constituting Units shall be credited directly to shareholders, without the issue of Units.

Article 110 In the event of the exercise of preemptive rights for the subscription of shares issued by the Company, if any, the depositary financial institution shall create new Units in the book of registration of book-entry Units, crediting them to the respective holders so as to reflect the new quantity of shares deposited in the deposit account linked to the Units, always observing the proportion provided for in Article 106 of these Bylaws, and the shares that are not liable to constitute Units shall be credited directly to the shareholders, without the issue of Units.

Sole Paragraph In cases in which there is the exercise of preemptive rights for the subscription of other securities issued by the Company, the automatic credit of Units shall not occur.

CHAPTER XIV - CONFLICT RESOLUTION

Article 111 The Company, its shareholders, the members of the Board of Directors and of the Supervisory Board undertake to resolve, by means of arbitration, before the Market Arbitration Chamber, any and all disputes or controversies that may arise between them, related to or arising from, in particular, the application, validity, effectiveness, interpretation, violation and its effects, of the provisions contained in Federal Law No. 6,404/1976 and subsequent amendments to these Bylaws, the rules issued by the National Monetary Council, the Central Bank of Brazil and the Securities and Exchange Commission, as well as other rules applicable to the operation of the capital market in general, in addition to those contained in the Level 2 Corporate Governance Regulations of B3, the Arbitration Regulations, the Sanctions Regulations and the Level 2 B3's Corporate Governance Participation Agreement.

CHAPTER XV - GENERAL PROVISIONS

Article 112 In the event of withdrawal of shareholders or closing of capital, the amount to be paid by the Company as reimbursement for the shares held by shareholders who have exercised the right of withdrawal, in cases authorized by law, shall correspond to the economic value of such shares, to be ascertained in accordance with the valuation procedure accepted by Federal Law 6,404/1976, whenever such value is lower than the equity value.

Article 113 In addition to the shareholders' agreement, the Company shall comply with the guidelines and procedures provided for in federal, state and municipal law and in regulations and normative instructions issued by state and federal authorities.

Article 114 The rules regarding the term of office of the members of the Company's statutory bodies as set forth in these Bylaws shall be applicable as established in Federal Law no. 13,303/2016 and further applicable legal provisions.

APPENDIX I - AMENDMENTS TO THE CORPORATE BYLAWS

The original text of Copel Bylaws (filed at the Commercial Registry of the State of Paraná under No. 17,340 on June 16, 1955, and published in the Official Newspaper of the State of Paraná on June 25, 1955) has undergone the amendments listed hereunder.

Minutes of SM of	Commercial Registry		Published in the ONS PR on
	File No.	Date	
09.09.1969	83.759	10.01.1969	10.08.1969
08.21.1970	88.256	09.04.1970	09.14.1970
10.22.1970	88.878	11.05.1970	11.16.1970
04.28.1972	95.513	05.24.1972	05.30.1972
04.30.1973	101.449	08.15.1973	08.28.1973
05.06.1974	104.755	05.21.1974	06.05.1974
12.27.1974	108.364	02.07.1975	02.21.1975
04.30.1975	110.111	06.03.1975	06.18.1975
03.26.1976	114.535	04.29.1976	05.10.1976
02.15.1978	123.530	02.28.1978	03.08.1978
08.14.1979	130.981	11.09.1979	11.20.1979
02.26.1980	132.253	03.25.1980	04.16.1980
10.30.1981	139.832	12.01.1981	12.18.1981
05.02.1983	146.251	05.31.1983	06.14.1983
05.23.1984	150.596	07.26.1984	08.28.1984
12.17.1984	160.881	01.17.1985	02.11.1985
06.11.1985	162.212	07.01.1985	07.18.1985
01.12.1987	166.674	02.13.1987	02.26.1987
03.18.1987	166.903	04.07.1987	05.08.1987
06.19.1987	167.914	07.02.1987	07.14.1987
02.22.1994	18444,7	02.28.1994	03.17.1994
08.22.1994	309,0	09.20.1994	10.06.1994
02.15.1996	960275860	02.27.1996	03.06.1996
10.18.1996	961839597	10.29.1996	11.06.1996
07.10.1997	971614148	07.18.1997	07.22.1997
03.12.1998	980428793	04.01.1998	04.07.1998
04.30.1998	981597050	05.06.1998	05.12.1998
05.25.1998	981780954	05.28.1998	06.02.1998
01.26.1999	990171175	02.05.1999	02.11.1999
03.25.1999	990646483	04.14.1999	04.23.1999
03.27.2000	000633666	03.30.2000	04.07.2000
08.07.2001	20011994770	08.14.2001	08.27.2001
12.26.2002	20030096413	01.29.2003	02.10.2003
02.19.2004	20040836223	03.08.2004	03.19.2004
06.17.2005	20052144879	06.23.2005	07.05.2005
01.11.2006	20060050632	01.20.2006	01.25.2006

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Minutes of SM of	Commercial Registry		Published in the ONS PR on
	File No.	Date	
08.24.2006	20063253062	08.30.2006	09.11.2006
07.02.2007	20072743441	07.04.2007	07.27.2007
04.18.2008	20081683790	04.25.2008	05.27.2008
03.13.2009	20091201500	03.13.2009	03.31.2009
07.08.2010	20106612077	07.20.2010	08.04.2010
04.28.2011	20111122929	05.10.2011	06.07.2011
04.26.2012	20123192609	05.09.2012	05.15.2012
04.25.2013	20132186560	05.07.2013	05.20.2013
07.25.2013	20134231198	07.30.2013	08.09.2013
10.10.2013	20135861330	10.15.2013	10.25.2013
04.24.2014	20142274046	04.29.2014	05.05.2014
04.23.2015	20152615962	05.04.2015	05.06.2015
12.22.2016	20167724827	01.04.2017	01.06.2017
06.07.2017	20173251129	06.12.2017	06.19.2017
06.28.2018	20183296796	07.11.2018	07.17.2018
04.29.2019	20192743090	05.07.2019	05.10.2019
12.02.2019	20197383041	12.17.2019	12.19.2019
03.11.2021	20211660922	03.25.2021	04.06.2021
09.27.2021	20216601347	09.30.2021	10.18.2021
11.26.2021	20218025483	12.06.2021	12.10.2021

APPENDIX II - CHANGES IN THE CAPITAL STOCK (ARTICLE 5)

Initial capital stock, on 03.28.1955: Cr\$ 800,000,000.00

SM of	NEW CAPITAL - Cr\$	C.R.S.P FILE NO. DATE	MINUTES in ONS PR of
10.01.1960	1,400,000,000.00	26350 - 10.13.1960	10.14.1960
04.16.1962	4,200,000,000.00	31036 - 05.03.1962	05.26.1962
11.11.1963	8,000,000,000.00	37291 - 11.28.1963	12.02.1963
10.13.1964	16,000,000,000.00	50478 - 10.23.1964	10.31.1964
09.24.1965	20,829,538,000.00	65280 - 10.15.1965	10.18.1965
10.29.1965	40,000,000,000.00	65528 - 11.12.1965	11.18.1965
09.20.1966	70,000,000,000.00	70003 - 10.11.1966	10.18.1966 ¹
	NCr\$		
10.31.1967	125,000,000.00	74817 - 12.01.1967	12.07.1967
06.17.1968	138,660,523.00	77455 - 06.27.1968	07.13.1968
11.27.1968	180,000,000.00	79509 - 12.10.1968	12.20.1968
06.06.1969	210,000,000.00	82397 - 07.11.1969	08.05.1969
10.13.1969	300,000,000.00	84131 - 10.30.1969	11.03.1969
12.03.1969	300,005,632.00	84552 - 12.16.1969	12.30.1969
04.06.1970	332,111,886.00	86263 - 05.14.1970	06.09.1970
	Cr\$		
11.24.1970	425,000,000.00	89182 - 12.11.1970	12.18.1970
12.18.1970	500,178,028.00	89606 - 02.04.1971	02.17.1971
07.31.1972	866,000,000.00	97374 - 09.21.1972	10.04.1972
04.30.1973 ²	867,934,700.00	101449 - 08.15.1973	08.28.1973
08.31.1973	877,000,000.00	102508 - 11.09.1973	11.21.1973
10.30.1973 ³	1,023,000,000.00	103387 - 01.25.1974	02.11.1974
05.30.1974	1,023,000,010.00	105402 - 06.21.1974	06.27.1974
12.27.1974	1,300,000,000.00	108364 - 02.07.1975	02.21.1975
04.30.1975	1,302,795,500.00	110111 - 06.13.1975	06.18.1975
12.22.1975	1,600,000,000.00	113204 - 01.15.1976	02.13.1976
03.26.1976	1,609,502,248.00	114535 - 04.29.1976	05.10.1976
12.17.1976	2,100,000,000.00	118441 - 01.14.1977	02.04.1977
08.29.1977	3,000,000,000.00	122059 - 10.14.1977	10.25.1977
11.16.1977	3,330,000,000.00	122721 - 12.13.1977	01.12.1978
04.28.1978	3,371,203,080.00	125237 - 07.06.1978	07.20.1978
12.14.1978	4,500,000,000.00	127671 - 01.19.1979	03.06.1979
03.05.1979	5,656,487,659.00	128568 - 05.04.1979	05.17.1979
04.30.1979	5,701,671,254.00	129780 - 07.24.1979	08.14.1979
09.24.1979	8,000,000,000.00	130933 - 11.05.1979	11.23.1979

¹ Rectified by ONS PR on June 5, 1967

² Ratified by ESM on August 7, 1973, published in ONS PR on August 23, 1973

³ Ratified by ESM on December 21, 1973, published in ONS PR on February 1, 1974

APPENDIX II - CHANGES IN THE CAPITAL STOCK (ARTICLE 5)

SM of	NEW CAPITAL - Cr\$	C.R.S.P.		MINUTES in ONS PR of
		FILE NO.	DATE	
03.27.1980	10,660,296,621.00	133273	06.17.1980	06.27.1980
04.29.1980	10,729,574,412.00	133451	06.27.1980	07.16.1980
10.16.1980	11,600,000,000.00	135337	12.02.1980	01.20.1981
04.30.1981	20,000,000,000.00	137187	05.19.1981	05.29.1981
10.30.1981	20,032,016,471.00	139832	12.01.1981	12.18.1981
04.30.1982	37,073,740,000.00	141852	06.01.1982	06.17.1982
10.29.1982	39,342,000,000.00	144227	12.14.1982	12.29.1982
03.14.1983	75,516,075,768.00	145422	04.12.1983	05.10.1983
05.02.1983	80,867,000,000.00	146251	05.31.1983	06.14.1983
09.01.1983	83,198,000,000.00	148265	10.25.1983	12.09.1983
04.10.1984	205,139,191,167.00	150217	06.15.1984	07.17.1984
04.10.1984	215,182,000,000.00	150217	06.15.1984	07.17.1984
10.05.1984	220,467,480,000.00	160412	11.08.1984	11.27.1984
03.25.1985	672,870,475,837.00	161756	05.21.1985	06.11.1985
03.25.1985	698,633,200,000.00	161756	05.21.1985	06.11.1985
09.18.1985	719,093,107,000.00	163280	11.14.1985	11.27.1985
	Cz\$			
04.25.1986	2,421,432,629.00	164815	06.11.1986	06.30.1986
10.23.1986	2,472,080,064.00	166138	11.06.1986	11.14.1986
03.18.1987	4,038,049,401.49	166903	04.07.1987	05.08.1987
03.18.1987	4,516,311,449.87	166903	04.07.1987	05.08.1987
09.18.1987	4,682,539,091.91	168598	10.06.1987	10.16.1987
04.14.1988	18,772,211,552.10	170034	05.06.1988	05.25.1988 ⁴
04.14.1988	19,335,359,578.00	170034	05.06.1988	05.25.1988
06.14.1988	19,646,159,544.00	170727	07.11.1988	07.20.1988
04.25.1989	174,443,702,532.00	172902	05.26.1989	07.06.1989
	NCz\$			
04.25.1989	182,848,503.53	172902	05.26.1989	07.06.1989
06.26.1989	184,240,565.60	173374	07.12.1989	07.21.1989
	Cr\$			
03.30.1990	2,902,464,247.10	175349	05.02.1990	05.09.1990
03.30.1990	3,113,825,643.60	175349	05.02.1990	05.09.1990
05.25.1990	3,126,790,072.52	176016	07.10.1990	08.09.1990
03.25.1991	28,224,866,486.42	177809	04.26.1991	05.23.1991
03.25.1991	30,490,956,176.38	177809	04.26.1991	05.23.1991
05.23.1991	30,710,162,747.26	178337	06.18.1991	06.27.1991
04.28.1992	337,561,908,212.47	180617	06.08.1992	07.06.1992
04.28.1992	367,257,139,084.96	180617	06.08.1992	07.06.1992
06.25.1992	369,418,108,461.33	180899	07.09.1992	07.17.1992
04.01.1993	4,523,333,257,454.10	182553	04.29.1993	05.20.1993

⁴ Rectification in ONS No. 2780 of May 27, 1988

APPENDIX II - CHANGES IN THE CAPITAL STOCK (ARTICLE 5)

SM of	NEW CAPITAL - CR\$	C.R.S.P. FILE NO. DATE	MINUTES in ONS PR of
04.01.1993	4,814,158,615,553.95	182553 - 04.29.1993	05.20.1993
06.15.1993	4,928,475,489,940.95 ⁵	183139 - 07.13.1993	08.24.1993
04.26.1994	122,158,200,809.21 ⁶	184781 - 05.10.1994	06.08.1994
	R\$		
04.25.1995	446,545,229.15	950696471 - 05.18.1995	06.19.1995
04.23.1996	546,847,990.88	960710000 - 05.07.1996	05.15.1996
07.29.1997	1,087,959,086.88	971614130 - 07.30.1997	08.01.1997
08.07.1997	1,169,125,740.56 ⁷	971761671 - 08.12.1997	08.15.1997
03.12.1998	1,225,351,436.59	980428793 - 04.01.1998	04.07.1998
03.25.1999	1,620,246,833.38	990646483 - 04.14.1999	04.23.1999
12.26.2002	2,900,000,000.00	20030096413 - 01.29.2003	02.10.2003
04.29.2004	3,480,000,000.00	20041866290 - 06.07.2004	06.18.2004
04.27.2006	3,875,000,000.00	20061227897 - 05.09.2006	05.24.2006
04.27.2007	4,460,000,000.00	20071761462 - 05.15.2007	05.29.2007
04.27.2010	6,910,000,000.00	20105343960 - 05.06.2010	05.13.2010
12.22.2016	7,910,000,000.00	20167724827 - 01.04.2017	01.06.2017
04.29.2019	10,800,000,000.00	20192743090 - 05.07.2019	05.10.2019

⁵ Due to Provisional Executive Act No. 336, dated July 28, 1993, which changed the national currency, as of August 1, 1993, the company capital is registered in "cruzeiros reais" (CR\$ 4,928,475,475.41 as of the last date).

⁶ Due to Provisional Executive Act No. 542, dated June 30, 1994, which changed the national currency, as of July 1, 1994, the capital is entered in "reals" (R\$ 44,421,146.54 as of last date)

⁷ Change in the capital stock authorized by the Board of Directors

[Execution Copy]

COMPANHIA PARANAENSE DE ENERGIA - COPEL

AND

THE BANK OF NEW YORK MELLON

As Depositary

AND

OWNERS AND HOLDERS OF AMERICAN DEPOSITARY SHARES

Amended and Restated Deposit Agreement

(For Units)

April 27, 2021

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AMENDED AND RESTATED DEPOSIT AGREEMENT

AMENDED AND RESTATED DEPOSIT AGREEMENT dated as of April 27, 2021 among COMPANHIA PARANAENSE DE ENERGIA - COPEL, *a sociedade de economia mista* incorporated under the laws of the Federative Republic of Brazil (herein called the Company), THE BANK OF NEW YORK MELLON (formerly known as The Bank of New York), a New York banking corporation (herein called the Depository), and all Owners and Holders (each as hereinafter defined) from time to time of American Depositary Shares issued hereunder.

WITNESSETH:

WHEREAS, the Company and the Depository entered into (i) a deposit agreement for the Company's common shares dated as of March 21, 1996 and subsequently amended and restated that agreement as of July 29, 1997 and November 21, 2007 (that agreement, as so amended and restated, the "Prior Common Shares Deposit Agreement") for the purposes stated in that agreement and (ii) a deposit agreement for the Company's non-voting class B preferred shares dated as of March 21, 1996 and subsequently amended and restated that agreement as of July 29, 1997 and November 21, 2007 (that agreement, as so amended and restated, the "Prior Preferred Shares Deposit Agreement" and, together with the Prior Common Shares Deposit Agreement, the "Prior Deposit Agreements") for the purposes stated in that agreement; and

WHEREAS, the Company established a share deposit certificates program in Brazil pursuant to which certain of the Company's shareholders, including the Depository have elected to exchange their common and preferred shares for certificates (herein called Units), each consisting of one common share and four preferred shares (herein called Unit Multiples), and offered to exchange preferred shares for common shares and vice versa to aid in creation of Unit Multiples; and

WHEREAS, the Issuer and the Depository now wish to amend the Prior Deposit Agreements to, among other things, (i) provide that all American Depositary Shares shall represent Units, (ii) provide that, on and after the date of this Amended and Restated Deposit Agreement, only Units may be deposited and (iii) amend and update various other provisions of the Prior Deposit Agreements; and

WHEREAS, the Company desires to provide, as set forth in this Deposit Agreement, for the deposit of Units (as hereinafter defined) of the Company from time to time with the Depository or with the Custodian (as hereinafter defined) under this Amended and Restated Deposit Agreement, for the creation of American Depositary Shares representing the Units so deposited and for the execution and delivery of American Depositary Receipts evidencing the American Depositary Shares; and

WHEREAS, the American Depositary Receipts are to be substantially in the form of Exhibit A annexed to this Amended and Restated Deposit Agreement, with

appropriate insertions, modifications and omissions, as set forth in this Amended and Restated Deposit Agreement;

NOW, THEREFORE, in consideration of the premises, it is agreed by and between the parties hereto that each of the Prior Deposit Agreements is hereby amended and restated as follows, so as to form one amended and restated agreement:

ARTICLE 1. DEFINITIONS

The following definitions shall for all purposes, unless otherwise clearly indicated, apply to the respective terms used in this Deposit Agreement:

SECTION 1.1. American Depositary Shares.

The term “American Depositary Shares” shall mean the securities created under this Deposit Agreement representing rights with respect to the Deposited Securities. American Depositary Shares may be certificated securities evidenced by Receipts or uncertificated securities. The form of Receipt annexed as Exhibit A to this Deposit Agreement shall be the prospectus required under the Securities Act of 1933 for sales of both certificated and uncertificated American Depositary Shares. Except for those provisions of this Deposit Agreement that refer specifically to Receipts, all the provisions of this Deposit Agreement shall apply to both certificated and uncertificated American Depositary Shares.

Each American Depositary Share shall represent the number of Units specified in Exhibit A to this Deposit Agreement, except that, if there is a distribution upon Deposited Securities covered by Section 4.3, a change in Deposited Securities covered by Section 4.8 with respect to which additional American Depositary Shares are not delivered or a sale of Deposited Securities under Section 3.2 or 4.8, each American Depositary Share shall thereafter represent the amount of Units or other Deposited Securities that are then on deposit per American Depositary Share after giving effect to that distribution, change or sale.

SECTION 1.2. Central Bank.

The term “Central Bank” shall mean the *Banco Central do Brasil* or any successor governmental agency in Brazil.

SECTION 1.3. Commission.

The term “Commission” shall mean the Securities and Exchange Commission of the United States or any successor governmental agency in the United States.

SECTION 1.4. Company.

The term “Company” shall mean Companhia Paranaense de Energia - COPEL, a *sociedade de economia mista* incorporated under the laws of the Federative Republic of Brazil, and its successors.

SECTION 1.5. Custodian.

The term “Custodian” shall mean Itaú Unibanco S.A., as custodian for the Depositary in Brazil for the purposes of this Deposit Agreement, and any other firm or corporation the Depositary appoints under Section 5.5 as a substitute custodian under this Deposit Agreement.

SECTION 1.6. CVM.

The term “CVM” shall mean the *Comissão de Valores Mobiliários*, the Brazilian National Securities Commission, or any successor governmental agency in Brazil.

SECTION 1.7. Deliver; Surrender.

(a) The term “deliver”, or its noun form, when used with respect to Units or other Deposited Securities, shall mean (i) book-entry transfer of those Units or other Deposited Securities to an account maintained by an institution authorized under applicable law to effect transfers of such securities designated by the person entitled to that delivery or (ii) physical transfer of certificates evidencing those Units or other Deposited Securities registered in the name of, or duly endorsed or accompanied by proper instruments of transfer to, the person entitled to that delivery.

(b) The term “deliver”, or its noun form, when used with respect to American Depositary Shares, shall mean (i) registration of those American Depositary Shares in the name of DTC or its nominee and book-entry transfer of those American Depositary Shares to an account at DTC designated by the person entitled to that delivery, (ii) registration of those American Depositary Shares not evidenced by a Receipt on the books of the Depositary in the name requested by the person entitled to that delivery and mailing to that person of a statement confirming that registration or (iii) if requested by the person entitled to that delivery, execution and delivery at the Depositary’s Office to the person entitled to that delivery of one or more Receipts evidencing those American Depositary Shares registered in the name requested by that person.

(c) The term “surrender”, when used with respect to American Depositary Shares, shall mean (i) one or more book-entry transfers of American Depositary Shares to the DTC account of the Depositary, (ii) delivery to the Depositary at its Office of an instruction to surrender American Depositary Shares not evidenced by a Receipt or

(iii) surrender to the Depository at its Office of one or more Receipts evidencing American Depository Shares.

SECTION 1.8. Deposit Agreement.

The term “Deposit Agreement” shall mean this Deposit Agreement, as it may be amended from time to time in accordance with the provisions of this Deposit Agreement.

SECTION 1.9. Depository; Depository’s Office.

The term “Depository” shall mean The Bank of New York Mellon, a New York banking corporation, and any successor as depository under this Deposit Agreement. The term “Office”, when used with respect to the Depository, shall mean the office at which its depository receipts business is administered, which, at the date of this Deposit Agreement, is located at 240 Greenwich Street, New York, New York 10286.

SECTION 1.10. Deposited Securities.

The term “Deposited Securities” as of any time shall mean Units at such time deposited or deemed to be deposited under this Deposit Agreement, including without limitation, Units that have not been successfully delivered upon surrender of American Depository Shares, and any and all other securities, property and cash received by the Depository or the Custodian in respect of Deposited Securities and at that time held under this Deposit Agreement.

SECTION 1.11. Disseminate.

The term “Disseminate,” when referring to a notice or other information to be sent by the Depository to Owners, shall mean (i) sending that information to Owners in paper form by mail or another means or (ii) with the consent of Owners, another procedure that has the effect of making the information available to Owners, which may include (A) sending the information by electronic mail or electronic messaging or (B) sending in paper form or by electronic mail or messaging a statement that the information is available and may be accessed by the Owner on an Internet website and that it will be sent in paper form upon request by the Owner, when that information is so available and is sent in paper form as promptly as practicable upon request.

SECTION 1.12. Dollars.

The term “Dollars” shall mean United States dollars.

SECTION 1.13. DTC.

The term “DTC” shall mean The Depository Trust Company or its successor.

SECTION 1.14. Foreign Registrar.

The term “Foreign Registrar” shall mean the entity that carries out the duties of registrar for the Units and any other agent of the Company for the transfer and registration of Units, including, without limitation, any securities depository for the Units.

SECTION 1.15. Holder.

