

INTEGRATED REPORT 2021



ESG,
OUR
COMMON
FUTURE



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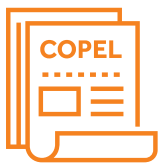
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INTRODUCTION

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Message from the President

| GRI 102-14 |

In 2021, people and companies around the world needed to remain resilient. The coronavirus pandemic continued to claim lives and challenge economic activities. It was necessary to join forces and invest in science, technology, medicine, and solidarity to save lives and start the economic recovery. At Copel, the combination of consistent planning with solid values and the commitment of people contributed to the achievement of excellent results.

In 2021, we invested R\$2.1 billion in energy generation, transmission, and distribution works. The energy distribution sector in Paraná alone invested R\$ 1.6 billion.

Even in the face of this scenario, we focus our efforts on serving our 4.9 million customers with quality, taking care of people inside and outside the company, protecting the environment and generating value for society. At the same time, we have taken firm steps in search of increasingly solid and transparent governance practices.

Throughout the year, we strengthened our strategy of investing in the electricity sector, reaping good results and providing quality service to our customers. We concluded the sale of Copel Telecom and started the process of future divestment in Compagas. We also adhered to the renegotiation of hydrological risk, which financially compensated generators in the free market for the lack of energy resulting from water scarcity.

In 2021, we invested R\$2.1 billion in energy generation, transmission, and distribution works. The energy distribution sector in Paraná alone invested R\$ 1.6 billion. Part of this amount was allocated to the Paraná Tri-phase Program, through which 6,515 kilometers of new three-phase networks were built in more than 200 municipalities.

At the same time, we made progress in implementing the Smart Electricity Network, the largest distribution network modernization program in Latin America. In 2021, 185,372 smart meters were installed in 54 municipalities in Paraná. At the end of the year, we launched the *Cada Cliente Importa* Program, which provides a package of maintenance

In pursuit of a green and responsible economy, we launched the Carbon Neutrality Plan – a series of actions aimed at neutralizing greenhouse gas emissions by 2030.

actions, with technology and new tools, to minimize lasting individual interruptions, going beyond regulatory requirements.

In the generation area, Copel continued to expand its renewable energy park. The Bela Vista Small Hydroelectric Power Plant (SHP) was put into operation, with 29 megawatts (MW) of installed power. The energy generated already supplies 100,000 people.

We are focusing our generation investments on renewable sources. In Rio Grande do Norte, we started the construction of the Jandaíra Wind Complex: there will be 26 wind turbines divided into four wind farms, with 90.1 MW of installed power – enough to meet the consumption of around 250,000 people. At the end of the year, we acquired the Vilas Wind Power Complex, with 186.7 MW of installed capacity, in synergy with the assets we already own. Considering the parks operating and under construction, we add up to 920.22 MW of generating capacity in that state, 100% wind power.

In the transmission area, the completion of the 525 kV Blumenau-Curitiba East line, with a length of 144.5 km, contributed to strengthening the electrical system in Paraná and the Southern Region as a whole.

Copel's operations throughout Brazil were crowned by the growth of Copel Mercado Livre, an energy trading subsidiary that, in April, became the largest national trader in terms of volume of energy sold and purchased and, since then, has remained in the top positions.

Historically concerned with society, in 2021, Copel intensified its actions aimed at innovation and the ESG agenda. The Copel Volt program has selected and is funding 5 startups that will develop products and services in the energy area and strengthen Copel's position in the innovation ecosystem.

In search of the best governance practices, in December, we became part of the special Level 2 listing segment of the Brazilian stock exchange - B3. We are the only company in the electricity sector to simultaneously integrate the Corporate Sustainability (ISE), Carbon Efficient (ICO2) and Great Place to Work (IGPTW) indexes, all from B3.

Ratifying the voluntary commitment to the United Nations Global Compact, we are carrying out our activities with the aim of helping to achieve the Sustainable Development Goals. The main focus is on those related to the company's main areas of activity, such as SDG 7 - clean and affordable energy.



In search of a green and responsible economy, we launched the Carbon Neutrality Plan – a series of actions with the objective of neutralizing greenhouse gas emissions by 2030. In addition, for the second year in a row we won the “Gold Seal” of the Brazilian GHG Protocol, highest certification level of the main tool used in the country to understand, quantify, and manage an organization’s greenhouse gas emissions.

These actions demonstrate that it is possible to be economically sustainable and, at the same time, act with social and environmental responsibility. A salutary

example is the release of and charities in Paraná that made R\$ 30 million available for energy efficiency projects in the sector. The initiative is part of the Energy Efficiency Program (PEE) of the National Electric Energy Agency (Aneel).

Internally, the Company took firm steps to be even more productive and efficient. The new encouraged dismissal program had 461 adhesions and will save R\$ 154 million per year in personnel expenses.

The first cycle of the company’s meritocracy program was also concluded, which associates variable remuneration with the achievement of clear and objective goals for all employees, which, for the next cycle, will incorporate the ESG performance indicator. At the same time, a new version of the performance management program began to take effect, structured around well-defined competencies, aimed at developing high-performance teams.

The company’s concern with customers was also recognized. Copel won the award for best distributor in Brazil, granted by the

Brazilian Association of Energy Distributors (Abradee). The Company also won the best customer evaluation and economic-financial management categories.

By the end of 2021, the results achieved by the company demonstrate the importance of work focused on productivity and customer satisfaction. At the same time, it reflects Copel’s commitment to contributing to the preservation of the environment and the development of society.

These results inspire the company’s performance in 2022, when Copel will invest more than R\$ 2 billion, of which R\$ 1.634 billion (79%) in the energy distribution sector - the largest volume of investments in this segment in the history of Paraná. Copel believes that the present effort, permeated by profitable investments, good corporate governance practices, socio-environmental responsibility and focus on customers, summarizes the best formula for an increasingly sustainable future for the company, for Paraná and for Brazil.



About the report

| GRI 102-1 |

This is the 2021 Integrated Report of Companhia Paranaense de Energia – Copel, on the Company’s performance in the period between January 1 and December 31, 2021. The document brings together the financial information required by current legislation, presents the business model and the performance in human, intellectual, social and relationship, natural, infrastructure and financial capital. GRI 102-50

The most recent previous report was published in 2021, referring to the 2020 financial year. The publication cycle is annual. GRI 102-51, 102-52

The accounting data, from the Financial Statements, correspond to Copel Holding, its wholly owned and Subsidiaries. Non-accounting data include Copel (Holding) and its wholly owned subsidiaries *Copel Geração e Transmissão S.A.*, *Copel Distribuição S.A.*, *Copel Telecomunicações S.A.*, *Copel Comercialização S.A.*, and *Copel Serviços S.A.*, indicating, when applicable, any inclusion or exclusion.

Copel’s Integrated Report is organized into two parts, the first presenting the Company’s business and the second on the performance of capital and its ability to generate value. The document was evaluated by the Sustainable Development Committee (CDS) and submitted for approval by the Gathered Board (Redir) and the Board of Directors (CAD) before being published. GRI 120-32

Assumptions adopted for the preparation of the Integrated Report 2021

- Principles of the Global Reporting Initiative (GRI) – Standards and indicators of the electricity energy sector supplement, available in the G4 version. This report was prepared in accordance with the GRI Standards in the “Essential” option; GRI 102-54
- Indicators specifically requested by the National Electric Energy Agency (Aneel) in its Electric Sector Accounting Manual; GRI 102-54
- International Financial Reporting Standards - IFRS guidelines, considered in the information from the Financial Statements;
- International Integrated Reporting Council (IIRC) Integrated Reporting Framework;
- Communication of Progress in relation to the commitments assumed with the United Nations (UN) Global Compact;
- Provision of Law No. 13.303 (State-owned Companies Law), of June 30, 2016, which establishes, in its article 8, item IX, the annual disclosure of an integrated or sustainability report;
- Principles for Responsible Executive Education (PRME), the United Nations (UN) global platform for voluntary engagement, which influence the performance of UniCopel, Copel’s corporate education area.

Other Copel reports

- Management Report and Financial Statements
- 20F Report
- *Copel Geração e Transmissão’s* Social-Environmental and Economic-Financial Responsibility Report
- *Copel Distribuição’s* Socio-environmental and Economic-Financial Responsibility Report
- Copel’s Materiality Report

Check them out at www.copel.com

To express questions or suggestions about this report, contact: GRI 102-53

Governance, Risk and Compliance Board - DRC
Governance and Sustainability Superintendence - SGS



E-mail: relato.integrado@copel.com

Materiality

GRI 102-21, 102-29

The material topics for Copel, relevant to the activity and to the interested parties, are used as a basis for the performance report at each cycle and as support for the Strategic Planning process, being, therefore, fundamental for the conduction of the Company's business, in addition to considering the Sustainable Development Goals (SDGs).

For the cycle referring to 2021, a new materiality process was carried out following the premises of the GRI Standards and the structure of the IIRC Integrated Report, with the following steps:



1 analysis of Copel's material topics for the 2020 cycle



2 survey of relevant topics for the sector, according to sustainability performance assessments, as well as ESG standards and guidelines



3 analysis of the materiality of national and international peers



6 identification of positive and negative impacts of the Company's operations, according to intensity, probability, and frequency



5 sensitive topics, according to a media study



4 analysis of Copel's corporate documents (Strategic Planning, Risk Matrix, etc.)



7 survey with stakeholders to prioritize topics for each business segment



8 consolidation of results and grouping of topics by management processes



9 analysis of the study results by the wholly owned subsidiaries.



10 approval by the responsible Governance Bodies (approval by the Gathered Board, analysis by the Sustainable Development Committee, and Approval by the Board of Directors).



As a result of the materiality process, the number of topics went from ten to eight. The themes “Economic and Financial Performance,” “Operational Efficiency” and “Customer Satisfaction” were maintained. Some topics were unified, given the similarity of the management processes, such as the topics “People Management” and “Occupational Health and Safety,” and “Environmental Management” and “Climate Changes.” The topic “Corporate Governance” was unified with the topic “Risk Management,” with the inclusion of a new topic, “Cybersecurity.” The topic “Regulatory Environment” is addressed

within the governance practices. The theme “Communities and Social Investment” was renamed to “Social Responsibility,” attributing a greater scope to the topic. A new topic “Transformation of the Energy Sector” was included. GRI 102-49

In order to achieve synergy with Copel’s Strategic Planning process, the results of the 2021 Materiality Process will be valid for 2 years (2021 and 2022) and may be reassessed if necessary. The next materiality process will be carried out in 2023.

Copel 2021 Corporate Material Topics

Material topics for Copel GRI 102-44, 102-46, 102-47	Material Aspects GRI Standards	Inside limits	Outside limits
Corporate governance, risk management and cybersecurity	<p>General standard risk management and corporate governance indicators not required for reporting in the Essential option: 102-15 and 102-17 to 102-39</p> <p>Financial implications and other climate change risks and opportunities (201-2)</p> <p>Anticompetitive behavior (206-1)</p> <p>Public policy (415-1)</p> <p>Customer privacy (418-1)</p> <p>Socioeconomic compliance (419-1)</p>		
Economic-financial performance	<p>Economic-financial performance (201-1, 201-3, 201-4)</p>		
Operational efficiency	<p>Organizational profile (EU2)</p> <p>Availability and reliability (EU6)</p> <p>Demand management (EU7)</p> <p>Research and development (EU8)</p> <p>Planned capacity against projected long-term energy demand (EU10)</p> <p>System efficiency (EU11)</p>		

Legend

								DIRECT IMPACT
COPEL (OPERATIONS)	EMPLOYEES	GOVERNMENT	REGULATORY BODIES	SUPPLIERS	COMMUNITY	CUSTOMERS		INDIRECT IMPACT
								NO IMPACT



Material topics for Copel

| GRI 102-44, 102-46, 102-47 |

	Material Aspects GRI Standards	Inside limits	Outside limits
Operational efficiency 	Losses in transmission and generation (EU12)		
	Power supply interruptions (EU28)		
	Average duration of interruptions (EU29)		
	Average plant availability factor, broken down by energy source and regulatory system (EU30)		
Customer satisfaction 	Organizational profile (EU3)		
	Access (EU23, EU26, EU27)		
	Provision of information (EU24)		
Transformation of the electricity sector 	Consumer Units (EU2)		
	Availability and reliability (EU6)		
	Research and development (EU8)		
	System efficiency (EU11, EU12)		
	Access (EU30)		
Environmental management and actions against climate change 	Materials (301-1, 301-2)		
	Energy (302-1 to 302-5)		
	Water and effluents (303-1 to 303-5)		
	Biodiversity (304-1 to 304-4)		

Legend



- DIRECT IMPACT
- INDIRECT IMPACT
- NO IMPACT



Material topics for Copel

| GRI 102-44, 102-46, 102-47 |

	Material Aspects GRI Standards	Inside limits	Outside limits
Environmental management and actions against climate change   	GHG emissions (305-1 to 305-7)	 	    
	Waste (306-1 to 306-5)		
	Environmental assessment of suppliers (308-1, 308-2)		
	Biodiversity (EU13)		
People management and occupational health and safety 	Employment (401-1 to 401-3)	 	    
	Labor relations (402-1)		
	Occupational health and safety (403-1 to 403-10)		
	Training and education (404-1 to 404-3)		
	Diversity and equal opportunity (405-1, 405-2)		
	Non-discrimination (406-1)		
	Freedom of association and collective bargaining (407-1)		
	Availability of skilled labor (EU14)		
	Percentage of employees eligible for retirement in the next 5 and 10 years (EU15)		
Employment (EU16 and EU18)			
Social responsibility  	Market presence (202-1, 202-2)	 	    

Legend



- DIRECT IMPACT
- INDIRECT IMPACT
- NO IMPACT



Material topics for Copel

| GRI 102-44, 102-46, 102-47 |

Material Aspects GRI Standards

Inside limits

Outside limits

Social responsibility



Indirect economic impacts (203-1, 203-2)
Purchasing practices (204-1)
Child labor (408-1)
Forced labour and modern slavery or slave-like labor (409-1)
Rights of indigenous peoples (411-1)
Human rights assessment (412-1 to 412-3)
Local communities (413-1, 413-2)
Social assessment of suppliers (414-1, 414-2)
Local communities (sector – EU19, EU22)
Contingency plans and disaster and emergency response (EU21)
Consumer health and safety (EU25)



Legend



- DIRECT IMPACT
- INDIRECT IMPACT
- NO IMPACT



Material Topics

Economic-financial performance

GRI 103-1, 103-2, 103-3

Copel is committed to providing due return to its stakeholders on its operational and financial performance, adequately remunerating the capital invested and maintaining the financial capacity necessary for the maintenance of its activities and sustainable growth.

In this way, the economic-financial performance is directly related to Copel's value creation strategy, as well as to its perpetuity, defining not only where the company wants to go, but also the means that will be used and the path to be followed to achieve the goals. Its indicators allow assessing the degree of success obtained with the capital invested and identifying the determining factors for the economic result, guiding decision-making to improve the Company's efficiency.

This result has a direct impact on management, directing, for example, the decision to invest resources or external funding; the ability to maintain and expand the business; the need for continuity or review of strategies for manageable cost efficiency; the decision of investors and shareholders; and monitoring of financial risk, including the ability to pay debts and obligations to financial

Copel is committed to providing its stakeholders with a proper return on its operational and financial performance, adequately remunerating the capital invested and maintaining the financial capacity necessary for the maintenance of its activities and sustainable growth.

institutions, suppliers, employees, the Union, the State, municipalities, and shareholders.

Copel's economic-financial management, considering the statutory competence of the Finance and Investor Relations Department, is guided by the set of internal policies and rules and financial market laws and regulations. Such management is carried out through a set of methodologies, processes,

procedures, and controls, starting with the annual cycle of the Strategic Planning and Budget Proposal, which result in objectives, plans and financial goals for the following year, for the Company and its business, considering the requirements of the interested parties.

To this end, a Management Agreement is established between Copel (Holding) and its wholly owned subsidiaries, accompanied by specialized software. The evaluation of performance against established goals is carried out in Critical Analysis Meetings at the various levels. Periodically, senior management assesses the economic and financial situation of the business and changes in the scenario, approving action plans to enhance positive impacts and/or mitigate negative impacts.

The Company publishes its results on a quarterly basis and, as a publicly traded company listed on the stock exchange, practices open, clear, and accessible communication to internal and external audiences, especially regarding topics

of interest to the capital market. This communication is based on the principles of transparency, information symmetry and equal treatment, in compliance with Brazilian and North American legislation, as well as specific regulations of the Brazilian Securities and Exchange Commission and the Securities and Exchange Commission of the United States of America. The Investor Relations (IR) area is responsible for coordinating communication with the capital markets, through teleconferences, public meetings, road shows and national and international events with associations and stock exchanges. In this sense, the Investor Relations portal on Copel's website is constantly updated.

The assessment of economic and financial performance management is based on the analysis of the National Quality Foundation, in accordance with the Management Excellence Model adopted by Copel. Information is compared against past and expected performance, and with benchmarking. Externally issued analyst reports are also used as an analysis tool.

PERFORMANCE 2021



Largest Company in Paraná

(Ranking 500 Biggest in the
South – *Grupo Amanhã/PwC*)



Net income of

R\$ 5 billion

↑ 29.1%



Investments of

R\$ 2.2 billion

↑ 18.3%

Net Operating Revenue

R\$ 24 billion

↑ 28.71%

Further information on Economic-Financial Performance:



OBJECTIVES

- Increasing Net Income
- Reducing PMSO Costs
- Increasing the Return on Equity
- Increasing Ebitda



RELATED RISKS

- Failure in Capital Structure and Performance
- Failure in Capital Allocation
- Failure to Reduce Costs



Financial Capital (page 189)



GOVERNANCE

- Investment and Innovation Committee (CII)
- Statutory Audit Committee (CAE)
- Financial Investment Policy
- Policy for Hiring Independent Audit Services
- Dividend Policy
- Investment Policy
- Trading Policy of its Own Issued Securities
- Investor Relations Policy



Management Report and
Financial Statements

Operational Efficiency

| GRI 103-1, 103-2, 103-3 |

Operational efficiency is one of Copel's strategic objectives, which means achieving levels of excellence in operations, but with reduced demand for resources and inputs and at a lower cost. Operational efficiency is directly related to the Company's success, whether in terms of business continuity, economic and financial performance, or customer satisfaction.

The management of operational efficiency is carried out in accordance with the guidelines, objectives and goals defined by senior management in the Company's Strategic Planning and aims to achieve the performance of the best companies in the sector and constantly seeks to optimize costs. For this, a Management Agreement is signed with each wholly owned subsidiary of Copel (Holding), which use their areas dedicated to the management of operational efficiency to monitor and control the established performance metrics, considering the different specificities of each operation.

Seeking excellence, operational efficiency is evaluated in the certification processes. Currently, Copel has an Integrated Management System with ISO 9001, 14001 and 45001 certifications in the operation and maintenance processes of the electric energy generation infrastructure, and ISO 9001 in the operation and maintenance processes of the electric energy transmission and distribution infrastructure.

It is worth noting that, in the distribution business, operational efficiency is required by concession contracts in the form of continuity, quality and financial sustainability indicators. Any violations are subject to sanctions, which may even result in the initiation of a forfeiture process for contractual default.

In this sense, expanding and maintaining the distribution system is a vital tool for maintaining distribution operations. To this end, studies are carried out based on

the methodologies of the National Electric Energy Agency (Aneel) and other agents in the sector, which consider the projection of consumer market growth, the existing and future generation potential, and the characteristics of the equipment that make up the electrical system, variables that result in different operating scenarios, digitally simulated. Such scenarios are used to define the necessary works, whether for the construction of new distribution substations, high-voltage or medium-voltage distribution lines, or the installation of regulation and switching equipment.

Operational efficiency is also the object of the Company's open innovation program, Copel Volt, as well as of research and development projects related to Aneel. Through it, Copel applies technology as a differential for the optimization and transformation of the business, such as, for example, digitization of operation and maintenance processes.

PERFORMANCE 2021



Plant
Availability

95%



Power generation:

20,284 GWh

↑ 39.55%

Transmission
Losses

2.74%

Distribution
Losses:

7.74%

↓ 17.66%

DECI:

7.20

↓ 7.81%

FECi:

4.76

↓ 14.23%

More information about Operational Efficiency:



GOVERNANCE

- Quality Policy
- Equity Participation Policy



OBJECTIVES

- Possessing efficiency standards of the best companies in the sector
- Increasing cost efficiency
- Increasing plant availability
- Increasing the availability of transmission assets
- Reducing DECI and FECi



RELATED RISKS

- Loss of concession
- Cybersecurity Failure
- Technological Obsolescence
- Decrease in Performance
- Impacts of Climate Change



Intellectual Capital

(page 160)



Infrastructure Capital

(page 166)



Sustainability Portal



Environmental management and actions against climate change

GRI 103-1, 103-2, 103-3

Although it has a predominantly renewable matrix and the use of its products does not generate waste, Copel knows that resources such as water, energy and materials are needed to run its operations, and that its production processes result in waste and effluents. In this sense, the Company carries out studies and seeks to adopt measures to reduce or mitigate the impacts it causes to the environment, in order to become increasingly sustainable.

Copel works to achieve eco-efficiency, preserve biodiversity, and reduce greenhouse gas emissions. Additionally, the Company conveys its principles of good environmental management to customers and suppliers.