The term “Holder” shall mean any person holding a Receipt or a security entitlement or other interest in American Depositary Shares, whether for its own account or for the account of another person, but that is not the Owner of that Receipt or those American Depositary Shares.

SECTION 1.16. Owner.

The term “Owner” shall mean the person in whose name American Depositary Shares are registered on the books of the Depository maintained for that purpose.

SECTION 1.17. Receipts.

The term “Receipts” shall mean the American Depositary Receipts issued under this Deposit Agreement evidencing certificated American Depositary Shares, as the same may be amended from time to time in accordance with the provisions of this Deposit Agreement.

SECTION 1.18. Registrar.

The term “Registrar” shall mean any corporation or other entity that is appointed by the Depository to register American Depositary Shares and transfers of American Depositary Shares as provided in this Deposit Agreement.

SECTION 1.19. Replacement.

The term “Replacement” shall have the meaning assigned to it in Section 4.8.

SECTION 1.20. Restricted Securities.

The term “Restricted Securities” shall mean Units that (i) are “restricted securities,” as defined in Rule 144 under the Securities Act of 1933 (“Rule 144”), except

for Units that could be resold in reliance on Rule 144 without any conditions, (ii) are beneficially owned by an officer, director (or person performing similar functions) or other affiliate of the Company, (iii) otherwise would require registration under the Securities Act of 1933 in connection with the public offer and sale thereof in the United States or (iv) are subject to other restrictions on sale or deposit under the laws of the Federative Republic of Brazil, a shareholder agreement or the articles of association or similar document of the Company.

SECTION 1.21. Securities Act of 1933.

The term “Securities Act of 1933” shall mean the United States Securities Act of 1933, as from time to time amended.

SECTION 1.22. Shares.

The term “Shares” shall mean the securities comprising the Units. As of the date of this Deposit Agreement, each Unit consists of one common share and four non-voting class B preferred shares of the Company.

SECTION 1.23. SWIFT.

The term “SWIFT” shall mean the financial messaging network operated by the Society for Worldwide Interbank Financial Telecommunication, or its successor.

SECTION 1.24. Termination Option Event.

The term “Termination Option Event” shall mean any of the following events or conditions:

(i) the Company institutes proceedings to be adjudicated as bankrupt or insolvent, consents to the institution of bankruptcy or insolvency proceedings against it, files a petition or answer or consent seeking reorganization or relief under any applicable law in respect of bankruptcy or insolvency, consents to the filing of any petition of that kind or to the appointment of a receiver, liquidator, assignee, trustee, custodian or sequestrator (or other similar official) of it or any substantial part of its property or makes an assignment for the benefit of creditors, or if information becomes publicly available indicating that unsecured claims against the Company are not expected to be paid;

(ii) the Units are delisted, or the Company announces its intention to delist the Units, from a stock exchange outside the United States, and the Company has not applied to list the Units on any other stock exchange outside the United States;

(iii) the American Depositary Shares are delisted from a stock exchange in the United States on which the American Depositary Shares were listed and, 30 days after that delisting, the American Depositary Shares have not been listed on another stock

exchange in the United States, nor is there a symbol available for over-the-counter trading of the American Depositary Shares in the United States;

(iv) the Depositary has received notice of facts that indicate, or otherwise has reason to believe, that the American Depositary Shares have become, or with the passage of time will become, ineligible for registration on Form F-6 under the Securities Act of 1933; or

(v) an event or condition that is defined as a Termination Option Event in Section 4.1, 4.2 or 4.8.

SECTION 1.25. Units; Unit Depositary.

The term “Units” shall mean units issued under the *Contrato de Prestação de Serviços de Emissor e Depositário de Units* dated January 11, 2021 between the Company and Banco Bradesco S.A., as unit depositary (the “Unit Depositary”), as that agreement may be amended and supplemented from time to time, that are validly issued and outstanding; provided, however, that, if there shall occur any change, exchange or conversion in respect of the Units, the term “Units” shall thereafter also mean the successor securities resulting from such change, exchange or conversion.

ARTICLE 2. FORM OF RECEIPTS, DEPOSIT OF SHARES, DELIVERY, TRANSFER AND SURRENDER OF AMERICAN DEPOSITARY SHARES

SECTION 2.1. Form of Receipts; Registration and Transferability of American Depositary Shares.

Definitive Receipts shall be substantially in the form set forth in Exhibit A to this Deposit Agreement, with appropriate insertions, modifications and omissions, as permitted under this Deposit Agreement. No Receipt shall be entitled to any benefits under this Deposit Agreement or be valid or obligatory for any purpose, unless that Receipt has been [(i) executed by the Depositary by the manual signature of a duly authorized officer of the Depositary or (ii) executed by the facsimile signature of a duly authorized officer of the Depositary and countersigned by the manual signature of a duly authorized signatory of the Depositary or the Registrar or a co-registrar.¹] The Depositary shall maintain books on which (x) each Receipt so executed and delivered as provided in this Deposit Agreement and each transfer of that Receipt and (y) all American Depositary Shares delivered as provided in this Deposit Agreement and all registrations of transfer of American Depositary Shares, shall be registered. A Receipt bearing the facsimile signature of a person that was at any time a proper officer of the Depositary shall, subject to the other provisions of this paragraph, bind the Depositary, even if that person was not a proper officer of the Depositary on the date of issuance of that Receipt.

¹ **NTD:** Will you require the physical copy of the manual signature? Or simply PDF?.

The Receipts and statements confirming registration of American Depositary Shares may have incorporated in or attached to them such legends or recitals or modifications not inconsistent with the provisions of this Deposit Agreement as may be required by the Depositary or required to comply with any applicable law or regulations thereunder or with the rules and regulations of any securities exchange upon which American Depositary Shares may be listed or to conform with any usage with respect thereto, or to indicate any special limitations or restrictions to which any particular Receipts and American Depositary Shares are subject by reason of the date of issuance of the underlying Deposited Securities or otherwise.

American Depositary Shares evidenced by a Receipt, when the Receipt is properly endorsed or accompanied by proper instruments of transfer, shall be transferable as certificated registered securities under the laws of the State of New York. American Depositary Shares not evidenced by Receipts shall be transferable as uncertificated registered securities under the laws of the State of New York. The Depositary, notwithstanding any notice to the contrary, may treat the Owner of American Depositary Shares as the absolute owner thereof for the purpose of determining the person entitled to distribution of dividends or other distributions or to any notice provided for in this Deposit Agreement and for all other purposes, and neither the Depositary nor the Company shall have any obligation or be subject to any liability under this Deposit Agreement to any Holder of American Depositary Shares (but only to the Owner of those American Depositary Shares).

SECTION 2.2. Deposit of Units.

Subject to the terms and conditions of this Deposit Agreement, Units or evidence of rights to receive Units may be deposited under this Deposit Agreement by delivery thereof to any Custodian, accompanied by any appropriate instruments or instructions for transfer, or endorsement, in form satisfactory to the Custodian.

As conditions of accepting Units for deposit, the Depositary may require (i) any certification required by the Depositary or the Custodian in accordance with the provisions of this Deposit Agreement, (ii) a written order directing the Depositary to deliver to, or upon the written order of, the person or persons stated in that order American Depositary Shares representing those deposited Units, (iii) evidence satisfactory to the Depositary that those Units have been re-registered in the books of the Unit Depositary or the Foreign Registrar in the name of the Depositary, a Custodian or a nominee of the Depositary or a Custodian, (iv) evidence satisfactory to the Depositary that any necessary approval for the transfer or deposit has been granted by any governmental body in each applicable jurisdiction and (v) an agreement or assignment, or other instrument satisfactory to the Depositary, that provides for the prompt transfer to the Custodian of any dividend, or right to subscribe for additional Units or to receive other property, that any person in whose name those Units are or have been recorded may thereafter receive upon or in

respect of those Units, or, in lieu thereof, such agreement of indemnity or other agreement as shall be satisfactory to the Depositary.

At the request and risk and expense of a person proposing to deposit Units, and for the account of that person, the Depositary may receive certificates for Units to be deposited, together with the other instruments specified in this Section, for the purpose of forwarding those Unit certificates to the Custodian for deposit under this Deposit Agreement.

The Depositary shall instruct the Custodian that, upon each delivery to the Custodian of a certificate or certificates for Units to be deposited under this Deposit Agreement, together with the other documents specified in this Section, the Custodian shall, as soon as transfer and recordation can be accomplished, present that certificate or those certificates to the Unit Depositary or the Foreign Registrar, if applicable, for transfer and recordation of the Units being deposited in the name of the Depositary or its nominee or the Custodian or its nominee.

Deposited Securities shall be held by the Depositary or by the Custodian for the account and to the order of the Depositary or at such other place or places as the Depositary shall determine.

SECTION 2.3. Delivery of American Depositary Shares.

The Depositary shall instruct each Custodian that, upon receipt by that Custodian of any deposit pursuant to Section 2.2, together with the other documents or evidence required under that Section, that Custodian shall notify the Depositary of that deposit and the person or persons to whom or upon whose written order American Depositary Shares are deliverable in respect thereof. Upon receiving a notice of a deposit from a Custodian, or upon the receipt of Units or evidence of the right to receive Units by the Depositary, the Depositary, subject to the terms and conditions of this Deposit Agreement, shall deliver, to or upon the order of the person or persons entitled thereto, the number of American Depositary Shares issuable in respect of that deposit, but only upon payment to the Depositary of the fees and expenses of the Depositary for the delivery of those American Depositary Shares as provided in Section 5.9, and of all taxes and governmental charges and fees payable in connection with that deposit and the transfer of the deposited Units. However, the Depositary shall deliver only whole numbers of American Depositary Shares.

SECTION 2.4. Registration of Transfer of American Depositary Shares; Combination and Split-up of Receipts; Interchange of Certificated and Uncertificated American Depositary Shares.

The Depositary, subject to the terms and conditions of this Deposit Agreement, shall register a transfer of American Depositary Shares on its transfer books upon (i) in the case of certificated American Depositary Shares, surrender of the Receipt

evidencing those American Depositary Shares, by the Owner or by a duly authorized attorney, properly endorsed or accompanied by proper instruments of transfer or (ii) in the case of uncertificated American Depositary Shares, receipt from the Owner of a proper instruction (including, for the avoidance of doubt, instructions through DRS and Profile as provided in Section 2.9), and, in either case, duly stamped as may be required by the laws of the State of New York and of the United States of America. Upon registration of a transfer, the Depositary shall deliver the transferred American Depositary Shares to or upon the order of the person entitled thereto.

The Depositary, subject to the terms and conditions of this Deposit Agreement, shall upon surrender of a Receipt or Receipts for the purpose of effecting a split-up or combination of such Receipt or Receipts, execute and deliver a new Receipt or Receipts for any authorized number of American Depositary Shares requested, evidencing the same aggregate number of American Depositary Shares as the Receipt or Receipts surrendered.

The Depositary, upon surrender of certificated American Depositary Shares for the purpose of exchanging for uncertificated American Depositary Shares, shall cancel the Receipt evidencing those certificated American Depositary Shares and send the Owner a statement confirming that the Owner is the owner of the same number of uncertificated American Depositary Shares. The Depositary, upon receipt of a proper instruction (including, for the avoidance of doubt, instructions through DRS and Profile as provided in Section 2.9) from the Owner of uncertificated American Depositary Shares for the purpose of exchanging for certificated American Depositary Shares, shall cancel those uncertificated American Depositary Shares and register and deliver to the Owner a Receipt evidencing the same number of certificated American Depositary Shares.

The Depositary may appoint one or more co-transfer agents for the purpose of effecting registration of transfers of American Depositary Shares and combinations and split-ups of Receipts at designated transfer offices on behalf of the Depositary. In carrying out its functions, a co-transfer agent may require evidence of authority and compliance with applicable laws and other requirements by Owners or persons entitled to American Depositary Shares and will be entitled to protection and indemnity to the same extent as the Depositary.

SECTION 2.5. Surrender of American Depositary Shares and Withdrawal of Deposited Securities.

Upon surrender of American Depositary Shares for the purpose of withdrawal of the Deposited Securities represented thereby and payment of the fee of the Depositary for the surrender of American Depositary Shares as provided in Section 5.9 and payment of all taxes and governmental charges payable in connection with that surrender and withdrawal of the Deposited Securities, and subject to the terms and conditions of this Deposit Agreement, the Owner of those American Depositary Shares shall be entitled to delivery (to the extent delivery can then be lawfully and practicably made), to or as

instructed by that Owner, of the amount of Deposited Securities at the time represented by those American Depositary Shares, but not any money or other property as to which a record date for distribution to Owners has passed (since money or other property of that kind will be delivered or paid on the scheduled payment date to the Owner as of that record date), and except that the Depositary shall not be required to accept surrender of American Depositary Shares for the purpose of withdrawal to the extent it would require delivery of a fraction of a Deposited Security. That delivery shall be made, as provided in this Section, without unreasonable delay.

As a condition of accepting a surrender of American Depositary Shares for the purpose of withdrawal of Deposited Securities, the Depositary may require (i) that each surrendered Receipt be properly endorsed in blank or accompanied by proper instruments of transfer in blank and (ii) that the surrendering Owner execute and deliver to the Depositary a written order directing the Depositary to cause the Deposited Securities being withdrawn to be delivered to or upon the written order of a person or persons designated in that order.

Thereupon, the Depositary shall direct the Custodian to deliver, subject to Sections 2.6, 3.1 and 3.2, the other terms and conditions of this Deposit Agreement and local market rules and practices, to the surrendering Owner or to or upon the written order of the person or persons designated in the order delivered to the Depositary as above provided, the amount of Deposited Securities represented by the surrendered American Depositary Shares, and the Depositary may charge the surrendering Owner a fee and its expenses for giving that direction by cable (including SWIFT) or facsimile transmission.

If Deposited Securities are delivered physically upon surrender of American Depositary Shares for the purpose of withdrawal, that delivery will be made at the Custodian's office, except that, at the request, risk and expense of an Owner surrendering American Depositary Shares for withdrawal of Deposited Securities, and for the account of that Owner, the Depositary shall direct the Custodian to forward any cash or other property comprising, and forward a certificate or certificates, if applicable, and other proper documents of title, if any, for, the Deposited Securities represented by the surrendered American Depositary Shares to the Depositary for delivery at the Depositary's Office or to another address specified in the order received from the surrendering Owner.

SECTION 2.6. Limitations on Delivery, Registration of Transfer and Surrender of American Depositary Shares.

As a condition precedent to the delivery, registration of transfer or surrender of any American Depositary Shares, the split-up or combination of any Receipt, or withdrawal of any Deposited Securities, the Depositary, Custodian or Registrar may require payment from the depositor of Units or the presenter of the Receipt, instruction for registration of transfer, or surrender of American Depositary Shares not evidenced by a Receipt of a sum sufficient to reimburse it for any tax or other governmental charge and any stock transfer or registration fee with respect thereto (including any such tax or charge

and fee with respect to Units being deposited or withdrawn) and payment of any applicable fees as provided in this Deposit Agreement may require the production of proof satisfactory to it as to the identity and genuineness of any signature and may also require compliance with any regulations the Depository may establish consistent with the provisions of this Deposit Agreement, including, without limitation, this Section 2.6.

The Depository may refuse to accept deposits of Units for delivery of American Depositary Shares or to register transfers of American Depositary Shares in particular instances, or may suspend deposits of Units or registration of transfer generally, whenever it, the Unit Depository or the Company considers it necessary or advisable to do so. The Depository may refuse surrenders of American Depositary Shares for the purpose of withdrawal of Deposited Securities in particular instances, or may suspend surrenders for the purpose of withdrawal generally, but, notwithstanding anything to the contrary in this Deposit Agreement, only for (i) temporary delays caused by closing of the Depository's register or the register of holders of Units maintained by the Unit Depository or the Foreign Registrar, or the deposit of Units, in connection with voting at a shareholders' meeting or the payment of dividends, (ii) the payment of fees, taxes and similar charges, (iii) compliance with any U.S. or foreign laws or governmental regulations relating to the American Depositary Shares or to the withdrawal of the Deposited Securities or (iv) any other reason that, at the time, is permitted under paragraph I(A)(1) of the General Instructions to Form F-6 under the Securities Act of 1993 or any successor to that provision.

The Depository shall not knowingly accept for deposit under this Deposit Agreement any Units that, at the time of deposit, are Restricted Securities.

SECTION 2.7. Lost Receipts, etc.

If a Receipt is mutilated, destroyed, lost or stolen, the Depository shall deliver to the Owner the American Depositary Shares evidenced by that Receipt in uncertificated form or, if requested by the Owner, execute and deliver a new Receipt of like tenor in exchange and substitution for such mutilated Receipt, upon surrender and cancellation of that mutilated Receipt, or in lieu of and in substitution for that destroyed, lost or stolen Receipt. However, before the Depository will deliver American Depositary Shares in uncertificated form or execute and deliver a new Receipt, in substitution for a destroyed, lost or stolen Receipt, the Owner must (a) file with the Depository (i) a request for that replacement before the Depository has notice that the Receipt has been acquired by a bona fide purchaser and (ii) a sufficient indemnity bond and (b) satisfy any other reasonable requirements imposed by the Depository.

SECTION 2.8. Cancellation and Destruction of Surrendered Receipts.

The Depository shall cancel all Receipts surrendered to it and is authorized to destroy Receipts so cancelled.

SECTION 2.9. DTC Direct Registration System and Profile Modification System.

(a) Notwithstanding the provisions of Section 2.4, the parties acknowledge that DTC's Direct Registration System ("DRS") and Profile Modification System ("Profile") apply to the American Depositary Shares upon acceptance thereof to DRS by DTC. DRS is the system administered by DTC that facilitates interchange between registered holding of uncertificated securities and holding of security entitlements in those securities through DTC and a DTC participant. Profile is a required feature of DRS that allows a DTC participant, claiming to act on behalf of an Owner of American Depositary Shares, to direct the Depository to register a transfer of those American Depositary Shares to DTC or its nominee and to deliver those American Depositary Shares to the DTC account of that DTC participant without receipt by the Depository of prior authorization from the Owner to register that transfer.

(b) In connection with DRS and Profile, the parties acknowledge that the Depository will not determine whether the DTC participant that is claiming to be acting on behalf of an Owner in requesting a registration of transfer and delivery as described in paragraph (a) above has the actual authority to act on behalf of that Owner (notwithstanding any requirements under the Uniform Commercial Code). For the avoidance of doubt, the provisions of Sections 5.3 and 5.8 apply to the matters arising from the use of the DRS and Profile. The parties agree that the Depository's reliance on and compliance with instructions received by the Depository through the DRS and Profile system[s] and otherwise in accordance with this Deposit Agreement shall not constitute negligence or bad faith on the part of the Depository.

ARTICLE 3. CERTAIN OBLIGATIONS OF OWNERS AND HOLDERS OF AMERICAN DEPOSITARY SHARES

SECTION 3.1. Filing Proofs, Certificates and Other Information.

Any person presenting Units for deposit or any Owner or Holder may be required from time to time to file with the Depository or the Custodian such proof of citizenship or residence, exchange control approval, or such information relating to the registration on the books of the Unit Depository or the Foreign Registrar, if applicable, to execute such certificates and to make such representations and warranties, as the Depository may deem necessary or proper. The Depository may withhold the delivery or registration of transfer of American Depositary Shares, the distribution of any dividend or other distribution or of the proceeds thereof or the delivery of any Deposited Securities until that proof or other information is filed or those certificates are executed or those representations and warranties are made.

SECTION 3.2. Liability of Owner for Taxes.

If any tax or other governmental charge shall become payable by the Custodian or the Depositary with respect to or in connection with any American Depositary Shares or any Deposited Securities represented by any American Depositary Shares or in connection with a transaction to which Section 4.8 applies, that tax or other governmental charge shall be payable by the Owner of those American Depositary Shares to the Depositary. The Depositary may refuse to register any transfer of those American Depositary Shares or any withdrawal of Deposited Securities represented by those American Depositary Shares until that payment is made, and may withhold any dividends or other distributions or the proceeds thereof, or may sell for the account of the Owner any part or all of the Deposited Securities represented by those American Depositary Shares and apply those dividends or other distributions or the net proceeds of any sale of that kind in payment of that tax or other governmental charge but, even after a sale of that kind, the Owner of those American Depositary Shares shall remain liable for any deficiency. The Depositary shall distribute any net proceeds of a sale made under this Section that are not used to pay taxes or governmental charges to the Owners entitled to them in accordance with Section 4.1. If the number of Units represented by each American Depositary Share decreases as a result of a sale of Deposited Securities under this Section, the Depositary may call for surrender of the American Depositary Shares to be exchanged on a mandatory basis for a lesser number of American Depositary Shares and may sell American Depositary Shares to the extent necessary to avoid distributing fractions of American Depositary Shares in that exchange and distribute the net proceeds of that sale to the Owners entitled to them.

SECTION 3.3. Warranties on Deposit of Units.

Every person depositing Units under this Deposit Agreement shall be deemed thereby to represent and warrant that those Units, and the Shares represented thereby, are validly issued, fully paid and nonassessable and were not issued in violation of any preemptive or similar rights of the holders of outstanding securities of the Company and that the person making that deposit is duly authorized so to do. Every depositing person shall also be deemed to represent that the Units, at the time of deposit, are not Restricted Securities. All representations and warranties deemed made under this Section shall survive the deposit of Units and delivery of American Depositary Shares.

SECTION 3.4. Disclosure of Interests.

When required in order to comply with applicable laws and regulations or the articles of association or similar document of the Company, the Company may from time to time request each Owner and Holder to provide to the Depositary information relating to: (a) the capacity in which it holds American Depositary Shares, (b) the identity of any Holders or other persons or entities then or previously interested in those American Depositary Shares and the nature of those interests and (c) any other matter where disclosure of such matter is required for that compliance. Each Owner and Holder agrees

to provide all information known to it in response to a request made pursuant to this Section. Each Holder consents to the disclosure by the Depositary and the Owner or any other Holder through which it holds American Depositary Shares, directly or indirectly, of all information responsive to a request made pursuant to this Section relating to that Holder that is known to that Owner or other Holder. The Depositary agrees to use reasonable efforts to comply with written instructions requesting that the Depositary forward any request authorized under this Section to the Owners and to forward to the Company any responses it receives in response to that request. The Depositary may charge the Company a fee and its expenses for complying with requests under this Section 3.4.

SECTION 3.5. Delivery of Information to the CVM.

Each of the Depositary and the Company hereby confirms to the other that for as long as this Deposit Agreement is in effect, it shall furnish the CVM and the Central Bank, at any time and within the period that may be determined, with any information and documents related to the American Depositary Share program and the American Depositary Shares issued hereunder. In the event that the Depositary or the Custodian is advised in writing by reputable independent Brazilian counsel that the Depositary or Custodian reasonably could be subject to criminal, or material, as reasonably determined by the Depositary, civil, liabilities as a result of the Company having failed to provide such information or documents reasonably available only through the Company, the Depositary shall have the right to terminate this Deposit Agreement, upon at least 15 days' prior notice to the Owners and the Company, and the Depositary shall not be subject to any liability hereunder on account of that termination or that determination. The effect of any termination of this Deposit Agreement shall be as provided in Section 6.2.

ARTICLE 4. THE DEPOSITED SECURITIES

SECTION 4.1. Cash Distributions.

Whenever the Depositary receives any cash dividend or other cash distribution on Deposited Securities, the Depositary shall, subject to the provisions of Section 4.5, convert that dividend or other distribution into Dollars and distribute the amount thus received (net of the fees and expenses of the Depositary as provided in Section 5.9) to the Owners entitled thereto, in proportion to the number of American Depositary Shares representing those Deposited Securities held by them respectively; provided, however, that if the Custodian or the Depositary shall be required to withhold and does withhold from that cash dividend or other cash distribution an amount on account of taxes or other governmental charges, the amount distributed to the Owners of the American Depositary Shares representing those Deposited Securities shall be reduced accordingly. However, the Depositary will not pay any Owner a fraction of one cent, but will round each Owner's entitlement to the nearest whole cent.

The Company or its agent will remit to the appropriate governmental agency in each applicable jurisdiction all amounts withheld and owing to such agency.

If a cash distribution would represent a return of all or substantially all the value of the Deposited Securities underlying American Depositary Shares, the Depositary may:

(i) require payment of or deduct the fee for surrender of American Depositary Shares (whether or not it is also requiring surrender of American Depositary Shares) as a condition of making that cash distribution; or

(ii) sell all Deposited Securities other than the subject cash distribution and add any net cash proceeds of that sale to the cash distribution, call for surrender of all those American Depositary Shares and require that surrender as a condition of making that cash distribution.

If the Depositary acts under this paragraph, that action shall also be a Termination Option Event.

SECTION 4.2. Distributions Other Than Cash, Units or Rights.

Subject to the provisions of Sections 4.11 and 5.9, whenever the Depositary receives any distribution other than a distribution described in Section 4.1, 4.3 or 4.4 on Deposited Securities (but not in exchange for or in conversion or in lieu of Deposited Securities), the Depositary shall cause the securities or property received by it to be distributed to the Owners entitled thereto, after deduction or upon payment of any fees and expenses of the Depositary and any taxes or other governmental charges, in proportion to the number of American Depositary Shares representing such Deposited Securities held by them respectively, in any manner that the Depositary deems equitable and practicable for accomplishing that distribution (which may be a distribution of depositary shares representing the securities received); provided, however, that if in the opinion of the Depositary such distribution cannot be made proportionately among the Owners entitled thereto, or if for any other reason (including, but not limited to, any requirement that the Company or the Depositary withhold an amount on account of taxes or other governmental charges or that securities received must be registered under the Securities Act of 1933 in order to be distributed to Owners or Holders) the Depositary deems such distribution not to be lawful and feasible, the Depositary may adopt such other method as it may deem equitable and practicable for the purpose of effecting such distribution, including, but not limited to, the public or private sale of the securities or property thus received, or any part thereof, and distribution of the net proceeds of any such sale (net of the fees and expenses of the Depositary as provided in Section 5.9) to the Owners entitled thereto, all in the manner and subject to the conditions set forth in Section 4.1. The Depositary may withhold any distribution of securities under this Section 4.2 if it has not received satisfactory assurances from the Company that the distribution does not require registration under the Securities Act of 1933. The Depositary may sell, by public or private sale, an amount of securities or other property it would otherwise distribute under this Section 4.2 that is sufficient to pay its fees and expenses in respect of that distribution.

If a distribution to be made under this Section 4.2 would represent a return of all or substantially all the value of the Deposited Securities underlying American Depositary Shares, the Depositary may:

(i) require payment of or deduct the fee for surrender of American Depositary Shares (whether or not it is also requiring surrender of American Depositary Shares) as a condition of making that distribution; or

(ii) sell all Deposited Securities other than the subject distribution and add any net cash proceeds of that sale to the distribution, call for surrender of all those American Depositary Shares and require that surrender as a condition of making that distribution.

If the Depositary acts under this paragraph, that action shall also be a Termination Option Event.

SECTION 4.3. Distributions in Units.

If the Company makes a dividend in, or free distribution of Shares that results in a distribution of additional Units in respect of Deposited Securities, the Depositary may deliver to the Owners entitled thereto, in proportion to the number of American Depositary Shares representing those Deposited Securities held by them respectively, an aggregate number of American Depositary Shares representing the amount of Units received as that dividend or free distribution, subject to the terms and conditions of this Deposit Agreement with respect to the deposit of Units and issuance of American Depositary Shares, including withholding of any tax or governmental charge as provided in Section 4.11 and payment of the fees and expenses of the Depositary as provided in Section 5.9 (and the Depositary may sell, by public or private sale, an amount of the Units received (or American Depositary Shares representing those Units) sufficient to pay its fees and expenses in respect of that distribution). In lieu of delivering fractional American Depositary Shares, the Depositary may sell the amount of Units represented by the aggregate of those fractions (or American Depositary Shares representing those Units) and distribute the net proceeds, all in the manner and subject to the conditions described in Section 4.1. If and to the extent that additional American Depositary Shares are not delivered and Units or American Depositary Shares are not sold, each American Depositary Share shall thenceforth also represent the additional Units distributed on the Deposited Securities represented thereby.

If the Company declares a distribution in which holders of Deposited Securities have a right to elect whether to receive cash, Units or other securities or a combination of those things, or a right to elect to have a distribution sold on their behalf, the Depositary may, after consultation with the Company, make that right of election available for exercise by Owners in any manner the Depositary considers to be lawful and practical. As a condition of making a distribution election right available to Owners, the Depositary may require satisfactory assurances from the Company that doing so does not

require registration of any securities under the Securities Act of 1933 that has not been effected.

SECTION 4.4. Rights.

(a) If rights are granted to the Depositary in respect of deposited Units to purchase additional Units or other securities, the Company and the Depositary shall endeavor to consult as to the actions, if any, the Depositary should take in connection with that grant of rights. The Depositary may, to the extent deemed by it to be lawful and practical (i) if requested in writing by the Company, grant to all or certain Owners rights to instruct the Depositary to purchase the securities to which the rights relate and deliver those securities or American Depositary Shares representing those securities to Owners, (ii) if requested in writing by the Company, deliver the rights to or to the order of certain Owners, or (iii) sell the rights to the extent practicable and distribute the net proceeds of that sale to Owners entitled to those proceeds. To the extent rights are not exercised, delivered or disposed of under (i), (ii) or (iii) above, the Depositary shall permit the rights to lapse unexercised.

(b) If the Depositary will act under (a)(i) above, the Company and the Depositary will enter into a separate agreement setting forth the conditions and procedures applicable to the particular offering. Upon instruction from an applicable Owner in the form the Depositary specified and upon payment by that Owner to the Depositary of an amount equal to the purchase price of the securities to be received upon the exercise of the rights, the Depositary shall, on behalf of that Owner, exercise the rights and purchase the securities. The purchased securities shall be delivered to, or as instructed by, the Depositary. The Depositary shall (i) deposit the purchased Units under this Deposit Agreement and deliver American Depositary Shares representing those Units to that Owner or (ii) deliver or cause the purchased Units or other securities to be delivered to or to the order of that Owner. The Depositary will not act under (a)(i) above unless the offer and sale of the securities to which the rights relate are registered under the Securities Act of 1933 or the Depositary has received an opinion of United States counsel that is satisfactory to it to the effect that those securities may be sold and delivered to the applicable Owners without registration under the Securities Act of 1933.

(c) If the Depositary will act under (a)(ii) above, the Company and the Depositary will enter into a separate agreement setting forth the conditions and procedures applicable to the particular offering. Upon (i) the request of an applicable Owner to deliver the rights allocable to the American Depositary Shares of that Owner to an account specified by that Owner to which the rights can be delivered and (ii) receipt of such documents as the Company and the Depositary agreed to require to comply with applicable law, the Depositary will deliver those rights as requested by that Owner.

(d) If the Depositary will act under (a)(iii) above, the Depositary will use reasonable efforts to sell the rights in proportion to the number of American Depositary Shares held by the applicable Owners and pay the net proceeds to the Owners otherwise

entitled to the rights that were sold, upon an averaged or other practical basis without regard to any distinctions among such Owners because of exchange restrictions or the date of delivery of any American Depositary Shares or otherwise.

(e) Payment or deduction of the fees of the Depositary as provided in Section 5.9 and payment or deduction of the expenses of the Depositary and any applicable taxes or other governmental charges shall be conditions of any delivery of securities or payment of cash proceeds under this Section 4.4.

(f) The Depositary shall not be responsible for any failure to determine that it may be lawful or feasible to make rights available to or exercise rights on behalf of Owners in general or any Owner in particular, or to sell rights.

SECTION 4.5. Conversion of Foreign Currency.

Whenever the Depositary or the Custodian receives foreign currency, by way of dividends or other distributions or the net proceeds from the sale of securities, property or rights, and if at the time of the receipt thereof the foreign currency so received can in the judgment of the Depositary be converted on a reasonable basis into Dollars and the resulting Dollars transferred to the United States, the Depositary or one of its agents or affiliates or the Custodian shall convert or cause to be converted by sale or in any other manner that it may determine that foreign currency into Dollars, and those Dollars shall be distributed to the Owners entitled thereto. A cash distribution may be made upon an averaged or other practicable basis without regard to any distinctions among Owners based on exchange restrictions, the date of delivery of any American Depositary Shares or otherwise and shall be net of any expenses of conversion into Dollars incurred by the Depositary as provided in Section 5.9.

If a conversion of foreign currency or the repatriation or distribution of Dollars can be effected only with the approval or license of any government or agency thereof, the Depositary may, but will not be required to, file an application for that approval or license.

If the Depositary determines that in its judgment any foreign currency received by the Depositary or the Custodian is not convertible on a reasonable basis into Dollars transferable to the United States, or if any approval or license of any government or agency thereof that is required for such conversion is not filed or sought by the Depositary or is not obtained within a reasonable period as determined by the Depositary, the Depositary may distribute the foreign currency received by the Depositary to, or in its discretion may hold such foreign currency uninvested and without liability for interest thereon for the respective accounts of, the Owners entitled to receive the same.

If any conversion of foreign currency, in whole or in part, cannot be effected for distribution to some of the Owners entitled thereto, the Depositary may in its discretion make that conversion and distribution in Dollars to the extent practicable and permissible

to the Owners entitled thereto and may distribute the balance of the foreign currency received by the Depositary to, or hold that balance uninvested and without liability for interest thereon for the account of, the Owners entitled thereto.

The Depositary may convert currency itself or through any of its affiliates, or the Custodian or the Company may convert currency and pay Dollars to the Depositary. Where the Depositary converts currency itself or through any of its affiliates, the Depositary acts as principal for its own account and not as agent, advisor, broker or fiduciary on behalf of any other person and earns revenue, including, without limitation, transaction spreads, that it will retain for its own account. The revenue is based on, among other things, the difference between the exchange rate assigned to the currency conversion made under this Deposit Agreement and the rate that the Depositary or its affiliate receives when buying or selling foreign currency for its own account. The Depositary makes no representation that the exchange rate used or obtained by it or its affiliate in any currency conversion under this Deposit Agreement will be the most favorable rate that could be obtained at the time or that the method by which that rate will be determined will be the most favorable to Owners, subject to the Depositary's obligations under Section 5.3. The methodology used to determine exchange rates used in currency conversions made by the Depositary is available upon request. Where the Custodian converts currency, the Custodian has no obligation to obtain the most favorable rate that could be obtained at the time or to ensure that the method by which that rate will be determined will be the most favorable to Owners, and the Depositary makes no representation that the rate is the most favorable rate and will not be liable for any direct or indirect losses associated with the rate. In certain instances, the Depositary may receive dividends or other distributions from the Company in Dollars that represent the proceeds of a conversion of foreign currency or translation from foreign currency at a rate that was obtained or determined by or on behalf of the Company and, in such cases, the Depositary will not engage in, or be responsible for, any foreign currency transactions and neither it nor the Company makes any representation that the rate obtained or determined by the Company is the most favorable rate and neither it nor the Company will be liable for any direct or indirect losses associated with the rate.

SECTION 4.6. Fixing of Record Date.

Whenever a cash dividend, cash distribution or any other distribution is made on Deposited Securities or rights to purchase Units or other securities are issued with respect to Deposited Securities (which rights will be delivered to or exercised or sold on behalf of Owners in accordance with Section 4.4) or the Depositary receives notice that a distribution or issuance of that kind will be made, or whenever the Depositary receives notice that a meeting of holders of Units will be held in respect of which the Company has requested the Depositary to send a notice under Section 4.7, or whenever the Depositary will assess a fee or charge against the Owners, or whenever the Depositary causes a change in the number of Units that are represented by each American Depositary Share, or whenever the Depositary otherwise finds it necessary or convenient, the Depositary shall

fix a record date, which shall be the same as, or as near as practicable to, any corresponding record date set by the Company with respect to Units, (a) for the determination of the Owners (i) who shall be entitled to receive the benefit of that dividend or other distribution or those rights, (ii) who shall be entitled to give instructions for the exercise of voting rights at that meeting, (iii) who shall be responsible for that fee or charge or (iv) for any other purpose for which the record date was set, or (b) on or after which each American Depositary Share will represent the changed number of Units. Subject to the provisions of Sections 4.1 through 4.5 and to the other terms and conditions of this Deposit Agreement, the Owners on a record date fixed by the Depositary shall be entitled to receive the amount distributable by the Depositary with respect to that dividend or other distribution or those rights or the net proceeds of sale thereof in proportion to the number of American Depositary Shares held by them respectively, to give voting instructions or to act in respect of the other matter for which that record date was fixed, or be responsible for that fee or charge, as the case may be.

SECTION 4.7. Voting of Deposited Units.

(a) Upon receipt of notice of any meeting of holders of Units or Shares at which holders of Units will be entitled to vote, if requested in writing by the Company, the Depositary shall, as soon as practicable thereafter, Disseminate to the Owners a notice, the form of which shall be in the sole discretion of the Depositary, that shall contain (i) the information contained in the notice of meeting received by the Depositary, (ii) a statement that the Owners as of the close of business on a specified record date will be entitled, subject to any applicable provision of Brazilian law and of the articles of association or similar documents of the Company, to instruct the Depositary as to the exercise of the voting rights pertaining to the amount of Units represented by their respective American Depositary Shares, (iii) a statement as to the manner in which those instructions may be given and (iv) the last date on which the Depositary will accept instructions (the "Instruction Cutoff Date").

(b) Upon the written request of an Owner of American Depositary Shares, as of the date of the request or, if a record date was specified by the Depositary, as of that record date, received on or before any Instruction Cutoff Date established by the Depositary, the Depositary may, and if the Depositary sent a notice under the preceding paragraph shall, endeavor, in so far as practicable, to vote or cause to be voted the amount of deposited Units (or Shares represented by deposited Units) represented by those American Depositary Shares in accordance with the instructions set forth in that request. The Depositary shall not vote or attempt to exercise the right to vote that attaches to the deposited Units other than in accordance with instructions given by Owners and received by the Depositary.

(c) There can be no assurance that Owners generally or any Owner in particular will receive the notice described in paragraph (a) above in time to enable Owners to give instructions to the Depositary prior to the Instruction Cutoff Date.

(d) In order to give Owners a reasonable opportunity to instruct the Depositary as to the exercise of voting rights relating to Units, if the Company will request the Depositary to Disseminate a notice under paragraph (a) above, the Company shall give the Depositary notice of the meeting, details concerning the matters to be voted upon and copies of materials to be made available to holders of Units in connection with the meeting not less than 45 days prior to the meeting date.

SECTION 4.8. Tender and Exchange Offers; Redemption, Replacement or Cancellation of Deposited Securities.

(a) The Depositary shall not tender any Deposited Securities in response to any voluntary cash tender offer, exchange offer or similar offer made to holders of Deposited Securities (a “Voluntary Offer”), except when instructed in writing to do so by an Owner surrendering American Depositary Shares and subject to any conditions or procedures the Depositary may require.

(b) If the Depositary receives a written notice that Deposited Securities have been redeemed for cash or otherwise purchased for cash in a transaction that is mandatory and binding on the Depositary as a holder of those Deposited Securities (a “Redemption”), the Depositary, at the expense of the Company, shall (i) if required, surrender Deposited Securities that have been redeemed to the issuer of those securities or its agent on the redemption date, (ii) Disseminate a notice to Owners (A) notifying them of that Redemption, (B) calling for surrender of a corresponding number of American Depositary Shares and (C) notifying them that the called American Depositary Shares have been converted into a right only to receive the money received by the Depositary upon that Redemption and those net proceeds shall be the Deposited Securities to which Owners of those converted American Depositary Shares shall be entitled upon surrenders of those American Depositary Shares in accordance with Section 2.5 or 6.2 and (iii) distribute the money received upon that Redemption to the Owners entitled to it upon surrender by them of called American Depositary Shares in accordance with Section 2.5 (and, for the avoidance of doubt, Owners shall not be entitled to receive that money under Section 4.1). If the Redemption affects less than all the Deposited Securities, the Depositary shall call for surrender a corresponding portion of the outstanding American Depositary Shares and only those American Depositary Shares will automatically be converted into a right to receive the net proceeds of the Redemption. The Depositary shall allocate the American Depositary Shares converted under the preceding sentence among the Owners pro-rata to their respective holdings of American Depositary Shares immediately prior to the Redemption, except that the allocations may be adjusted so that no fraction of a converted American Depositary Share is allocated to any Owner. A Redemption of all or substantially all of the Deposited Securities shall be a Termination Option Event.

(c) If the Depositary is notified of or there occurs any change in nominal value or any subdivision, combination or any other reclassification of the Deposited Securities or any recapitalization, reorganization, sale of assets substantially as an entirety,

merger or consolidation affecting the issuer of the Deposited Securities or to which it is a party that is mandatory and binding on the Depositary as a holder of Deposited Securities and, as a result, securities or other property have been or will be delivered in exchange, conversion, replacement or in lieu of, Deposited Securities (a “Replacement”), the Depositary shall, if required, surrender the old Deposited Securities affected by that Replacement of Units and hold, as new Deposited Securities under this Deposit Agreement, the new securities or other property delivered to it in that Replacement. However, the Depositary may elect to sell those new Deposited Securities if in the opinion of the Depositary it is not lawful or not practical for it to hold those new Deposited Securities under this Deposit Agreement because those new Deposited Securities may not be distributed to Owners without registration under the Securities Act of 1933 or for any other reason, at public or private sale, at such places and on such terms as it deems proper and proceed as if those new Deposited Securities had been Redeemed under paragraph (b) above. A Replacement shall be a Termination Option Event.

(d) In the case of a Replacement where the new Deposited Securities will continue to be held under this Deposit Agreement, the Depositary may call for the surrender of outstanding Receipts to be exchanged for new Receipts specifically describing the new Deposited Securities and the number of those new Deposited Securities represented by each American Depositary Share. If the number of Units represented by each American Depositary Share decreases as a result of a Replacement, the Depositary may call for surrender of the American Depositary Shares to be exchanged on a mandatory basis for a lesser number of American Depositary Shares and may sell American Depositary Shares to the extent necessary to avoid distributing fractions of American Depositary Shares in that exchange and distribute the net proceeds of that sale to the Owners entitled to them.

(e) If there are no Deposited Securities with respect to American Depositary Shares, including if the Deposited Securities are cancelled, or the Deposited Securities with respect to American Depositary Shares have become apparently worthless, the Depositary may call for surrender of those American Depositary Shares or may cancel those American Depositary Shares, upon notice to Owners, and that condition shall be a Termination Option Event.

SECTION 4.9. Reports.

The Depositary shall make available for inspection by Owners at its Office any reports and communications, including any proxy solicitation material, received from the Company which are both (a) received by the Depositary as the holder of the Deposited Securities and (b) made generally available to the holders of those Deposited Securities by the Company. The Company shall furnish reports and communications, including any proxy soliciting material to which this Section applies, to the Depositary in English, to the extent those materials are required to be translated into English pursuant to any regulations of the Commission.

SECTION 4.10. Lists of Owners.

Upon written request by the Company, the Depositary shall, at the expense of the Company, furnish to it a list, as of a recent date, of the names, addresses and American Depositary Share holdings of all Owners.

SECTION 4.11. Withholding.

If the Depositary determines that any distribution received or to be made by the Depositary (including Units and rights to subscribe therefor) is subject to any tax or other governmental charge that the Depositary is obligated to withhold, the Depositary may sell, by public or private sale, all or a portion of the distributed property (including Units and rights to subscribe therefor) in the amounts and manner the Depositary deems necessary and practicable to pay those taxes or charges, and the Depositary shall distribute the net proceeds of that sale, after deduction of those taxes or charges, to the Owners entitled thereto in proportion to the number of American Depositary Shares held by them respectively.

Services for Owners and Holders that may permit them to obtain reduced rates of tax withholding at source or reclaim excess tax withheld, and the fees and costs associated with using services of that kind, are not provided under, and are outside the scope of, this Deposit Agreement.

Each Owner and Holder agrees to indemnify the Company, the Depositary, the Custodian and their respective directors, employees, agents and affiliates for, and hold each of them harmless against, any claim by any governmental authority with respect to taxes, additions to tax, penalties or interest arising out of any refund of taxes, reduced withholding at source or other tax benefit received by it.

ARTICLE 5. THE DEPOSITARY, THE CUSTODIANS AND THE COMPANY

SECTION 5.1. Maintenance of Office and Register by the Depositary.

Until termination of this Deposit Agreement in accordance with its terms, the Depositary shall maintain facilities for the delivery, registration of transfers and surrender of American Depositary Shares in accordance with the provisions of this Deposit Agreement.

The Depositary shall keep a register of all Owners and all outstanding American Depositary Shares, which shall be open for inspection by the Owners at the Depositary's Office during regular business hours, but only for the purpose of communicating with Owners regarding the business of the Company or a matter related to this Deposit Agreement or the American Depositary Shares.

The Depositary may close the register for delivery, registration of transfer or surrender for the purpose of withdrawal from time to time as provided in Section 2.6.

If any American Depositary Shares are listed on one or more stock exchanges, the Depositary shall act as Registrar or appoint a Registrar or one or more co-registrars for registration of those American Depositary Shares in accordance with any requirements of that exchange or those exchanges.

SECTION 5.2. Prevention or Delay of Performance by the Company or the Depositary.

Neither the Depositary nor the Company nor any of their respective directors, employees, agents or affiliates shall incur any liability to any Owner or Holder:

(i) if by reason of (A) any provision of any present or future law or regulation or other act of the government of the United States, any State of the United States or any other state or jurisdiction, or of any governmental or regulatory authority or stock exchange; (B) (in the case of the Depositary only) any provision, present or future, of the articles of association or similar document of the Company, or any provision of any securities issued or distributed by the Company, or any offering or distribution thereof; or (C) any event or circumstance, whether natural or caused by a person or persons, that is beyond the ability of the Depositary or the Company, as the case may be, to prevent or counteract by reasonable care or effort (including, but not limited to, earthquakes, floods, severe storms, fires, explosions, war, terrorism, civil unrest, labor disputes, criminal acts or outbreaks of infectious disease; interruptions or malfunctions of utility services, Internet or other communications lines or systems; unauthorized access to or attacks on computer systems or websites; or other failures or malfunctions of computer hardware or software or other systems or equipment), the Depositary or the Company is, directly or indirectly, prevented from, forbidden to or delayed in, or could be subject to any civil or criminal penalty on account of doing or performing and therefore does not do or perform, any act or thing that, by the terms of this Deposit Agreement or the Deposited Securities, it is provided shall be done or performed;

(ii) for any exercise of, or failure to exercise, any discretion provided for in this Deposit Agreement (including any determination by the Depositary to take, or not take, any action that this Deposit Agreement provides the Depositary may take);

(iii) for the inability of any Owner or Holder to benefit from any distribution, offering, right or other benefit that is made available to holders of Deposited Securities but is not, under the terms of this Deposit Agreement, made available to Owners or Holders; or

(iv) for any special, consequential or punitive damages for any breach of the terms of this Deposit Agreement.