The guidelines for this action are in the Sustainability Policy, which is the basis for other regulations, such as the Climate Change Policy, the Environmental Policy, in the internal rules of Waste Management, Effects of Climate Change Management, among others. The Company and its partners follow the license conditions for each type of enterprise and the premises of the Eco-efficiency Program, whose objective is to support projects for better use of natural resources, raising awareness of the Company's areas and complying with the excellence strategy in



costs, processes, and quality. The program also operates in the areas of mobility and fuel, education, and communication. The Eco-efficiency Commission was created to monitor the program's progress. It has, among its attributions, the task of discussing actions to reduce water and energy consumption, reducing waste generation and greenhouse gas emissions, as well as evaluating related indicators, defining goals, study the feasibility of implementing new technologies and develop actions with the value chain. Another environmental management group is the Climate Change Commission, structured to propose actions aimed at minimizing emissions, adapting Copel to climate change and assessing financial risks.

Aware of its responsibility on the subject, the Company announced, in 2021, its Carbon Neutrality Plan, through which it intends, by 2030, to neutralize greenhouse gas emissions and offset residual emissions from the assets it controls operationally. The actions foreseen in

the plan will be unfolded by a Climate Change Commission, whose purpose will be to study the best alternatives to be used, using the principle of Science Based Targets. Copel will also evaluate the services offer that make low-carbon energy available to customers and consumers. Another novelty is the inclusion of the effects of climate change on the main businesses in the Risk Matrix.

Copel's action on the subject is guided by the Climate Change Policy, whose guidelines are based on the recommendations and methodologies of the GHG Protocol, the Principles of the Global Compact, the National Policy on Climate Change, the State Policy on Climate Change, and the Sustainable Development Goals (SDGs). The document has been in force since 2016.

In 2022, Copel remains, for the second consecutive year, in B3's Carbon Efficient Index (ICO2) portfolio. The stock exchange invites companies holding the 100 most traded shares to participate in the

index portfolio, as long as they prepare a GHG emission inventory and report it by December 31 of the year prior to the portfolio. Copel has inventoried its emissions annually based on the Brazilian GHG Protocol program, since 2009.

In 2021, the Board of Directors approved targets related to ESG aspects for the variable compensation of employees. As corporate goals, the performance in the Corporate Sustainability Assessment - CSA and the implementation of the Neutrality Plan are now applied to everyone. In addition, other sustainability-related goals are applied to each business, according to its particularities.

PERFORMANCE 2021

Creation of the Sustainable Development Committee - CDS



Renewable Installed Capacity:
6,203 GW
93.75% of the total



Renewable Energy Generation:
18,499 GW
91.20% of the total

CDP 2021:B

Scope 1:

15,583,53
tCO2e

↓ 53%

Scope 2:

452,474,46
tCO2e

↑ 159%

Integrates the indexes

Índice Carbono Eficiente **ICO2**

ISEB3

ICDPPR-70

Further information on Environmental management and actions against climate change:



GOVERNANCE

- Sustainable Development Committee
- Sustainability Policy
- Environmental Policy
- Climate Change Policy



OBJECTIVES

- Expanding and disseminating ESG best practices
- Reducing greenhouse gas emissions
- Improving performance in sustainability assessments



RELATED RISKS

- Failure in ESG Practices
- Climate Change Impacts
- Dam Accident



Natural Capital
(page 87)



Sustainability Portal

People management and occupational health and safety

GRI 103-1, 103-2, 103-3

People management and related processes are a priority in Copel's management and aim to increase efficiency and productivity in its business. Thus, the Company's strategy for managing people, health and safety at work has several objectives, such as: consolidating the culture of safety, health, and quality of life; promoting meritocracy and consequence management; develop high performance teams; optimize the workforce; and promote the innovation culture, which are included in the Company's Strategic Planning.

Copel has a meritocracy-based variable compensation program for all employees, with financial, operational and sustainability goals, as well as the expected payment of profit sharing, as forms of recognition. In addition to fixed and variable compensation, the employee receives a series of benefits such as: salary bonus, vacation bonus, vacation

and thirteenth salary advance, allowances for food, education, day care and for people with disabilities, among other practices.

Professional development is supported by the corporate university, Unicopel, which assists in the planning and execution of skills and abilities development programs. Each business has an area dedicated to this topic, so that each need and specificity is considered in the development of employees.

The management of occupational health and safety starts with the prevention of accidents, either through technical and awareness training, or through corporate programs for the identification and mitigation of accident risks. In addition to investing in personnel development, both in-house and outsourced, the Company follows the rules of current legislation and provides personal (PPE) and collective (EPC) protective equipment. In some operational units that have a higher risk of accidents, Copel carries out the OHSAS certification, thus providing stricter control and monitoring of issues related to occupational health and safety.

Concerned with the diversity of its workforce, Copel has a Permanent Commission on Diversity, a group of employees that studies, plans and assists in the execution of actions aimed at promoting equal rights and a safe and respectful corporate culture for its employees and its contractors.

In addition to the traditional indicators of human resources, occupational health, and safety management, Copel carries out other surveys to identify the performance of its management. The main one is carried out by Great Place to Work (GPTW), internationally recognized as a best market practice.

Copel is recognized by GPTW as an excellent company to work for, thus achieving its strategic objective related to people management.

Corroborating good practices in people management, at the beginning of 2022, Copel received the MEG RH recognition from the National Quality Foundation (FNQ), which assesses the maturity of human resources management.

PERFORMANCE 2021



Best companies to work for – **GPTW 2021**

Recognition

MEG RH – FNQ 2022



Percentage of Women in Management Positions:

22.83%

Percentage of Women in its Own Workforce:

22.20%

Percentage of Women in Senior Management:

14.81%

Integrates B3's IGPTW portfolio

Further information on People Management and Occupational Health and Safety:



GOVERNANCE

- Sustainable Development Committee - CDS
- Human Rights Policy
- Corporate Education Policy
- People Management Policy
- Occupational Health and Safety Policy
- Outsourcing Policy



OBJECTIVES

- Settling the culture of safety, health, and quality of life
- Promoting people-focused management, team engagement and a meritocracy culture
- Being recognized as an excellent company to work for
- Preparing people with the necessary skills for new challenges



RELATED RISKS

- Pandemic
- Failure in People Management
- Failure in Occupational Health and Safety
- Failure in ESG Practices



Human Capital
(page 138)



Sustainability Portal

Corporate governance, risk management and cybersecurity

GRI 103-1, 103-2, 103-3, 103-30

Corporate Governance

Copel is a mixed capital company, controlled by the State of Paraná, with public capital and shares traded on the B3, NYSE and Latibex. These characteristics demand a robust governance system which encompasses an efficient set of mechanisms, both for incentives and monitoring, in order to ensure that the performance of managers is always aligned with the best interests of the Company, stakeholders and the government of Paraná.

The model adopted is based on the Code of Best Governance Practices for Public Companies, of the Brazilian Institute of Corporate Governance (IBGC), and is based on the principles of transparency, equity, accountability, and corporate responsibility, following the best market practices.

In December 2021, Copel migrated to B3's Level 2 of Corporate Governance

(Brasil, Bolsa, Balcão - São Paulo stock exchange), which includes differentiated practices aimed at better performance of the governance system.

This movement consolidates a cycle of significant advances, among which stand out:

- the complete reform of the Company's Bylaws;
- the statutory guarantee of full application of tariff adjustments approved by the National Electric Energy Agency (Aneel), which can only be changed or excluded if there is approval by the majority of shareholders holding preferred shares at a specific meeting;
- the implementation of the Units Program;
- the new Dividend Policy, which offers predictability, in line with financial solidity;
- the launch of the Investment Policy, with clear guidelines to guide the Company's sustainable growth;

- the increase from two to three in the number of members elected by non-controlling shareholders to the Board of Directors;
- the creation of three new statutory committees: Investment and Innovation Committee, Sustainable Development Committee and Minority Committee;
- the inclusion of an independent external member in the Statutory Audit Committee; and
- the composition of the Board of Directors by nine members, including seven independent members.

The Company also complies with the provisions of Federal Laws No. 6.404/1976 and No. 13.303/2016, the rules of the Brazilian Securities and Exchange Commission (CVM), the Level 2 Listing Regulation of B3 and other applicable legislation in Brazil. Abroad, it complies with the regulations of the Securities and Exchange Commission (SEC) and the New York Stock Exchange (NYSE), in the United States; and

Latibex, of Bolsa y Mercados Espanoles, in Spain. Copel's corporate governance system also incorporates the governance of wholly owned subsidiaries, as established in the sharing agreement. The Company's main documents and governance policies can be found on the website.

Other topics are related to corporate governance, such as ethics and integrity, which guarantee the correct behavior of employees, executives, and directors. Through the Integrity Program, efforts are made to prevent harmful acts in the performance of the Company's activities. Copel's Code of Conduct presents the set of behaviors required in relation to integrity, compliance, transparency, safety and health, social and environmental responsibility, and respect.

To assess the maturity and quality level of Copel's corporate governance, the Company participates in indexes and market recognitions that allow comparison with its peers and companies in different sectors: Corporate Sustainability Index (ISE B3), Dow Jones Sustainability Index (DJSI) and Pro-Ethics Company Seal. In 2021, Copel's

performance in these initiatives was once again recognized, and the Company remains in the ISE B3 portfolio and renewed the Pro-Ethics Company Seal.

Another comparison parameter is the Corporate Governance Report, prepared in accordance with CVM Instruction 586/2017, in which Copel reports its level of adherence to the practices of the Brazilian Code of Corporate Governance - Listed Companies of the IBGC.

Risk management

By pointing out threats and opportunities, providing information for decision making, risk management is directly related to Copel's performance, directing its activities towards sustainable development. The Company's Risk Management Policy, in force since 2009, provides for the integration of this management with the definition of strategies and performance monitoring, the formal establishment of roles and responsibilities, the constitution and maintenance of adequate infrastructure, the definition of a common methodology for the entire Company and the risk appetite statement.

In 2021, Copel's performance in corporate governance was recognized again, and the Company remains in the ISE B3 portfolio and renewed the Pro-Ethics Company Seal.

To this end, legal, regulatory, socio-environmental, and reputational aspects are considered, in support of the decision-making process and the execution of operational activities, while the risk classification criteria, the probability of occurrence and any impacts generated were previously defined, as well as the implementation of responses.

The Risk Management Policy covers practices for the disclosure and control of incidents; monitoring the adequacy and effectiveness of risk responses; the accuracy and completeness of disclosures; the timely

correction of deficiencies; and periodic communication to the Statutory Audit Committee and the Board of Directors, responsible for monitoring and inspecting risk management at Copel. Risk controls are also tested annually by an external audit. By pointing out threats and opportunities, providing information for decision making, risk management is directly related to Copel's sustainable growth.

The policy's rules are applicable to corporate areas, wholly owned and subsidiaries, and are recommended to jointly controlled companies, associated companies, and other equity interests of Copel. Its guidelines are based on the Company's values, on its Code of Conduct and on the guidelines issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). The last review took place in 2021 and was approved at an ordinary meeting of the Board of Directors, after the favorable recommendation of the Executive Board and the Statutory Audit Committee.

The Company's senior management undergoes annual training on the document, while employees are trained on the risk management methodology.

Cybersecurity

At the current stage of technological and digital development, companies are exposed to unauthorized access to systems, data, and strategic information, which places cyber risk among the ten most relevant, according to the World Economic Forum risk report 2021. In Copel's specific case, cyber risk is classified as the highest level compared to all corporate risks listed.

If materialized for Copel, it could generate serious consequences, such as interruption of activities; misuse and loss of strategic information; reputational damage; increased costs with litigation, insurance, and fines; and negative impacts on the relationship with stakeholders. Ultimately, these impacts can affect business continuity.

The management of cybersecurity in the Company is treated in a broad and systemic manner. Its beginning is in the Strategic Planning through the guideline "Continuously raise cybersecurity levels," defined jointly by the company's top management and boards. Additionally, its breakdown reaches the different levels of Copel through objectives and targets for the Holding and all its wholly owned subsidiaries.

Copel adopts the NIST - CSF National Institute of Standards and Technology - Cybersecurity Framework as a reference for cybersecurity-related actions. Annual maturity measurements in relation to this framework are carried out by external consultants with the objective of evaluating Copel's effective evolution and directing complementary actions. The materialization of the directive present in the Strategic Planning occurs through corporate indicators of the "Cyber Security Index (NIST)," whose goals are incremented annually.

Governance is based on specific information security policies and rules, management and performance indicators, internal



controls, budgets, and projects, which are compiled in Copel’s Cybersecurity Plan, reviewed annually, and discussed quarterly in the Statutory Audit Committee and in the Fiscal and Administrative Councils. In this context, the considerable increase in investments directed towards cybersecurity stands out.

The performance occurs broadly in all five (5) functions of the NIST - CSF (Identify, Protect, Detect, Respond and Recover). Thus, some examples are highlighted as follows:

- **Identifying** – asset management and identification of critical assets, risk and business impact management and
- **Protecting** – access and identity control (including the implementation of two-factor authentication), cybersecurity training and awareness program involving employees, managers, directors, and advisors, increase in protection technologies (also counting on advanced technologies for pattern recognition behavior and performance) and revisions of the parameterizations of the technologies that already exist in the park;
- **Detecting** – specialized security operations center (SOC) services and monitoring of external threats;
- **Responding** – incident response plan and communication plan with implementation of evaluation routines and effectiveness tests;
- **Recovering** – new backup policies with recovery tests, contracting of external consulting and business continuity plan.

PERFORMANCE 2021

[B]³

Corporate
Governance

Level 2

Integrates the
ISEB3

Portfolio

2021/2022

Pro-Ethics
Company Seal 2021

EMPRESA

PRÓ
ÉTICA

2020-2021

Further information on Corporate Governance, Risk Management and Cybersecurity:



GOVERNANCE

- Statutory Audit Committee (CAE)
- Minority Committee (CDM)
- Corporate Governance Policy
- Annual Performance Evaluation Policy
- Independent Audit Services Hiring Policy
- Dividend Policy
- Integrated Corporate Risk Management Policy
- Integrity Policy
- Nomination Policy and Rule
- Related Party Transaction Policy
- Equity Participation Policy
- Investor Relations Policy



OBJECTIVES

- Expanding and disseminating best ESG practices and strengthening risk management, internal controls, and compliance.
- Continually raise cybersecurity levels.



RELATED RISKS

- Cybersecurity Failure
- Failure in Ethics, Fraud and Corruption
- Failure in ESG Practices
- Political Interference



Corporate Governance
(page 60)



Sustainability Portal
Investor Relations website 20F



Social Responsibility

GRI 103-1, 103-2, 103-3

Copel's social responsibility is linked to its existence, since, in addition to being the largest company in Paraná, which requires solid and correct social conduct, it is also a provider of essential services, the distribution of electricity in almost the entire state's territory, providing sustainable regional development and improving the well-being of the population served.

As it implements and operates large electricity generation and transmission assets in several Brazilian states, it has a link with the impacted local communities, which is why it pays special attention to the socioeconomic and cultural components of each region.

The Company's operations are guided by the Sustainability Policy, which reflects the importance of dialogue and transparency, considering the demands, priorities and expectations of the Company's various stakeholders, the Sponsorship Policy, and the Human Rights Policy.

Copel manages mandatory social programs in the context of licensing projects and operations, and develops other corporate actions aimed at communities within the scope of corporate sustainability, such as the Corporate Volunteer Program. The continuous monitoring of the results obtained with these initiatives allows the establishment of action strategies, identification of opportunities, proposition of improvements and communication to all interested parties.

An example of a social program is meeting the demand for energy in traditional communities (quilombolas and indigenous peoples) located in environmental conservation units or other areas where it is not feasible to implement the distribution network, in which the Company develops projects for new energy connections, with the installation of photovoltaic panels and guidelines on the efficient use of electricity, and also registers in the Social Electricity Tariff, a social program of the Federal Government.

Social investments are made through tax incentives and philanthropic actions, structured to respond to situations of social or environmental crises, aiming to promote sustainable development in all dimensions of the concept of sustainability - social, environmental, economic, and cultural.

PERFORMANCE 2021



Actions to Combat the Pandemic

Corporate Volunteering:



1,109
volunteer
hours

EletriCidadania

Integrates the **ISEB3**

Portfolio
2021/2022

Sesi SDG
Award 2021



Pro-Gender and
Race Equality Seal



More information about Social Responsibility:



GOVERNANCE

- Sustainable Development Committee (CDS)
- Sustainability Policy
- Human Rights Policy
- Donations and Voluntary Contributions Policy
- Sponsorship Policy



OBJECTIVES

- Expanding and disseminating ESG best practices



RELATED RISKS

- Failure in ESG Practices



Social and Relationship
Capital (page 116)



Sustainability Portal



Customer Satisfaction

GRI 103-1, 103-2, 103-3

Copel is a public electricity distribution utility, therefore, customer satisfaction is directly related to its business performance and reputation. The greater the efficiency in operational processes, the greater the customer satisfaction, and the better the Company's reputation with the various stakeholders.

The customer's perception of Copel is monitored through satisfaction surveys. For residential customers, an annual consultation is carried out by Aneel. Rural customers are consulted every four years and public authority customers in the first and last year of the mayors' term of office.

The Company also carries out the control of complaints (FER and DER), the analysis of recidivism in the ombudsman; monitoring of specialized websites, such as "Reclame Aqui"; monitoring of internal indicators; and the creation of working groups focused on improving customer satisfaction.

The Customer Satisfaction Improvement Committee meets periodically to assess the results obtained. There are also meetings in the areas of telephone service, face-to-face service, and the Research Results Analysis Working Group, among others.

Copel Distribuição has an ISO9001-certified Ombudsman and was considered in 2021 the best in the country by the National Electric Energy Agency (Aneel).

Regarding the sale of energy, customer satisfaction is directly related to the renewal of contracts. In order to provide quality, products and services were structured according to known expectations of this public, such as Simplifique, a system being implemented that allows consultation of data and energy measurement reports, at any time, by Copel Comercialização's consulting services customers. Copel is also working on the digitalization of systems and processes of the trading operation and on the inclusion of services in a single platform.

Relationship management is carried out through e-mail, telephone, and meeting channels. In 2021, the Customer Relationship Management (CRM) tool was implemented to better understand the demands of commercialization customers and based on the results, improve service. Improvement of this feature is planned for 2022.

Also in 2021, a satisfaction survey was carried out by an outsourced company, in which several positive and improvement points were pointed out, the latter of which are being addressed.

PERFORMANCE 2021



ABRADEE
INSTITUTO ABRADEE DE ENERGIA

Best Distributor
in Brazil
Abradee Award



**Aneel Award
Of Quality**



PRÊMIO ANEEL
DE OUVIDORIA

**Aneel Award
of Ombudsman**

CIER Award
– Bronze Category

DER: 105.21 ↓ 30.45%

FER: 5.76 ↑ 8.27%

More information about Customer Satisfaction:



GOVERNANCE

- Quality Policy
- Copel's Ombudsman Policy
- Privacy and Data Protection Policy
- Donations and Voluntary Contributions Policy
- Sponsorship Policy



OBJECTIVES

- Being a reference in customer satisfaction



RELATED RISKS

- Failure to Protect Personal Data
- Cybersecurity Failure



Social and Relationship
Capital (page 116)



Sustainability Portal

Energy Sector Transformation

GRI 103-1, 103-2, 103-3

The electric energy market is undergoing a moment of transformation, as a result of the digitalization of business and operational processes, the decentralization of electric energy generation operations, and the decarbonization of the economy as a whole, especially in the electricity sector.

The emergence of new technologies, which allow the decentralization of electricity generation and adaptation to environmental demands and society's aspirations, stimulate a shift in business activities towards decarbonization.

Currently, adapting to environmental demands and society's aspirations stimulate the reduction of greenhouse gas emissions and the improvement of air quality, being priority issues in government decisions regarding energy planning, due to the concern with climate change. International agreements and national goals are constantly used as a guideline for the expansion of the energy matrix in several countries, encouraging the adoption of less polluting sources, aiming at decarbonization. In addition, the impacts of climate change are already being felt in several regions of the world, whether due to the increase in extreme weather events, or the change in hydrological and wind regimes, requiring companies to plan for the adaptation of their businesses and assets.

In addition, a variety of emerging technologies, such as flexible demand, electric mobility, distributed generation, energy storage and advanced control devices, are enabling new options for the





generation, transmission, and distribution of electric energy, creating enormous challenge in the modernization and adaptation of the electricity infrastructure.

All these changes influence the activities and businesses in which Copel operates, and may, on the one hand, cause loss of revenue and, on the other hand, generate new business opportunities or forms of action. In this scenario, Copel has been structuring and preparing to anticipate new developments and protect its portfolio and/or position itself in promising markets. An example of this

movement is the constant investment in new renewable generation assets (hydro, wind, and solar sources), in the expansion and modernization of the transmission business, and in the huge investments in the expansion and modernization of distribution assets.

Since 2016, Copel has had a wholly owned subsidiary dedicated to energy trading services, Copel Mercado Livre, which aims to serve consumers in the free electricity market. In 2021, it was the supplier that sold the most energy in the free market, consolidating its position among the largest in the country.

Copel's Strategic Plan is periodically updated, mapping the main trends in the sector, both in terms of traditional businesses and emerging technologies. In the last edition, investment guidelines were established based on the study of identified trends, and corporate goals were created to encourage the monitoring and use of new opportunities in the sector, whether in auctions, new ventures or in the acquisition of plants already in operation. A guideline was also defined for the advancement of innovation and structuring of services to be offered to current and future customers.