Where, by the terms of a distribution to which Section 4.1, 4.2 or 4.3 applies, or an offering to which Section 4.4 applies, or for any other reason, that distribution or offering may not be made available to Owners, and the Depositary may not dispose of that distribution or offering on behalf of Owners and make the net proceeds available to Owners, then the Depositary shall not make that distribution or offering available to Owners, and shall allow any rights, if applicable, to lapse.

SECTION 5.3. Obligations of the Depositary and the Company.

The Company assumes no obligation nor shall it be subject to any liability under this Deposit Agreement to any Owner or Holder, except that the Company agrees to perform its obligations specifically set forth in this Deposit Agreement without negligence or bad faith.

The Depositary assumes no obligation nor shall it be subject to any liability under this Deposit Agreement to any Owner or Holder (including, without limitation, liability with respect to the validity or worth of the Deposited Securities), except that the Depositary agrees to perform its obligations specifically set forth in this Deposit Agreement without negligence or bad faith, and the Depositary shall not be a fiduciary or have any fiduciary duty to Owners or Holders.

Neither the Depositary nor the Company shall be under any obligation to appear in, prosecute or defend any action, suit or other proceeding in respect of any Deposited Securities or in respect of the American Depositary Shares on behalf of any Owner or Holder or any other person.

Each of the Depositary and the Company may rely, and shall be protected in relying upon, any written notice, request, direction or other document believed by it to be genuine and to have been signed or presented by the proper party or parties.

Neither the Depositary nor the Company shall be liable for any action or non-action by it in reliance upon the advice of or information from legal counsel, accountants, any person presenting Units for deposit, any Owner or any other person believed by it in good faith to be competent to give such advice or information.

The Depositary shall not be liable for any acts or omissions made by a successor depositary whether in connection with a previous act or omission of the Depositary or in connection with any matter arising wholly after the removal or resignation of the Depositary, provided that in connection with the issue out of which such potential liability arises the Depositary performed its obligations without negligence or bad faith while it acted as Depositary.

The Depositary shall not be liable for the acts or omissions of any securities depository, clearing agency or settlement system in connection with or arising out of book-entry settlement of American Depositary Shares or Deposited Securities or otherwise.

In the absence of bad faith on its part, the Depositary shall not be responsible for any failure to carry out any instructions to vote any of the Deposited Securities, or for the manner in which any such vote is cast or the effect of any such vote.

The Depositary shall have no duty to make any determination or provide any information as to the tax status of the Company or any liability for any tax consequences that may be incurred by Owners or Holders as a result of owning or holding American Depositary Shares. The Depositary shall not be liable for the inability or failure of an Owner or Holder to obtain the benefit of a foreign tax credit, reduced rate of withholding or refund of amounts withheld in respect of tax or any other tax benefit.

No disclaimer of liability under the United States federal securities laws is intended by any provision of this Deposit Agreement.

SECTION 5.4. Resignation and Removal of the Depositary.

The Depositary may at any time resign as Depositary hereunder by written notice of its election so to do delivered to the Company, to become effective upon the appointment of a successor depositary and its acceptance of that appointment as provided in this Section. The effect of resignation if a successor depositary is not appointed is provided for in Section 6.2.

The Depositary may at any time be removed by the Company by 120 days' prior written notice of that removal, to become effective upon the later of (i) the 120th day after delivery of the notice to the Depositary and (ii) the appointment of a successor depositary and its acceptance of its appointment as provided in this Section.

If the Depositary resigns or is removed, the Company shall use its best efforts to appoint a successor depositary, which shall be a bank or trust company having an office in the Borough of Manhattan, The City of New York. Every successor depositary shall execute and deliver to the Company an instrument in writing accepting its appointment under this Deposit Agreement. If the Depositary receives notice from the Company that a successor depositary has been appointed following its resignation or removal, the Depositary, upon payment of all sums due it from the Company, shall deliver to its successor a register listing all the Owners and their respective holdings of outstanding American Depositary Shares and shall deliver the Deposited Securities to or to the order of its successor. When the Depositary has taken the actions specified in the preceding sentence (i) the successor shall become the Depositary and shall have all the rights and shall assume all the duties of the Depositary under this Deposit Agreement and (ii) the predecessor depositary shall cease to be the Depositary and shall be discharged and released from all obligations under this Deposit Agreement, except for its duties under Section 5.8 with respect to the time before that discharge. A successor Depositary shall notify the Owners of its appointment as soon as practical after assuming the duties of Depositary.

Any corporation or other entity into or with which the Depositary may be merged or consolidated shall be the successor of the Depositary without the execution or filing of any document or any further act.

SECTION 5.5. The Custodian.

The Custodian shall be subject at all times and in all respects to the directions of the Depositary and shall be responsible solely to it. The Depositary in its discretion may at any time appoint a substitute custodian, which shall thereafter be the Custodian under this Deposit Agreement. If the Depositary receives notice that the Custodian is resigning and, upon the effectiveness of that resignation there would be no Custodian acting under this Deposit Agreement, the Depositary shall, as promptly as practicable after receiving that notice, appoint a substitute custodian, which shall thereafter be a Custodian under this Deposit Agreement. The Depositary shall require the Custodian that resigns or is removed to deliver all Deposited Securities held by it to the substitute Custodian.

SECTION 5.6. Notices and Reports.

If the Company takes or decides to take any corporate action of a kind that is addressed in Sections 4.1 to 4.4, or 4.6 to 4.8, or that effects or will effect a change of the name or legal structure of the Company, or that effects or will effect a change to the Units or the Shares, the Company shall notify the Depositary and the Custodian of that action or decision as soon as it is lawful and practical to give that notice. The notice shall be in English and shall include all details that the Company is required to include in any notice to any governmental or regulatory authority or securities exchange or is required to make available generally to holders of Units or Shares by publication or otherwise.

The Company will arrange for the translation into English, if not already in English, to the extent required pursuant to any regulations of the Commission, and the prompt transmittal by the Company to the Depositary and the Custodian of all notices and any other reports and communications which are made generally available by the Company to holders of Units or Shares. If requested in writing by the Company, the Depositary will Disseminate, at the Company's expense, those notices, reports and communications to all Owners or otherwise make them available to Owners in a manner that the Company specifies as substantially equivalent to the manner in which those communications are made available to holders of Units or Shares and compliant with the requirements of any securities exchange on which the American Depositary Shares are listed. The Company will timely provide the Depositary with the quantity of such notices, reports, and communications, as requested by the Depositary from time to time, in order for the Depositary to effect that Dissemination.

The Company represents, continuously, that the statements in Article 11 of the form of Receipt appearing as Exhibit A to this Deposit Agreement or, if applicable, most recently filed with the Commission pursuant to Rule 424(b) under the Securities Act

of 1933 with respect to the Company's obligation to file periodic reports under the United States Securities Exchange Act of 1934, as amended, or its qualification for exemption from registration under that Act pursuant to Rule 12g3-2(b) under that Act, as the case may be, are true and correct. The Company agrees to promptly notify the Depositary upon becoming aware of any change in the truth of any of those statements or if there is any change in the Company's status regarding those reporting obligations or that qualification.

SECTION 5.7. Distribution of Additional Units, Rights, etc.

If the Company or any affiliate of the Company determines to make any issuance or distribution of (1) additional Units or Shares, (2) rights to subscribe for Units or Shares, (3) securities convertible into Units or Shares, or (4) rights to subscribe for such securities (each a "Distribution"), the Company shall notify the Depositary in writing in English as promptly as practicable and in any event before the Distribution starts and, if requested in writing by the Depositary, the Company shall promptly furnish to the Depositary either (i) evidence satisfactory to the Depositary that the Distribution is registered under the Securities Act of 1933 or (ii) a written opinion from U.S. counsel for the Company that is reasonably satisfactory to the Depositary, stating that the Distribution does not require, or, if made in the United States, would not require, registration under the Securities Act of 1933.

The Company agrees with the Depositary that neither the Company nor any company controlled by, controlling or under common control with the Company will at any time deposit any Units that, at the time of deposit, are Restricted Securities.

SECTION 5.8. Indemnification.

The Company agrees to indemnify the Depositary, its directors, employees, agents and affiliates and each Custodian against, and hold each of them harmless from, any liability or expense (including, but not limited to any fees and expenses incurred in seeking, enforcing or collecting such indemnity and the fees and expenses of counsel) that may arise out of or in connection with (a) any registration with the Commission of American Depositary Shares or Deposited Securities or the offer or sale thereof or (b) acts performed or omitted, pursuant to the provisions of or in connection with this Deposit Agreement and the American Depositary Shares, as the same may be amended, modified or supplemented from time to time, (i) by either the Depositary or a Custodian or their respective directors, employees, agents and affiliates, except for any liability or expense arising out of the negligence or bad faith of either of them, or (ii) by the Company or any of its directors, employees, agents and affiliates.

The Depositary agrees to indemnify the Company, its directors, employees, agents and affiliates and hold them harmless from any liability or expense that may arise out of acts performed or omitted by the Depositary or any Custodian or their respective directors, employees, agents and affiliates due to their negligence or bad faith.

SECTION 5.9. Charges of Depositary.

The following charges shall be incurred by any party depositing or withdrawing Units or by any party surrendering American Depositary Shares or to whom American Depositary Shares are issued (including, without limitation, issuance pursuant to a stock dividend or stock split declared by the Company or an exchange of stock regarding the American Depositary Shares or Deposited Securities or a delivery of American Depositary Shares pursuant to Section 4.3), or by Owners, as applicable: (1) taxes and other governmental charges, (2) such registration fees as may from time to time be in effect for the registration of transfers of Units generally on the Unit register of the Unit Depositary or Foreign Registrar and applicable to transfers of Units to or from the name of the Depositary or its nominee or the Custodian or its nominee on the making of deposits or withdrawals hereunder, (3) such cable (including SWIFT) and facsimile transmission fees and expenses as are expressly provided in this Deposit Agreement, (4) such expenses as are incurred by the Depositary in the conversion of foreign currency pursuant to Section 4.5, (5) a fee of \$5.00 or less per 100 American Depositary Shares (or portion thereof) for the delivery of American Depositary Shares pursuant to Section 2.3, 4.3 or 4.4 and the surrender of American Depositary Shares pursuant to Section 2.5 or 6.2, (6) a fee of \$.05 or less per American Depositary Share (or portion thereof) for any cash distribution made pursuant to this Deposit Agreement, including, but not limited to Sections 4.1 through 4.4 and Section 4.8, (7) a fee for the distribution of securities pursuant to Section 4.2 or of rights pursuant to Section 4.4 (where the Depositary will not exercise or sell those rights on behalf of Owners), such fee being in an amount equal to the fee for the execution and delivery of American Depositary Shares referred to above which would have been charged as a result of the deposit of such securities under this Deposit Agreement (for purposes of this item 7 treating all such securities as if they were Units) but which securities are instead distributed by the Depositary to Owners, (8) in addition to any fee charged under item 6 above, a fee of \$.05 or less per American Depositary Share (or portion thereof) per annum for depositary services, which will be payable as provided in item 9 below, and (9) any other charges payable by the Depositary or the Custodian, any of the Depositary's or Custodian's agents or the agents of the Depositary's or Custodian's agents, in connection with the servicing of Units or other Deposited Securities (which charges shall be assessed against Owners as of the date or dates set by the Depositary in accordance with Section 4.6 and shall be payable at the sole discretion of the Depositary by billing those Owners for those charges or by deducting those charges from one or more cash dividends or other cash distributions).

The Depositary may collect any of its fees by deduction from any cash distribution payable, or by selling a portion of any securities to be distributed, to Owners that are obligated to pay those fees.

In performing its duties under this Deposit Agreement, the Depositary may use brokers, dealers, foreign currency dealers or other service providers that are owned by or affiliated with the Depositary and that may earn or share fees, spreads or commissions.

The Depositary may own and deal in any class of securities of the Company and its affiliates and Units and in American Depositary Shares.

SECTION 5.10. Retention of Depositary Documents.

The Depositary is authorized to destroy those documents, records, bills and other data compiled during the term of this Deposit Agreement at the times permitted by the laws or regulations governing the Depositary.

SECTION 5.11. Exclusivity.

Without prejudice to the Company's rights under Section 5.4, the Company agrees not to appoint any other depositary for issuance of depositary shares, depositary receipts or any similar securities or instruments so long as The Bank of New York Mellon is acting as Depositary under this Deposit Agreement.

SECTION 5.12. Information for Regulatory Compliance.

Each of the Company and the Depositary shall provide to the other, as promptly as practicable, information from its records or otherwise available to it that is reasonably requested by the other to permit the other to comply with applicable law or requirements of governmental or regulatory authorities.

ARTICLE 6. AMENDMENT AND TERMINATION

SECTION 6.1. Amendment.

The form of the Receipts and any provisions of this Deposit Agreement may at any time and from time to time be amended by agreement between the Company and the Depositary without the consent of Owners or Holders in any respect that they may deem necessary or desirable. Any amendment that would impose or increase any fees or charges (other than taxes and other governmental charges, registration fees, cable (including SWIFT) or facsimile transmission costs, delivery costs or other such expenses), or that would otherwise prejudice any substantial existing right of Owners, shall, however, not become effective as to outstanding American Depositary Shares until the expiration of 30 days after notice of that amendment has been Disseminated to the Owners of outstanding American Depositary Shares. Every Owner and Holder, at the time any amendment so becomes effective, shall be deemed, by continuing to hold American Depositary Shares or any interest therein, to consent and agree to that amendment and to be bound by this Deposit Agreement as amended thereby. Upon the effectiveness of an amendment to the form of Receipt, including a change in the number of Units represented by each American Depositary Share, the Depositary may call for surrender of Receipts to be replaced with new Receipts in the amended form or call for surrender of American Depositary Shares to effect that change of ratio. In no event shall any amendment impair the right of the Owner to surrender American Depositary Shares and receive delivery of the Deposited Securities

represented thereby, except in order to comply with mandatory provisions of applicable law.

SECTION 6.2. Termination.

(a) The Company may initiate termination of this Deposit Agreement by notice to the Depository. The Depository may initiate termination of this Deposit Agreement if (i) at any time 60 days shall have expired after the Depository delivered to the Company a written resignation notice and a successor depository has not been appointed and accepted its appointment as provided in Section 5.4 or (ii) a Termination Option Event has occurred or will occur. If termination of this Deposit Agreement is initiated, the Depository shall Disseminate a notice of termination to the Owners of all American Depositary Shares then outstanding setting a date for termination (the "Termination Date"), which shall be at least 90 days after the date of that notice, and this Deposit Agreement shall terminate on that Termination Date.

(b) After the Termination Date, the Company shall be discharged from all obligations under this Deposit Agreement except for its obligations to the Depository under Sections 5.8 and 5.9.

(c) At any time after the Termination Date, the Depository may sell the Deposited Securities then held under this Deposit Agreement and may thereafter hold uninvested the net proceeds of any such sale, together with any other cash then held by it hereunder, unsegregated and without liability for interest, for the pro rata benefit of the Owners of American Depositary Shares that remain outstanding, and those Owners will be general creditors of the Depository with respect to those net proceeds and that other cash. After making that sale, the Depository shall be discharged from all obligations under this Deposit Agreement, except (i) to account for the net proceeds and other cash (after deducting, in each case, the fee of the Depository for the surrender of American Depositary Shares, any expenses for the account of the Owner of such American Depositary Shares in accordance with the terms and conditions of this Deposit Agreement and any applicable taxes or governmental charges) and (ii) for its obligations under Section 5.8 and (iii) to act as provided in paragraph (d) below.

(d) After the Termination Date, the Depository shall continue to receive dividends and other distributions pertaining to Deposited Securities (that have not been sold), may sell rights and other property as provided in this Deposit Agreement and shall deliver Deposited Securities (or sale proceeds) upon surrender of American Depositary Shares (after payment or upon deduction, in each case, of the fee of the Depository for the surrender of American Depositary Shares, any expenses for the account of the Owner of those American Depositary Shares in accordance with the terms and conditions of this Deposit Agreement and any applicable taxes or governmental charges). After the Termination Date, the Depository shall not accept deposits of Units or deliver American Depositary Shares. After the Termination Date, (i) the Depository may refuse to accept surrenders of American Depositary Shares for the purpose of withdrawal of Deposited

Securities (that have not been sold) or reverse previously accepted surrenders of that kind that have not settled if in its judgment the requested withdrawal would interfere with its efforts to sell the Deposited Securities, (ii) the Depositary will not be required to deliver cash proceeds of the sale of Deposited Securities until all Deposited Securities have been sold and (iii) the Depositary may discontinue the registration of transfers of American Depositary Shares and suspend the distribution of dividends and other distributions on Deposited Securities to the Owners and need not give any further notices or perform any further acts under this Deposit Agreement except as provided in this Section.

ARTICLE 7. MISCELLANEOUS

SECTION 7.1. Counterparts; Signatures; Delivery.

This Deposit Agreement may be executed in any number of counterparts, each of which shall be deemed an original and all of those counterparts shall constitute one and the same instrument. Copies of this Deposit Agreement shall be filed with the Depositary and the Custodians and shall be open to inspection by any Owner or Holder during regular business hours.

The exchange of copies of this Deposit Agreement and manually-signed signature pages by facsimile, or email attaching a pdf or similar bit-mapped image, shall constitute effective execution and delivery of this Deposit Agreement as to the parties to it; copies and signature pages so exchanged may be used in lieu of the original Deposit Agreement and signature pages for all purposes and shall have the same validity, legal effect and admissibility in evidence as an original manual signature; the parties to this Deposit Agreement hereby agree not to argue to the contrary.

SECTION 7.2. No Third Party Beneficiaries.

This Deposit Agreement is for the exclusive benefit of the Company, the Depositary, the Owners and the Holders and their respective successors and shall not be deemed to give any legal or equitable right, remedy or claim whatsoever to any other person.

SECTION 7.3. Severability.

In case any one or more of the provisions contained in this Deposit Agreement or in a Receipt should be or become invalid, illegal or unenforceable in any respect, the validity, legality and enforceability of the remaining provisions contained in this Deposit Agreement or that Receipt shall in no way be affected, prejudiced or disturbed thereby.

SECTION 7.4. Owners and Holders as Parties; Binding Effect.

The Owners and Holders from time to time shall be parties to this Deposit Agreement and shall be bound by all of the terms and conditions of this Deposit Agreement and of the Receipts by acceptance of American Depositary Shares or any interest therein.

SECTION 7.5. Notices.

Any and all notices to be given to the Company shall be in writing and shall be deemed to have been duly given if personally delivered or sent by domestic first class or international air mail or air courier or sent by facsimile transmission or email attaching a pdf or similar bit-mapped image of a signed writing, addressed to Companhia Paranaense de Energia - COPEL, Rua Coronel Dulcídio, 800, 3rd floor – 80420.170 Curitiba, Paraná, Brazil, Attention: Daniel Pimentel Slaviero, or any other place to which the Company may have transferred its principal office with notice to the Depository.

Any and all notices to be given to the Depository shall be in writing and shall be deemed to have been duly given if in English and personally delivered or sent by first class domestic or international air mail or air courier or sent by facsimile transmission or email attaching a pdf or similar bit-mapped image of a signed writing, addressed to The Bank of New York Mellon, 240 Greenwich Street, New York, New York 10286, Attention: Depository Receipt Administration, or any other place to which the Depository may have transferred its Office with notice to the Company.

Delivery of a notice to the Company or Depository by mail or air courier shall be deemed effected when deposited, postage prepaid, in a post-office letter box or received by an air courier service. Delivery of a notice to the Company or Depository sent by facsimile transmission or email shall be deemed effected when the recipient acknowledges receipt of that notice.

A notice to be given to an Owner shall be deemed to have been duly given when Disseminated to that Owner. Dissemination in paper form will be effective when personally delivered or sent by first class domestic or international air mail or air courier, addressed to that Owner at the address of that Owner as it appears on the transfer books for American Depositary Shares of the Depository, or, if that Owner has filed with the Depository a written request that notices intended for that Owner be mailed to some other address, at the address designated in that request. Dissemination in electronic form will be effective when sent in the manner consented to by the Owner to the electronic address most recently provided by the Owner for that purpose.

SECTION 7.6. Appointment of Agent for Service of Process; Submission to Jurisdiction; Jury Trial Waiver.

The Company hereby (i) designates and appoints the person named in Exhibit A to this Deposit Agreement as the Company's authorized agent in the United

States upon which process may be served in any suit or proceeding arising out of or relating to the Units or other Deposited Securities, the Shares, the American Depositary Shares, the Receipts or this Deposit Agreement (a "Proceeding"), (ii) consents and submits to the jurisdiction of any state or federal court in the State of New York in which any Proceeding may be instituted and (iii) agrees that service of process upon said authorized agent shall be deemed in every respect effective service of process upon the Company in any Proceeding. The Company agrees to deliver to the Depositary, upon the execution and delivery of this Deposit Agreement, a written acceptance by the agent named in Exhibit A to this Deposit Agreement of its appointment as process agent. The Company further agrees to take any and all action, including the filing of any and all such documents and instruments, as may be necessary to continue that designation and appointment in full force and effect, or to appoint and maintain the appointment of another process agent located in the United States as required above, and to deliver to the Depositary a written acceptance by that agent of that appointment, for so long as any American Depositary Shares or Receipts remain outstanding or this Deposit Agreement remains in force. In the event the Company fails to maintain the designation and appointment of a process agent in the United States in full force and effect, the Company hereby waives personal service of process upon it and consents that a service of process in connection with a Proceeding may be made by certified or registered mail, return receipt requested, directed to the Company at its address last specified for notices under this Deposit Agreement, and service so made shall be deemed completed five (5) days after the same shall have been so mailed.

EACH PARTY TO THIS DEPOSIT AGREEMENT (INCLUDING, FOR AVOIDANCE OF DOUBT, EACH OWNER AND HOLDER) HEREBY IRREVOCABLY WAIVES, TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, ANY RIGHT IT MAY HAVE TO A TRIAL BY JURY IN ANY SUIT, ACTION OR PROCEEDING AGAINST THE COMPANY AND/OR THE DEPOSITARY DIRECTLY OR INDIRECTLY ARISING OUT OF OR RELATING TO THE UNITS OR OTHER DEPOSITED SECURITIES, THE SHARES, THE AMERICAN DEPOSITARY SHARES OR THE RECEIPTS, THIS DEPOSIT AGREEMENT OR ANY TRANSACTION CONTEMPLATED HEREIN OR THEREIN, OR THE BREACH HEREOF OR THEREOF, INCLUDING, WITHOUT LIMITATION, ANY QUESTION REGARDING EXISTENCE, VALIDITY OR TERMINATION (WHETHER BASED ON CONTRACT, TORT OR ANY OTHER THEORY).

SECTION 7.7. Waiver of Immunities.

To the extent that the Company or any of its properties, assets or revenues may have or may hereafter become entitled to, or have attributed to it, any right of immunity, on the grounds of sovereignty or otherwise, from any legal action, suit or proceeding, from the giving of any relief in any respect thereof, from setoff or counterclaim, from the jurisdiction of any court, from service of process, from attachment upon or prior to judgment, from attachment in aid of execution or judgment, or from execution of judgment, or other legal process or proceeding for the giving of any relief or

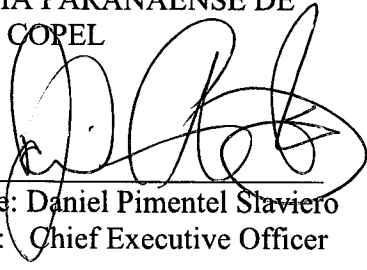
for the enforcement of any judgment, in any jurisdiction in which proceedings may at any time be commenced, with respect to its obligations, liabilities or any other matter under or arising out of or in connection with the Units or Deposited Securities, the American Depositary Shares, the Receipts or this Deposit Agreement, the Company, to the fullest extent permitted by law, hereby irrevocably and unconditionally waives, and agrees not to plead or claim, any immunity of that kind and consents to relief and enforcement as provided above.


SECTION 7.8. Governing Law.

This Deposit Agreement and the Receipts shall be interpreted in accordance with and all rights hereunder and thereunder and provisions hereof and thereof shall be governed by the laws of the State of New York.

IN WITNESS WHEREOF, COMPANHIA PARANAENSE DE ENERGIA - COPEL and THE BANK OF NEW YORK MELLON have duly executed this Deposit Agreement as of the day and year first set forth above and all Owners and Holders shall become parties hereto upon acceptance by them of American Depositary Shares or any interest therein.

COMPANHIA PARANAENSE DE
ENERGIA - COPEL

By: 
Name: Daniel Pimentel Slaviero
Title: Chief Executive Officer

By: 
Name: Adriano Rudek De Moura
Title: Chief Financial and Investor Relations
Officer

THE BANK OF NEW YORK MELLON,
as Depositary

By: _____
Name:
Title:

IN WITNESS WHEREOF, COMPANHIA PARANAENSE DE ENERGIA - COPEL and THE BANK OF NEW YORK MELLON have duly executed this Deposit Agreement as of the day and year first set forth above and all Owners and Holders shall become parties hereto upon acceptance by them of American Depositary Shares or any interest therein.

COMPANHIA PARANAENSE DE
ENERGIA - COPEL

By: _____
Name:
Title:

THE BANK OF NEW YORK MELLON,
as Depositary

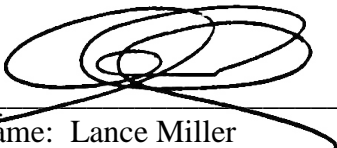
By: 
Name: Lance Miller
Title: Vice President

EXHIBIT A

AMERICAN DEPOSITARY SHARES
(Each American Depositary Share represents
one deposited Unit)

THE BANK OF NEW YORK MELLON
AMERICAN DEPOSITARY RECEIPT
FOR UNITS, EACH CONSISTING OF ONE COMMON SHARES AND
FOUR NON-VOTING CLASS B PREFERRED SHARES OF
COMPANHIA PARANAENSE DE ENERGIA - COPEL
(INCORPORATED UNDER THE LAWS OF the Federative Republic of Brazil)

The Bank of New York Mellon, as depositary (hereinafter called the
“Depositary”), hereby certifies that _____, or
registered assigns IS THE OWNER OF _____

AMERICAN DEPOSITARY SHARES

representing deposited units (herein called “Units”), each consisting of one common share
and four non-voting class B preferred shares of Companhia Paranaense de Energia -
COPEL, a *sociedade de economia mista* incorporated under the laws of the Federative
Republic of Brazil (herein called the “Company”). At the date hereof, each American
Depositary Share represents one Unit deposited or subject to deposit under the Deposit
Agreement (as such term is hereinafter defined) with a custodian for the Depositary (herein
called the “Custodian”) that, as of the date of the Deposit Agreement, was Itaú Unibanco
S.A. located in Brazil. The Depositary's Office and its principal executive office are
located at 240 Greenwich Street, New York, N.Y. 10286.

THE DEPOSITARY'S OFFICE ADDRESS IS
240 GREENWICH STREET, NEW YORK, N.Y. 10286

1. THE DEPOSIT AGREEMENT.

This American Depositary Receipt is one of an issue (herein called “Receipts”), all issued and to be issued upon the terms and conditions set forth in the Amended and Restated Deposit Agreement dated as of April 27, 2021 (herein called the “Deposit Agreement”) among the Company, the Depositary, and all Owners and Holders from time to time of American Depositary Shares issued thereunder, each of whom by accepting American Depositary Shares agrees to become a party thereto and become bound by all the terms and conditions thereof. The Deposit Agreement sets forth the rights of Owners and Holders and the rights and duties of the Depositary in respect of the Units deposited thereunder and any and all other securities, property and cash from time to time received in respect of those Units and held thereunder (those Units, securities, property, and cash are herein called “Deposited Securities”). Copies of the Deposit Agreement are on file at the Depositary's Office in New York City and at the office of the Custodian.

The statements made on the face and reverse of this Receipt are summaries of certain provisions of the Deposit Agreement and are qualified by and subject to the detailed provisions of the Deposit Agreement, to which reference is hereby made. Capitalized terms defined in the Deposit Agreement and not defined herein shall have the meanings set forth in the Deposit Agreement.

2. SURRENDER OF AMERICAN DEPOSITARY SHARES AND WITHDRAWAL OF SHARES.

Upon surrender of American Depositary Shares for the purpose of withdrawal of the Deposited Securities represented thereby and payment of the fee of the Depositary for the surrender of American Depositary Shares as provided in Section 5.9 of the Deposit Agreement and payment of all taxes and governmental charges payable in connection with that surrender and withdrawal of the Deposited Securities, and subject to the terms and conditions of the Deposit Agreement, the Owner of those American Depositary Shares shall be entitled to delivery (to the extent delivery can then be lawfully and practicably made), to or as instructed by that Owner, of the amount of Deposited Securities at the time represented by those American Depositary Shares, but not any money or other property as to which a record date for distribution to Owners has passed (since money or other property of that kind will be delivered or paid on the scheduled payment date to the Owner as of that record date), and except that the Depositary shall not be required to accept surrender of American Depositary Shares for the purpose of withdrawal to the extent it would require delivery of a fraction of a Deposited Security. The Depositary shall direct the Custodian with respect to delivery of Deposited Securities and may charge the surrendering Owner a fee and its expenses for giving that direction by cable (including SWIFT) or facsimile transmission. If Deposited Securities are delivered physically upon surrender of American Depositary Shares for the purpose of withdrawal, that delivery will be made at the Custodian's office, except that, at the request, risk and expense of the surrendering Owner, and for the account of that Owner, the Depositary shall direct the Custodian to forward any

cash or other property comprising, and forward a certificate or certificates, if applicable, and other proper documents of title, if any, for, the Deposited Securities represented by the surrendered American Depositary Shares to the Depository for delivery at the Depository's Office or to another address specified in the order received from the surrendering Owner.

3. REGISTRATION OF TRANSFER OF AMERICAN DEPOSITARY SHARES; COMBINATION AND SPLIT-UP OF RECEIPTS; INTERCHANGE OF CERTIFICATED AND UNCERTIFICATED AMERICAN DEPOSITARY SHARES.

The Depository, subject to the terms and conditions of the Deposit Agreement, shall register a transfer of American Depositary Shares on its transfer books upon (i) in the case of certificated American Depositary Shares, surrender of the Receipt evidencing those American Depositary Shares, by the Owner or by a duly authorized attorney, properly endorsed or accompanied by proper instruments of transfer or (ii) in the case of uncertificated American Depositary Shares, receipt from the Owner of a proper instruction (including, for the avoidance of doubt, instructions through DRS and Profile as provided in Section 2.9 of that Agreement), and, in either case, duly stamped as may be required by the laws of the State of New York and of the United States of America. Upon registration of a transfer, the Depository shall deliver the transferred American Depositary Shares to or upon the order of the person entitled thereto.

The Depository, subject to the terms and conditions of the Deposit Agreement, shall upon surrender of a Receipt or Receipts for the purpose of effecting a split-up or combination of such Receipt or Receipts, execute and deliver a new Receipt or Receipts for any authorized number of American Depositary Shares requested, evidencing the same aggregate number of American Depositary Shares as the Receipt or Receipts surrendered.

The Depository, upon surrender of certificated American Depositary Shares for the purpose of exchanging for uncertificated American Depositary Shares, shall cancel the Receipt evidencing those certificated American Depositary Shares and send the Owner a statement confirming that the Owner is the owner of the same number of uncertificated American Depositary Shares. The Depository, upon receipt of a proper instruction (including, for the avoidance of doubt, instructions through DRS and Profile as provided in Section 2.9 of the Deposit Agreement) from the Owner of uncertificated American Depositary Shares for the purpose of exchanging for certificated American Depositary Shares, shall cancel those uncertificated American Depositary Shares and register and deliver to the Owner a Receipt evidencing the same number of certificated American Depositary Shares.

As a condition precedent to the delivery, registration of transfer, or surrender of any American Depositary Shares or split-up or combination of any Receipt or withdrawal of any Deposited Securities, the Depository, the Custodian, or Registrar may require payment from the depositor of the Units or the presenter of the Receipt or instruction for registration of transfer or surrender of American Depositary Shares not evidenced by a Receipt of a sum sufficient to reimburse it for any tax or other governmental charge and any stock

transfer or registration fee with respect thereto (including any such tax or charge and fee with respect to Units being deposited or withdrawn) and payment of any applicable fees as provided in the Deposit Agreement, may require the production of proof satisfactory to it as to the identity and genuineness of any signature and may also require compliance with any regulations the Depositary may establish consistent with the provisions of the Deposit Agreement.

The Depositary may refuse to accept deposits of Units for delivery of American Depositary Shares or to register transfers of American Depositary Shares in particular instances, or may suspend deposits of Units or registration of transfer generally, whenever it, the Unit Depositary or the Company considers it necessary or advisable to do so. The Depositary may refuse surrenders of American Depositary Shares for the purpose of withdrawal of Deposited Securities in particular instances, or may suspend surrenders for the purpose of withdrawal generally, but, notwithstanding anything to the contrary in the Deposit Agreement, only for (i) temporary delays caused by closing of the Depositary's register or the register of holders of Units maintained by the Unit Depositary or the Foreign Registrar, or the deposit of Units, in connection with voting at a shareholders' meeting or the payment of dividends, (ii) the payment of fees, taxes and similar charges, (iii) compliance with any U.S. or foreign laws or governmental regulations relating to the American Depositary Shares or to the withdrawal of the Deposited Securities or (iv) any other reason that, at the time, is permitted under paragraph I(A)(1) of the General Instructions to Form F-6 under the Securities Act of 1933 or any successor to that provision.

The Depositary shall not knowingly accept for deposit under the Deposit Agreement any Units that, at the time of deposit, are Restricted Securities.

4. LIABILITY OF OWNER FOR TAXES.

If any tax or other governmental charge shall become payable by the Custodian or the Depositary with respect to or in connection with any American Depositary Shares or any Deposited Securities represented by any American Depositary Shares or in connection with a transaction to which Section 4.8 of the Deposit Agreement applies, that tax or other governmental charge shall be payable by the Owner of those American Depositary Shares to the Depositary. The Depositary may refuse to register any transfer of those American Depositary Shares or any withdrawal of Deposited Securities represented by those American Depositary Shares until that payment is made, and may withhold any dividends or other distributions or the proceeds thereof, or may sell for the account of the Owner any part or all of the Deposited Securities represented by those American Depositary Shares, and may apply those dividends or other distributions or the net proceeds of any sale of that kind in payment of that tax or other governmental charge but, even after a sale of that kind, the Owner shall remain liable for any deficiency. The Depositary shall distribute any net proceeds of a sale made under Section 3.2 of the Deposit Agreement that are not used to pay taxes or governmental charges to the Owners entitled to them in accordance with

Section 4.1 of the Deposit Agreement. If the number of Units represented by each American Depositary Share decreases as a result of a sale of Deposited Securities under Section 3.2 of the Deposit Agreement, the Depositary may call for surrender of the American Depositary Shares to be exchanged on a mandatory basis for a lesser number of American Depositary Shares and may sell American Depositary Shares to the extent necessary to avoid distributing fractions of American Depositary Shares in that exchange and distribute the net proceeds of that sale to the Owners entitled to them.

5. WARRANTIES ON DEPOSIT OF SHARES.

Every person depositing Units under the Deposit Agreement shall be deemed thereby to represent and warrant that those Units, and the Shares represented thereby, are validly issued, fully paid and nonassessable and were not issued in violation of any preemptive or similar rights of the holders of outstanding securities of the Company and that the person making that deposit is duly authorized so to do. Every depositing person shall also be deemed to represent that the Units, at the time of deposit, are not Restricted Securities. All representations and warranties deemed made under Section 3.3 of the Deposit Agreement shall survive the deposit of Units and delivery of American Depositary Shares.

6. FILING PROOFS, CERTIFICATES, AND OTHER INFORMATION.

Any person presenting Units for deposit or any Owner or Holder may be required from time to time to file with the Depositary or the Custodian such proof of citizenship or residence, exchange control approval, or such information relating to the registration on the books of the Unit Depositary or the Foreign Registrar, if applicable, to execute such certificates and to make such representations and warranties, as the Depositary may deem necessary or proper. The Depositary may withhold the delivery or registration of transfer of any American Depositary Shares, the distribution of any dividend or other distribution or of the proceeds thereof or the delivery of any Deposited Securities until that proof or other information is filed or those certificates are executed or those representations and warranties are made. As conditions of accepting Units for deposit, the Depositary may require (i) any certification required by the Depositary or the Custodian in accordance with the provisions of the Deposit Agreement, (ii) a written order directing the Depositary to deliver to, or upon the written order of, the person or persons stated in that order, the number of American Depositary Shares representing those Deposited Units, (iii) evidence satisfactory to the Depositary that those Units have been re-registered in the books of the Company or the Foreign Registrar in the name of the Depositary, a Custodian or a nominee of the Depositary or a Custodian, (iv) evidence satisfactory to the Depositary that any necessary approval has been granted by any governmental body in each applicable jurisdiction and (v) an agreement or assignment, or other instrument satisfactory to the Depositary, that provides for the prompt transfer to the Custodian of any dividend, or right to subscribe for additional Units or to receive other property, that any person in whose name those Units are or have been recorded may thereafter receive upon or in respect of

those Units, or, in lieu thereof, such agreement of indemnity or other agreement as shall be satisfactory to the Depositary.

7. CHARGES OF DEPOSITARY.

The following charges shall be incurred by any party depositing or withdrawing Units or by any party surrendering American Depositary Shares or to whom American Depositary Shares are issued (including, without limitation, issuance pursuant to a stock dividend or stock split declared by the Company or an exchange of stock regarding the American Depositary Shares or Deposited Securities or a delivery of American Depositary Shares pursuant to Section 4.3 of the Deposit Agreement), or by Owners, as applicable: (1) taxes and other governmental charges, (2) such registration fees as may from time to time be in effect for the registration of transfers of Units generally on the Unit register of the Unit Depositary or Foreign Registrar and applicable to transfers of Units to or from the name of the Depositary or its nominee or the Custodian or its nominee on the making of deposits or withdrawals hereunder, (3) such cable (including SWIFT) and facsimile transmission fees and expenses as are expressly provided in the Deposit Agreement, (4) such expenses as are incurred by the Depositary in the conversion of foreign currency pursuant to Section 4.5 of the Deposit Agreement, (5) a fee of \$5.00 or less per 100 American Depositary Shares (or portion thereof) for the delivery of American Depositary Shares pursuant to Section 2.3, 4.3 or 4.4 of the Deposit Agreement and the surrender of American Depositary Shares pursuant to Section 2.5 or 6.2 of the Deposit Agreement, (6) a fee of \$.05 or less per American Depositary Share (or portion thereof) for any cash distribution made pursuant to the Deposit Agreement, including, but not limited to Sections 4.1 through 4.4 and 4.8 of the Deposit Agreement, (7) a fee for the distribution of securities pursuant to Section 4.2 of the Deposit Agreement or of rights pursuant to Section 4.4 of that Agreement (where the Depositary will not exercise or sell those rights on behalf of Owners), such fee being in an amount equal to the fee for the execution and delivery of American Depositary Shares referred to above which would have been charged as a result of the deposit of such securities under the Deposit Agreement (for purposes of this item 7 treating all such securities as if they were Units) but which securities are instead distributed by the Depositary to Owners, (8) in addition to any fee charged under item 6, a fee of \$.05 or less per American Depositary Share (or portion thereof) per annum for depositary services, which will be payable as provided in item 9 below, and (9) any other charges payable by the Depositary or the Custodian, any of the Depositary's or Custodian's agents or the agents of the Depositary's or Custodian's agents, in connection with the servicing of Units or other Deposited Securities (which charges shall be assessed against Owners as of the date or dates set by the Depositary in accordance with Section 4.6 of the Deposit Agreement and shall be payable at the sole discretion of the Depositary by billing those Owners for those charges or by deducting those charges from one or more cash dividends or other cash distributions).

The Depositary may collect any of its fees by deduction from any cash distribution payable, or by selling a portion of any securities to be distributed, to Owners that are obligated to pay those fees.

The Depositary may own and deal in any class of securities of the Company and its affiliates and in Units and American Depositary Shares.

From time to time, the Depositary may make payments to the Company to reimburse the Company for costs and expenses generally arising out of establishment and maintenance of the American Depositary Shares program, waive fees and expenses for services provided by the Depositary or share revenue from the fees collected from Owners or Holders. In performing its duties under the Deposit Agreement, the Depositary may use brokers, dealers, foreign currency dealers or other service providers that are owned by or affiliated with the Depositary and that may earn or share fees, spreads or commissions.

8. DISCLOSURE OF INTERESTS.

When required in order to comply with applicable laws and regulations or the articles of association or similar document of the Company, the Company may from time to time request each Owner and Holder to provide to the Depositary information relating to: (a) the capacity in which it holds American Depositary Shares, (b) the identity of any Holders or other persons or entities then or previously interested in those American Depositary Shares and the nature of those interests and (c) any other matter where disclosure of such matter is required for that compliance. Each Owner and Holder agrees to provide all information known to it in response to a request made pursuant to Section 3.4 of the Deposit Agreement. Each Holder consents to the disclosure by the Depositary and the Owner or other Holder through which it holds American Depositary Shares, directly or indirectly, of all information responsive to a request made pursuant to that Section relating to that Holder that is known to that Owner or other Holder.

9. TITLE TO AMERICAN DEPOSITARY SHARES.

It is a condition of the American Depositary Shares, and every successive Owner and Holder of American Depositary Shares, by accepting or holding the same, consents and agrees that American Depositary Shares evidenced by a Receipt, when the Receipt is properly endorsed or accompanied by proper instruments of transfer, shall be transferable as certificated registered securities under the laws of the State of New York, and that American Depositary Shares not evidenced by Receipts shall be transferable as uncertificated registered securities under the laws of the State of New York. The Depositary, notwithstanding any notice to the contrary, may treat the Owner of American Depositary Shares as the absolute owner thereof for the purpose of determining the person entitled to distribution of dividends or other distributions or to any notice provided for in the Deposit Agreement and for all other purposes, and neither the Depositary nor the Company shall have any obligation or be subject to any liability under the Deposit Agreement to any Holder of American Depositary Shares, but only to the Owner.

10. VALIDITY OF RECEIPT.

This Receipt shall not be entitled to any benefits under the Deposit Agreement or be valid or obligatory for any purpose, unless this Receipt shall have been (i) executed by the Depositary by the manual signature of a duly authorized officer of the Depositary or (ii) executed by the facsimile signature of a duly authorized officer of the Depositary and countersigned by the manual signature of a duly authorized signatory of the Depositary or the Registrar or a co-registrar.

11. REPORTS; INSPECTION OF TRANSFER BOOKS.

The Company is subject to the periodic reporting requirements of the Securities Exchange Act of 1934 and, accordingly, files certain reports with the Securities and Exchange Commission. Those reports will be available for inspection and copying through the Commission's EDGAR system or at public reference facilities maintained by the Commission in Washington, D.C.

The Depositary will make available for inspection by Owners at its Office any reports, notices and other communications, including any proxy soliciting material, received from the Company which are both (a) received by the Depositary as the holder of the Deposited Securities and (b) made generally available to the holders of those Deposited Securities by the Company. The Company shall furnish reports and communications, including any proxy soliciting material to which Section 4.9 of the Deposit Agreement applies, to the Depositary in English, to the extent such materials are required to be translated into English pursuant to any regulations of the Commission.

The Depositary will maintain a register of American Depositary Shares and transfers of American Depositary Shares, which shall be open for inspection by the Owners at the Depositary's Office during regular business hours, but only for the purpose of communicating with Owners regarding the business of the Company or a matter related to this Deposit Agreement or the American Depositary Shares.

12. DIVIDENDS AND DISTRIBUTIONS.

Whenever the Depositary receives any cash dividend or other cash distribution on Deposited Securities, the Depositary will, if at the time of receipt thereof any amounts received in a foreign currency can in the judgment of the Depositary be converted on a reasonable basis into Dollars transferable to the United States, and subject to the Deposit Agreement, convert that dividend or other cash distribution into Dollars and distribute the amount thus received (net of the fees and expenses of the Depositary as provided in Article 7 hereof and Section 5.9 of the Deposit Agreement) to the Owners entitled thereto; provided, however, that if the Custodian or the Depositary is required to withhold and does withhold from that cash dividend or other cash distribution an amount on account of taxes or other governmental charges, the amount distributed to the Owners of the American Depositary Shares representing those Deposited Securities shall be reduced accordingly.

If a cash distribution would represent a return of all or substantially all the value of the Deposited Securities underlying American Depositary Shares, the Depositary may:

(i) require payment of or deduct the fee for surrender of American Depositary Shares (whether or not it is also requiring surrender of American Depositary Shares) as a condition of making that cash distribution; or

(ii) sell all Deposited Securities other than the subject cash distribution and add any net cash proceeds of that sale to the cash distribution, call for surrender of all those American Depositary Shares and require that surrender as a condition of making that cash distribution.

If the Depositary acts under this paragraph, that action shall also be a Termination Option Event.

Subject to the provisions of Section 4.11 and 5.9 of the Deposit Agreement, whenever the Depositary receives any distribution other than a distribution described in Section 4.1, 4.3 or 4.4 of the Deposit Agreement on Deposited Securities (but not in exchange for or in conversion or in lieu of Deposited Securities), the Depositary will cause the securities or property received by it to be distributed to the Owners entitled thereto, after deduction or upon payment of any fees and expenses of the Depositary and any taxes or other governmental charges, in any manner that the Depositary deems equitable and practicable for accomplishing that distribution (which may be a distribution of depositary shares representing the securities received); provided, however, that if in the opinion of the Depositary such distribution cannot be made proportionately among the Owners entitled thereto, or if for any other reason the Depositary deems such distribution not to be lawful and feasible, the Depositary may adopt such other method as it may deem equitable and practicable for the purpose of effecting such distribution, including, but not limited to, the public or private sale of the securities or property thus received, or any part thereof, and distribution of the net proceeds of any such sale (net of the fees and expenses of the Depositary as provided in Article 7 hereof and Section 5.9 of the Deposit Agreement) to the Owners entitled thereto all in the manner and subject to the conditions set forth in Section 4.1 of the Deposit Agreement. The Depositary may withhold any distribution of securities under Section 4.2 of the Deposit Agreement if it has not received satisfactory assurances from the Company that the distribution does not require registration under the Securities Act of 1933. The Depositary may sell, by public or private sale, an amount of securities or other property it would otherwise distribute under this Article that is sufficient to pay its fees and expenses in respect of that distribution.

If a distribution to be made under Section 4.2 of the Deposit Agreement would represent a return of all or substantially all the value of the Deposited Securities underlying American Depositary Shares, the Depositary may:

(i) require payment of or deduct the fee for surrender of American Depositary Shares (whether or not it is also requiring surrender of American Depositary Shares) as a condition of making that distribution; or

(ii) sell all Deposited Securities other than the subject distribution and add any net cash proceeds of that sale to the distribution, call for surrender of all those American Depositary Shares and require that surrender as a condition of making that distribution.

If the Depositary acts under this paragraph, that action shall also be a Termination Option Event.