PERFORMANCE 2021



Investment in
Energy Distribution

R\$ 1,623 million

Investment in
Power Transmission

R\$ 117 million



Investment in
Power Generation

R\$ 377.6 million



Investment in **P&D**

R\$ 73 million

copel volt

Programa de Inovação Aberta

5 selected startups

Implementation of **185,000** smart meters in 2021

More information about Customer Satisfaction:



GOVERNANCE

- Sustainable Development Committee (CDS)
- Investment and Innovation Committee (CII)
- Sustainability Policy
- Investment Policy
- Climate Change Policy
- Information Technology Policy



OBJECTIVES

- Seeking profitable opportunities in new businesses and services in the electricity sector
- Expanding and disseminate ESG best practices
- Evaluating strategic partnerships
- Applying technologies for business optimization and transformation
- Continually raising cybersecurity levels
- Fostering innovation to leverage results



RELATED RISKS

- Cybersecurity Failure
- Technological Obsolescence
- Lack of Digital Transformation
- Impacts of Climate Change
- Operational Failures
- Failure in ESG Practices



Intellectual Capital
(pág. 160)



Infrastructure Capital
(pág. 166)



Sustainability Portal





SECTOR CONTEXT AND COPEL

Macroeconomic Context
Regulatory Context



Macroeconomic Context

The Brazilian economy started 2021 with several signs of recovery, contrasting with the 3.9% drop observed in the gross domestic product in 2020. After two consecutive years of losses, industrial production increased by 3.9% in the year, influenced by the results from the capital goods segment.

The drop in the number of cases and deaths, resulting from the health crisis, the end of social isolation measures and the gradual recovery of urban mobility increased the demand for services, reflected in the increase in formal job vacancies and consequent reduction in unemployment rates, which ended the year in percentages below those seen in 2020, however, above the period before the pandemic.

On the other hand, the official inflation indicator ended 2021 above the ceiling of the target established by the National Monetary Council and the highest value in six years. With inflationary pressure, the basic interest rate suffered consecutive increases, reaching the same level observed in September 2017. Within this context, the sum of all goods and services produced in the country ended the year with an expansion above 4.6%, according to IBGE data.

Despite the restrictions imposed on economic activity to contain the Covid-19 pandemic still present in 2021, the Paraná economy performance showed a recovery trajectory, in line with the Brazilian economy. The industrial sector was the one that most leveraged the result of the state GDP, and the Paraná industry production registered growth well above the observed in the national average.

In addition, retail sales also expanded in the year, reversing the unfavorable results of the previous year. The State also consolidated itself as the fourth unit of the federation that most created formal jobs during the year, according to data from the Ministry of Labor's General Register of Employed and Unemployed. On the other hand, there is an intense negative effect on agricultural production due to prolonged drought, water scarcity and high temperatures that should impact the consolidation of the State's quarterly accounts for 2021.

Regulatory Context

It can be considered that the year 2021 was an extension of the year 2020 due to the continuation of measures to combat Covid-19, in addition to the advancement of discussions on reforms in the electricity sector. It is worth highlighting the water scarcity scenario that Brazil faced, resulting from the worst hydrological sequences in the entire history of flows in the last 91 years.

As for the permanence of measures to combat Covid-19, the conversion of Provisional Measure No. 998 into Law No. 14.120/2021, established important changes in the electricity sector rules, both for the modernization of the sector and also to mitigate effects on the consumer due to the aids granted to companies, resulting from the pandemic.

Among the rules amended by Law No. 14.120/2021 to mitigate the impact on the economy resulting from Covid-19, the transfer of resources intended for Research and Development (R&D) and energy efficiency (EE) programs not committed to projects for the Energy Development Account (CDE) stands out. Notwithstanding the allocation of resources to the CDE account, the law established a transition rule to exclude incentives for



The water scarcity scenario motivated the adoption of several measures by the Federal Government, highlighting the edition of Provisional Measure No. 1.055/2021, which created the Chamber of Exceptional Rules for Hydroenergetic Management - CREG.

new generation projects from renewable sources, withdrawing the right to reduce tariffs for the use of transmission (TUST) and distribution (TUSD) systems) for plants based on solar, wind, biomass, and qualified cogeneration sources. In relation to new hydroelectric generation ventures with power up to 30 MW, the right to discount on tariffs was maintained at 50% for five additional years and at 25% for another five years. In this regard, the Federal Government regulated the subject through Decree No. 10.893/2021, waiving the requirement to present a document that

attests to the feasibility of connection in the transmission and/or distribution system of generation projects based on solar, wind, biomass, or qualified cogeneration.

In order to resume actions within the scope of the Electric Sector Modernization Implementation Committee, Law No. 14.120/2021 established a deadline for the Federal Government to define guidelines for the implementation of mechanisms that consider environmental benefits, in line with mechanisms for the guarantee of security of supply and competitiveness. Additionally, it included the provision for contracting a capacity reserve, in the form of power, regulated by Decree No. 10.707/2021, with the objective of guaranteeing the continuity of the electric energy supply and the legal provision for the suspension of the electric energy supply of consumers in the free market.

The water scarcity scenario motivated the adoption of several measures by the Federal Government, highlighting the edition of Provisional Measure No. 1.055/2021, which created the Chamber of Exceptional Rules for Hydropower Management - CREG, established with the objective

of establishing emergency measures to optimize the use of hydropower resources and to face the current water scarcity situation, in order to guarantee continuity and electricity supply safety in Brazil.

Among the measures adopted by CREG, the institution of the Incentive Program for the Voluntary Reduction of Electric Energy Consumption for consumer units of groups A and B of the regulated market, the implementation of the Water Scarcity level Tariff Flag and the determination to contract reserve energy by carrying out a Simplified Competitive Procedure for Hiring Capacity Reserves, with a supply period between 2022 and 2025 stand out. CREG had its term of validity ended on 11.07.2021.

Finally, the Federal Government published Provisional Measure No. 1.078/2021, which allows the structuring of credit operations, using the CDE for their amortization, as had happened with the Covid-account. The MP provides for attenuating the mismatch between the revenues collected by the tariff and the energy generation costs through resources intended for distributors to equate these costs. Such conditions were regulated

by Decree No. 10.939/2022. In addition, the MP also provides for the establishment of an extraordinary tariff flag, if necessary.

In the legislative sphere, the proposals for improving the legal and regulatory framework of the Electricity Sector were processed in the National Congress, in particular the Bills - PL No. 1.917/2015 and PLS No. 232/2016, which deal with issues such as the commercial model of the electric sector, the portability of the electricity bill and the concessions of electric energy generation.

Other topics also gained prominence in 2021. Firstly, we can mention the approval of Bill No. 5.829/2019, which establishes the legal framework for distributed microgeneration and minigeneration, the Electric Energy Compensation System - SCEE and the Social Renewable Energy Program - PERS, converted into Law No. 14.300/2022, providing the definitive and transitional rules for the composition of consumer units with distributed generation with installed power below 5 MW, in addition to establishing to the National Energy Policy Council - CNPE the competence to define the guidelines for valuing the costs and benefits of microgeneration and distributed minigeneration.

Law No. 14.182/2021, which provides for the privatization of Eletrobrás and other measures, such as the determination of contracting capacity reserve from natural gas thermoelectric plants in several regions of Brazil and the destination, of at least

50% of the demand declared by the distributors for hydroelectric plants of up to 50 MW in the A-5 and A-6 auctions.

Due to the growing wave of cyberattacks, Resolution No. 24/2021 was published by the CNPE, approving the Guidelines on Cybersecurity for the Electricity Sector considering aspects of prevention, treatment, response, and systemic resilience. Aneel published Normative Resolution No. 964/2021 which provides for the cyber security policy to be adopted by agents in the electricity energy sector, indicating the guidelines for action and the minimum scope to be contemplated in its cyber security policies.

Aneel published Normative Resolution No. 964/2021 which provides for the cyber security policy to be adopted by agents in the electric electricity sector, indicating the guidelines for action and the minimum scope to be contemplated in its cyber security policies.



Finally, Normative Resolution No. 948/2021, also consolidated the normative acts related to the thematic relevance “Economic and Financial Regulation - Regulation of operations,” after the Public Hearing No. 27/2021, revoking eight normative acts which were consolidated into a new structure divided into modules and containing topics subject to the agency’s prior consent, such as amendments to the articles of association, constitution of guarantees, transfer of corporate control, transaction with assets, acts and legal transactions between related parties, among others.

Generation

In 2021, Aneel resumed the discussion regarding the improvement of the resolutions that establish the procedures for obtaining the granting of authorization for projects, in order to contemplate the implementation of hybrid plants and/or the constitution of associated plants, culminating in the publication of Normative Resolution no. No. 945/2021.

Considering the RAP approved for Special Purpose Entities in which Copel Geração e Transmissão has a shareholding, the total consolidated amount is now R\$ 1,199.0 million.

The regulation of Law No. 14.052/2020 through Normative Resolution No. 895/2020 allowed the CCEE to calculate the grant extension period related to the compensation of the effects arising from the implementation of structuring plants, thermoelectric generation outside the order of merit and in the import of electric energy without physical guarantee. Said resolution was amended by Normative Resolution No. 945/2021, in order to change the compensation methodology for plants that renegotiated the hydrological risk under the terms of Normative Resolution No. 684/2015.

Consecutively, Aneel ratified the grant extension deadlines of the plants participating

in the Energy Reallocation Mechanism - MRE through Ratifying Resolutions No. 2.919 and No. 2.932, and it is up to those interested in compensation to adhere to the mechanism by waiving legal actions related to mitigation of the hydrological risks of the MRE and protocol of the term of acceptance by the owners of the projects.

In 2021, the Ministry of Mines and Energy - MME promoted ten energy auctions: three New Energy Auctions ("A-3," "A-4" and "A-5"); four Existing Energy Auctions ("A-1," "A-2," "A-4" and "A-5"); an Auction to supply isolated systems; a Capacity Reserve Auction aimed at guaranteeing the continuity of electric energy supply through the contracting of electric power and associated energy, from new and existing generation projects, which add electric power to the National Interconnected System - SIN; and finally, in view of the water scarcity scenario, it carried out the Simplified Competitive Procedure for contracting capacity reserve, seeking to guarantee the continuity and security of the electrical energy supply in the country, through the contracting of reserve energy.

Transmission

In 2021, Aneel, through Ratifying Resolution No. 2.895, amended by Ratifying Resolution No. 2.959, established the readjustment of permitted annual revenues - RAPs for electricity transmission assets for the 2021-2022 cycle. In accordance with this resolution, the RAP of *Copel Geração e Transmissão's* transmission assets for the 2021/2022 cycle is now R\$749.5 million, of which R\$709.1 million corresponds to the RAP of assets in operation. Considering the RAP approved for Special Purpose Entities in which Copel Geração e Transmissão has a shareholding, the total consolidated amount is now R\$1.2 billion.

It should be noted that, due to the scenario of strong tariff impact that affected the electricity sector, resulting from the Covid-19 pandemic and with a high risk of default, Aneel chose to gradually reprofile the payment of the RBSE/RPC financial component within eight years, for all transmission concession contracts renewed under the terms of Law No. 12.783. The reprofiling was approved by Ratifying

Resolution No. 2.847, which changed the result of the periodic RAP review, approved in 2020, associated with Concession Agreement No. 060/2001.

As established in Ordinance No. 279, two Transmission Auctions were held in 2021. The Aneel Transmission Auction No. 001/2021 won all five lots, with a discount of more than 60% in one of the lots, a weighted average discount of 48.12% and expected investments of R\$ 1.3 billion in transmission. The Aneel Transmission Auction No. 002/2021 also offered five lots, which were auctioned off and in one of the lots the discount exceeded 66%. The weighted average discount was 50.0% and investment is expected to be R\$2.9 billion in transmission.

Commercialization

According to the schedule established by Ordinance No. 514/2018, the year 2022 began with the reduction of the load limit of consumers for contracting electricity from

any supplier from 1.5 to 1.0 MW, with the objective of promoting the expansion of the Free Energy Market.

In addition, this schedule established the presentation of a study coordinated by Aneel and CCEE on the regulatory measures necessary to allow the opening of the free market to consumers with a load below 500 kW, including the regulated energy trader and a proposal for an opening schedule, starting on January 1, 2024.

In view of this, Aneel carried out the opening of Subsidy Taking No. 10/2021, which received contributions from agents and society for the development of this study. The CCEE, consecutively, made available a Technical Note addressing a conceptual proposal for the opening of the market in order to subsidize and encourage discussions on the subject, covering several topics such as the last resort supplier figure and retail marketing.

Throughout 2021, Aneel made several changes to the Electricity Trading Rules applicable to the Accounting and

Settlement System - SCL, basically, though changes in its modules, with the CCEE, when applicable, having to carry out the processing of the re-accountings in accordance with the provisions of the approved rules. The changes were made through Normative Resolutions No. 924/2021, No. 946/2021 and 960/2021.

In December 2021, through Normative Resolution No. 957/2021, Aneel approved the Electricity Trading Convention, as a result of the consolidation of normative acts related to the thematic pertinence "Electric Energy Trading Convention" and "Wholesale Market of Energy," establishing the conditions for the commercialization of electric energy and the bases of organization, operation, and attributions of the CCEE.

Additionally, the year 2021 was marked by the presentation of proposals by the CCEE of proposals with the objective of contributing to the development of the electric energy market. Thus, the Chamber prepared a Technical Note with proposals to improve the monitoring of the electric energy market, as well as the regulation of electric



energy commercialization, suggesting the adoption of new procedures to identify risks to the market and investigate indications of anomalous conduct, substantiated for the practices and principles adopted in the financial market, in addition to proposing to Aneel the opening of a Public Hearing on the subject and a second proposal to open a public consultation on improvements in the models of financial safeguards and mechanisms to mitigate losses resulting from default in the Short Term Market - MCP, with proposals to strengthen the safeguards

structure through mechanisms that would be triggered sequentially, in a waterfall model, which considers six layers, where everyone involved must have a share of responsibility for the financial security of the market, including the CCEE as provider of the MCP's financial settlement infrastructure. The six layers of this proposed improvement in the financial safeguard framework are:

- Pre-constituted individual financial guarantee;
- Fixed and variable quota of the defaulting Settlement Fund's agent;
- Termination of the defaulting agent's counterparties' contracts;
- CCEE share of the Settlement Fund;
- Fixed quota and variable quota of the other agents of the Settlement Fund; and
- Loss Sharing or apportionment of default among the creditors of the MCP's accounting and settlement.

Due to the water scarcity scenario in Brazil, it was necessary to import energy from Argentina and Uruguay and put more thermal plants in operation, with higher generation cost, in order to guarantee supply.

Distribution

Due to the water scarcity scenario in Brazil, it was necessary to import energy from Argentina and Uruguay and put more thermal plants in operation, with higher generation cost, in order to guarantee supply. As a result, Aneel's board approved a new readjustment in the values of the tariff flags, highlighting the increase in the red tariff flag level 2, from R\$ 6.24 to R\$ 9.49 for every 100-kWh consumed, a readjustment of 52% in relation to the amount that had already been charged from consumers since June.

However, the increase was not enough to face the deficit of the flags account. Thus, CREG created an exceptional level of tariff flag, the water scarcity flag, in the amount of R\$ 14.20 for every 100-kWh consumed, valid for all consumers of the National Interconnected System from September 2021 to April 2022. CREG's decision

exempted consumers benefiting from the Social Electricity Tariffs (TSEE), who continue to pay the value of the monthly tariff flag (yellow, red level 1 or red level 2) with the discounts they were already entitled to.

Also in August 2021, Aneel, together with the Brazilian Association of Electric Energy Distributors (Abradee) and the Ministry of Mines and Energy (MME), launched a public utility advertising campaign aimed at guiding the Brazilian population to raise awareness about energy consumption. The campaign was also approved by the Electric Sector Monitoring Committee (CMSE).

Another measure taken by the Federal Government was the implementation of the Incentive Program for the Voluntary Reduction of Electric Energy Consumption for group B

consumers from September 2021, with the creation of a bonus to encourage consumers to reduce their energy consumption. To be entitled to the bonus, the consumer must have reduced energy consumption by at least 10% in the months of September to December 2021 compared to the same period in 2020.

Finally, Aneel published REN No. 1000/2021, which consolidates the Agency's main rules for the provision of the public electricity distribution service, in which the rights and duties of consumers are laid out. The new resolution is one of Aneel's most important regulations, as it defines in a simpler and more objective way the responsibilities of agents and the procedures to be followed by consumers so that universal access to the electricity service is available with quality and efficiency.



ABOUT COPEL AND BUSINESS MODEL

Companhia Paranaense de Energia
Shareholding Organization Chart
Business Model





Companhia Paranaense de Energia

| GRI 102-2, 102-5, 102-6, 102-7 |

Created on October 26, 1954 and headquartered in Curitiba (PR), Copel operates as a mixed capital company, controlled by the State of Paraná, and its shares are currently traded on the São Paulo, New York and Madrid stock exchanges. Its business activities are distributed in ten Brazilian states (see map) and are focused on the generation, transmission, distribution and commercialization of energy and natural gas.

The Company's electrical system comprises its own generating facilities and transmission lines in several Brazilian states, in addition to interests in other assets of this nature. In the state of Paraná, Copel has its electricity distribution assets within its concession area. The main customers are consumers in the regulated market (households, industry, and commerce)

and consumers in the free market (industry and commerce), both conducted and supervised by Aneel.

The telecommunications business was terminated with the sale of *Copel Telecomunicações S.A.*, which was completed on 08.03.2021, with its entire structure transferred to the new owner. GRI 102-10