If the Company declares a dividend in, or free distribution of, Shares that results in a distribution of additional Units in respect of Deposited Securities, the Depositary may deliver to the Owners entitled thereto, an aggregate number of American Depositary Shares representing the amount of Units received as that dividend or free distribution, subject to the terms and conditions of the Deposit Agreement with respect to the deposit of Units and issuance of American Depositary Shares, including the withholding of any tax or other governmental charge as provided in Section 4.11 of the Deposit Agreement and the payment of the fees and expenses of the Depositary as provided in Article 7 hereof and Section 5.9 of the Deposit Agreement (and the Depositary may sell, by public or private sale, an amount of Units received (or American Depositary Shares representing those Units) sufficient to pay its fees and expenses in respect of that distribution). In lieu of delivering fractional American Depositary Shares, the Depositary may sell the amount of Units represented by the aggregate of those fractions (or American Depositary Shares representing those Units) and distribute the net proceeds, all in the manner and subject to the conditions described in Section 4.1 of the Deposit Agreement. If and to the extent that additional American Depositary Shares are not delivered and Units or American Depositary Shares are not sold, each American Depositary Share shall thenceforth also represent the additional Units distributed on the Deposited Securities represented thereby.

If the Company declares a distribution in which holders of Deposited Securities have a right to elect whether to receive cash, Units or other securities or a combination of those things, or a right to elect to have a distribution sold on their behalf, the Depositary may, after consultation with the Company, make that right of election available for exercise by Owners in any manner the Depositary considers to be lawful and practical. As a condition of making a distribution election right available to Owners, the Depositary may require satisfactory assurances from the Company that doing so does not require registration of any securities under the Securities Act of 1933 that has not been effected.

If the Depositary determines that any distribution received or to be made by the Depositary (including Units and rights to subscribe therefor) is subject to any tax or other governmental charge that the Depositary is obligated to withhold, the Depositary may sell, by public or private sale, all or a portion of the distributed property (including Units and rights to subscribe therefor) in the amounts and manner the Depositary deems necessary

and practicable to pay those taxes or charges, and the Depositary shall distribute the net proceeds of that sale, after deduction of those taxes or charges, to the Owners entitled thereto in proportion to the number of American Depositary Shares held by them respectively.

Each Owner and Holder agrees to indemnify the Company, the Depositary, the Custodian and their respective directors, employees, agents and affiliates for, and hold each of them harmless against, any claim by any governmental authority with respect to taxes, additions to tax, penalties or interest arising out of any refund of taxes, reduced withholding at source or other tax benefit received by it. Services for Owners and Holders that may permit them to obtain reduced rates of tax withholding at source or reclaim excess tax withheld, and the fees and costs associated with using services of that kind, are not provided under, and are outside the scope of, the Deposit Agreement.

13. RIGHTS.

(a) If rights are granted to the Depositary in respect of deposited Units to purchase additional Units or other securities, the Company and the Depositary shall endeavor to consult as to the actions, if any, the Depositary should take in connection with that grant of rights. The Depositary may, to the extent deemed by it to be lawful and practical (i) if requested in writing by the Company, grant to all or certain Owners rights to instruct the Depositary to purchase the securities to which the rights relate and deliver those securities or American Depositary Shares representing those securities to Owners, (ii) if requested in writing by the Company, deliver the rights to or to the order of certain Owners, or (iii) sell the rights to the extent practicable and distribute the net proceeds of that sale to Owners entitled to those proceeds. To the extent rights are not exercised, delivered or disposed of under (i), (ii) or (iii) above, the Depositary shall permit the rights to lapse unexercised.

(b) If the Depositary will act under (a)(i) above, the Company and the Depositary will enter into a separate agreement setting forth the conditions and procedures applicable to the particular offering. Upon instruction from an applicable Owner in the form the Depositary specified and upon payment by that Owner to the Depositary of an amount equal to the purchase price of the securities to be received upon the exercise of the rights, the Depositary shall, on behalf of that Owner, exercise the rights and purchase the securities. The purchased securities shall be delivered to, or as instructed by, the Depositary. The Depositary shall (i) deposit the purchased Units under the Deposit Agreement and deliver American Depositary Shares representing those Units to that Owner or (ii) deliver or cause the purchased Units or other securities to be delivered to or to the order of that Owner. The Depositary will not act under (a)(i) above unless the offer and sale of the securities to which the rights relate are registered under the Securities Act of 1933 or the Depositary has received an opinion of United States counsel that is satisfactory to it to the effect that those securities may be sold and delivered to the applicable Owners without registration under the Securities Act of 1933.

(c) If the Depositary will act under (a)(ii) above, the Company and the Depositary will enter into a separate agreement setting forth the conditions and procedures applicable to the particular offering. Upon (i) the request of an applicable Owner to deliver the rights allocable to the American Depositary Shares of that Owner to an account specified by that Owner to which the rights can be delivered and (ii) receipt of such documents as the Company and the Depositary agreed to require to comply with applicable law, the Depositary will deliver those rights as requested by that Owner.

(d) If the Depositary will act under (a)(iii) above, the Depositary will use reasonable efforts to sell the rights in proportion to the number of American Depositary Shares held by the applicable Owners and pay the net proceeds to the Owners otherwise entitled to the rights that were sold, upon an averaged or other practical basis without regard to any distinctions among such Owners because of exchange restrictions or the date of delivery of any American Depositary Shares or otherwise.

(e) Payment or deduction of the fees of the Depositary as provided in Section 5.9 of the Deposit Agreement and payment or deduction of the expenses of the Depositary and any applicable taxes or other governmental charges shall be conditions of any delivery of securities or payment of cash proceeds under Section 4.4 of that Agreement.

(f) The Depositary shall not be responsible for any failure to determine that it may be lawful or feasible to make rights available to or exercise rights on behalf of Owners in general or any Owner in particular, or to sell rights.

14. CONVERSION OF FOREIGN CURRENCY.

Whenever the Depositary or the Custodian receives foreign currency, by way of dividends or other distributions or the net proceeds from the sale of securities, property or rights, and if at the time of the receipt thereof the foreign currency so received can in the judgment of the Depositary be converted on a reasonable basis into Dollars and the resulting Dollars transferred to the United States, the Depositary or one of its agents or affiliates or the Custodian shall convert or cause to be converted by sale or in any other manner that it may determine that foreign currency into Dollars, and those Dollars shall be distributed to the Owners entitled thereto. A cash distribution may be made upon an averaged or other practicable basis without regard to any distinctions among Owners based on exchange restrictions, the date of delivery of any American Depositary Shares or otherwise and shall be net of any expenses of conversion into Dollars incurred by the Depositary as provided in Section 5.9 of the Deposit Agreement.

If a conversion of foreign currency or the repatriation or distribution of Dollars can be effected only with the approval or license of any government or agency thereof, the Depositary may, but will not be required to, file an application for that approval or license.

If the Depositary determines that in its judgment any foreign currency received by the Depositary or the Custodian is not convertible on a reasonable basis into Dollars

transferable to the United States, or if any approval or license of any government or agency thereof that is required for such conversion is not filed or sought by the Depositary or is not obtained within a reasonable period as determined by the Depositary, the Depositary may distribute the foreign currency received by the Depositary to, or in its discretion may hold such foreign currency uninvested and without liability for interest thereon for the respective accounts of, the Owners entitled to receive the same.

If any conversion of foreign currency, in whole or in part, cannot be effected for distribution to some of the Owners entitled thereto, the Depositary may in its discretion make that conversion and distribution in Dollars to the extent practicable and permissible to the Owners entitled thereto and may distribute the balance of the foreign currency received by the Depositary to, or hold that balance uninvested and without liability for interest thereon for the account of, the Owners entitled thereto.

The Depositary may convert currency itself or through any of its affiliates, or the Custodian or the Company may convert currency and pay Dollars to the Depositary. Where the Depositary converts currency itself or through any of its affiliates, the Depositary acts as principal for its own account and not as agent, advisor, broker or fiduciary on behalf of any other person and earns revenue, including, without limitation, transaction spreads, that it will retain for its own account. The revenue is based on, among other things, the difference between the exchange rate assigned to the currency conversion made under the Deposit Agreement and the rate that the Depositary or its affiliate receives when buying or selling foreign currency for its own account. The Depositary makes no representation that the exchange rate used or obtained by it or its affiliate in any currency conversion under the Deposit Agreement will be the most favorable rate that could be obtained at the time or that the method by which that rate will be determined will be the most favorable to Owners, subject to the Depositary's obligations under Section 5.3 of that Agreement. The methodology used to determine exchange rates used in currency conversions made by the Depositary is available upon request. Where the Custodian converts currency, the Custodian has no obligation to obtain the most favorable rate that could be obtained at the time or to ensure that the method by which that rate will be determined will be the most favorable to Owners, and the Depositary makes no representation that the rate is the most favorable rate and will not be liable for any direct or indirect losses associated with the rate. In certain instances, the Depositary may receive dividends or other distributions from the Company in Dollars that represent the proceeds of a conversion of foreign currency or translation from foreign currency at a rate that was obtained or determined by or on behalf of the Company and, in such cases, the Depositary will not engage in, or be responsible for, any foreign currency transactions and neither it nor the Company makes any representation that the rate obtained or determined by the Company is the most favorable rate and neither it nor the Company will be liable for any direct or indirect losses associated with the rate.

15. RECORD DATES.

Whenever a cash dividend, cash distribution or any other distribution is made on Deposited Securities or rights to purchase Units or other securities are issued with respect to Deposited Securities (which rights will be delivered to or exercised or sold on behalf of Owners in accordance with Section 4.4 of the Deposit Agreement) or the Depositary receives notice that a distribution or issuance of that kind will be made, or whenever the Depositary receives notice that a meeting of holders of Units will be held in respect of which the Company has requested the Depositary to send a notice under Section 4.7 of the Deposit Agreement, or whenever the Depositary will assess a fee or charge against the Owners, or whenever the Depositary causes a change in the number of Units that are represented by each American Depositary Share, or whenever the Depositary otherwise finds it necessary or convenient, the Depositary shall fix a record date, which shall be the same as, or as near as practicable to, any corresponding record date set by the Company with respect to Units, (a) for the determination of the Owners (i) who shall be entitled to receive the benefit of that dividend or other distribution or those rights, (ii) who shall be entitled to give instructions for the exercise of voting rights at that meeting, (iii) who shall be responsible for that fee or charge or (iv) for any other purpose for which the record date was set, or (b) on or after which each American Depositary Share will represent the changed number of Units. Subject to the provisions of Sections 4.1 through 4.5 of the Deposit Agreement and to the other terms and conditions of the Deposit Agreement, the Owners on a record date fixed by the Depositary shall be entitled to receive the amount distributable by the Depositary with respect to that dividend or other distribution or those rights or the net proceeds of sale thereof in proportion to the number of American Depositary Shares held by them respectively, to give voting instructions or to act in respect of the other matter for which that record date was fixed, or be responsible for that fee or charge, as the case may be.

16. VOTING OF DEPOSITED SHARES.

(a) Upon receipt of notice of any meeting of holders of Units or Shares at which holders of Units will be entitled to vote, if requested in writing by the Company, the Depositary shall, as soon as practicable thereafter, Disseminate to the Owners a notice, the form of which shall be in the sole discretion of the Depositary, that shall contain (i) the information contained in the notice of meeting received by the Depositary, (ii) a statement that the Owners as of the close of business on a specified record date will be entitled, subject to any applicable provision of Brazilian law and of the articles of association or similar documents of the Company, to instruct the Depositary as to the exercise of the voting rights pertaining to the amount of Units represented by their respective American Depositary Shares, (iii) a statement as to the manner in which those instructions may be given and (iv) the last date on which the Depositary will accept instructions (the "Instruction Cutoff Date").

(b) Upon the written request of an Owner of American Depositary Shares, as of the date of the request or, if a record date was specified by the Depositary, as of that record date, received on or before any Instruction Cutoff Date established by the

Depository, the Depository may, and if the Depository sent a notice under the preceding paragraph shall, endeavor, in so far as practicable, to vote or cause to be voted the amount of deposited Units (or Shares represented by Units) represented by those American Depository Shares in accordance with the instructions set forth in that request. The Depository shall not vote or attempt to exercise the right to vote that attaches to the deposited Units other than in accordance with instructions given by Owners and received by the Depository.

(c) There can be no assurance that Owners generally or any Owner in particular will receive the notice described in paragraph (a) above in time to enable Owners to give instructions to the Depository prior to the Instruction Cutoff Date.

(d) In order to give Owners a reasonable opportunity to instruct the Depository as to the exercise of voting rights relating to Units, if the Company will request the Depository to Disseminate a notice under paragraph (a) above, the Company shall give the Depository notice of the meeting, details concerning the matters to be voted upon and copies of materials to be made available to holders of Units in connection with the meeting not less than 45 days prior to the meeting date.

17. TENDER AND EXCHANGE OFFERS; REDEMPTION, REPLACEMENT OR CANCELLATION OF DEPOSITED SECURITIES.

(a) The Depository shall not tender any Deposited Securities in response to any voluntary cash tender offer, exchange offer or similar offer made to holders of Deposited Securities (a “Voluntary Offer”), except when instructed in writing to do so by an Owner surrendering American Depository Shares and subject to any conditions or procedures the Depository may require.

(b) If the Depository receives a written notice that Deposited Securities have been redeemed for cash or otherwise purchased for cash in a transaction that is mandatory and binding on the Depository as a holder of those Deposited Securities (a “Redemption”), the Depository, at the expense of the Company, shall (i) if required, surrender Deposited Securities that have been redeemed to the issuer of those securities or its agent on the redemption date, (ii) Disseminate a notice to Owners (A) notifying them of that Redemption, (B) calling for surrender of a corresponding number of American Depository Shares and (C) notifying them that the called American Depository Shares have been converted into a right only to receive the money received by the Depository upon that Redemption and those net proceeds shall be the Deposited Securities to which Owners of those converted American Depository Shares shall be entitled upon surrenders of those American Depository Shares in accordance with Section 2.5 or 6.2 of the Deposit Agreement and (iii) distribute the money received upon that Redemption to the Owners entitled to it upon surrender by them of called American Depository Shares in accordance with Section 2.5 of that Agreement (and, for the avoidance of doubt, Owners shall not be entitled to receive that money under Section 4.1 of that Agreement). If the Redemption affects less than all the Deposited Securities, the Depository shall call for surrender a

corresponding portion of the outstanding American Depositary Shares and only those American Depositary Shares will automatically be converted into a right to receive the net proceeds of the Redemption. The Depositary shall allocate the American Depositary Shares converted under the preceding sentence among the Owners pro-rata to their respective holdings of American Depositary Shares immediately prior to the Redemption, except that the allocations may be adjusted so that no fraction of a converted American Depositary Share is allocated to any Owner. A Redemption of all or substantially all of the Deposited Securities shall be a Termination Option Event.

(c) If the Depositary is notified of or there occurs any change in nominal value or any subdivision, combination or any other reclassification of the Deposited Securities or any recapitalization, reorganization, sale of assets substantially as an entirety, merger or consolidation affecting the issuer of the Deposited Securities or to which it is a party that is mandatory and binding on the Depositary as a holder of Deposited Securities and, as a result, securities or other property have been or will be delivered in exchange, conversion, replacement or in lieu of, Deposited Securities (a “Replacement”), the Depositary shall, if required, surrender the old Deposited Securities affected by that Replacement of Units and hold, as new Deposited Securities under the Deposit Agreement, the new securities or other property delivered to it in that Replacement. However, the Depositary may elect to sell those new Deposited Securities if in the opinion of the Depositary it is not lawful or not practical for it to hold those new Deposited Securities under the Deposit Agreement because those new Deposited Securities may not be distributed to Owners without registration under the Securities Act of 1933 or for any other reason, at public or private sale, at such places and on such terms as it deems proper and proceed as if those new Deposited Securities had been Redeemed under paragraph (b) above. A Replacement shall be a Termination Option Event.

(d) In the case of a Replacement where the new Deposited Securities will continue to be held under the Deposit Agreement, the Depositary may call for the surrender of outstanding Receipts to be exchanged for new Receipts specifically describing the new Deposited Securities and the number of those new Deposited Securities represented by each American Depositary Share. If the number of Units represented by each American Depositary Share decreases as a result of a Replacement, the Depositary may call for surrender of the American Depositary Shares to be exchanged on a mandatory basis for a lesser number of American Depositary Shares and may sell American Depositary Shares to the extent necessary to avoid distributing fractions of American Depositary Shares in that exchange and distribute the net proceeds of that sale to the Owners entitled to them.

(e) If there are no Deposited Securities with respect to American Depositary Shares, including if the Deposited Securities are cancelled, or the Deposited Securities with respect to American Depositary Shares become apparently worthless, the Depositary may call for surrender of those American Depositary Shares or may cancel those American Depositary Shares, upon notice to Owners, and that condition shall be a Termination Option Event.

18. LIABILITY OF THE COMPANY AND DEPOSITARY.

Neither the Depositary nor the Company nor any of their respective directors, employees, agents or affiliates shall incur any liability to any Owner or Holder:

(i) if by reason of (A) any provision of any present or future law or regulation or other act of the government of the United States, any State of the United States or any other state or jurisdiction, or of any governmental or regulatory authority or stock exchange; (B) (in the case of the Depositary only) any provision, present or future, of the articles of association or similar document of the Company, or by reason of any provision of any securities issued or distributed by the Company, or any offering or distribution thereof; or (C) any event or circumstance, whether natural or caused by a person or persons, that is beyond the ability of the Depositary or the Company, as the case may be, to prevent or counteract by reasonable care or effort (including, but not limited to earthquakes, floods, severe storms, fires, explosions, war, terrorism, civil unrest, labor disputes, criminal acts or outbreaks of infectious disease; interruptions or malfunctions of utility services, Internet or other communications lines or systems; unauthorized access to or attacks on computer systems or websites; or other failures or malfunctions of computer hardware or software or other systems or equipment), the Depositary or the Company is, directly or indirectly, prevented from, forbidden to or delayed in, or could be subject to any civil or criminal penalty on account of doing or performing and therefore does not do or perform, any act or thing that, by the terms of the Deposit Agreement or the Deposited Securities, it is provided shall be done or performed;

(ii) for any exercise of, or failure to exercise, any discretion provided for in the Deposit Agreement (including any determination by the Depositary to take, or not take, any action that the Deposit Agreement provides the Depositary may take);

(iii) for the inability of any Owner or Holder to benefit from any distribution, offering, right or other benefit that is made available to holders of Deposited Securities but is not, under the terms of the Deposit Agreement, made available to Owners or Holders; or

(iv) for any special, consequential or punitive damages for any breach of the terms of the Deposit Agreement.

Where, by the terms of a distribution to which Section 4.1, 4.2 or 4.3 of the Deposit Agreement applies, or an offering to which Section 4.4 of that Agreement applies, or for any other reason, that distribution or offering may not be made available to Owners, and the Depositary may not dispose of that distribution or offering on behalf of Owners and make the net proceeds available to Owners, then the Depositary shall not make that distribution or offering available to Owners, and shall allow any rights, if applicable, to lapse.

Neither the Company nor the Depositary assumes any obligation or shall be subject to any liability under the Deposit Agreement to Owners or Holders, except that they agree

to perform their obligations specifically set forth in the Deposit Agreement without negligence or bad faith. The Depositary shall not be a fiduciary or have any fiduciary duty to Owners or Holders. The Depositary shall not be subject to any liability with respect to the validity or worth of the Deposited Securities. Neither the Depositary nor the Company shall be under any obligation to appear in, prosecute or defend any action, suit, or other proceeding in respect of any Deposited Securities or in respect of the American Depositary Shares, on behalf of any Owner or Holder or other person. Neither the Depositary nor the Company shall be liable for any action or non-action by it in reliance upon the advice of or information from legal counsel, accountants, any person presenting Units for deposit, any Owner or Holder, or any other person believed by it in good faith to be competent to give such advice or information. Each of the Depositary and the Company may rely, and shall be protected in relying upon, any written notice, request, direction or other document believed by it to be genuine and to have been signed or presented by the proper party or parties. The Depositary shall not be liable for any acts or omissions made by a successor depositary whether in connection with a previous act or omission of the Depositary or in connection with a matter arising wholly after the removal or resignation of the Depositary, provided that in connection with the issue out of which such potential liability arises, the Depositary performed its obligations without negligence or bad faith while it acted as Depositary. The Depositary shall not be liable for the acts or omissions of any securities depository, clearing agency or settlement system in connection with or arising out of book-entry settlement of American Depositary Shares or Deposited Securities or otherwise. In the absence of bad faith on its part, the Depositary shall not be responsible for any failure to carry out any instructions to vote any of the Deposited Securities or for the manner in which any such vote is cast or the effect of any such vote. The Depositary shall have no duty to make any determination or provide any information as to the tax status of the Company or any liability for any tax consequences that may be incurred by Owners or Holders as a result of owning or holding American Depositary Shares. The Depositary shall not be liable for the inability or failure of an Owner or Holder to obtain the benefit of a foreign tax credit, reduced rate of withholding or refund of amounts withheld in respect of tax or any other tax benefit. No disclaimer of liability under the United States federal securities laws is intended by any provision of the Deposit Agreement.

19. RESIGNATION AND REMOVAL OF THE DEPOSITARY; APPOINTMENT OF SUCCESSOR CUSTODIAN.

The Depositary may at any time resign as Depositary under the Deposit Agreement by written notice of its election so to do delivered to the Company, to become effective upon the appointment of a successor depositary and its acceptance of such appointment as provided in the Deposit Agreement. The Depositary may at any time be removed by the Company by 120 days' prior written notice of that removal, to become effective upon the later of (i) the 120th day after delivery of the notice to the Depositary and (ii) the appointment of a successor depositary and its acceptance of its appointment as provided in the Deposit Agreement. The Depositary in its discretion may at any time appoint a substitute custodian.

20. AMENDMENT.

The form of the Receipts and any provisions of the Deposit Agreement may at any time and from time to time be amended by agreement between the Company and the Depository without the consent of Owners or Holders in any respect which they may deem necessary or desirable. Any amendment that would impose or increase any fees or charges (other than taxes and other governmental charges, registration fees, cable (including SWIFT) or facsimile transmission costs, delivery costs or other such expenses), or that would otherwise prejudice any substantial existing right of Owners, shall, however, not become effective as to outstanding American Depositary Shares until the expiration of 30 days after notice of that amendment has been Disseminated to the Owners of outstanding American Depositary Shares. Every Owner and Holder, at the time any amendment so becomes effective, shall be deemed, by continuing to hold American Depositary Shares or any interest therein, to consent and agree to that amendment and to be bound by the Deposit Agreement as amended thereby. Upon the effectiveness of an amendment to the form of Receipt, including a change in the number of Units represented by each American Depositary Share, the Depository may call for surrender of Receipts to be replaced with new Receipts in the amended form or call for surrender of American Depositary Shares to effect that change of ratio. In no event shall any amendment impair the right of the Owner to surrender American Depositary Shares and receive delivery of the Deposited Securities represented thereby, except in order to comply with mandatory provisions of applicable law.

21. TERMINATION OF DEPOSIT AGREEMENT.

(a) The Company may initiate termination of the Deposit Agreement by notice to the Depository. The Depository may initiate termination of the Deposit Agreement if (i) at any time 60 days shall have expired after the Depository delivered to the Company a written resignation notice and a successor depository has not been appointed and accepted its appointment as provided in Section 5.4 of that Agreement or (ii) a Termination Option Event has occurred. If termination of the Deposit Agreement is initiated, the Depository shall Disseminate a notice of termination to the Owners of all American Depositary Shares then outstanding setting a date for termination (the "Termination Date"), which shall be at least 90 days after the date of that notice, and the Deposit Agreement shall terminate on that Termination Date.