Activity Map

| GRI 102-4, 102-6 |



TRANSMISSION LINE



HYDROELECTRIC PLANT



SUBSTATION



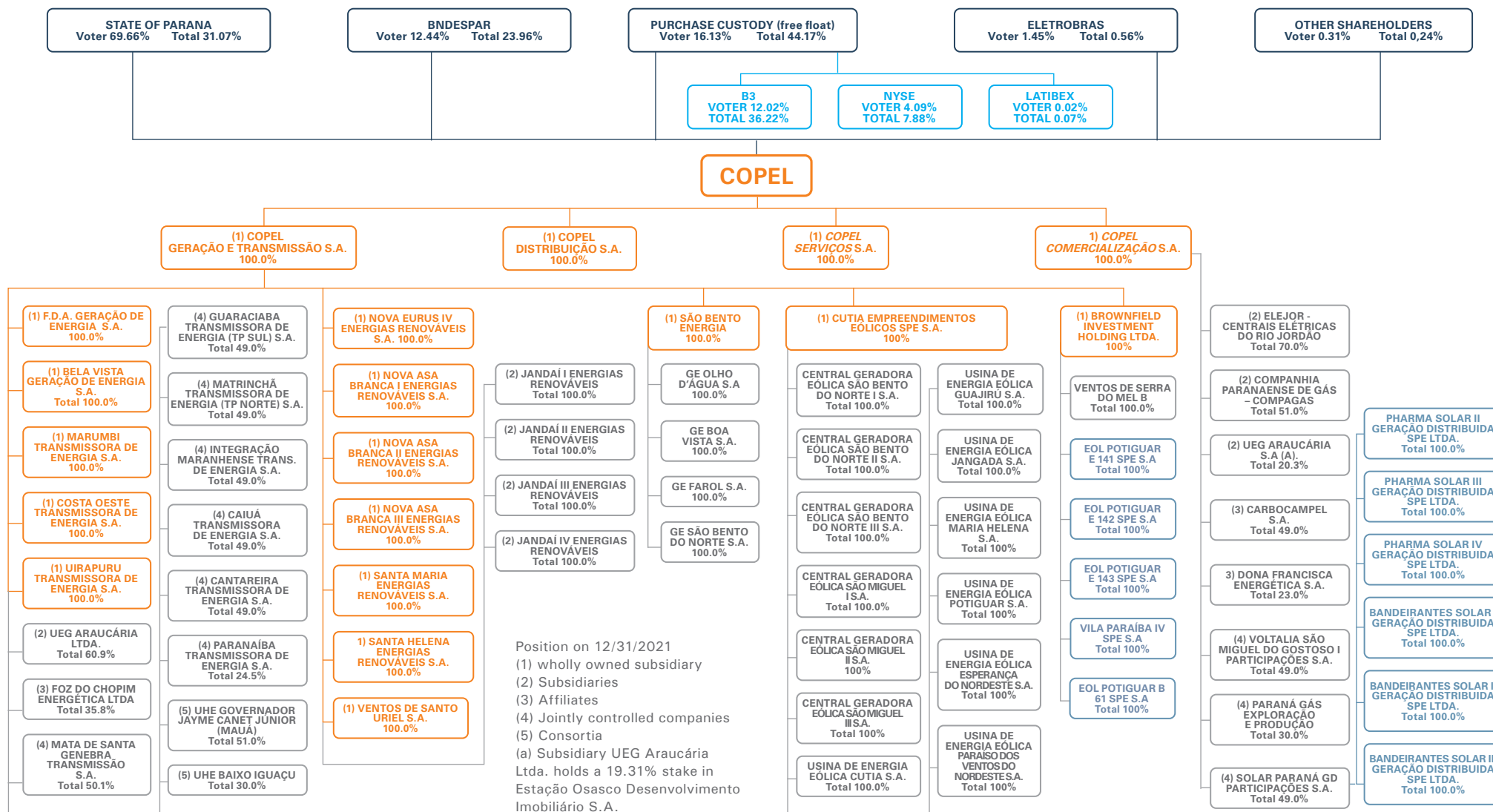
WIND FARM



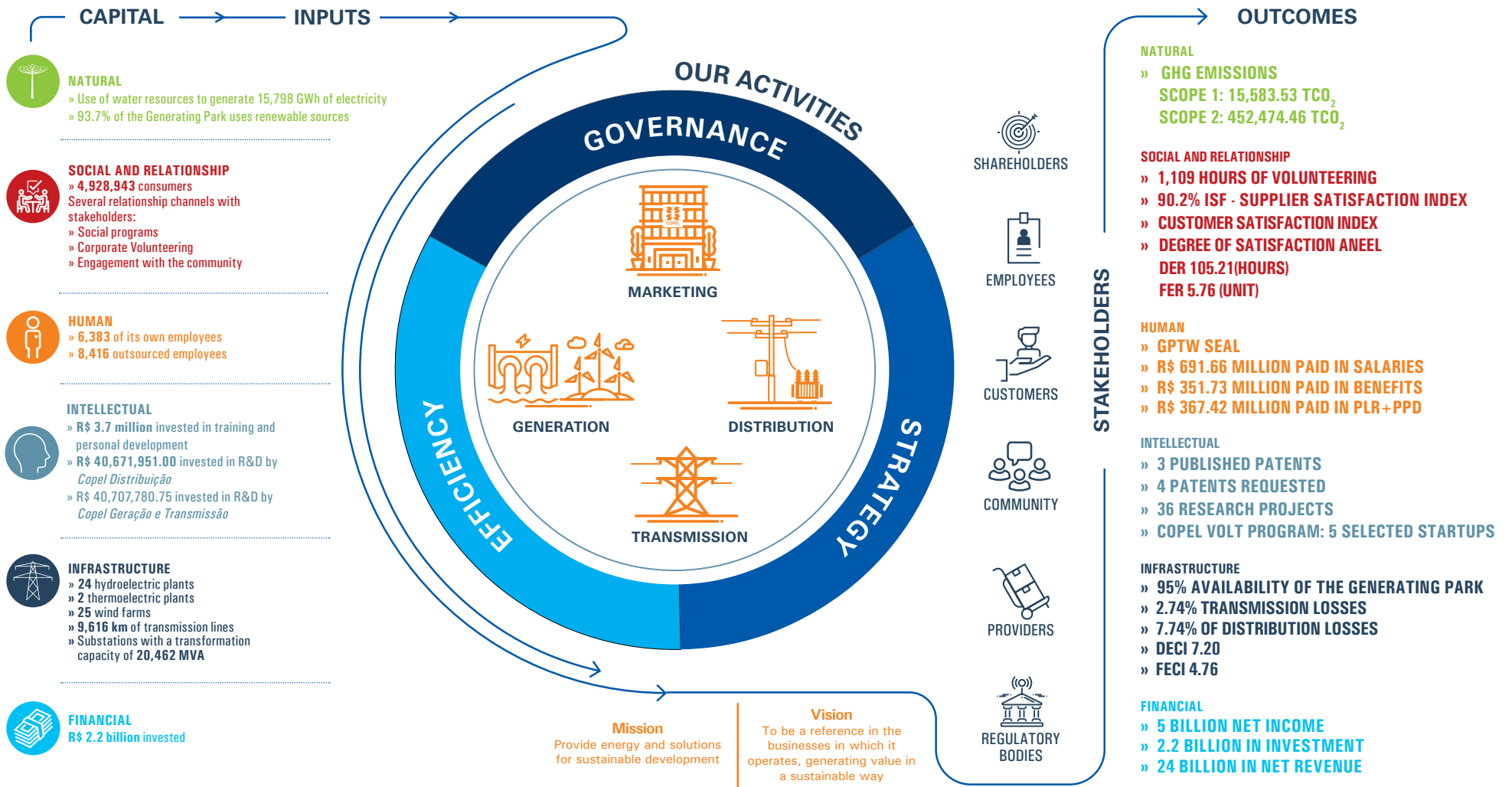
DISTRIBUTION LINE



Corporate Structure



Business model



Acknowledgments

In 2021, Copel received the following acknowledgments:

Awards / Certifications	Certifier
PNQV Award - National Quality of Life Award - Excellence in management in the Large Company category (Gold Category)	Brazilian Association of Quality of Life (ABQV)
FTSE4 Good Index Series - Recognition of companies' performance in terms of their environmental, social, and corporate governance policies and practices	London Stock Exchange
SE B3 - Corporate Sustainability Index	B3
Ibovespa B3	B3
ICO2 - Carbon Efficient Index	B3
Pro-Ethics Seal	Comptroller General of the Union - CGU and the Ethos Institute of Business and Social Responsibility
Pro-Gender and Race Equality Seal	Ministry of Women, Family and Human Rights
Human Being Award 2021 - Development Category - Performance Award (PPD) - 1st Place	
Human Being Award 2021 - Administration Category - Family Day - 1st Place	



Awards / Certifications	Certifier
CIER Award - Customer Evaluation (bronze) and Innovation (bronze)	Comisión de Integración Energética Regional - CIER Latin America
Paraná Regional Leaders Award 2021 - Best Company in Sustainable Practices	LIDE Paraná
Best Biogas Award , in the Best Organization category (3rd place)	South Brazilian Forum on Biogas and Biomethane
GPTW Certification and Ranking among the best companies in Paraná for <i>Copel Geração e Transmissão</i> (15th) and Copel (13th)	Great Place to Work
Paraná Climate Gold Seal	Federal Government of the State of Paraná
Sesi ODS 2021 Seal	Sesi - Industry Social Service



SUSTAINABILITY

Sustainability Management
Voluntary Commitments
Copel and the SDGs

Sustainability Management

Copel is a pioneer in the management of environmental, social, and corporate governance issues. Throughout its history, it has consolidated itself as a company committed to providing energy and solutions for the sustainable development of society, being the first company in the electricity sector to join the United Nations (UN) Global Compact on July 12 of 2000.

Sustainability management is carried out through several areas dedicated to ESG-related topics. Corporate guidelines are prepared and disseminated by Copel Holding through policies and standards that permeate all areas of the Company, including its Wholly Owned Subsidiaries. Each business has its

areas specialized in the management of socio-environmental aspects, since each operation has unique characteristics and requires different types of action and monitoring, aiming at socio-environmental compliance and adherence to best market practices.

To assess sustainability performance, the Company monitors key related data and participates in several specialized ESG performance assessments, mainly the B3 Corporate Sustainability Index (ISE/B3) and the S&P Global Corporate Sustainability Assessment (CSA). The results of these assessments are used as a basis for the continuous improvement of processes related to the ESG dimensions.

Voluntary Commitments

During its history, Copel has assumed, supported, and disseminated voluntary commitments recognized worldwide as good corporate sustainability practices. The main one is the commitment to the Global Compact, a UN initiative to engage companies and organizations in the adoption of principles in the areas of Human Rights, Labor Rights, Environment and Anti-Corruption. The Company is part of the Global Compact’s Brazil Network, composed of companies, agencies of the United Nations system in Brazil, business entities, civil society organizations, educational institutions, among others.

Other Copel Voluntary Commitments GRI 102-12

Letter name, principle, or other initiatives	Date of adoption	Voluntary/ mandatory	Stakeholders involved
United Nations Global Compact	07/12/2000	Voluntary	All
Business Pact for Integrity and Against Corruption	07/22/2015	Voluntary	All
Business Contribution to the Promotion of the Green and Inclusive Economy	05/11/2012	Voluntary	All
Call to Action for Governments to Combat Corruption	12/02/2014	Voluntary	All
Network of Companies for the Learning and Eradication of Child Labor	11/26/2016	Voluntary	All
<i>Nós Podemos</i> National Movement	03/08/2016	Voluntary	All
PRME - Principles for Responsible Management Education	11/16/2018	Voluntary	All
Positioning Entrepreneurs for the Climate - CEBDS	08/31/2021	Voluntary	All

Open Business Letter

Copel’s CEO, Daniel Pimentel Slaviero, together with 104 other leaders of national and foreign companies, as well as sector entities, signed an open letter in support of bold environmental goals and in defense of Brazil’s engagement for an agenda that aims at sustainable development. The document was led by the Brazilian Business Council for Sustainable Development (CEBDS).

The backdrop for the signing was the UN Climate Summit, held in Glasgow, Scotland, in November. The letter highlighted the need for a low carbon economy, recognizing the responsibility of the business sector in this transformation. The content also supports the development of a political-regulatory framework with actions to preserve the environment and combat illegal deforestation.



Copel and the Sustainable Development Goals

Copel directs its actions related to the Sustainable Development Goals (SDGs) based on the results of the study organized by the Global Compact's Brazil Network (RBPG), SDGs in the Brazilian Electricity Sector, which aimed to analyze and identify which

goals and objectives are more related to the activities of the Brazilian electricity sector.

These objectives and goals are presented in this report together with the material topics and are accompanied by Copel's performance in each of them. The SDG icons make it

possible to identify the relationship with each material theme.

In this way, Copel deals with its quest for sustainable development with transparency, in line with the practices encouraged and monitored worldwide by the UN.

Copel and the Sustainable Development Goals

The priority SDGs and their targets for the Brazilian electricity sector are:



7. ACCESSIBLE AND CLEAN ENERGY:

- 7.1 - By 2030, ensure universal, reliable, modern, and affordable access to energy services.
- 7.2 - By 2030, maintain a high share of renewable energies in the national energy matrix.
- 7.3 - By 2030, increase the rate of improvement in energy efficiency in the Brazilian economy.



8. DECENT WORK AND ECONOMIC GROWTH:

- 8.3 - Promote development-oriented policies that support productive activities, decent job creation, entrepreneurship, creativity, and innovation, and encourage the formalization and growth of micro, small and medium-sized enterprises, including through access to financial services.



9. INDUSTRY, INNOVATION, AND INFRASTRUCTURE:

- 9.1 - Develop quality, reliable, sustainable, and robust infrastructure, including regional and cross-border infrastructure, to support economic development and human well-being, with a focus on equitable and affordable access for all.
- 9.4 - By 2030, modernize infrastructure and rehabilitate industries to make them sustainable, with increased efficiency in the use of resources and greater adoption of clean and environmentally appropriate technologies and industrial processes; with all countries acting in accordance with their respective capabilities.



11. SUSTAINABLE CITIES AND COMMUNITIES:

- 11.1 - By 2030, ensure access for all to safe, adequate, and affordable housing and basic services and upgrade slums.
- 11.4 - Strengthen efforts to protect and safeguard the world's cultural and natural heritage.



13. ACTION AGAINST GLOBAL CLIMATE CHANGE:

- 13.2 - Integrate climate change measures into national policies, strategies, and plans.

Copel's performance to reach these goals is presented in specific tables in the performance of capitals, according to their relationship with each one.



Energia limpa

Web series on the relationship between SDGs and the electricity sector

At the end of March, Copel launched the web series *Energia da Sustentabilidade*, which addressed the Sustainable Development Goals (SDGs) prioritized by the electricity sector and their application. This initiative is part of the Educa ODS Program and has seven episodes of videos and podcasts. The videos of up to three minutes present content in a light and didactic way

for those who are not yet familiar with the topics covered.

The podcast allows for in-depth discussions around each SDG and was attended by experts from Copel, universities, public agencies, and similar institutions. The launch of the web series took place in a webinar, with the participation of Copel and Global Compact professionals.

Actions taken by companies and the market to make compliance with the SDGs feasible, in accordance with the goals of the UN 2030 Agenda, were discussed. The materials for the web series are available on Copel's Sustainability Portal, on the Company's YouTube channel and on the main audio platforms.



CORPORATE GOVERNANCE

- Strategic Reference
- Governance Practices
- Corporate Governance Structure
- Indication and Performance Evaluation of the Members of the Governance Bodies
- Integrity
- Risk management
- Regulatory Environment

A large, 3D-rendered graphic of the word "COPEL" in dark grey, block letters. The letters are mounted on a light grey, curved wall. The background features a large, curved blue and white graphic element that frames the right side of the page. The overall aesthetic is modern and professional.

Strategic Reference

Copel's actions and management decisions are guided by the guidelines established in its Mission, Vision, and Values, presented below.



Mission

Providing energy and solutions for sustainable development.



Vision

To be a reference in the businesses in which it operates, generating value in a sustainable way.



Values

GRI 102-16

Ethics

Result of a collective pact that defines individual behaviors aligned with a common goal.

Respect for people

Consideration for others.

Dedication

Ability to be intensely and completely get involved in the work contributing to the achievement of the organization's objectives.

Transparency

Accountability of the company's decisions and achievements to inform its positive or negative aspects to all interested parties.

Security and Health

Healthy work environment in which workers and managers collaborate to use a process of continuous improvement to protect and promote the safety, health, and well-being of all.

Responsibility

Conducting the company's life in a sustainable manner, respecting the rights of all stakeholders, including future generations, and the commitment to sustaining all forms of life.

Innovation

Application of ideas in processes, products, or services in order to improve something existing or to build something different and better.



Governance Practices

Copel's new Bylaws contemplate significant advances in corporate governance, with emphasis on:

- Guarantee that the current statutory provision that requires the full application of tariff readjustments, approved by the National Electric Energy Agency - Aneel, cannot be changed or deleted without the approval of the majority of shareholders holding preferred shares;
- Increase from 2 to 3 in the number of members elected by non-controlling shareholders in the Board of Directors (CAD);
- Inclusion of an independent external member in the Statutory Audit Committee;
- Establishment of 3 advisory committees to the CAD, namely:
 - Investment and Innovation Committee, with the purpose of evaluating and issuing recommendations on the Company's investment plans, composed of three CAD members, one of them representing minority shareholders;
 - Sustainable Development Committee in order to assist CAD in proposing guidelines, policies and main topics related to people management and ESG;

- Minority Committee for the purpose of analyzing and issuing recommendations and opinions on matters involving transactions between the Company and the controlling shareholder.
- UNITs program, including:
 - Splitting of shares in the proportion of 1 to 10 (the shares were traded as of March 12, 2021, according to the Notice to Shareholders published on this date);
 - Possibility of converting shares at the ratio of 1 ON to 1 PNB (and vice versa);
 - Formation of UNITs composed of 5 shares issued by the Company, being 1 ON (CPLE3) and 4 PNB (CPLE6);
- Adherence to B3's Level 2 of Corporate Governance, which establishes: among others:
 - 100% tag along for Common and Preferred shares, giving equal treatment to the Company's shareholders;
 - Voting rights for preferred shareholders in matters dealing with the transformation, incorporation, spin-off, or merger of the Company.

These advances are added to the robust Corporate Governance system already in place at the Company and to the new dividend policy approved in 2021.



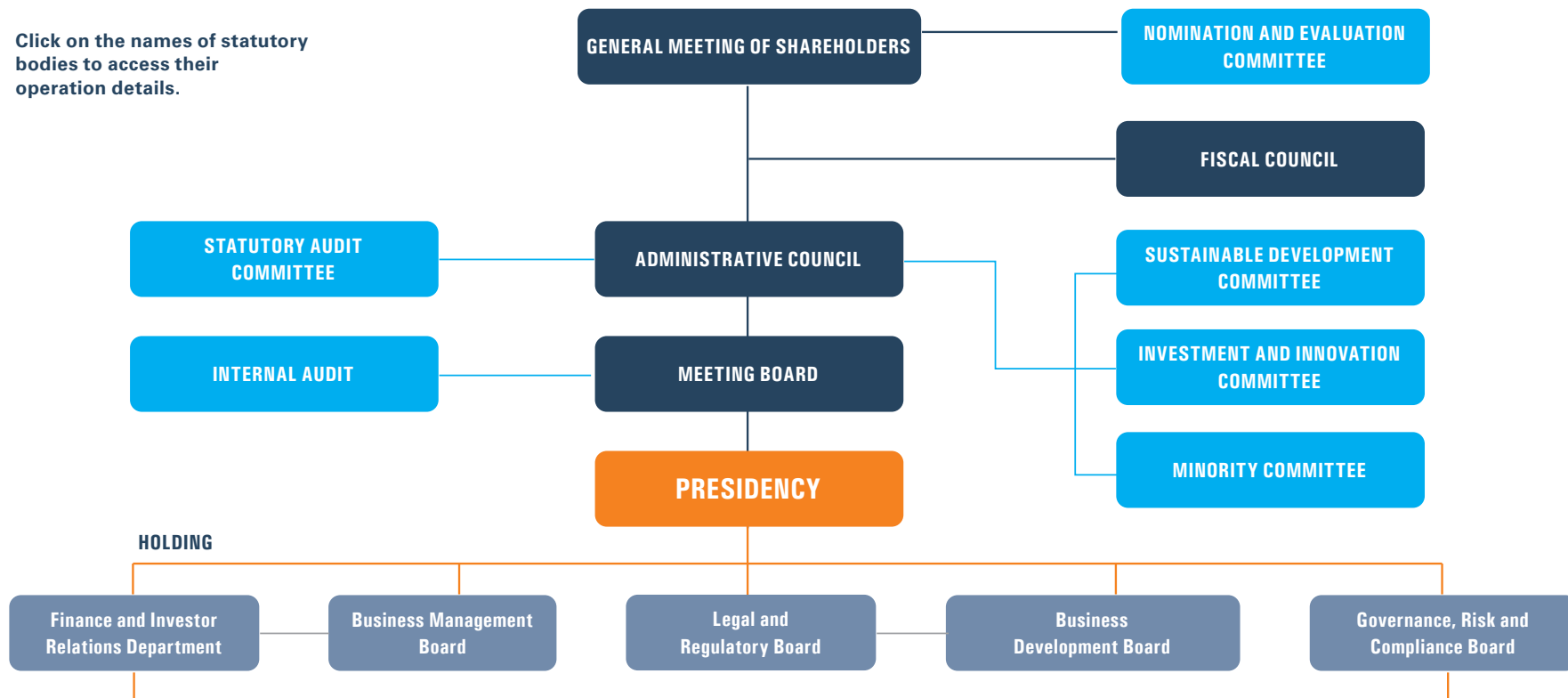
Corporate Governance Structure

| GRI 102-18, 102-22, 103-1, 103-2 |

Copel's corporate governance structure has a board of directors and five executive boards, and is composed of statutory bodies with different levels of responsibility, namely: General Shareholders' Meeting, with its Nomination and Evaluation Committee and the Fiscal Council; Board of Directors with its statutory advisory committees: Statutory Audit Committee, Investment and Innovation Committee, Sustainable Development Committee and Minority Committee; Internal Audit and Executive Board assisted by non-statutory internal bodies, such as the Ethics Committee.



Click on the names of statutory bodies to access their operation details.



- Notes:
1. The Nomination and Evaluation Committee is shared with Copel's wholly owned subsidiaries (Holding).
 2. Internal Audit is administratively subordinate to the Presidency and functionally to the Board of Directors.

Nomination and Performance Assessment of Statutory Body Members

Nomination and appointment process

| GRI 102-24, 103-2 |

The members of the Board of Directors are initially appointed by the controlling shareholder (State of Paraná), with the exception of three vacancies for non-controlling shareholders and one vacancy for the employee representative, for which an internal election process is carried out. Copel invites shareholders to present the candidates via Notice to the Market, published on the Investor Relations website, in accordance with Art. 21-L and 21-M of CVM Instruction 481/2009 and applicable legislation. Each candidate undergoes verification of the requirements and seals performed by the Governance, Risk and Compliance Board. The Nomination

and Evaluation Committee verifies the compliance of nominations with legislation and internal regulations, in particular with the Nomination Policy and the Internal Rule for Nomination of Statutory Body Members (NAC 030311).

According to item 4.2.8 of Copel Administrative Rule (NAC) 030311, knowledge and experience on economic topics are required from the members of the Board of Directors: “public companies and mixed capital companies and those with shares listed in New York Stock Exchange (NYSE) and/or B3, must ensure that at least one of the directors has recognized

experience in corporate accounting matters to be a member of the Statutory Audit Committee.” Both the Nomination Policy and NAC 030311 point to diversity as a principle to be considered in the selection of directors, including diversity of backgrounds, qualifications, and experiences, and in relation to gender, religion, age, and race.

In addition to the above assumptions, Copel also follows the independence criteria set out in national legislation (13.303/2016), and in the US legislation of the Securities and Exchange Commission (SEC), as its shares are listed on the NYSE.

Remuneration of corporate governance members

| GRI 102-35, 102-36, 102-37 |

The remuneration policy applied to the members of the governance bodies is defined by the General Shareholders' Meeting, in accordance with specific state legislation. (CCEE Normative Resolution No. 003/2019). For the executives, in addition to the charges, the compensation comprises a health and social security plan, food allowance, representation allowance, and profit sharing.

The remuneration of directors and other governance members is composed only of charges.

Performance evaluation of statutory bodies

| GRI 102-28, 103-3 |

The statutory bodies of Copel (Holding) and its wholly owned subsidiaries undergo an annual performance evaluation process, as established in Art. 81 of the Bylaws and in the Annual Performance Assessment Policy of Statutory Bodies (NPC 0319). The demand for this analysis is also provided for in the applicable legislation and is part of the best corporate governance practices. The Board of Directors is responsible, with the methodological support of the Nomination and Evaluation Committee. The process comprises collective (peer and body) and individual (self-assessment) assessments, and independence is ensured by hiring an external consultancy, which develops the model and applies it, following the requirements of Federal Law No. 13.303/2016. In addition to the statutory bodies, the members of the Executive Board and the Corporate Governance Secretariat are evaluated.

Diversity Indicators in Governance

Total employees by employee category and gender

| GRI 405-1 |

	 Male	 Female	Total by functional category
Board of Directors	6	1	7
Administrative Council	8	1	9
Fiscal Council	7	2	9
Statutory Audit Committee	3	0	3
Nomination and Evaluation Committee	3	0	3
Total	27	4	31



Senior Management Diversity Indicators (%)

| GRI 405-1 |

By age	Board of Directors	Administrative Council	Fiscal Council	Nomination and Evaluation Committee	statutory audit committee	Total
Up to 30 years old	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Between 30 and 50 years old	71.43%	44.44%	44.44%	33.33%	0.00%	45.16%
Above 50 years old	28.57%	55.56%	55.56%	66.67%	100.0%	54.84%
Total	100%	100%	100%	100%	100%	100%

Development of governance body members

| GRI 102-27, PRME 1, 2, 3 |

Members of Copel's senior management undergo high-level training, face-to-face and virtual, on economic, environmental, and social topics. In 2021, training was carried out for directors and administrators, promoted in partnership with the Brazilian Institute of Corporate Governance (IBGC). The training was mandatory, according to Art. 17 of Law No. 13.303/16, and was completed by all members of the senior management. The topics covered were:

Corporate and capital market legislation; Disclosure of information; Internal Control and Risk Management; Code of Conduct and Integrity; Law No. 12.846/2013 (Anti-Corruption Law); Communication with the Market and Transparency and Accountability; The role of the Administrative and Fiscal

Council in compliance with the Anti-Corruption Law; Administrative and Judicial Liability; The role of Audits; The Board of Directors in the Governance System; Council Mission; The roles and responsibilities of the board and director.

Two of the Company's directors are taking specialization courses, one in an MBA in Strategic People Management, and the other in an Executive MBA, improving their knowledge of the economic topic.

In addition, to improve knowledge on social issues, managers participated in the event "Why do we need to talk about racism?", promoted by the Diversity Commission in partnership with UniCopel.





Integrity

| GRI 102-16, PRME 1, 2, |

Copel's Integrity Program was created based on Law No. 12.846/2013 (Anti-Corruption Law) and Law No. 13.303/2016 to prevent, detect, and remedy possible harmful acts involving, for example, the occurrence of bribery, conflict of interest, fraud in bidding and payment processes, among others. Its rules are applicable to all employees, administrators, and tax advisors. The Code of Conduct, created in 2003, is periodically revised and is also subject to public consultation every four years.

The document incorporates Copel's values, the principles of the UN Global Compact and corporate governance, presenting a set of conducts related to the themes of

integrity, compliance, transparency, safety and health, social and environmental responsibility, respect, and relationship with the various segments in which the Company operates.

The Code of Conduct is the instrument that guides the actions of all people who carry out activities on behalf of Copel and its equity interests, establishing parameters of conduct for employees, members of the Executive Board, Boards and Committees, interns, suppliers, service providers and contracted parties. It is noteworthy that failure to comply with its principles and commitments subjects the individual to the penalties provided for in the functional discipline rule.



Conflict of Interests

| GRI 102-25, PRME 1, 2, 3 |

Copel's guidelines for dealing with conflicts of interest are described in the bylaws and internal regulations of statutory bodies, according to applicable legislation, specific policy, and the best corporate governance practices of the Brazilian Institute of Corporate Governance (IBGC).

According to Copel's Bylaws (Holding), Art. 77, the shareholder and the members of the Executive Board, the Board of Directors and Fiscal Council and statutory committees that, for any reason, have a direct, indirect, or conflicting private interest with that of the Company in a given resolution, must abstain from participating in the discussion and voting of this item, even as representatives

of third parties, the reason for abstention being recorded in the minutes, indicating the nature and extent of their interest.

Additionally, in the Internal Regulations of statutory bodies, it is provided that in case the manager himself does not express himself, any of those present at the meeting who are aware of the fact must manifest. After identifying the conflict of interest or particular interest, the administrator involved must be removed from the discussions and deliberations and must temporarily withdraw from the meeting.

Furthermore, the Policy on Transactions with Related Parties and Conflicts of Interest sets

out the rules for transactions between related parties to be carried out in the best interest of Copel and its wholly owned subsidiaries, based on principles of independence, competitiveness, compliance, transparency, equity, and commutativity. The Policy is also applicable as a recommendation to subsidiaries and jointly controlled companies and is recommended for affiliated companies and other equity interests, in compliance with their corporate procedures.

Conflicts dealt with are recorded in the minutes of the respective meetings of the Board of Directors or other Company bodies and made available on Copel's website.

Integrity training

| GRI 102-16, 205-2, PRME 1, 2, 3 |

The training courses are developed by Copel, in the Distance Learning (DL) modality, with the objective of bringing to employees and members of the senior management the principles that guide the Company's conduct.

Annually, Copel's senior management and the members of the governance bodies undergo training on economic, environmental, and social topics, covering topics related to: Internal Control and Risk Management; Integrity; Law No. 12.846/2013 (Anti-Corruption Law); Communication with the Market and Transparency and Accountability; the role of the Board of Directors and Supervisory Board in compliance with the Anti-Corruption Law.

The Code of Conduct course was offered to employees, developed so that all people who work on behalf of Copel are aware and can remember what the Company's recommended conduct is, within the

principles of Integrity, Compliance, Transparency, Security and Health, Social and Environmental Responsibility and Respect. These principles guide internal conduct and must always be considered in all decisions.

In 2021, the Governance, Risk and Compliance Department (DRC) offered training on the concepts of internal controls and best practices for managers and control enforcers in Copel's legal area, totaling 95 employees trained.

The trainings were recorded and are available to the internal public on the Legal Portal. The disclosure and dissemination of the Integrity Program and other compliance initiatives are periodically carried out electronically throughout the Company. The entire content can be consulted through the Integrity Portal for the internal public and through the [Integrity section on Copel's website](#) for the external public.



Members of governance bodies and employees trained in anti-corruption policies and procedures

| GRI 205-2 |



Members of the
governance body

34

Members of governance bodies who
received training

34

Percentage of governance body
members who received training



Employees

6,383

Employees who
received training

4,764

Percentage of employees
who received training



Functional category	Total employees, by functional category	Total number of employees, by functional category, who received training	Percentage of employees, by functional category, who received training
Operational	29	20	69%
Technical High School Professional	1,577	1,226	78%
High School Professional	3,541	2,543	72%
Higher Education Professional	1,236	973	79%
Intern	204	46	23%
Director	13	13	100%
Advisor	21	21	100%
Total	6,621	4,842	74%

Anti-corruption practices

| GRI 205-1, 205-3 |

Copel's anti-corruption practices are based on Law No. 12.846/2013 (Anti-Corruption Law) and Decree No. 8.420, which deal with the implementation of integrity programs, as well as the administrative accountability of legal entities for the practice of acts against the public, national or foreign administration. The Company's internal control structure follows the standards of the Committee of Sponsoring Organizations of the Treadway Commission (Coso), an internationally recognized framework, and Copel's Integrity Program allows for the integrated management of internal controls, as well as providing reasonable assurance on authorizations and records of adequate accounting transactions, enabling the preparation and disclosure of financial reports in accordance with current regulations.

In addition to the Integrity Program and the Code of Conduct, the most relevant guiding instruments for preventing and fighting corruption within the Company, Copel has corporate policies that are periodically reviewed and aligned with the US Foreign Corrupt Practices Act (FCPA) of 1977, and Sarbanes-Oxley Act, 2002, and Coso. Considering Copel (Holding) and its wholly owned subsidiaries, 100% of its operations were submitted to an assessment of risks related to corruption in 2021, without any cases of this type being identified.

Considering Copel (Holding) and its wholly owned subsidiaries, 100% of Copel's operations were submitted to an assessment of risks related to corruption in 2021, without any cases of this type being identified.

Pro-Ethics Seal

The Pro-Ethics Company seal recognizes integrity initiatives voluntarily adopted by companies, with measures aimed at the prevention, detection, and remediation of acts of corruption and fraud. Participation in the Program is voluntary and carried out through the completion of evaluation questionnaires. In the 2020/2021 edition, 327 companies of all sizes and from different fields of activity requested access to the program, of which 195 were admitted and, after the evaluation process, 67 companies were approved and recognized as a Pro-Ethical Company 2020/2021. Copel obtained the seal for the second consecutive cycle.

Established in 2010, through a partnership between the Comptroller General of the Union (CGU) and the Ethos Institute for Business and Social Responsibility, Pro-Ethics is an initiative that aims to encourage the voluntary adoption of integrity measures by companies, through public recognition of those who are committed to implementing measures aimed at preventing, detecting, and remediating acts of corruption and fraud.



Communication channels

| GRI 102-17, 102-43 |

In order to receive opinions, criticisms, complaints, denunciations, and queries, Copel provides communication channels that contribute to the fight against fraud and corruption through the external reporting channel, as well as the clarification of doubts from consumers and other interested parties, by the ombudsman. Another positive characteristic of the channels is the expansion of the relationship with the interested parties. The Company encourages these parties to report any situation that indicates a violation of ethical principles,

policies, rules, laws and regulations or other misconduct. The communication channels are publicized through articles on the intranet and banners posted at work centers, on the intranet and on the internet. In 2021, advertisements were broadcast on radio stations in the State of Paraná and in training related to the topic of integrity given to employees, administrators, and directors, among other audiences.

The management of the Whistleblower Channel is carried out by the Governance,

Risk and Compliance Department. Complaints about: harassment and discrimination, corruption, destruction or damage to company assets, misconduct, favoritism, fraud, or theft of goods and/or money, irregularities in financial statements and/or management reports, environment, non-compliance with internal policies and/or procedures, misuse of Copel resources, leakage or misuse of information, violation of laws, violations of Law No. 12.846/2013 (Anti-Corruption Law), and other illegalities.

In 2021, 351 reports were received in the Whistleblower Channel, as follows

Nature of the Report	Amount
Moral harassment	11
Sexual harassment	2
Conduct	54
Conflict of interests	18
Query/Doubt	19
Corruption	5
Destruction or damage to company assets	8
Discrimination (race, color, sex, religion, etc.)	2
Favoring suppliers or customers	4
Fraud or theft of money	10
Environment	4
Non-compliance with internal policies and procedures	57
Others	106
Theft, stealing or diversion of goods	4
Misuse of company resources	19
Leakage or misuse of information	5
Violation of laws - others	4
Violation of environmental laws	2
Violation of labor laws	9
Violation or loss of customer data	5
Grand Total	351

Note: "Other" reports are classified as "SOX Tests" (these are test records to verify the Channel's correct operation) and those considered as "Out of Scope" of the Reporting Channel, that is, they do not refer to the request for clarification of doubts, or failure to comply with legal and regulatory provisions of the Code of Conduct or Copel's internal rules.

All information is received by Contato Seguro, an independent outsourced company specialized in receiving complaints and forwarded according to the determined flow. The Ethics Committee is the collegiate body whose purpose is to ensure that the ethical and moral positioning of Copel and its Wholly Owned Subsidiaries is maintained at high levels. The Commission for the Analysis of Complaints of Moral Harassment is the body responsible for analyzing complaints of moral harassment at Copel and its wholly owned subsidiaries. Copel has an Ombudsman with its processes certified by ISO9001, and in 2021 it was elected the best ombudsman by the National Electric Energy Agency (Aneel).

Demands handled by the Ethics Committee in 2021

233 complaints

118 queries and other demands

Status

Invalid	92
Out of scope	85
Insufficient Data	69
Valid	39
SOX tests	21
Clarified doubts	18
Partially valid	10
Under Analysis	17
Total	351

Risk management

Some of the main threats to Copel and its wholly owned subsidiaries are described throughout this report, as well as the forms of mitigation adopted. Further information on the subject is available on Form 20-F and on the Company's website. Copel is aware that not properly managing its risks can generate financial, image, operational or socio-environmental impacts, which, consequently, result in financial losses, damage to reputation and the normalization of operations, or damage to environmental resources and the society.

The strategic risks associated with its operations are reviewed during the preparation of the Strategic Planning, work carried out jointly by the top management of Copel (Holding) and its subsidiaries through the identification and analysis of risks, definition of a control and contingency plan and establishment of monitoring actions. Included in the operational risk

category, socio-environmental risks are those related to the impacts of Copel's operations on society and the environment, which may affect reputation and generate sanctions from inspection bodies. They are also related to the effects of severe weather, the rupture of dams, the scarcity of natural resources, the mobilization of communities or health crises, which may affect the performance of services provided and cause losses to Copel.

The opportunities arising from sustainability management are reflected in the new businesses that the Company has been developing, such as the construction of the largest electrical track (infrastructure prepared for electric vehicles) in Brazil, with 730 kilometers of extension, connecting the Port of Paranaguá to Cataratas do Iguaçú, in Foz do Iguaçú; the acquisition of photovoltaic plants for the generation of distributed energy;



the development of research and development projects with universities aimed at improving distributed generation; and the prospection of energy generation businesses from biomass and biogas from agro-industry, forestry assets and waste and from the decomposition of organic matter from solid waste.

Main risks, impacts, and opportunities for Copel | GRI 102-15, 102-34 |

Topics	Risks	Impacts
Strategy	Risks associated with senior management decision making and strategic planning.	Substantial loss in Copel's economic value.
Reputation	Negative publicity.	Losses resulting from the deterioration of Copel's brand with the market, customers, and regulatory bodies.
Market	Changes in market prices, such as exchange and interest rates and share prices.	Fluctuation in fair value or future cash flows of a financial instrument.
Liquidity	Insufficient resources, cash, or other financial asset.	Inability to settle the obligations on the scheduled dates.
Credit	Failure of customers to fulfill their contractual obligations.	Difficulty in receiving amounts billed to its customers or from a counterparty in a financial instrument.
Disclosure	Possibility of issuing incomplete, inaccurate or untimely financial, managerial, regulatory, tax, statutory reports.	Penalty by Copel with fines or other sanctions.
Lawsuits	Inefficiency and ineffectiveness of Copel's operations, including financial and operational performance targets.	Losses resulting from failure, deficiency or inadequacy of internal processes, people, and systems, or from external events.
Information Technology (IT)	Access control vulnerabilities, segregation of duties failure, policy violation, external attacks, IT environment downtime, improper information alteration or disclosure	Unauthorized access to Company data and information.
Socio-environmental	Impacts of Copel's operations on society and the environment. It is also related to the effect of severe weather, the scarcity of natural resources or the mobilization of communities.	Impacts on the Company's reputation and assessment by supervisory bodies. It can also cause interruption in the provision of services or loss of energy production.
Projects	Risks related to transmission, generation, distribution, telecommunications, research, and development projects, among others	Implication of additional costs, delay in project delivery and assessment by regulatory bodies.
Laws and regulations	Non-compliance with environmental, labor, tax, and regulatory laws to which Copel is subject, including internal policies and rules.	Assessment by regulatory bodies.
Fraud and corruption	Theft of physical assets, information brokerage, embezzlement of financial resources, conflict of interest, influence peddling, bribery, kickbacks, collusion with suppliers and customers, among others.	Financial losses, fines, sanctions and penalties by inspection bodies, and deterioration of Copel's image.
LGPD	Risks under the General Personal Data Protection Law	Related to any activity of the Company that requires data processing and/or uses personal data in its operation, such as: collection, production, reception, classification, use, access, reproduction, transmission, distribution, processing, archiving, storage, elimination, evaluation or control of information, modification, communication, transfer, dissemination, or extraction of data.

In 2021, Copel monitored, through its Corporate Risk Management methodology, the process of identifying adverse events with the Strategic Planning review process, work carried out by the Governance, Risk and Compliance Department. This procedure, which identified 13 main risks, allowed a comprehensive view of how risks and critical concerns can impact the strategic objectives defined by the Company. gri 102-34

In accordance with the Company's Risk Management Policy, during 2021, periodic reports were made of the risk portfolio and the respective mitigation plans to Senior Management (quarterly for analysis by the Audit Committee and Fiscal Council and every six months for analysis by the Board of Directors). This same procedure is also planned for the year 2022. Therefore, Copel's strategic risk management process has been continuously improved, in line with the best market practices and in compliance with current legislation.

Cybersecurity

In February 2021, some of Copel's servers suffered a cyberattack by hackers, immediately detected by the operation and protection systems. The Company followed the security protocols, including suspending the operation of its computerized environment to protect the information's integrity, restoring normality in stages. The internal assessment of the incident was completed, with the information being directed to follow-up by the Civil Police and the containment and correction actions carried out as soon as possible. It is important to highlight that energy supply and telecommunications services were not interrupted due to the episode.

Copel has a Privacy and Data Protection Policy that establishes guidelines for obtaining, using, and disclosing the information collected on Copel's websites.



[Click here and access the Privacy Policy portal - Copel | Paraná Energy Company](#)

Note: 418-1 - Copel monitors complaints from customers and regulatory bodies about access to personal data, in accordance with the General Law for the Protection of Personal Data (LGPD), and for reasons of data sensitivity, chooses not to disclose them publicly.

Cybersecurity in the Covid-19 Pandemic

| GRI 103-2 |

As a result of the pandemic, most of the primary and outsourced employees started to work outside Copel's facilities, especially in their homes. As a result, there was a significant increase in connection points on the network, consequently increasing the surface exposed to cyber-attack risk. To mitigate it, Copel adopted best practices for identity and access management, such as, the adoption of VPN with strong access segmentation and mandatory use of the second authentication factor for connection.

Dam safety

| EU21 |

Dams are important structures for the Company's business, as they concentrate most of the energy generation capacity. The structures assembled for hydroelectric plants have well-established construction standards and safety criteria and their condition is checked at all stages – design, construction, and operation. However, as in any structural work, they present a risk of failure associated with different factors, internal or external. In order to mitigate this risk and ensure the integrity of the dams under its responsibility, Copel acts in a preventive manner, according to criteria and procedures in line with the best engineering practices and current legislation. The hydroelectric plants have a Dam Safety Plan (PSB) and an Emergency Action Plan (PAE), both in compliance with legal parameters. The Company also maintains the Dam Safety Engineering Sector, whose

employees are responsible for carrying out maintenance procedures and for the continuous monitoring of these structures.

The Operation and Maintenance areas control the indicator "Number of PAEs simulations in Power Plants," established in the Management Agreement, with goals that were 100% met in the last three years. As a way of evaluating and validating the procedures provided for in these plans, two internal tabletop simulations were carried out in 2021.

The PAEs are disclosed and delivered to representatives of city halls and Civil Defense coordinators of the municipalities potentially affected in the event of a dam failure, as well as to the state Civil Defense coordinators, in addition to being subject to inspection by Aneel.

Copel's actions are guided by the National Dam Safety Policy (PNSB) and Resolution No. 696 of the National Electric Energy Agency (Aneel), which establish standards, regulations, monitoring procedures, among other guidelines, for dams destined for the accumulation of water for any use, the final or temporary disposal of tailings, and the accumulation of industrial waste.

The Operation and Maintenance areas control the indicator "Number of PAEs simulations in Power Plants," established in the Management Agreement, with goals that were 100% met in the last three years.

Hydrological Risk

| GRI 102-34, SASB IF-EU-140a.3 |

About 90% of Copel's generation is hydraulic, most of it in the Iguaçu River basin, in the states of Paraná and Santa Catarina, in southern Brazil. Hydroelectric generation is characterized by the non-consumptive use of water in the process, with the water being returned immediately downstream in the same amount. The greatest water management risks are associated with extreme hydrological events (floods and water scarcity situations).

According to data from the Brazilian Water Resources Situation Report published by the National Water and Basic Sanitation Agency (ANA), in 2021, although Copel's projects are not in a permanent water stress zone, over the years 2020 and 2021, in the southern region, the Iguaçu Water Resources Management Unit faced one of the most severe periods of water shortages in its 90-year history of flows.

The State Government decreed a water emergency in the State of Paraná to prioritize emergency actions to face the

water crisis. State Decree No. 4.626/2020 also created a Working Group, in which Copel participates as a guest and collaborates with the data availability from its hydrological monitoring network, in order to guide decision-making.

Copel maintains a Reservoir Monitoring System (SMR), which allows monitoring and processing of hydraulic-operating information for managing the hydraulic operation of reservoirs and energy in real time, continuously monitoring the amount of water available for hydroelectric generation. And it maintains a hydrological monitoring network in the hydrographic basins where it has hydroelectric plants in operation, which is composed of several hydrological stations where water level data from rivers and reservoirs and rainfall data are collected. This data helps and guides the operation of the plants. The data are available on the Copel Hydrological Monitoring website and on the ANA website. In addition, real-time monitoring of the hydrological situation, meteorological conditions and the results of meteorological

models that simulate future water availability conditions is carried out, with the objective of evaluating possible preventive actions in the operation of its reservoirs.

Reservoir operation rules are also registered with the National Electric System Operator (ONS), the entity responsible for coordinating the operation of the National Interconnected System (SIN).

Copel analyzes cyclical water availability scenarios (historical variation) for energy planning purposes, revenue estimation (generation of the Energy Reallocation Mechanism, short-term prices) and associated risks.

In the enterprise risk management methodology, the possibility of changes in local regulations is taken into account. In this sense, Copel actively participates in discussion forums, such as the Crisis Rooms in the Southern Region and Paranapanema and, in particular, in the National and State Councils for Water Resources and in the



Hydrographic Basin Committees, where regional water resources issues are dealt with and discussed, ensuring that matters related to changes in water availability are always under discussion and being properly monitored and dealt with by Copel.

The impacts on Copel's price structure and business are minimized, as its plants are part of the National Interconnected System (SIN), which has hydroelectric, thermal, and solar plants and interconnected transmission lines to meet the energy demands of all regions from Brazil.

The risk analyzes do not show that there may be a significant change in the short term, which could impact the Company, even so, Copel participates in discussions within the scope of the Technical Water Resources Groups and Operation of the Brazilian Association of Electric Power Generation Companies - **ABRAGE**.

Copel also has an internal standard that establishes rules and responsibilities related to the management of the Company's reservoirs, and aims to regulate multidisciplinary management activities

(environmental, property, social, etc.) in the geographic area that includes the reservoirs, water, and areas surrounding the project. Management is the responsibility of the Institutional Reservoir Management Committee, together with the local committees of each production unit.

The use of the hydraulic potential of the plants maintained and operated by Copel is also preceded by the Granting of the Right to Use Water Resources, an instrument of the National Water Resources Policy (Law No. 9.433) which aims to guarantee the quantitative and qualitative control of water uses and the effective exercise of the right of access to water. The projects are also subject to environmental licensing for their effective operation.