(b) After the Termination Date, the Company shall be discharged from all obligations under the Deposit Agreement except for its obligations to the Depository under Sections 5.8 and 5.9 of that Agreement.

(c) At any time after the Termination Date, the Depository may sell the Deposited Securities then held under the Deposit Agreement and may thereafter hold uninvested the net proceeds of any such sale, together with any other cash then held by it hereunder, unsegregated and without liability for interest, for the pro rata benefit of the Owners of American Depositary Shares that remain outstanding, and those Owners will be

general creditors of the Depositary with respect to those net proceeds and that other cash. After making that sale, the Depositary shall be discharged from all obligations under the Deposit Agreement, except (i) to account for the net proceeds and other cash (after deducting, in each case, the fee of the Depositary for the surrender of American Depositary Shares, any expenses for the account of the Owner of such American Depositary Shares in accordance with the terms and conditions of the Deposit Agreement and any applicable taxes or governmental charges) and (ii) for its obligations under Section 5.8 of that Agreement and (iii) to act as provided in paragraph (d) below.

(d) After the Termination Date, the Depositary shall continue to receive dividends and other distributions pertaining to Deposited Securities (that have not been sold), may sell rights and other property as provided in the Deposit Agreement and shall deliver Deposited Securities (or sale proceeds) upon surrender of American Depositary Shares (after payment or upon deduction, in each case, of the fee of the Depositary for the surrender of American Depositary Shares, any expenses for the account of the Owner of those American Depositary Shares in accordance with the terms and conditions of the Deposit Agreement and any applicable taxes or governmental charges). After the Termination Date, the Depositary shall not accept deposits of Units or deliver American Depositary Shares. After the Termination Date, (i) the Depositary may refuse to accept surrenders of American Depositary Shares for the purpose of withdrawal of Deposited Securities (that have not been sold) or reverse previously accepted surrenders of that kind that have not settled if in its judgment the requested withdrawal would interfere with its efforts to sell the Deposited Securities, (ii) the Depositary will not be required to deliver cash proceeds of the sale of Deposited Securities until all Deposited Securities have been sold and (iii) the Depositary may discontinue the registration of transfers of American Depositary Shares and suspend the distribution of dividends and other distributions on Deposited Securities to the Owners and need not give any further notices or perform any further acts under the Deposit Agreement except as provided in Section 6.2 of that Agreement.

22. DTC DIRECT REGISTRATION SYSTEM AND PROFILE MODIFICATION SYSTEM.

(a) Notwithstanding the provisions of Section 2.4 of the Deposit Agreement, the parties acknowledge that DTC's Direct Registration System ("DRS") and Profile Modification System ("Profile") apply to the American Depositary Shares upon acceptance thereof to DRS by DTC. DRS is the system administered by DTC that facilitates interchange between registered holding of uncertificated securities and holding of security entitlements in those securities through DTC and a DTC participant. Profile is a required feature of DRS that allows a DTC participant, claiming to act on behalf of an Owner of American Depositary Shares, to direct the Depositary to register a transfer of those American Depositary Shares to DTC or its nominee and to deliver those American Depositary Shares to the DTC account of that DTC participant without receipt by the Depositary of prior authorization from the Owner to register that transfer.

(b) In connection with DRS/Profile, the parties acknowledge that the Depository will not determine whether the DTC participant that is claiming to be acting on behalf of an Owner in requesting registration of transfer and delivery as described in paragraph (a) above has the actual authority to act on behalf of that Owner (notwithstanding any requirements under the Uniform Commercial Code). For the avoidance of doubt, the provisions of Sections 5.3 and 5.8 of the Deposit Agreement apply to the matters arising from the use of the DRS/Profile. The parties agree that the Depository's reliance on and compliance with instructions received by the Depository through the DRS/Profile system and otherwise in accordance with the Deposit Agreement, shall not constitute negligence or bad faith on the part of the Depository.

23. APPOINTMENT OF AGENT FOR SERVICE OF PROCESS; SUBMISSION TO JURISDICTION; JURY TRIAL WAIVER; WAIVER OF IMMUNITIES.

The Company has (i) appointed CT Corporation System, 28 Liberty Street, New York, New York 10005 as the Company's authorized agent in the United States upon which process may be served in any suit or proceeding arising out of or relating to the Units or other Deposited Securities, the Shares, the American Depositary Shares, the Receipts or the Deposit Agreement, (ii) consented and submitted to the jurisdiction of any state or federal court in the State of New York in which any such suit or proceeding may be instituted, and (iii) agreed that service of process upon said authorized agent shall be deemed in every respect effective service of process upon the Company in any such suit or proceeding.

EACH PARTY TO THE DEPOSIT AGREEMENT (INCLUDING, FOR AVOIDANCE OF DOUBT, EACH OWNER AND HOLDER) THEREBY IRREVOCABLY WAIVES, TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, ANY RIGHT IT MAY HAVE TO A TRIAL BY JURY IN ANY SUIT, ACTION OR PROCEEDING AGAINST THE COMPANY AND/OR THE DEPOSITARY DIRECTLY OR INDIRECTLY ARISING OUT OF OR RELATING TO THE UNITS OR OTHER DEPOSITED SECURITIES, THE SHARES, THE AMERICAN DEPOSITARY SHARES OR THE RECEIPTS, THE DEPOSIT AGREEMENT OR ANY TRANSACTION CONTEMPLATED HEREIN OR THEREIN, OR THE BREACH HEREOF OR THEREOF, INCLUDING, WITHOUT LIMITATION, ANY QUESTION REGARDING EXISTENCE, VALIDITY OR TERMINATION (WHETHER BASED ON CONTRACT, TORT OR ANY OTHER THEORY).

To the extent that the Company or any of its properties, assets or revenues may have or hereafter become entitled to, or have attributed to it, any right of immunity, on the grounds of sovereignty or otherwise, from any legal action, suit or proceeding, from the giving of any relief in any respect thereof, from setoff or counterclaim, from the jurisdiction of any court, from service of process, from attachment upon or prior to judgment, from attachment in aid of execution or judgment, or other legal process or proceeding for the giving of any relief or for the enforcement of any judgment, in any jurisdiction in which

proceedings may at any time be commenced, with respect to its obligations, liabilities or any other matter under or arising out of or in connection with the Units or Deposited Securities, the American Depositary Shares, the Receipts or the Deposit Agreement, the Company, to the fullest extent permitted by law, hereby irrevocably and unconditionally waives, and agrees not to plead or claim, any such immunity and consents to such relief and enforcement.

24. DELIVERY OF INFORMATION TO THE CVM.

Each of the Depositary and the Company hereby confirms to the other that for as long as the Deposit Agreement is in effect, it shall furnish the CVM and the Central Bank, at any time and within the period that may be determined, with any information and documents related to the American Depositary Share program and the American Depositary Shares issued thereunder. In the event that the Depositary or the Custodian is advised in writing by reputable independent Brazilian counsel that the Depositary or Custodian reasonably could be subject to criminal, or material, as reasonably determined by the Depositary, civil, liabilities as a result of the Company having failed to provide such information or documents reasonably available only through the Company, the Depositary shall have the right to terminate the Deposit Agreement, upon at least 15 days' prior notice to the Owners and the Company, and the Depositary shall not be subject to any liability hereunder on account of that termination or that determination. The effect of any termination of the Deposit Agreement shall be as provided in Section 6.2 of that Agreement.

DESCRIPTION OF SECURITIES REGISTERED UNDER SECTION 12 OF THE EXCHANGE ACT

As of December 31, 2022, Companhia Paranaense de Energia – Copel (“Copel,” the “Company,” “we,” “us,” and “our”) had the following classes of securities registered pursuant to Section 12(b) of the Exchange Act:

#	Title of each class	Trading symbol(s)	Name of each exchange on which registered
I.	Common Shares, without par value*	N/A	NYSE
II.	Preferred Class B Shares, without par value*	N/A	NYSE
III.	American Depositary Shares (as evidenced by American Depositary Receipts) , each representing one Unit consisting of one Common Share and four Preferred Class B Shares of Companhia Paranaense de Energia – COPEL	ELP	NYSE

* *Not for trading, but only in connection with the listing of American Depositary Shares on the New York Stock Exchange.*

Capitalized terms used but not defined herein have the meanings given to them in our annual report on Form 20-F for the fiscal year ended December 31, 2022, unless otherwise indicated herein.

I. COMMON AND PREFERRED SHARES

The following description of our share capital and certain material provisions of our corporate rules is a summary and does not purport to be complete. It is subject to, and qualified in its entirety by, our bylaws, Brazilian Corporate Law and any other applicable law concerning Brazilian companies, as amended from time to time.

A copy of our bylaws is attached to our annual report as Exhibit 1.1. We encourage you to read our bylaws and the applicable sections of our annual report for additional information.

Share Capital

Our capital stock is composed of common shares and preferred shares (Class A and Class B Shares), all without par value and denominated in reais. As of December 31, 2022 our share capital, including shares in treasury, was represented by 2,736,553,750 shares, without par value, being 1,054,090,460 common shares, 3,128,000 class “A” preferred shares, and 1,679,335,290 class “B” preferred shares; and (ii) the total formation of 220,870,776 Units. Our bylaws provide that the only permitted conversion of shares is Class A Shares are convertible into Class B Shares. Class B Shares can be converted into Common Shares, and vice-versa, strictly for the formation of Units made of four Class B Shares and one Common Share under Copel’s unitization programs set by the Board of Directors. Our shares are not otherwise convertible.

In addition to the negotiation of Units ADSs in the U.S., as detailed in item II below, our Common Shares trade on B3 under the symbol “CPLE3”, our Class B shares trade under the symbol “CPLE6” and our Units shares, each representing four Class B shares plus one Common share, trade under the symbol “CPLE11”. On March 31, 2023, approximately 290,122 shareholders owned our CPLE6 shares, 90,665 owned CPLE3 shares and 14,892 owned Units in B3. In 2021, Latibex also started trading the Units, under the symbol “XCOPU”. All of our shares are registered in book-entry form with a transfer agent on behalf of their holders, with share certificates issued by the Company.

Pursuant to CVM regulations, any Brazilian public company’s (i) direct or indirect controlling shareholders, (ii) shareholders who have elected members of such company’s board of directors or fiscal council, as well as (iii) any person or group of persons representing the same interest, in each case that has directly or indirectly acquired or sold an interest that exceeds (either upward or downward) the threshold of 5%, or any multiple thereof, of the total number of shares of any type or class, must disclose such shareholder’s or person’s share ownership or divestment, immediately after the acquisition or sale, to the CVM and the B3.

Changes to Our Share Capital

Changes to our share capital are decided by our shareholders. Our shareholders may at any time at a shareholders' meeting decide to increase or decrease our share capital, and capital increases are subject to the preemptive rights held by all shareholders, in proportion to his or her shareholding. A minimum period of 30 days following the publication of notice of a capital increase is assured for the exercise of the right, and the right is transferable.

Any shareholders' resolution must satisfy the quorum and all other legal requirements established in the Brazilian Corporate Law and in our bylaws. No shareholder is liable to make any further contribution to our capital stock other than with respect to the liability to pay the issue price of the shares subscribed or acquired by such shareholder.

The issuance of preferred shares does not need to follow the proportion of the common shares, provided that Brazilian Corporate Law establishes the issuance of preferred shares may not exceed two-thirds of the total number of our shares.

We may issue shares up to the limit of the authorized capital, excluding right of first refusal to the shareholders, as provided for in the Brazilian Corporate Law and in our bylaws.

Dividends

Our dividend payments are subject to the provisions of Brazilian Corporate Law, and applicable local laws, and regulations and our bylaws. Our distributions can include dividends or interest on net equity (*juros sobre capital próprio*). The payment of interest on net equity is subject to withholding income tax, pursuant to Brazilian tax laws, which is not levied upon payments of dividends.

The profits are distributed in proportion to the number of shares owned by each shareholder on the applicable record date. Under Brazilian Corporate Law and our by-laws, we must pay our shareholders a mandatory distribution equal to at least 25% of our adjusted net profit for the preceding fiscal year, with holders of preferred shares having priority of payment. According to our bylaws, Class A Shares and Class B Shares are entitled to receive annual, non-cumulative minimum dividends, which dividend per share shall be at least 10% higher than the dividends per share paid to the holders of the Common Shares. Class A Shares have a dividend priority over the Class B Shares, and Class B Shares have a dividend priority over the Common Shares.

Payments of dividends for each fiscal year or payment of interest on net equity must be within 60 days from the shareholders' meeting in which the distribution was approved, unless a shareholders' resolution determines another date, not later than the end of the fiscal year in which such dividend was declared.

The Brazilian Corporation Law permits, however, a company to suspend the mandatory distribution of dividends if its board of directors reports to the shareholders' meeting that the distribution would be incompatible with the financial condition of the company, subject to approval by the shareholders' meeting and review by the fiscal council.

Notwithstanding the above, Brazilian Corporate Law and our bylaws provide that Class A Shares and Class B Shares shall acquire voting rights if we suspend the mandatory dividend payments for more than three consecutive fiscal years, and such voting rights will continue until all dividend payments, including back payments, have been made.

The amounts available for distribution are determined on the basis of financial statements prepared in accordance with the requirements of the Brazilian Corporation Law. In addition, amounts arising from tax incentive benefits or rebates are appropriated to a separate capital reserve in accordance with the Brazilian Corporation Law. This investment incentive reserve is not normally available for distribution, although it can be used to absorb losses under certain circumstances or be capitalized. Amounts appropriated to this reserve are not available for distribution as dividends.

The Brazilian Corporation Law permits a company to pay interim dividends out of preexisting and accumulated profits for the preceding fiscal year or semester, based on financial statements approved by its shareholders. We may prepare financial statements semiannually or for shorter periods. Pursuant to our bylaws, our management may declare interim dividends to be paid from profits in our semi-annual financial statements, in accordance with the Company's dividend policy. Any payment of interim dividends counts towards the mandatory dividend for the year in which the interim dividends were paid.

According to our bylaws, Class A Shares and Class B Shares are entitled to receive annual, non-cumulative minimum dividends, which dividend per share shall be at least 10% higher than the dividends per share paid to the holders of the Common Shares. Class A Shares have a dividend priority over the Class B Shares, and Class B Shares have a dividend priority over the Common Shares. To the extent that dividends are paid, they are to be paid in the following order:

- first, the holders of Class A Shares have the right to receive a minimum dividend equal to 10% of the total share capital represented by the Class A Shares outstanding at the end of the fiscal year in respect of which the dividends have been declared;
- second, to the extent there are additional amounts to be distributed after all amounts allocated to the Class A Shares have been paid, the holders of Class B Shares have the right to receive a minimum dividend per share equal to (i) the mandatory dividend divided by (ii) the total number of Class B Shares outstanding at the end of the fiscal year in respect of which the dividends have been declared; and

- third, to the extent that there are additional amounts to be distributed after all amounts allocated to the Class A Shares and the Class B Shares have been paid, the holders of Common Shares have the right to receive an amount per share equal to (i) the mandatory dividend divided by (ii) the total number of Common Shares outstanding at the end of the fiscal year in respect of which dividends have been declared, provided that the Class A Shares and Class B Shares receive dividends per share at least 10% higher than the dividends per share paid to the Common Shares.

To the extent that there are additional amounts to be distributed after all amounts described in the preceding items have been paid and in the form therein described, any such additional amount will be divided equally among all our shareholders. Holders of Units are paid dividends equal to those of their underlying shares.

In order to be eligible to receive amounts remitted in foreign currency outside of Brazil, shareholders who are not residents of Brazil must register with the Central Bank in order to receive dividends, sales proceeds or other amounts with respect to their shares. The Units underlying the ADSs are held in Brazil by the custodian, as agent for the depositary, which is the registered owner of our shares.

Payments of cash dividends and distributions, if any, will be made in Brazilian currency to the custodian on behalf of the depositary, which will then convert such proceeds into U.S. dollars and will cause such U.S. dollars to be delivered to the depositary for distribution to holders of ADSs. In the event that the custodian is unable to immediately convert the Brazilian currency received as dividends into U.S. dollars, the amount of U.S. dollars payable to holders of ADSs may be adversely affected by devaluations of the Brazilian currency that occur before such dividends are converted and remitted. In the event the holder of an ADS fails to collect its dividends from the custodian within three (3) years, counted as of the date when such dividend was made available, Brazilian Corporate Law states that such dividends may be returned to us. In this case, the ADS holder shall lose its right to receive the dividends.

If any dividend has not been claimed for 3 years after the date such dividend became due for payment, it will be forfeited and will revert to us.

Voting Rights

Our annual shareholders' meeting must be held by April 30 of each year. Additionally, our board of directors or, in some specific situations set forth in Brazilian Corporate Law our shareholders or our fiscal council, may call our extraordinary shareholders' meetings.

Holders of our Common Shares are entitled to one voting right for each unit of common shares held. Holders of Preferred Shares acquire voting rights if, during three consecutive fiscal years, we fail to pay a fixed or minimum dividend to which the preferred shares are entitled. If a holder of preferred shares acquires voting rights in this manner, such rights will be identical to the voting rights of a holder

of Common Shares and will continue until the dividend is paid. Holders of Units may exercise their voting rights in accordance with its underlying shares.

Generally, the quorum required to hold shareholders' meetings is at least one-quarter of our issued and outstanding common shares, except as provided for by Brazilian Corporate Law and our bylaws in relation to decisions regarding certain matters. Decisions are made by simple majority, except where Brazilian Corporate Law or our bylaws provide for a different quorum.

Certain matters require majority quorum for approval, including any amendment to our bylaws and the issuance of new shares. In addition, the appointment of a specialized firm to prepare an appraisal report of our shares in case of cancellation of our registration as a publicly-held company requires a special quorum, pursuant to the terms of B3 regulations.

Under Brazilian Corporate Law, minority shareholders representing at least 5% of our voting capital stock have the right to demand a cumulative voting procedure to elect a member of our board of directors.

Preemptive Rights

Our shareholders have a general preemptive right to subscribe for shares in any capital increase, in proportion to his or her ownership, as provided for in the Brazilian Corporate Law. A minimum period of 30 days following the publication of notice of a capital increase is assured for the exercise of the right, and the right is transferable. We may issue shares up to the limit of the authorized capital, excluding right of first refusal to the shareholders, as provided for in the Brazilian Corporate Law and in our bylaws.

Restrictions on Non-Brazilian Holders

Foreign investors face no legal restrictions barring them from holding Common Shares, Class A Shares, Class B Shares, Units or Units ADSs.

The ability to convert into foreign currency dividend payments and proceeds from the sale of Common Shares, Preferred Shares or Units or from the exercise of preemptive rights, and to remit such amounts outside Brazil is subject to restrictions under foreign investment legislation which generally requires, among other things, the registration of the relevant investment with the Central Bank. Any foreign investor who registers with the CVM in accordance with CMN Resolution No. 4,373 may buy and sell securities on Brazilian stock exchanges without obtaining a separate certificate of registration for each transaction.

Annex II to CMN Resolution No. 4,373 ("Annex II Regulations") allows Brazilian companies to issue Depositary receipts in foreign exchange markets. Our ADS program is duly registered with the Central Bank and the CVM.

Our bylaws do not impose any limitation on the rights of Brazilian residents or non-residents to hold our shares and Units and exercise the rights in connection therewith.

Liquidation Rights

In the event of liquidation of the Company, after all creditors have been paid, all shareholders will participate equally and ratably in any remaining residual assets.

Conversion Rights

Our bylaws provide that the only permitted conversion of shares is Class A Shares are convertible into Class B Shares. As an exception, Class B Shares can be converted into Common Shares, and vice-versa, strictly for the formation of Units made of four Class B Shares and one Common Share under Copel's unitization programs set by the Board of Directors. Our shares are not otherwise convertible.

Right to Withdraw

Our common shares and preferred shares are not redeemable, with the exception that a dissenting shareholder has, under certain circumstances provided for in Brazilian Corporate Law, the right to withdraw its equity interest from a company and to receive a payment for the portion of shareholder's equity attributable to his or her equity interest.

II. AMERICAN DEPOSITARY SHARES

The following description of the ADSs and certain material provisions of our corporate rules is a summary and does not purport to be complete. It is subject to, and qualified in its entirety by the Deposit Agreement (as defined below), the form of ADS, which contain the terms of the ADSs, and any applicable law, as amended from time to time.

A copy of the Deposit Agreement (as defined below) is attached to our annual report as Exhibit 2.1. Copies of the Deposit Agreement are also available for inspection at the offices of our Depositary.

We encourage you to read the Deposit Agreement (defined below), the ADS form and the applicable sections of our annual report for additional information.

General

In the U.S., we trade ADSs representing our Units, each composed of one Common Share and four Class B Preferred Shares. The ADSs are negotiated on the NYSE under the symbol “ELP”.

The Bank of New York Mellon acts as Depositary for our ADSs (“Depositary”). In its capacity, the Depositary will register and deliver the ADSs, each representing an ownership interest in one common share deposited with the custodian, as agent of the Depositary, under the deposit agreement dated as of March 21, 1996, as amended and restated as of April 27, 2021, between us, the Depositary, and registered holders and beneficial owners from time to time of the ADSs (the “Deposit Agreement”), and (ii) any other securities, cash or other property which may be held by the Depositary.

The principal executive office of the Depositary is currently located at 240 Greenwich Street, New York, NY 10286, United States of America.

You may hold ADSs either directly or indirectly through your broker or other financial institution. If you hold ADSs directly, by having an ADS registered in your name on the books of the Depositary, you are an ADS holder. If you hold the ADSs through your broker or financial institution nominee, you must rely on the procedures of such broker or financial institution to assert the rights of an ADS holder described in this section. You should consult with your broker or financial institution to find out what those procedures are.

The ability of ADS holders to exercise preemptive rights is not assured, particularly if the applicable law in the holder’s jurisdiction (for example, the Securities Act in the United States) requires that either a registration statement be effective or an exemption from

registration be available with respect to those rights, as is in the case in the United States. We are not obligated to extend the offer of preemptive rights to holders of ADSs, to file a registration statement in the United States, and we cannot assure you that we will file any such registration statement. Accordingly, you may receive only the net proceeds from the sale of your preemptive rights by the Depositary or, if the preemptive rights cannot be sold, they will be allowed to lapse. If you are unable to participate in rights offerings, your holdings may also be diluted.

The Depositary will be the holder of the ordinary shares underlying the ADSs. As a holder of ADSs, you will have ADS holder rights, which are set out in the Deposit Agreement. The Deposit Agreement also sets out the rights and obligations of the Depositary.

Share Dividends and Other Distributions

We may make various types of distributions with respect to the shares underlying our Units, as detailed below. The Depositary has agreed that, to the extent practicable, it will pay to ADS holders the dividends or other distributions it or the custodian receives in relation to their Units, making any necessary deductions provided for in the Deposit Agreement. The Depositary may utilize a division, branch or affiliate of the Depositary to direct, manage and/or execute any public and/or private sale of common shares under the Deposit Agreement. Such division, branch and/or affiliate may charge the Depositary a fee in connection with such sales, which fee is considered an expense of the Depositary. ADS holders will receive these distributions in proportion to the number of underlying shares comprised by the Unit that such ADSs represent. Except as stated below, the Depositary will deliver such distributions to ADS holders in proportion to their interests in the following manner:

- **Cash.** Whenever the Depositary receives any cash dividend or other cash distribution on any shares underlying the Units, the Depositary shall convert such dividend or distribution into Dollars, transfer such Dollars to the United States and distribute the amount thus received to the holders entitled thereto, in proportion to the number of ADS representing such underlying shares to the Units held by each of them respectively; provided, however, that in the event that the Company or the Depositary shall be required to withhold and does withhold from such cash dividend or such other cash distribution an amount on account of taxes and other governmental charges, the amount distributed to the holders of ADSs shall be reduced accordingly. The Depositary shall distribute only such amounts as can be distributed without distributing to any holder a fraction of one cent and any balance that is not so distributed shall be held by the Depositary (without liability for the interest thereon) and shall be added to and be part of the next sum received by the Depositary for distribution to the holders of ADSs then outstanding.