As it is a surface water use, although not consumptive, hydroelectric generation is subject to the risk of changes in the average monthly precipitation, which may cause an increase in the average flows of the tributaries of plants operated by Copel. This type of phenomenon can result in structural impacts, with the need to review the dimensioning of structures and possible operation and

maintenance costs, and in environmental impacts, such as diffuse pollution, silting of reservoirs, in addition to possible impacts on surrounding communities.

On the other hand, the lack of rain can compromise the reservoir storage of Copel's hydroelectric plants, resulting in a temporary reduction in the company's generation capacity. Considering the priorities for the use of water resources established in Law no. 9.433/1997, in case of water scarcity, the supply for human consumption and animal watering is a priority, minimizing the generation of hydroelectric energy and the reservoirs are directed to meet the needs of the above-mentioned predominant uses.

Copel also carries out periodic monitoring of water quality in the region where its reservoirs are located (upstream and downstream), analyzing various physical, chemical, and biological parameters, in addition to qualitative and quantitative monitoring of local phytoplankton.

As a measure to protect the reservoirs, Copel periodically inspects its reservoirs, evaluating possible environmental interventions in the lakes and their surroundings and defining specific



measures to remedy identified irregularities such as construction in the concession area, discharge of effluents, use and occupation of Permanent Protection Areas (PPA), illegal hunting and fishing, among others.

Copel carries out inspections in the plants' areas of influence and contemplates the multiple uses identified in the projects' operating rules, in order to mitigate conflicts over the use of water.

In order to resolve conflicts over water resources, the National Water Resources Law – Law nº 9.433/97, defines that they must be dealt with, in the first instance, at the local level by the Hydrographic Basin Committees. In this way, Copel participates in the committees of the basin where its plants are located to seek solutions to possible conflicts related to water resources.

In the design and dimensioning phase of the projects, the physical characteristics of the facilities and equipment are established,

as well as the limits of water resource use (capacity for swallowing the generating units, productivity, spillage capacity). The projects are designed to use a certain amount of water in their processes during their useful life (producibility of generating units x historical hydrological series).

These actions are aimed at optimizing energy generation, in order to avoid wasting water resources (unnecessary spills).

Generating units' availability targets are based on intensity and reviewed annually.

In the design of the overflow structures, conditions for energy dissipation are defined in order to reduce impacts to the region downstream of the projects. In addition, periodic hydro-sedimentological monitoring is carried out in the region covered and, eventually, bathymetric surveys in reservoirs.

Faced with a water scarcity scenario, and given the priority uses for human

consumption and animal watering (Law No. 9.433/1997) Copel's hydraulic energy generation suffered a negative variation with financial impacts in 2020, partially offset by energy generation from other sources. It was the first year that the Company performed this type of calculation.

Investment in monitoring and forecasting actions is around 6.5 million reais per year. Recently, Copel recorded heavy rains that caused damage to its projects in at least two situations. In 2014, Copel was impacted by an extreme rainfall event in the Iguaçu River basin, which resulted in additional costs for the recovery of small hydroelectric plants due to the damage caused. In 2016, a new significant event occurred in the Tibagi River basin, causing damage to the facilities of another small hydropower plant.



Click here and access the Hydrological Monitoring page – Copel | Paraná Energy Company



Regulatory environment

| GRI 103-1, 103-2, 103-3 |

The Brazilian electricity sector is regulated by the Ministry of Mines and Energy (MME), the National Energy Policy Council (CNPE), the Electricity Sector Monitoring Committee (CMSE) and the National Electric Energy Agency (Aneel).

The MME is responsible for defining the sector's policies, which govern everything from the use of natural resources and other sources of electricity generation to the promotion of the development and adoption of new technologies. Aneel is responsible for establishing rules for the electricity generation, transmission, distribution, and commercialization segments, in addition to tariffs that provide favorable conditions for

market development, with a balance between agents and for the benefit of society.

The Agency is responsible for granting concessions, permissions and authorizations for projects and electric energy services by delegation of the Federal Government and also defines service quality standards and technical and economic indicators, also being responsible for monitoring compliance with them. Together with the Electric Energy Commercialization Chamber (CCEE), it also establishes all actions in the free energy market, whether with regard to the operation of the market itself and on which ranges of customers can migrate to it, as well as in relation to the calculation of prices.

The determinations of these various bodies, therefore, have a direct impact both on the operation itself and on the relationship with customers, and Copel must adapt and follow what is stated in the resolutions, under penalty of incurring sanctions (warning and fines), in addition to running the risk of not having the investment amounts recognized or even losing the concession. In addition, any changes in policies aimed at the electricity sector interfere with the Company's business, both in terms of strategic and operational issues, and may affect revenues.

Currently, topics such as solar energy, micro and mini-generation and new technologies

to modernize the sector, such as smart grids, increase the risks and uncertainties inherent in the regulatory environment and make its monitoring even more important.

Copel is an active agent in the electricity sector by participating in specific meetings with the regulatory body, public hearings, and consultations, and taking subsidies. The Company is involved in the preparation of regulatory acts, which contributes to the improvement of regulatory frameworks and, thus, to the generation of value in the medium and long term. The responsibility for monitoring and acting in this regard is of the Company's regulatory area, which, on a daily basis, publicizes acts and news in the electricity sector; maps the risks; identifies the areas and processes involved; and ensures compliance with regulatory deadlines, in addition to controlling the regulatory remuneration base and the tariff readjustment and review processes.

The regulatory area is shared between Copel (Holding) and its wholly owned subsidiaries, acting in accordance with the contract. Its performance is evaluated through specific indicators: control of deadlines for compliance with regulatory consultancy; control of deadlines for meeting administrative processes; and effectiveness in participating in Aneel Hearings and Public Consultations, the first indicator being part of the performance evaluation of the Company's regulatory area.

Energy Planning and Demand Increase

[GRI 103-1, 103-2, 103-3, EU10, EU19]

Under state responsibility, the electrical sector planning activity is currently carried out by the Energy Research Company (EPE), as provided for in Federal Law 5.174/2004. This entity periodically publishes a series of indicators, studies, and reports, including the "National Energy Plan" and the "Ten-Year Energy Plans," documents that design and define the energy generation and transmission projects of interest to the Brazilian State from gross domestic product (GDP) growth projections.

Before being approved, the plans undergo a Public Hearing, at which time they are disclosed for analysis by interested parties, with a view to receiving contributions from the most diverse sectors of Brazilian society. Only after this participation are they published as instruments of sectoral public policy.

The same occurs with the concession notices for services related to the electricity sector, which undergo a period of Public Hearing before being approved. Thus, the process of planning and concession of public electric energy generation and transmission services is conducted in a participatory manner between Copel and the Brazilian State.

Participation in associations | GRI 102-13 |

The representation in electricity sector associations and the performance of Copel's regulatory area, together with its technical areas, makes the Company actively participate in the regulation and legislative process related to bills in the electricity sector, exercising its influence policy to defend its interests and that of society as a whole.

Participation in electricity sector associations also occurs within the scope of subsidiaries, through representatives with expertise in their businesses.

Get to know the electricity sector associations that *Copel Geração e Transmissão* and *Copel Distribuição* participate in and at what level in the Social-Environmental and Economic-Financial Reports of these subsidiaries.

Main Associations

Energy sector associations	Annual value of contributions 2021
Brazilian Association of Electric Power Companies - ABCE	R\$ 44,403.00
Brazilian Wind Energy Association - ABEEÓLICA	R\$ 84,000.00
Brazilian Association of Electric Energy Distributors - ABRADEE	R\$ 584,040.55
Brazilian Association of Electric Power Generation Companies - ABRAGE	R\$ 586,364.64
Brazilian Association of Clean Energy Generation - ABRAGEL	R\$ 100,800.00
Brazilian Association of Electric Power Transmission Companies - ABRATE	R\$ 186,572.30
Brazilian Association of Independent Electric Power Producers - APINE	R\$ 194,905.08
Brazilian Association of Mineral Coal - ABCM	R\$ 35,280.00
Brazilian Association of Maintenance and Asset Management - ABRAMAN	R\$ 4,062.00
Brazilian Photovoltaic Solar Energy Association - ABSOLAR	R\$ 48,576.00
Total Contributions	R\$ 1,869,003.57





CAPITAL PERFORMANCE

- Natural capital
- Social and Relationship Capital
- Human capital
- Intellectual capital
- Infrastructure Capital
- Financial Capital





NATURAL CAPITAL





Copel, concerned with sustainable development, is guided by the preservation and better use of Natural Capital, and believes that sustainable companies add value to their businesses, gaining conditions to better face possible economic, social, and environmental risks. The Company's actions in this regard can be accessed through the [Sustainability Portal](#).

In order to carry out its actions, Copel's environmental goals are developed based on the company's history, seeking the best use of resources, minimizing impacts and

complying with economic analysis. In order to monitor good practices and the quality of environmental management, Copel adopts a series of indicators, periodically monitored by the Company's environmental areas, among which the following stand out:

- Consumption of natural resources (eco-efficiency: water, energy, fuels, paper);
- Waste; and
- Atmospheric and greenhouse gas (GHG) emissions.

Eco-efficiency goals

	Electricity	Reducing electricity consumption by 5% by the end of 2022 (base year 2017). The target was fractionated to 1.25% per year from 2019 to 2022. Base value = 33,136.87 MWh	GRI 302-4
	Fleet emissions	Reducing emissions by 2% (base year 2017). The target was fractionated to 0.5% per year from 2019 to 2022. Base value = 13,172.00 tCO ₂	
	DIS reuse and recycling	Allocating 90% of the waste generated in DIS operations for reuse and recycling.	
	GET reuse and recycling	Allocating 70% of industrial waste (class I) generated in GET operations for reuse and recycling.	

Eco-efficiency




Energy and fuel consumption

In 2014, Copel instituted a program for the efficient use of natural resources, with actions that include combating the waste of energy, water, fuels, and materials, in addition to reducing waste and greenhouse gas (GHG) emissions. By raising the awareness of its employees and aiming at reducing the Company's natural resources and costs, the Ecoefficiency Program seeks to disseminate education for sustainability, respect for the environment and concern for future generations.

In 2021, Copel's energy consumption increased compared to last year with the gradual intensification of operational activities. Highlight for fuel consumption (gasoline and ethanol), with greater use of the fleet. Electricity consumption has also increased. The data is presented below:



Energy


Energy consumption from non-renewable fuels | GRI 302-1


Type of fuels	Consumption (GJ)			Variation 2020 x 2021 (%)
	2019	2020	2021	
 Gasoline	3,001.09	1,278.71	1,858.95	45.38%
 Diesel oil	127,032.50	98,926.87	85,611.67	-13.46%
 Airplane kerosene	58.41	-	-	-
TOTAL	130,092.00	100,205.58	87,470.62	-12.71%


Note: the details of the conversions are in the GRI summary corresponding to the indicator. There was no consumption of kerosene due to the sale of the aircraft

Total consumption of energy from renewable fuels

Type of fuels	Consumption (GJ)			Variation 2020 x 2021 (%)
 Ethanol	37,387.36	19,051.17	21,814.88	14.51%
 Biodiesel	13,666.23	15,884.18	10,045.81	-36.76%
TOTAL	51,053.59	34,935.35	31,860.69	-8.80%
TOTAL FUELS	181,145.59	135,140.93	119,331.31	-11.70%

	2019	2020	2021	Variation 2020 x 2021 (%)
 Electricity consumption (GJ)	201.244,45	265.886,34	237.888,98	-10,53%




	2019	2020	2021	Variation 2020 x 2021 (%)
 Total energy consumption (GJ)	382,390.04	401,02.26	357,220.29	-10.92%

	2019	2020	2021	Variation 2020 x 2021 (%)
 Electricity sold (GJ)	55,189,100.00	65,413,543.83	70,751,504.92	8%







Note: the details of the conversions are in the GRI summary corresponding to the indicator.



Copel's energy intensity | GRI 302-3

	2019	2020	2021	Variation 2020 x 2021 (%)
 Electric energy consumed (GJ)	78,175.32	64,957.8	93,083.55	43.3%
 Total owned employees	7,095	6,667	6,383	-4.3%
 Copel's energy intensity (GJ consumed of electricity/no. of owned employees)	11.02	9.74	14.58	50%



Total energy consumption		Unit	Financial Year 2018	Financial Year 2019	Financial Year 2020	Financial Year 2021	Goal 2021
	a) Non-renewable fuels (nuclear fuels, coal, oil, natural gas, etc.) purchased and consumed	MWh	4,785,505.2	468,331.2	360,748	24,297.39	Note 1
	b) Purchased non-renewable electricity	MWh	5,083,510	5,003,320	6,317,540	6,243,760	Note 2
	c) Steam/heating/cooling and other (non-renewable) purchased energy	MWh	0	0	0	0	NA
	d) Total renewable energy (wind, solar, biomass, hydro, geothermal, etc.) acquired or generated.	MWh	24,832,784.96	24,970,861.55	30,854,164.26	30,484,240	Note 2
	e) Total non-renewable energy (electricity and heating & cooling) sold	MWh	3,330,980	3,303,928	3,260,770	3,282,870	Note 2
TOTAL CONSUMPTION OF NON-RENEWABLE ENERGY (A+B + C-E)		MWh	6,565,087.2	2,167,723.2	3,417,510.08	2,985,187.39	Notes 1 and 2
	Total costs of energy consumption	Currency	6,412,512,398.47	5,461,481,019.06	6,853,594,464.78	9,534,247,174.70	NA

Note 1 - the Company's goal was defined in terms of reducing the emission of greenhouse gases (2%) for the fleet.

Note 2 - the Company's target was defined in terms of reducing the consumption of renewable and non-renewable electricity by 5%.



Actions to reduce energy consumption and reductions obtained (GJ) | GRI 302-4

Action	Energy type	Reduction obtained in GJ
Fleet modernization, incentive to use ethanol in flex-fuel vehicles, use of electric vehicles and optimization of the displacement of field teams.	Energy from fuel	17,650.19
Change in employee behavior and reduced consumption in administrative facilities.	Electricity	79.89
Operational changes and consumption reduction in substations.	Electricity	2,289.66
Replacement of 42 reflectors of 400W and 800W for 100W in hydroelectric plants	Electricity	105,996.00
Replacement of conventional light bulbs with LED in the hydroelectric plant	Electricity	19,048.10
Total		145,063.84

Water

Water withdrawal

GRI 303-1

About 80% of Copel's generation capacity comes from hydroelectric plants. The company operates 21 hydroelectricity plants, located in the hydrographic basins of the Iguaçu, Tibagi, Alto Ribeira and Atlântico Sudeste rivers. The most significant impacts of water use in energy generation are related to the transformation of the lotic environment (river) into a lentic environment (reservoir), such as, for example, the increase in transparency and sedimentation of solid particles due to the water velocity decrease.

To define the operating rules of its projects, Copel seeks to know the multiple uses of the hydrographic basin, so as not to affect them. These rules are defined according to the characteristics of the asset (such as generation capacity, spillage, and operational levels of the reservoir) and the hydrographic basin (backwater, natural rates of flow variation,

maximum and minimum flows, among others). To this end, specific hydrological studies are carried out, which include monitoring prior to the installation of the enterprise and field inspections, to characterize the main users and restriction flows.

In a transparent manner, Copel publishes data on the hydraulic operation of each project in real time, [at a specific electronic address](#). To learn more about Copel's initiatives on this topic, [access the Sustainability Portal](#).

Copel does not consume water in its production process, as the resource used returns to the water body with the same quality and quantity, in accordance with national legislation. Regarding water consumption in the administrative environment, the Company uses water from

the public supply network and, in some places, from underground collection. Such data are monitored monthly and monitored by the Ecoefficiency Program.

Water withdrawal in 2021 (in megaliters)

GRI 303-3

	2020	2021
Surface water	113,167.91	109,152.10
Underground water	21.73	40.42
Third party water	117.46	95.29
Total water abstracted	113,307.09	109,287.81

Note: Information on the parameters used by Copel is described in the GRI Summary.

The company monitors the flow of effluents every six months through collections carried out in accordance with the guidelines and procedures contained in the collection manuals for each asset.

Water disposal

| GRI 303-2, 303-4 |

The generation projects operated by Copel release sanitary effluents with a nominal flow that is irrelevant compared to the flow of the receiving body. Even so, the Company monitors this data every six months, through collections made in accordance with guidelines and procedures contained in the collection manuals of each asset and guided by the guidelines of the Standard Methods for the Examination of Water and Wastewater (APHA 2012).

In sanitary systems equipped with a sinkhole, there is no monitoring, as there is no discharge of effluents into surface water bodies. These infrastructures promote adequate infiltration of the treated effluent into the soil, in accordance with NBR 13969:1997 ("Septic Tanks - Complementary

treatment and final disposal of liquid effluents units - Design, construction, and operation"). There are no specific disposal parameters for the hydroelectric sector. The conditions and standards adopted by Copel are derived from Conama Resolution 430/2011.

Water disposal (ml) | 303-4

	Total
Surface water	109,152.10
Underground water	33.02
Sea water	-
Third party water	76.95
Total water disposal	109,262.07

Notes:

1. Compilation of data obtained from the operation of the projects.
2. Surface Water - Unitization of the volumes used for cooling (HPU GNB, HPP GJC, HPP GJR, HPP GBM, HPP GPS, and HPP CLR).
3. All surface water captured for energy generation is returned to the water body, characterizing non-consumptive use.
4. Facilities that have a sewage collection network are connected to the network of the local concessionaire for the treatment of effluents in appropriate treatment stations.
5. The other operations do not capture surface water and sea water.

Materials

| GRI 301-1, 301-2 |

Copel's material management considers only the resources necessary for the generation, transmission, and distribution of energy in the operational scope, in addition to the role also in the administrative scope.

Consumption of Materials (tons)	2020	2021
<i>Copel Distribuição</i>		
Copper and aluminum conductors	7,359.35	8,533.79
Concrete, fiber and polymer posts and crosspieces.	132,201.83	176,648.01
Equipment: transformers, insulators, meters, and other operating equipment	6,220.68	7,809.12
Iron	1215.83	1417.08
Total	146,997.69	194,408.0
<i>Copel Geração e Transmissão</i>		
Aluminum, Copper, Iron and Steel	15,397.31	194,923.10
Insulating and Lubricating Oil	33,978.48	162,749.10
Insulators, Glass, and Porcelain	-	15,857.07
Chemicals, Tow, Polymers and Paper	-	1,035,399.01
Electronic Components	-	103,805.87
Total	49,375.79	1,512,734.15
<i>Copel Telecomunicações</i>		
Optical fiber	1,134,753	1.129.448,00
Total	1,134,753	1,129,448.00
Total Grupo Copel	1,331,126.48	2,836,590.15

Note: Copel does not manage the use of recycled materials.

Waste generation

| GRI 306-1, 306-2 |

Copel runs the Solid Waste Management Subprogram, developed in accordance with the National Solid Waste Policy and other legislation and regulations in force. The main objectives of the program include meeting the legal requirements and conditions of environmental licensing of projects, promoting the correct management of solid waste from operation to final destination, and mitigating related environmental impacts.

The program manages the waste generated in operations and administrative activities, making it possible to monitor consumption, the amount allocated and the progress of goals.

Waste transport is guided by the Manual for Transporting Hazardous Substances and the occupational safety area actively acts in the instructions and requirements made to the contractors, such as the presentation of an Emergency Action Plan.

The activities of generation, transmission, and distribution of electric energy in themselves do not depend directly on the consumption of inputs, however, the operation and maintenance of the equipment generate waste in a secondary way, which is properly segregated and sent to adequate storage until its final destination, thus avoiding possible



negative impacts, such as contamination of water, soil, and groundwater.

Recyclable waste that can be donated is sent to cooperatives to reduce the consumption of raw materials, as well as contributing to the communities that use these materials for their economic development.



Waste



GRI 306-3

Waste generated, in 2021, by composition | GRI 306-3




Waste composition	Waste description	Total weight of waste generated (in tons)		
		2020	2021	Variation 2020 x 2021 (%)
 Class I hazardous waste	Batteries; lead-acid batteries; portable batteries; treated wood crosspieces; useless equipment containing insulating mineral oil; lamps; stacks; posts; oils; solvents and paints	3,885.41	4,523.66	16%
 Class II non-hazardous waste	Paper; cardboard; food waste; pruning waste; sanitary waste; glass; metals; plastics and residual fiber optic scrap from telecommunications operations	47,415.73	53,335.13	12%
Total waste		51,301.14	57,858.79	13%

Waste diverted from disposal, by composition | GRI 306-4


Hazardous waste	Total weight of waste (in tons)		Total	Total weight of waste (in tons)		Total	%
	2020			2021			
	At Copel	Outside Copel		At Copel	Outside Copel		
 Recycling	-	2,948.81	2,948.81	-	3,971.16	3,971.16	35%
 Reuse	-	-	0.00	-	311.50	311.50	-
Re-refine	-	-	0.00	-	252.58	252.58	
Co-processing	-	14.76	14.76	-	50.77	50.77	244%
Total hazardous waste diverted from disposal	0.00	2,963.57	2,963.57	0.00	4,586.01	4,586.01	55%

Non-hazardous waste	Total weight of waste (in tons)		Total	Total weight of waste (in tons)		Total	%
	2020			2021			
	At Copel	Outside Copel		At Copel	Outside Copel		
 Recycling	-	46,337.73	46,337.73	32.00	37,511.21	37,543.21	-19%
 Compost	14.49	-	14.49	13.42	9,914.50	9,927.92	68416%
Total non-hazardous waste diverted from disposal	14.49	46,337.73	46,352.22	45.42	47,425.71	47,471.13	2%
Total waste diverted from disposal	14.49	49,301.30	49,315.79	45.42	52,011.72	52,057.14	6%
	49,315.79	-	52,057.14	-	6%	-	-

Waste allocated for disposal, by composition | GRI 306-5

Hazardous waste	Total weight of waste (in tons)			Total	Total weight of waste (in tons)		Total	%
	2020		2021					
	At Copel	Outside Copel	At Copel		Outside Copel			
 Incineration without energy recovery	-	78,78	78,78	-	77,18	77,18	-2%	
 Landfill	-	134,15	134,15	-	155,39	155,39	15%	
 Total hazardous waste allocated for disposal	-	212,93	212,93	-	232,57	232,57	9%	

Waste generated throughout the year is stored and periodically disposed of, thus, the amount generated in a year may be different from the amount allocated in the same period.