- **Shares.** If any distribution upon any ADSs consists of a dividend in, or free distribution of, shares that that results in a distribution of additional Units, the Depositary may deliver to the owners entitled thereto, in proportion to the number of ADSs representing such underlying shares to the Units held by each of them respectively, an aggregate number of ADSs evidencing an aggregate number of ADSs representing the amount of Units received as such dividend or free distribution, subject to the terms and conditions of the Deposit Agreement with respect to the deposit of Units and the issuance of ADSs, including the withholding of any tax or other governmental charge and the payment of the fees of the Depositary as provided in the Deposit Agreement. In lieu of delivering receipts for fractional ADSs in any such case, the Depositary shall sell the amount of Units represented by the aggregate of such fractions and distribute the net proceeds; provided, however, that no distribution to holders shall be unreasonably delayed by any action of the Depositary. If the Depositary does not distribute additional ADSs, the outstanding ADSs will also represent the new Units. In addition, the Depositary may withhold any distribution of ADSs if it has not received satisfactory assurances from the Company that such distribution does not require registration under the Securities Act or is exempt from registration under the provisions of such Act; provided that, in any such event, the Depositary may sell a portion of the distributed Units (or ADSs representing those Units) subject to the conditions described in the Deposit Agreement.
- **Rights to purchase additional Units.** If we offer holders of our securities any rights to subscribe for additional Units or any other securities or rights, the Depositary may (i) exercise those rights on behalf of ADS holders, (ii) distribute those rights to ADS holders or (iii) sell those rights to the extent practicable and distribute the net proceeds to ADS holders, in each case after deduction or upon payment of its fees and expenses. To the extent the Depositary does not do any of those things, it will allow the rights to lapse. In that case, ADS holders will receive no value for them. The Depositary will exercise or distribute rights only if we ask it to and provide satisfactory assurances to the Depositary that it is legal to do so. If the Depositary exercise rights, it will purchase the securities to which the rights relate and distribute those securities or, in the case of shares, new ADSs representing the new Units, to subscribing ADS holders, but only if ADS holders have paid the exercise price to the Depositary. U.S. securities laws may restrict the ability of the Depositary to distribute rights or ADSs or other securities issued on exercise of rights to all or certain ADS holders, and the securities distributed may be subject to restrictions on transfer. For more information, please read the Deposit Agreement.

- ***Other Distributions.*** Whenever the Depositary shall receive any distribution, the Depositary shall cause the securities or property received by it to be distributed to the holders entitled thereto, in proportion to the number of ADSs representing such deposited Units held by each of them respectively, in any manner that the Depositary may deem equitable and practicable for accomplishing such distribution. If in the opinion of the Depositary such distribution cannot be made proportionately among the holders entitled thereto, or if for any other reason the Depositary deems such distribution not to be feasible, the Depositary may adopt such method as it may deem equitable and practicable for the purpose of effecting such distribution, including, but not limited to, the public or private sale of the securities or property thus received, or any part thereof, and the net proceeds of any such sale shall be distributed by the Depositary to the holders entitled thereto as in the case of a distribution received in cash. No distribution to holders shall be unreasonably delayed by any action of the Depositary or any of its agents. To the extent such securities or property or the net proceeds thereof are not distributed to holders, the same shall constitute deposited securities and each ADS shall thereafter also represent its proportionate interest in such securities, property or net proceeds.

The Depositary is not responsible if it decides that it is unlawful or impractical to make a distribution available to any ADS holders. We have no obligation to register ADSs, Units, shares, rights or other securities under the Securities Act. We also have no obligation to take any other action to permit the distribution of ADSs, Units, shares, rights or anything else to ADS holders. This means that ADS holders may not receive the distributions we make on our shares or any value for them if it is illegal or impractical for us to make them available to you.

Deposit, Withdrawal and Cancellation

The Depositary will deliver ADSs if investors or their broker deposits Units or evidence of rights to receive Units with the custodian. Upon payment of its fees and expenses and of any taxes or charges, such as stamp taxes or stock transfer taxes or fees, the Depositary will register the appropriate number of ADSs in the names requested and will deliver the ADSs to or upon the order of the person or persons that made the deposit.

ADS holders may surrender their ADSs to the Depositary for the purpose of withdrawal. Upon payment of Depositary's fees and expenses and of any taxes or charges, such as stamp taxes or stock transfer taxes or fees, the Depositary will deliver the Units and any other deposited securities underlying the ADSs to the ADS holder or a person the ADS holder designates at the office of the custodian. Or, at the ADS holder request, risk and expense, the Depositary will deliver the deposited securities at its office, if feasible. However, the Depositary is not required to accept surrender of ADSs to the extent it would require delivery of a fraction of a deposited share or other security. The Depositary may charge a fee and its expenses for instructing the custodian regarding delivery of deposited securities.

Investors may surrender their certified ADS to the Depositary for the purpose of exchanging them for uncertificated ADSs. The Depositary will cancel the receipt evidencing those certified ADS and will send to the holder a statement confirming that the ADS holder is the registered holder of uncertificated ADSs.

The Depositary may only restrict the withdrawal of deposited securities in connection with the reasons set forth in General Instruction I.A.(1) of Form F-6 under the Securities Act of 1933:

- temporary delays caused by closing our transfer books or those of the Depositary or the deposit of common or preferred shares in connection with voting at a shareholders' meeting, or the payment of dividends;
- the payment of fees, taxes and similar charges; or
- compliance with any U.S. or foreign laws or governmental regulations relating to the ADSs or to the withdrawal of deposited securities.

This right of withdrawal may not be limited by any other provision of the Deposit Agreement.

Voting Rights

Holders of preferred shares do not have the same voting rights as holders of our common shares by Brazilian law or our bylaws, and thus only the 1 common share in each Unit that underlie ADSs has full voting rights.. Holders of the ADSs are entitled to the contractual rights set forth for their benefit under the Deposit Agreement.

Upon receipt of notice of any meeting or solicitation of proxies of holders of Units or shares underlying such Units, if requested in writing by the Company, the Depositary shall, as soon as practicable thereafter, mail to the holders a notice, the form of which notice shall be in the sole discretion of the Depositary, that shall contain (a) such information as is contained in such notice of meeting, (b) a statement that the holders as of the close of business on a specified record date will be entitled, subject to any applicable provision of Brazilian law and our bylaws, to instruct the Depositary as to the exercise of the voting rights, if any, pertaining to the amount of Units represented by their respective ADSs and (c) a statement as to the manner in which such instructions may be given and (iv) the last day on which the Depositary will accept instructions.

Upon the written request of an holder on such record date, received on or before the date established by the Depositary for such purpose, the Depositary shall endeavor, in so far as practicable and permitted under Brazilian law and the bylaws, to vote or cause to be voted the amount of Units represented by the ADSs in accordance with the instructions set forth in such request.

We cannot assure ADS holders that they will receive the voting materials in time to ensure that they can instruct the Depositary to vote the shares underlying their Units. In addition, the Depositary and its agents are not responsible for failing to carry out voting instructions or for the manner of carrying out voting instructions. This means that ADS holders may not be able to exercise voting rights and there may be nothing they can do if the shares underlying their Units are not voted as requested.

In order to give Owners a reasonable opportunity to instruct the Depositary as to the exercise of voting rights relating to Units, we must give the Depositary notice of the meeting, details concerning the matters to be voted upon and copies of materials to be made available to holders of Units in connection with the meeting not less than 45 days prior to the meeting date.

Amendment and Termination

We may agree with the Depositary to amend the amended and restated deposit agreement and the ADSs without your consent for any reason. If an amendment adds or increases fees or charges, except for taxes and other governmental charges or expenses of the Depositary for registration fees, facsimile costs, delivery charges or similar items, or prejudices a substantial right of ADS holders, it will not become effective for outstanding ADSs until 30 days after the Depositary notifies ADS holders of the amendment. At the time an amendment becomes effective, you are considered, by continuing to hold your ADSs, to agree to the amendment and to be bound by the ADSs and the amended and restated deposit agreement as amended.

The Depositary shall at any time, at the direction of the Company, terminate this Deposit Agreement by mailing notice of such termination to ADSs holders then outstanding at least 90 days prior to the date fixed in such notice for such termination.

The Depositary may likewise terminate this Deposit Agreement by mailing notice of such termination to the Company and ADSs holders then outstanding, such termination to be effective on a date specified in such notice not less than 90 days after the date thereof, if at any time 60 days shall have expired after the Depositary shall have delivered to the Company a written notice of its election to resign and a successor depositary shall not have been appointed and accepted its appointment.

At any time after the expiration of one year from the date of termination, the Depositary may sell the Units then held hereunder and may thereafter hold uninvested the net proceeds of any such sale, together with any other cash then held by it hereunder, unsegregated and without liability for interest, for the pro rata benefit of the holders of ADSs which have not theretofore been surrendered, such holders thereupon becoming general creditors of the Depositary with respect to such net proceeds and such other cash. After making such sale, the Depositary shall be discharged from all obligations under this Deposit Agreement, except to account for such net proceeds and other cash. Upon the termination of this Deposit Agreement, the Company shall be discharged from all obligations under this Deposit Agreement except for its obligations to the Depositary provided for in the Depositary Agreement.

Limitations on Obligations and Liability to ADS Holders

Prior to the issue, registration, registration of transfer, split-up, combination, or cancellation of any ADSs, or the delivery of any distribution in respect thereof, and from time to time in the case of the production of proofs as described below, we or the Depositary or its custodian may require:

- payment with respect thereto of (i) any tax or other governmental charge, (ii) any stock transfer or registration fees in effect in respect to the Units and (iii) any applicable fees and expenses described in the Deposit Agreement;
- the production of proof satisfactory to it of (i) the identity of any signatory and genuineness of any signature and (ii) such other information, including without limitation, information as to citizenship, residence, exchange control approval, beneficial or other ownership of, or interest in, any securities, compliance with applicable law, regulations, provisions of or governing deposited securities and terms of the Deposit Agreement and the ADSs, as it may deem necessary or proper; and
- compliance with such regulations as the Depositary may establish consistent with the Deposit Agreement.

The Deposit Agreement expressly limits the obligations and liability of the Depositary, ourselves and each of our and the Depositary's respective agents, provided, however, that no provision of the Deposit Agreement is intended to constitute a waiver or limitation of any rights which ADS holders may have under the Securities Act of 1933 or the Exchange Act, to the extent applicable.

The Company assumes no obligation nor shall it be subject to any liability under the Deposit Agreement to holders or beneficial holders, except that it agrees to perform its obligations without negligence or bad faith.

The Depositary shall not be subject to any liability with respect to the validity or worth of the deposited securities or the ADSs.

Neither the Depositary nor we shall be under any obligation to appear in, prosecute or defend any action, suit, or other proceeding in respect of any deposited securities or in respect of the ADS, on behalf of any Unit or ADS holders or other person.

Neither the Depositary nor we shall be liable for any action or non-action by it in reliance upon the advice of or information from legal counsel, accountants, any person presenting Units for deposit, any owners of ADSs, or any other person believed by it in good faith to be competent to give such advice or information.

The Depositary shall not be liable for any acts or omissions made by a successor Depositary whether in connection with a previous act or omission of the Depositary or in connection with a matter arising wholly after the removal or resignation of the Depositary,

provided that in connection with the issue out of which such potential liability arises, the Depositary performed its obligations without negligence or bad faith while it acted as Depositary.

In the absence of bad faith on its part, the Depositary shall not be responsible for any failure to carry out any instructions to vote any of the underlying shares to the Units or the ADSs or for the manner in which any such vote is cast or the effect of any such vote.

The Depositary shall have no duty to make any determination or provide any information as to our or any liability for any tax consequences that may be incurred by ADS holders as a result of owning or holding ADSs.

The Depositary shall not be liable for the inability or failure of an ADS holder to obtain the benefit of a foreign tax credit, reduced rate of withholding or refund of amounts withheld in respect of tax or any other tax benefit.

No disclaimer of liability under the Securities Act of 1933 is intended by any provision of the deposit agreement.

Additionally, none of us, the Depositary or the custodian shall be liable for the failure by any ADS holder to obtain the benefits of credits or refunds of non-U.S. tax paid against such ADS holder's income tax liability.

The Depositary and its agents may own and deal in any class of securities of our company and our affiliates and in ADSs.

Books of Depositary

The Depositary or its agent will keep books for the registration and transfers of ADSs, which shall be open for inspection by the ADS holders at the Depositary's office during regular business hours, provided that such inspection is not for the purpose of communicating with ADS holders in the interest of a business or object other than our or a matter related to the deposit agreement or the ADSs. Such register (and/or any portion thereof) may be closed at any time or from time to time, when deemed expedient by the Depositary, and the Depositary may also close the issuance book portion of such register when reasonably requested by us solely in order to enable us to comply with applicable law.

List of Subsidiaries

Companhia Paranaense de Energia - COPEL - Subsidiaries and Controlled Companies as of March 31, 2023.

Wholly Owned Subsidiary	Jurisdiction of Incorporation	Names under which Business is Conducted
COPEL Distribuição S.A.	Brazil	COPEL Distribuição
COPEL Serviços S.A.	Brazil	COPEL Serviços
COPEL Comercialização S.A.	Brazil	COPEL Mercado Livre
COPEL Geração e Transmissão S.A.	Brazil	COPEL Geração e Transmissão
São Bento Energia Investimentos e Participações S.A.	Brazil	São Bento Energia
GE Olho D'Água S.A.	Brazil	Olho D'Água
GE Boa Vista S.A.	Brazil	Boa Vista
GE Farol S.A.	Brazil	Farol
GE São Bento do Norte S.A.	Brazil	São Bento do Norte
Cutia Empreendimentos Eólicos S.A.	Brazil	Cutia Empreendimentos
Central Geradora Eólica São Bento do Norte I S.A.	Brazil	São Bento do Norte I
Central Geradora Eólica São Bento do Norte II S.A.	Brazil	São Bento do Norte II
Central Geradora Eólica São Bento do Norte III S.A.	Brazil	São Bento do Norte III
Central Geradora Eólica São Miguel I S.A.	Brazil	São Miguel I
Central Geradora Eólica São Miguel II S.A.	Brazil	São Miguel II
Central Geradora Eólica São Miguel III S.A.	Brazil	São Miguel III
Usina de Energia Eólica Cutia S.A.	Brazil	Cutia
Usina de Energia Eólica Guajiru S.A.	Brazil	Guajiru
Usina de Energia Eólica Jangada S.A.	Brazil	Jangada
Usina de Energia Eólica Maria Helena S.A.	Brazil	Maria Helena
Usina de Energia Eólica Potiguar S.A.	Brazil	Potiguar
Usina de Energia Eólica Esperança do Nordeste S.A.	Brazil	Esperança do Nordeste
Usina de Energia Eólica Paraíso dos Ventos do Nordeste S.A.	Brazil	Paraíso dos Ventos do Nordeste
Costa Oeste Transmissora de Energia S.A.	Brazil	Costa Oeste Transmissora
Marumbi Transmissora de Energia S.A.	Brazil	Marumbi Transmissora
Bela Vista Geração de Energia S.A.	Brazil	Bela Vista
Nova Asa Branca I Energias Renováveis S.A.	Brazil	Nova Asa Branca I
Nova Asa Branca II Energias Renováveis S.A.	Brazil	Nova Asa Branca II
Nova Asa Branca III Energias Renováveis S.A.	Brazil	Nova Asa Branca III
Nova Eurus IV Energias Renováveis S.A.	Brazil	Nova Eurus IV

Santa Maria Energias Renováveis S.A.	Brazil	Santa Maria
Santa Helena Energias Renováveis S.A.	Brazil	Santa Helena
Ventos de Santo Uriel S.A.	Brazil	Ventos de Santo Uriel
Uirapuru Transmissora de Energia S.A.	Brazil	Uirapuru
F.D.A. Geração de Energia Elétrica	Brazil	Foz do Areia
Brownfield Investment Holding S.A.	Brazil	Brownfield
Ventos de Serra do Mel B S.A.	Brazil	Ventos de Serra do Mel
EOL Potiguar B141 SPE S.A.	Brazil	Potiguar B61
EOL Potiguar B142 SPE S.A.	Brazil	Potiguar B141
EOL Potiguar B143 SPE S.A.	Brazil	Potiguar B142
Ventos de Vila Paraíba IV SPE S.A.	Brazil	Ventos de Vila Paraíba IV
EOL Potiguar B61 SPE S.A.	Brazil	Potiguar B143
Jandaíra I Energias Renováveis S.A.	Brazil	Jandaíra I
Jandaíra II Energias Renováveis S.A.	Brazil	Jandaíra II
Jandaíra III Energias Renováveis S.A.	Brazil	Jandaíra III
Jandaíra IV Energias Renováveis S.A.	Brazil	Jandaíra IV
Aventura Holding S.A	Brazil	Aventura Holding
Central Eólica Aventura II S.A	Brazil	Aventura II
Central Eólica Aventura III S.A	Brazil	Aventura III
Central Eólica Aventura IV S.A	Brazil	Aventura IV
Central Eólica Aventura V S.A	Brazil	Aventura V
SRMN Holdings S.A	Brazil	SRMN Holding
Central Eólica SRMN I S.A	Brazil	SRMN I
Central Eólica SRMN II S.A	Brazil	SRMN II
Central Eólica SRMN III S.A	Brazil	SRMN III
Central Eólica SRMN IV S.A	Brazil	SRMN IV
Central Eólica SRMN V S.A	Brazil	SRMN V

Controlled

**Jurisdiction of
Incorporation**

**Names under which Business is
Conducted**

Companhia Paranaense de Gás – Compagas	Brazil	Compagas
Elejor - Centrais Eletricas do Rio Jordao S.A.	Brazil	Elejor
UEG Araucária Ltda.	Brazil	UEG Araucária

Associates	Jurisdiction of Incorporation	Names under which Business is Conducted
Foz do Chopim Energética LTDA	Brazil	Foz do Chopim
Carbocampel S.A.	Brazil	Carbocampel
Dona Francisca Energética	Brazil	Dona Francisca

Joint Ventures	Jurisdiction of Incorporation	Names under which Business is Conducted
Caiuá Transmissora de Energia S.A.	Brazil	Caiuá Transmissora
Integração Maranhense Transmissora de Energia S.A.	Brazil	Integração Maranhense
Matrinchã Transmissora de Energia (TPNORTE) S.A.	Brazil	Matrinchã Transmissora
Guaraciaba Transmissora de Energia (TPSUL) S.A.	Brazil	Guaraciaba Transmissora
Paranaíba Transmissora de Energia S.A.	Brazil	Paranaíba Transmissora
Mata de Santa Genebra Transmissão S.A.	Brazil	Mata de Santa Genebra
Cantareira Transmissora de Energia S.A.	Brazil	Cantareira
Voltalia São Miguel do Gostoso I Participações S.A.	Brazil	São Miguel do Gostoso I
Paraná Gás Exploração e Produção S.A.	Brazil	Paraná Gás
Solar Paraná GD Participações S.A.	Brazil	Solar Paraná
Pharma Solar II Geração Distribuída SPE LTDA	Brazil	Pharma Solar II
Pharma Solar III Geração Distribuída SPE LTDA	Brazil	Pharma Solar III
Pharma Solar IV Geração Distribuída SPE LTDA	Brazil	Pharma Solar IV
Bandeirantes Solar I Geração Distribuída SPE LTDA	Brazil	Bandeirantes Solar I
Bandeirantes Solar II Geração Distribuída SPE LTDA	Brazil	Bandeirantes Solar II
Bandeirantes Solar III Geração Distribuída SPE LTDA	Brazil	Bandeirantes Solar III

Joint Operation	Jurisdiction of Incorporation	Names under which Business is Conducted
UHE Governador Jayme Canet Júnior	Brazil	Mauá
UHE Baixo Iguaçu	Brazil	Baixo Iguaçu

**CERTIFICATION PURSUANT TO RULES 13a-14(a) AND 15d-14(a) AS ADOPTED
UNDER SECTION 302 OF THE SARBANES-OXLEY ACT**

I, Daniel Pimentel Slaviero, certify that:

1. I have reviewed this annual report on Form 20-F of Companhia Paranaense de Energia – COPEL (the “Company”);
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the Company as of, and for, the periods presented in this report;
4. The Company’s other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in the Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in the Exchange Act Rules 13a-15(f) and 15d-15(f)) for the Company and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the Company, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the company’s disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the Company’s internal control over financial reporting that occurred during the period covered by the annual report that has materially affected, or is reasonably likely to materially affect, the Company’s internal control over financial reporting; and
5. The Company’s other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the Company’s auditors and the audit committee of the Company’s board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the company’s ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the Company’s internal control over financial reporting.

Date: April 26, 2023.

By: /s/ Daniel Pimentel Slaviero
Name: Daniel Pimentel Slaviero
Title: Chief Executive Officer

**CERTIFICATION PURSUANT TO RULES 13a-14(a) AND 15d-14(a) AS ADOPTED
UNDER SECTION 302 OF THE SARBANES-OXLEY ACT**

I, Adriano Rudek de Moura, certify that:

1. I have reviewed the annual report on Form 20-F of Companhia Paranaense de Energia – COPEL (the “Company”);
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the Company as of, and for, the periods presented in this report;
4. The Company’s other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in the Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in the Exchange Act Rules 13a-15(f) and 15d-15(f)) for the Company and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the Company, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the company’s disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the Company’s internal control over financial reporting that occurred during the period covered by the annual report that has materially affected, or is reasonably likely to materially affect, the Company’s internal control over financial reporting; and
5. The Company’s other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the Company’s auditors and the audit committee of the Company’s board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the company’s ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the Company’s internal control over financial reporting.

Date: April 26, 2023.

By: /s/ Adriano Rudek de Moura

Name: Adriano Rudek de Moura

Title: Chief Financial and Investor Relations Officer

**CERTIFICATION PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002
(SUBSECTIONS (a) AND (b) OF SECTION 1350, CHAPTER 63 OF TITLE 18, UNITED STATES CODE)**

Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (subsections (a) and (b) of Section 1350, chapter 63 of title 18, United States Code), the undersigned officer of Companhia Paranaense de Energia - COPEL (the "Company"), does hereby certify, to such officer's knowledge, that:

The Annual Report on Form 20-F for the year ended December 31, 2022 (the "Form 20-F") of the Company fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 and information contained in the Form 20-F fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: April 26, 2023.

By: /s/ Daniel Pimentel Slaviero
Name: Daniel Pimentel Slaviero
Title: Chief Executive Officer

**CERTIFICATION PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002
(SUBSECTIONS (a) AND (b) OF SECTION 1350, CHAPTER 63 OF TITLE 18, UNITED STATES CODE)**

Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (subsections (a) and (b) of Section 1350, chapter 63 of title 18, United States Code), the undersigned officer of Companhia Paranaense de Energia - COPEL (the "Company"), does hereby certify, to such officer's knowledge, that:

The Annual Report on Form 20-F for the year ended December 31, 2021 (the "Form 20-F") of the Company fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 and information contained in the Form 20-F fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: April 26, 2023.

By: /s/ Adriano Rudek de Moura

Name: Adriano Rudek de Moura

Title: Chief Financial and Investor Relations Officer