Non-hazardous waste	Total weight of waste (in tons)			Total	Total weight of waste (in tons)		Total	%
	2020		2021					
	At Copel	Outside Copel	At Copel		Outside Copel			
 Landfill	-	13,171.3	13,171.39	-	2,169.43	2,169.43	-84%	
Total non-hazardous waste allocated for disposal	-	13,171.39	13,171.39	-	2,169.43	2,169.43	-84%	
Total waste allocated for disposal	-	13,384.32	13,384.32	-	2,401.13	2,401.13	-82%	
	-	13,384.32	-	-	2,401.13	-	-82%	

Note: The value of composting increased from one year to the next as a result of the report that started to be carried out for the pruning of vegetation.

Biodiversity

Copel has assets in different regions of the country and, for this reason, operates in different Brazilian biomes, especially in the Atlantic Forest, Cerrado, Amazon and Caatinga. In this way, the minimization and compensation of the impacts arising from their activities involves different ecosystems. GRI-304-1

Within the scope of Copel's activities, the most significant impacts on biodiversity result from the modification of the environments where the implementation and operation of its energy generation, transmission and distribution projects takes place. GRI-304-2

Due to this, the environmental studies carried out in the different stages of the environmental licensing include the characterization and monitoring of the changes in the fauna and flora in the area where the enterprise will be inserted, which often consist of areas little explored scientifically. Based on this, environmental programs and measures are defined that seek to avoid impacts, reduce their intensity, or compensate for them. GRI-304-2

Considering the Brazilian mega-biodiversity, there is a large gap in knowledge about species of fauna and flora existing in the national territory. For this reason, in many cases these studies have been an important source of data for the academic and scientific community, contributing to report the occurrence of new species and to inform about the distribution of understudied species. GRI-304-2 b

Copel's actions in favor of biodiversity include:

- the protection and/or restoration of areas intended for the compensation of plant suppressions necessary for the implementation of projects;
- the restoration of Permanent Preservation Areas;
- special care for rare and endangered species of fauna and flora, performing rescues and relocation of individuals when necessary;



Extension of Bordering
Units to Protected Areas:

285.08 km²

Extension of Units in Areas
with High Biodiversity Value:

1,293.11 km²

Extension of Units
within Protected Areas:

89.83 km²

- collection and destination of seeds for research and seedling production, in order to guarantee the maintenance of regional biodiversity and the genetic variability of endemic species of flora, and
- monitoring of fauna and flora communities to verify possible impacts and compensate them whenever necessary.

It's important to emphasize that energy generation, transmission and distribution projects also cause positive impacts on biodiversity, which are usually permanent and provide greater protection to natural environments.

To learn more about how Copel's activities relate to Biodiversity and the Company's actions in this regard, access the [Sustainability Portal](#).

Generation business practices

GRI 304-2

All Copel projects undergo environmental licensing, during which Environmental Impact Studies and their respective Environmental Impact Reports (EIA/Rima) or Simplified Environmental Reports (RAS) are prepared, depending on their size. It is identified whether these impacts are positive or negative; its spatialization (affected areas); the phase of occurrence in relation to the work; the incidence, whether direct or indirect; temporality (immediate, medium, or long term); durability (temporary or permanent) and reversibility.

Subsequently, studies are prepared that indicate which environmental programs should be developed to avoid, minimize, or compensate for the possible effects of each one of them. At this stage, documents such as the Basic Environmental Plan (PBA) and the Detailed Report on Environmental Programs (RDPA) are produced.



HPP Colíder fish transposition system

The Colíder Hydroelectric Power Plant, installed in the State of Mato Grosso, has a Fish Transposition System (STP).

Shaped like a Vertical Slot ladder - the largest of its kind in Brazil, with about 693 meters in length - the STP was designed to allow a wide variety of species of these animals to cross it, thus allowing the flow of gene between populations downstream and upstream of the dam. By means of daily monitoring of the ladder display, periodic scientific collections and

telemetry monitoring, it is possible to record the passage of numerous species of fish.



84 species of fish
(50 of them migratory) were registered in the system



428 fishes
access the structure daily in periods of lower river flow



About 4,280 fishes
use STP in the high season

The Colíder Hydroelectric Power Plant, installed in the State of Mato Grosso, has a Fish Transposition System (STP). Which was designed to allow a wide variety of species of these animals to cross it, thus allowing gene flow between populations downstream and upstream of the dam.



Distribution business practices

GRI 304-2

A relevant initiative is the Birds and Bats Monitoring Program, from LDAT 138 kV Marechal Cândido Rondon - Santa Helena. In 2021 the program was in the phase of scaring away and rescuing fauna.

For undertakings that interfere with state conservation units, Copel, together with the environmental agency, defines compensatory measures, such as those to control invasive alien species in state parks.

In the projects' operation phase, two actions by the Company stand out:

- **Integrated Vegetation Management:** in place of mowing in strips crossing distribution lines - which cause habitat fragmentation, soil erosion and favor invasive exotic species - the implementation of Integrated Vegetation Management (MIV) is in progress. The MIV is a set of practices that aim to establish, in the long term, a plant community with growth characteristics that do not interfere

with the operational performance of electrical installations or that require minimal interventions, in addition to providing soil protection, shelter and food for the fauna, among other benefits. In 2021, the Research and Development project (R&D Aneel) "Integrated management of vegetation in the opening of pass lanes in high and medium voltage distribution lines" was continued, to understand how the use of IVM in the opening of pass lanes alters the recovery of vegetation and influences the amount of interventions and cost for opening and maintenance. The environmental impacts and externalities of this methodology will also be evaluated in comparison to the one currently used. The pilot project is being carried out on the high voltage distribution lines that pass through the Saint-Hilaire/Lange National Park (LDAT 138 kV Tax Office - Matinhos, Guaratuba - Matinhos and Tax Office - Guaratuba), on the coast of Paraná, and has been highlighted by reducing the need for clearing and the environmental impacts caused by the activity. If approved, the measure may be replicated to other conservation units.



● Urban Forests Program: since 2007, Copel has supported City Halls in planning the afforestation of public roads, contributing to the environmental improvement of cities, and reducing interruptions in energy supply caused by the conflict between trees and the electrical system. Among the program's actions, the production of seedlings in

the Company's forest gardens stands out, which, in addition to benefiting interested municipalities, enables compliance with environmental licensing conditions. Since the implementation of Urban Forests, around 70,000 seedlings have been planted in urban afforestation. In 2021, 9,563 seedlings were supplied to 31 municipalities. Copel is part of the

Inter-institutional Work Committee for the evaluation of Municipal Urban Afforestation Plans, coordinated by the Public Ministry of the State of Paraná (MP-PR). In addition, it is carrying out a vegetation georeferencing project to manage the pruning performed on urban trees.

Environmental Preservation Area (EPA)

Owned, leased, or managed operating units within protected areas | GRI 304-1

Area name	Size (km ²)	Location	Type of operation	Biodiversity value
Rio dos Touros Ecological Station	1.42	Reserva do Iguaçu (PR)	Energy Generation and Transmission	<p>Conservation Units intended for the maintenance of ecosystems free from alterations caused by human interference, admitting only the indirect use of their natural attributes. The limitation of uses of these spaces varies according to the category:</p> <p>Ecological Station: aims to preserve nature and carry out scientific research; Park: in public ownership and domain, and the private areas included in its limits will be expropriated, in accordance with the provisions of the law; and</p> <p>Wildlife Refuge: aims to protect natural environments, where conditions for the existence or reproduction of species or communities of local flora and resident or migratory fauna are ensured.</p>
Vila Velha State Park	0.05	Ponta Grossa (PR)		
Quartelá State Park	0.21	Tibagi (PR)		
Pau-Oco State Park	0.02	Morretes (PR)		
Pico Marumbi State Park	2.84	Morretes (PR), Piraquara (PR) and Quatro Barras (PR)		
Guarani River State Park	0.25	Três Barras do Paraná (PR)		
Serra da Baitaca State Park	0.03	Piraquara (PR) and Quatro Barras (PR)		



Area name	Size (km ²)	Location	Type of operation	Biodiversity value
Vale do Codo State Park	0.02	Jaguariaíva (PR) and Campo Largo (PR)		Conservation Units intended for the maintenance of ecosystems free from alterations caused by human interference, admitting only the indirect use of their natural attributes. The limitation of uses of these spaces varies according to the category:
Guaricana National Park	4.94	Morretes (PR), São José dos Pinhais (PR) and Guaratuba (PR)		
Campos Gerais National Park	1.92	Carambeí (PR), Castro (PR) and Ponta Grossa (PR)	Energy Generation and Transmission	Ecological Station: aims to preserve nature and carry out scientific research; Park: in public ownership and domain, and the private areas included in its limits will be expropriated, in accordance with the provisions of the law; and
Tibagi River Wildlife Refuge	0.38	Ponta Grossa (PR)		
Mono Castro Wildlife Refuge	0.27	Castro (PR)		Wildlife Refuge: aims to protect natural environments, where conditions for the existence or reproduction of species or communities of local flora and resident or migratory fauna are ensured.
Corumbataí, Botucatu and Tejupa Environmental Protection Area Corumbataí Perimeter	1.71	Analândia (SP), Corumbataí (SP), Itirapina (SP) and São Carlos (SP)		
Campinas Environmental Protection Area	0.48	Campinas (SP), Jaguariúna (SP) and Pedreira (SP)		
Iguaçu Environmental Protection Area	0.34	Curitiba (PR) and São José dos Pinhais (PR)		
Iraí Environmental Protection Area	0.34	Colombo (PR), Pinhais (PR), Campina Grande do Sul (PR)	Energy Generation and Transmission	These are Conservation Units (CUs) in which the exploitation of the environment is allowed, but in such a way as to guarantee the continuity of renewable environmental resources and ecological processes, maintaining biodiversity and other ecological attributes, in a socially fair and economically viable way. The limitation of uses of these spaces varies according to the CU category:
Passaúna Environmental Protection Area	1.23	Campo Largo (PR), Campo Magro (PR), Curitiba (PR), Almirante Tamandaré (PR), Campo Magro (PR), Araucária (PR)		Environmental Protection Area: a generally extensive area, with a certain degree of human occupation, endowed with abiotic, biotic, aesthetic, or cultural attributes that are especially important for the quality of life and well-being of human populations. Its basic objectives are to protect biological diversity, discipline the occupation process and ensure the sustainability of the use of natural resources.
Pequeno Environmental Protection Area	0.42	São José dos Pinhais (PR)		
Paraíba do Sul River Environmental Protection Area	0.7	São José dos Campos (SP)		Private Natural Heritage Reserve: private area, recorded in perpetuity, with the objective of conserving biological diversity.
Rio Verde Environmental Protection Area	0.7	Campo Largo (PR)		

Area name	Size (km ²)	Location	Type of operation	Biodiversity value
Escarpa Devoniana State Environmental Protection Area	10.61	Jaguariaíva (PR), Carambeí (PR), Castro (PR), Tibagi (PR), Ponta Grossa (PR), Balsa Nova (PR), Campo Largo (PR), Palmeira (PR)		<p>These are Conservation Units (CUs) in which the exploitation of the environment is allowed, but in a way that guarantees the perpetuity of renewable environmental resources and ecological processes, maintaining biodiversity and other ecological attributes, in a socially fair and economically viable way. The limitation of uses of these spaces varies according to the CU category:</p> <p>Environmental Protection Area: a generally extensive area, with a certain degree of human occupation, endowed with abiotic, biotic, aesthetic, or cultural attributes that are especially important for the quality of life and well-being of human populations. Its basic objectives are to protect biological diversity, discipline the occupation process and ensure the sustainability of the use of natural resources.</p> <p>Private Natural Heritage Reserve: private area, recorded in perpetuity, with the objective of conserving biological diversity.</p>
Serra Da Esperança State Environmental Protection Area	0.04	União da Vitória (PR)		
Guaratuba State Environmental Protection Area	43.83	Morretes (PR), São José dos Pinhais (PR), Guaratuba (PR), Tijucas do Sul (PR)		
Piraquara State Environmental Protection Area	0.05	Piraquara (PR)		
Piracicaba Juqueri Mirim Environmental Protection Area 1	2.16	Analândia (SP), Corumbataí (SP), Itirapina (SP) and Rio Claro (SP)	Energy Generation and Transmission	
Piracicaba Juqueri Mirim Environmental Protection Area 2	4.07	Amparo (SP), Bragança Paulista (Sp), Campinas (SP), Igaratá (SP), Jaguariúna (SP), Morungaba (SP), Pedreira (SP), Piracaia (SP)		
Cantareira System Environmental Protection Area	3.3	Atibaia (SP), Bragança Paulista (SP), Igaratá (SP), Morungaba (SP), Piracaia (SP)		
Morro da Mina Natural Heritage Private Reserve	0.04	Antonina (PR)		
Perna do Pirata Heritage Private Reserve	0.0022	Morretes (PR)		
Full protection conservation units	0.93	Estado do Paraná	High Voltage Distribution Lines (LDAT)	It includes national parks, state parks, wildlife refuge, biological reserve, and ecological station for the protection of terrestrial ecosystems.
Full protection conservation units	5	Estado do Paraná	34.5 kV (RDs) voltage electricity distribution networks	It includes national parks, state parks, wildlife refuge, biological reserve, and ecological station for the protection of terrestrial ecosystems.
RAMSAR Sites - Guaratuba Full Protection Area	1.5	Guaratuba, Mandirituba, Tijucas do Sul, Matinhos, Pontal do Paraná, São José dos Pinhais and Morretes (PR)	SE Vossoroca, SE Chaminé, SE Salto do Meio, High Voltage Distribution Lines (LDAT), Power Distribution Networks (RDs)	The Ramsar Guaratuba Site has a high biodiversity value, considering its high diversity of living beings and rich landscape, composed of mountains, altitude fields, rivers, waterfalls, plains, mangroves. This is an area of natural distribution of the swamp boll weevil (<i>Formicivora acutirostris</i>), an endangered species.
RAMSAR ESEC Guaraqueçaba	0.01	Guaraqueçaba (PR)	34.5 kV voltage power distribution networks	Full protection conservation unit, in the public domain, formed by mangroves, sandbanks and coastal islands. It is the area of occurrence of the Purple-faced Parrot - <i>Amazona brasiliensis</i> .



Biodiversity restored

GRI EU13

The soils of most of the sites restored or under restoration by Copel were used for grazing, crops, or commercial reforestation, presenting themselves, therefore, partially, or completely altered. For recovery, techniques such as planting with native tree species, green manure, nucleation, among others, are applied.

Over time, the biodiversity of these sites tends to increase, approaching the state before degradation. With the flora recovery, the areas begin to attract species of native fauna, according to the degree of development. The period required to achieve this objective varies according to the conditions of each location. In 2021, there were 12 Copel enterprises with compensation projects, four of which were in new areas.

For the transmission lines (LT) 500 kV Araraquara II - Taubaté and LT 500 kV Blumenau - Curitiba Leste, and for the small hydroelectric power plant (SHP) Bela Vista, part of the forest compensation took place through the institution of perpetual environmental easement. In the other areas, forest restoration actions or the eradication of exotic species have been concluded and are being monitored until the indicators determined in the legislation are fully met.

To compensate for the changes caused by the reservoir of HPP Colíder, located in the State of Mato Grosso (MT), a Permanent Preservation Area (PPA) was established next to this project. More than 97 thousand meters



of fences were built along it, providing isolation for the cattle and, consequently, the beginning of the natural regeneration process. As part of the Flora Rescue Subprogram, approximately 290 thousand seedlings of native tree species were planted

on 172 hectares and direct sowing (muvuca) on approximately 50 hectares. Additionally, restore cores were installed.

In 2021, Copel GeT joined the Serra do Mar Large Mammals Monitoring Network, which

will enable structured monitoring of some of the conserved areas that the Company has in Serra do Mar Paranaense, contributing to the generation of data on the biodiversity of Paraná and Brazil.

Size and location of all areas of protected or restored habitat | GRI 304-3

Area name	Size (ha)	Geographic location	Actions carried out from the perspective of preservation or restoration and their results
Forest Compensation Projects	285.00		<p>Due to the need to carry out plant suppression for the implementation of projects, Copel carries out forest compensation programs to restore or protect an area equivalent to or greater than the affected area, according to environmental conditions.</p> <p>Different restoration techniques can be developed depending on the ecological characteristics of each location, always following the premises of environmental legislation and those determined by licensing agencies. Currently, forest compensation actions are distributed as follows:</p> <ul style="list-style-type: none"> ● 120 hectares of compensatory plantations; ● 17 hectares of exotic species eradication; and ● 148 hectares of perpetual environmental easement, of which 82 hectares are still in the registration process but have already been approved by the environmental agency. <p>It's important to highlight that the monitoring of compensatory actions is carried out until the full restoration of the area, except for the environmental easement in which monitoring must be continuous throughout the concession of the enterprise. The amount does not include areas where forest compensation actions have already been completed.</p>
EPAs Paraná	3,499.00		<p>In compliance with applicable legislation, Copel maintains the respective Permanent Preservation Areas (PPAs) around the artificial reservoirs of its Hydroelectric Power Plants (HPPs).</p> <p>In addition to the legal prerogative (Law No. 12.651/2012), in the technical aspect, the preservation of these areas also helps to improve water quality and reduce the contribution of sediments to the interior of the reservoirs, contributing to the conservation of their useful life. Annually, a report is produced with the EPAS' situation in the reservoirs in the previous year.</p>



Area name	Size (ha)	Geographic location	Actions carried out from the perspective of preservation or restoration and their results
PPAs Mato Grosso	5,495.00		In the HPP Colíder Permanent Preservation Area, out of a total of 5,495 hectares, 4,869 hectares have forest cover without the need for intervention. In other words, 88.6% of the reservoir's PPA already fulfills its environmental function. Two hundred and sixty-five hectares are still devoid of vegetation due to land use, requiring interventions for their restoration, scheduled for the coming years. The areas will be targeted for restoration interventions in the coming years. There is a specific contract to continue the activities, however the company built 5 thousand meters of fences and asked for the contract to be terminated. A new contracting of restoration services for the PPA is currently underway.
Serra do Mar Areas - PARNA Guaricana	6,003.83	Guaratuba (PR)	The areas located in Serra do Mar are composed of several spaces that are intended for the environmental conservation of properties affected by the Guaricana National Park (Guaratuba - PR). The properties located in Serra do Mar are as follows: <ul style="list-style-type: none"> ● Castelhanos – 1,210 ha ● Cubatão Grande - 1210 ha ● Ribeirão do Salto – 1836.78 ha ● Salto Cubatão Grande – 166.25 ha ● Canavieiras – 1580.8 ha
Serra do Mar Area - HPP Chaminé	3,513.36	Tijucas do Sul (PR)	Property acquired by Copel but intended only for environmental conservation. The properties are as follows: <ul style="list-style-type: none"> ● Araçatuba – 730.74 ha ● Porto Bonito – 1900.12 ha ● São João – 882.50 ha
Serra do Mar Areas - HPP Guaricana	795.42	Diversos (PR)	Properties acquired by Copel, but which are not and will not be used for operational purposes (considered unusable for this purpose), being destined exclusively for conservation. Part of them is located in the Guaricana National Park, in the municipalities of São José dos Pinhais, Morretes and Guaratuba (PR).
Serra do Mar Areas- Various	70.05	São José dos Pinhais	Copel's properties that are currently only intended for environmental conservation: <ul style="list-style-type: none"> ● Osso Danta – 67.25 ha ● Colônia Santos Andrade – 2.8 ha



Area name	Size (ha)	Geographic location	Actions carried out from the perspective of preservation or restoration and their results
Tia Chica Ecological Station	423.05	Pinhão (PR)	The Tia Chica Ecological Station will be classified as Full Protection, with the aim of preserving nature and carrying out scientific research. The area declared to be of Public Utility for the purpose of expropriation has not yet been declared a Conservation Unit - the process is in progress. The Station will serve as environmental compensation for the HPP Derivação do Rio Jordão and is located in the Mixed Ombrophilous Forest or Araucaria Forest, in the backwater of the plant's reservoir.



For more information, access Copel's Sustainability Portal

Copel performs the classification of the conservation status of the species recorded in the environmental studies of the projects, analyzing whether they are categorized as endangered or not.

For this classification, the red lists produced by environmental agencies and international, federal, and state institutions are used, such as the international (IUCN), national (ICMBio - MMA) and state (IAT) lists. The data produced on the occurrence of endangered species are useful to support plans and actions. For more information, access [Copel's Sustainability Portal](#).

Number of species according to threat | GRI 304-4

Critically endangered	15
Threat of extinction	63
Vulnerable	106
Almost threatened	77
Little concern	724
Total	985

Note: The information refers to the fauna and flora species of all of Copel's generation projects, in expansion or operation, in which periodic monitoring, forest inventory and/or fauna and flora rescues are carried out. Among the distribution projects, the results of the forest inventory reports of high voltage distribution lines, substations and medium voltage distribution networks prepared in 2021 were considered. The survey considered 100% of the forest inventories prepared in the period (14 high voltage distribution lines, one substation and 68 medium voltage distribution networks). For the collection of fauna data, data from simplified environmental reports (RAS) prepared in 2021 were considered, with 13 studies carried out for Copel Distribuição works, including six High Voltage Distribution Lines and seven Substations, in addition to two RAS and a PCA of Accessor High Voltage Distribution Lines. The most up-to-date international (IUCN), national (ICMBio - MMA) and state (IAT) lists of species classification in endangered categories were considered. If the species was classified differently among the lists, it was considered the category of greatest threat.



Actions Against Climate Change

The effects of climate change directly affect Copel's business, impacting its operation, whether in the capacity to generate energy or in the demand for maintenance of transmission lines, substations, or other facilities, resulting in costs, the need for labor and losses for the consumers. Copel has been developing a methodology to identify risks and opportunities associated with the topic.

13.2 Integrate climate change measures into national policies, strategies, and plans

	Indicator	Number of companies in the electricity sector (generation, transmission, and distribution) with targets approved by the SBTi.
	Base line	2020 - 5 companies in the electricity sector.
	Suggested goal	15 companies in the electricity sector (generation, transmission, and distribution) with science-based targets approved by 2023.
	Indicator 2	Percentage of energy generated in Brazil covered by science-based targets.
	Base line 2	14% of the electricity generated in Brazil in 2019 is currently covered by an SBTi commitment.
	Suggested goal 2	40% of energy generated in Brazil with approved science-based targets by 2023.
	Copel's performance	In 2021, Copel approved the preparation of the Neutrality Plan, which is being developed with science-based goals, which will be validated in the SBTi.

Note: the Science Based Targets Initiative is a partnership between the Carbon Disclosure Project, Global Compact, the World Resources Institute (WRI) and the Worldwide Fund for Nature (WWF) that aims to mobilize companies to adopt greenhouse gas (GHG) reduction targets based on science. In the specific case of the electricity sector, there is a guide produced by the coalition to assist in the formation of these goals.

Greenhouse gas emissions in 2021 (in tCO₂e) | GRI 305-1, 305-2, 305-3

Greenhouse gases	Scope 1	Scope 2	Scope 3
CO ₂	14,108.45	452,474.46	10,903.42
CH ₄	24.78	-	34.10
N ₂ O	97.79	-	214.38
HCFC	412.08	-	-
SF ₆	940	-	-
NF ₃	-	-	-
Total	15,583.53	452,474.46	11,151.91
Biogenic CO ₂ emissions (t)	15,612.00	-	1,274.29

Note: SF6 data correspond to the operations of Copel's wholly owned subsidiaries. SF6 gas is used as an insulator in electrical equipment and may have small leaks during operation. In 2021, the emission of SF6 was 0.04, which corresponds to a reduction of 74.84% compared to 2020, when the emission was 0.159 metric ton.

Comparison of 2020 and 2021 emissions (in tCO₂e) | GRI 305-1, 305-2, 305-3

	Scope 1	Scope 2	Scope 3	Total
2020	33,534.45	174,382.95	13,956.52	221,874.22
2021	15,583.53	452,474.46	11,151.91	479,209.90
Variation (%)	-54%	159%	-20%	116%

Note: Copel's greenhouse gas emissions values may change after the end of the audit and will be registered and published on the GHG Protocol website.

Emission intensity | GRI 305-4

Scope 1 Emission/employee (tCO ₂ e/employee)	2.44
Scope 1 Emission/revenue (tCO ₂ e/million R\$)	0.65

Paraná Climate Seal

In December, Copel received the Gold Paraná Climate Seal, during the seventh edition of the Paraná Climate Seal, a government initiative to combat climate change and increase economic competitiveness in the context of a low carbon economy. The gold version recognizes companies that submit the Emissions Inventory to independent third-party verification, accredited by Inmetro.

GHG Protocol

For the second consecutive year, Copel received the "Gold Seal" from the Brazilian GHG Protocol Program, the highest level of certification of the main tool used in the country to understand, quantify, and manage an organization's greenhouse gas emissions.

Task Force on Climate-related Financial Disclosures (TCFD)

Based on the data and information monitored in the management of climate change and used in the assessment of the Carbon Disclosure Project - CDP, Copel discloses its practices related to Climate Change in line with the recommendations of the TCFD.

Governance

Climate change is a topic of great importance to the Company and is periodically monitored by the Sustainable Development Committee (CDS) that advises the Company's Board of Directors. Based on the results of the greenhouse gas inventory and sustainability assessments, strategic decisions such as approving policy updates, commitments and targets are part of the Board's attributions. Operationally, the topic is conducted within the Company's Governance, Risk and Compliance Department and the discussion of regulations or projects to improve climate change management is conducted by the Climate Change Commission, which has representatives from all wholly

owned subsidiaries and boards. In 2021, the Company instituted goals related to climate change in the variable compensation program that covers all employees.

Strategy and Financial Planning

The issue of climate change is analyzed in the Company's strategic planning process, integrating corporate decisions over a five-year horizon. Among which is the implementation of the greenhouse gas emissions neutrality plan, in which the Company intends to neutralize its Scope 1 emissions by 2030. Another guideline is related to the commercialization of i-REC in the business of energy generation and commercialization, which is being studied by the technical teams. Additionally, the Company has developed technology to improve the management of electricity distribution with the modernization of assets and expansion of the Smart Grid Program.

Within the financial planning, budgets are foreseen for technological development, and the construction of new sustainable projects, such as hydroelectric, wind and solar plants. In addition, the incorporation

of future climate scenarios, carbon pricing and the development of studies to adapt to climate change have guided the Company's decision making. These studies and investments help in monitoring and forecasting the availability of teams to respond to emergencies.

Climate risks and opportunities

The Company's risk management uses a specific methodology that incorporates climate change in its analyses, which is described in the Integrated Corporate Risk Management Policy. When evaluating a given process, such as the management of reservoirs or the operation of distribution lines, it is possible to analyze the risks and possible measures to mitigate the risk, allowing to identify the probability, severity, and intensity.

Some of the risks and opportunities related to climate change, identified by the Company's risk management, are presented below.

Risks and opportunities arising from climate change

GRI 201-2

Climatic extremes: studies indicate that in the coming years there will be an increase in maximum temperatures in the northern region of the state of Paraná, impacting the operation and maintenance of energy transmission in this region, and may incur fines for non-supply.

Tropical cyclones: studies indicate that in the coming years there will be an increase in windstorms in the northern and western regions of the State of Paraná, leading to the fall of towers and, consequently, impacting the operation and maintenance of energy transmission in this region.

Risks of a regulatory nature: the Brazilian government has been advancing in the study of a model for charging an emissions fee. In this sense, there is a concern about how this will be implemented, since the business models for the Brazilian electricity sector indicate the trend of increased investment in thermoelectric plants in the coming years, the expansion of which can bring financial impacts to these projects.

Cap and Trade Carbon Market Mechanisms:

the Brazilian electrical system has a low level of emissions, as it has a less polluting energy matrix and is highly interconnected and organized, which reduces transmission and distribution losses. However, there is a possibility that the sector may be chosen to introduce this type of mechanism, which limits emissions through operating permits, which can increase costs for enterprises.

Risks of other natures: the risk analysis identifies that, in the coming years, there is a possibility of a greater frequency of interruption in the energy supply if there is no modernization to adapt the transmission and distribution systems, resulting in consumer dissatisfaction and impacting the dealership reputation. In addition, the indicators of availability and quality of energy supply will be impacted, reflecting on the fulfillment of the concession agreement goals.

Opportunities of a physical nature: it is expected that, in the coming years, the greater frequency of climatic extremes, in relation to temperature, will cause an increase in energy consumption, mainly in the southern region of Brazil, resulting in an increase in energy demand and Copel services.

Physical impacts associated with risks and opportunities arising from climate change

Climatic extremes: the occurrence of extreme weather events, such as tropical cyclones, directly impacts the quality and continuity of energy supply, which may result in the application of sanctions or fines to the distribution concessionaire for violations of energy distribution quality requirements, determined in Aneel's Procedures for Distribution of Electric Energy in the National Electric System (Prodist), as well as for energy transmission companies, under the terms of the current regulation.

Goals and Actions

Copel has emission reduction targets that will be completed in 2022. As a result of the Neutrality Plan approval and the commitment to study measures that are in line with the Science Based Target, Copel is examining possible scenarios that could promote the reduction of its own emissions by 2030 and leverage the growth of its renewable matrix and the expansion of more efficient and low-carbon services, such as investment in electric stations, development of projects for distributed generation and



the construction of new transmission lines to enable the flow of renewable energy. With the approval of the Neutrality Plan and the commitment to study measures in line with the Science Based Target (SBTi), Copel is studying possible scenarios that could promote the reduction of its own emissions by 2030 and leverage the growth of its renewable matrix, as well as the growth of more efficient and low-carbon services,

such as investment in electric stations, development of projects in distributed generation and the construction of new transmission lines to enable the flow of renewable energy.

For 2022, the targets related to the Neutrality Plan for variable compensation (Performance Award) were approved, which were prepared in accordance with

the specificities of each wholly owned subsidiary and each executive board of Copel Holding, with actions that include the reduction of fossil fuels consumption, reduction in electric energy consumption, improvement of the Smart Grid service offer, advance in the search for new technologies and improvement of performance in corporate questionnaires focused on climate change.



SOCIAL AND RELATIONSHIP CAPITAL



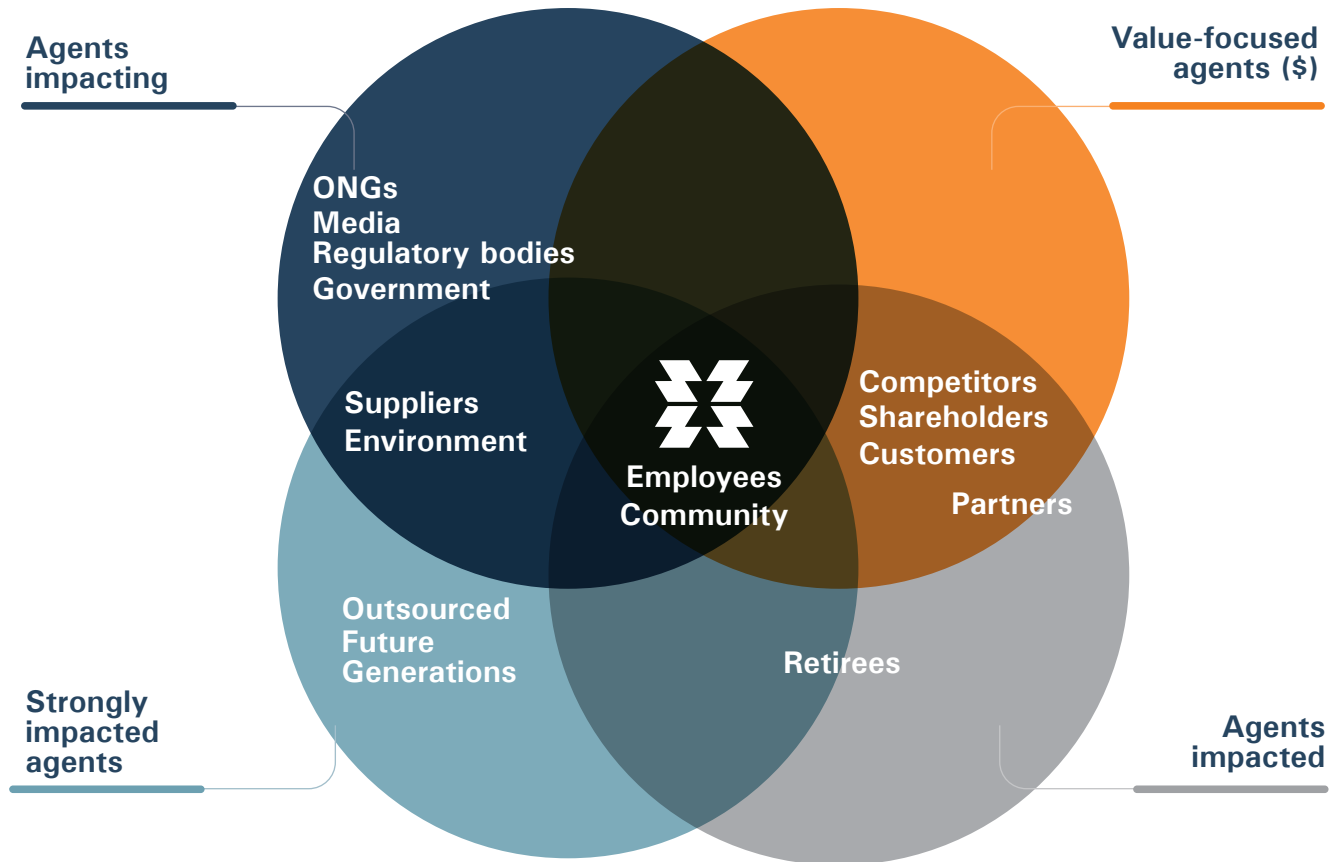
Relationship with Stakeholders

GRI 102-40, 102-42

Copel uses the mapping carried out based on the AA1000 methodology as a basis for its stakeholder engagement. The evaluation considered the degree of impact and influence (impacted, heavily impacted, impacting and focused on value), generating an illustration in which the publics were represented in the shading areas according to the level of relationship with the organization. In addition to the environment, priority stakeholders are shareholders, customers, communities, competitors, employees, and suppliers. The Company provides several Dialogue Channels for interested parties, in addition to providing an independent reporting channel.

Mapping of our stakeholders

All those who influence and/or are influenced by the Company





Stakeholder GRI 102-40

Approach for engagement | GRI 102-43



Shareholders

Shareholders and investors are responsible for providing Copel with part of their financial resources, from which the Company can carry out its activities with excellence and stability. On the other hand, it must dedicate efforts to generate value and returns for this audience. The relationship takes place especially through the Investor Relations area, which has its own corporate policy.



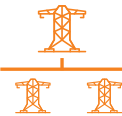
Customers

Copel seeks to meet the main expectations of this public: to provide energy and internet at a low price, error-free billing and fast, quality service, as well as favorable conditions for contracting. To this end, a series of online and face-to-face channels are available. The manifestations, complaints and claims recorded are essential for mapping opportunities to improve services.



Communities

With each new project, studies of the socioeconomic environment are carried out as part of the licensing process, with a frequency that varies according to the complexity of the work. The results support socio-environmental programs, which aim to mitigate and compensate for possible negative impacts, as well as sensitize the surrounding communities.



Sector Agents

The Company maintains a relationship with other companies in the sectors in which it operates, directly in search of partnerships, and indirectly through various sector associations with the objective of mutually strengthening the sector's agents.



Employees

The Company adopts different communication channels to get closer to its employees, keep them informed, and identify their needs and expectations, such as the Great Place to Work Survey (GPTW) and the Confidential Channels (Cadam, COE, Ombudsman and Complaints – see pages 59 to 61). Professional development policies and processes are also available to the staff, in addition to remuneration in accordance with the market, which Copel promotes by prioritizing transparency and equity in its actions.



Suppliers

Copel maintains a constant relationship with its suppliers (including possible ones) through the supply management areas, as well as with the managers of each contract. In addition to direct channels with buyers and managers, Copel provides dedicated channels such as: website for suppliers and partners (www.copel.com/site/forneceadores-e-parceiros), dedicated emails (cadastro@copel.com, compras@copel.com, contasapagar@copel.com and contato.forneceordis@copel.com), Confidential Communication Channel: 0800 643 5665, and Integration Meetings with Investors.

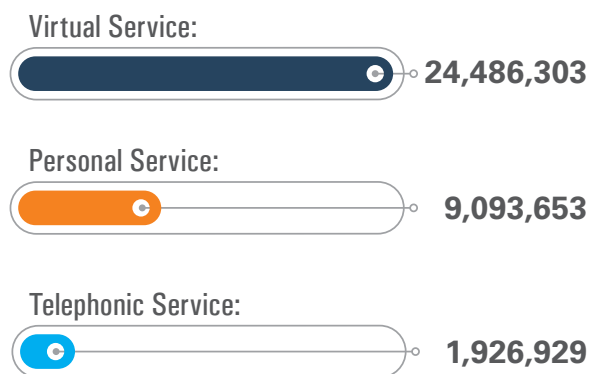
Customer Satisfaction

Customer satisfaction is a corporate material topic for Copel and is highlighted in the Company's Strategic Planning. The electricity distribution business serves more than 4.5 million customers in the State of Paraná, and Copel's operation is the most perceived in the daily lives of the population served. The distributor's concession contract has supply quality indicators, which directly impact customer satisfaction.

Customers' perception of Copel is monitored through surveys. Consultations are systematically carried out with residential, industrial, rural customers and with the public authorities. For residential customers, there are two annual editions - one coordinated by Abradee, applied in the first semester, and another by Aneel, in the second semester. The requirements extracted from the surveys are dealt with by the permanent customer satisfaction committee.





Research	2019	2020	2021
Abradee Satisfaction Survey - Residential Customer	80.70%	84.40%	83.80%
Abradee Satisfaction Survey - Non-Residential Group B Customer	NR	NR	NR
Abradee Satisfaction Survey - Group A Customer	80.01%	80.90%	85.60%
Aneel Customer Satisfaction Survey - IASC	75.01%	78.09%	SR
Cier Customer Satisfaction Survey	Prata	Prata	Bronze
Rural Customer Satisfaction Survey	76.54%	NR	NR
Customer Satisfaction Survey Public Authorities	89.30%	NR	NR

In 2021, Copel Distribuição carried out more than 35 million services to consumers, most of them through virtual service, as shown in the figure below:



The proportion of complaints per service performed is less than 0.3%, and all complaints were resolved, as shown in the tables below:

Number of customer complaints sent

	to the company	96,059
	to Aneel	1,839
	to Procon	2,242
	to justice	0

New digital features

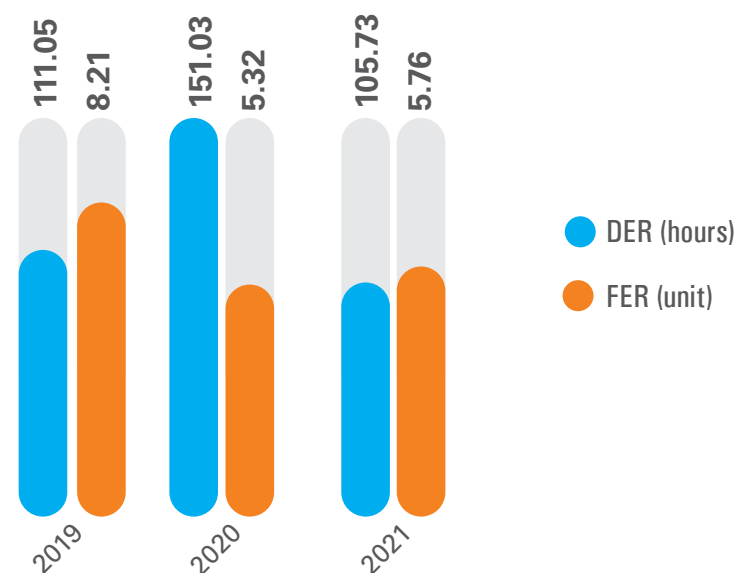
In December, the new version of Copel's application was made available on iOS and Android stores, which is more user-friendly and has a more modern design. The new version was built on a system that allows the development of new features with greater flexibility. One of the main advantages is to allow password-free access to various services, including the request for new energy connections. The application continues to allow the simultaneous management of several units, a practicality that is especially relevant for entrepreneurs, third sector managers and owners of leisure homes or farms, for example.

That same month, the new version of Copel's website went live, focusing on customer service and facilitating the customer journey. The version has a new look to make navigation more intuitive, with simplified language and prioritization of the most searched services.

Complaints resolved





Complaints resolved	100,140
During service	0
Up to 30 days	99,862
Between 30 and 60 days	256
More than 60 days	22
Complaints deemed valid in relation to the total of complaints received	31,675
Complaints resolved in relation to the number of valid complaints	31,675
Number of innovations implemented due to interference from the ombudsman and/or customer service	2

Copel monitors the complaints handling indicators required by the National Electric Energy Agency (Aneel), DER (Equivalent Complaint Duration), and FER (Equivalent Complaint Frequency per Thousand Consumer Units), and in recent years these indicators showed a stable performance.



Distribution customer profile

Consumer units GRI EU3 2021

	Residential	4,038,454
	Industrial	71,651
	Institutional (public power and service)	45,020
	Commercial	423,812
	Other classes (rural, own consumption etc.)	349,989
	Total consumer units	4,928,926

Residential shutdowns

GRI EU27


The number of cuts in 2021 was higher than in 2020, but lower than the average observed in previous years due to Aneel's impediment to suspending supply due to the pandemic. The default result was little affected - the Corporate Default indicator reached 1.33% in 2021, compared to 1.37% in 2020. The suspension process is carried out automatically by the commercial management system, with identification of consumer units / invoices that received a notice of maturity with a period of

15 days to effect the discharge, which are subject to cut, according to the due date and cut-off criteria. After the suspension, if the invoice is paid and there is no other outstanding invoice that prevents the reconnection, the reconnection service is automatically generated by the consumer management system for that consumer unit. The reconnection services are performed as a priority and in compliance with the established technical standards.

Power reconnections after payment in 2021, by term

	Less than 24 hours	272,312
	From 24 hours to 48 hours	15,688
	From 49 hours to 72 hours	9,728
	From 73 hours to 96 hours	4,662
	From 97 hours to a week	7,572
	Over a week	45,927

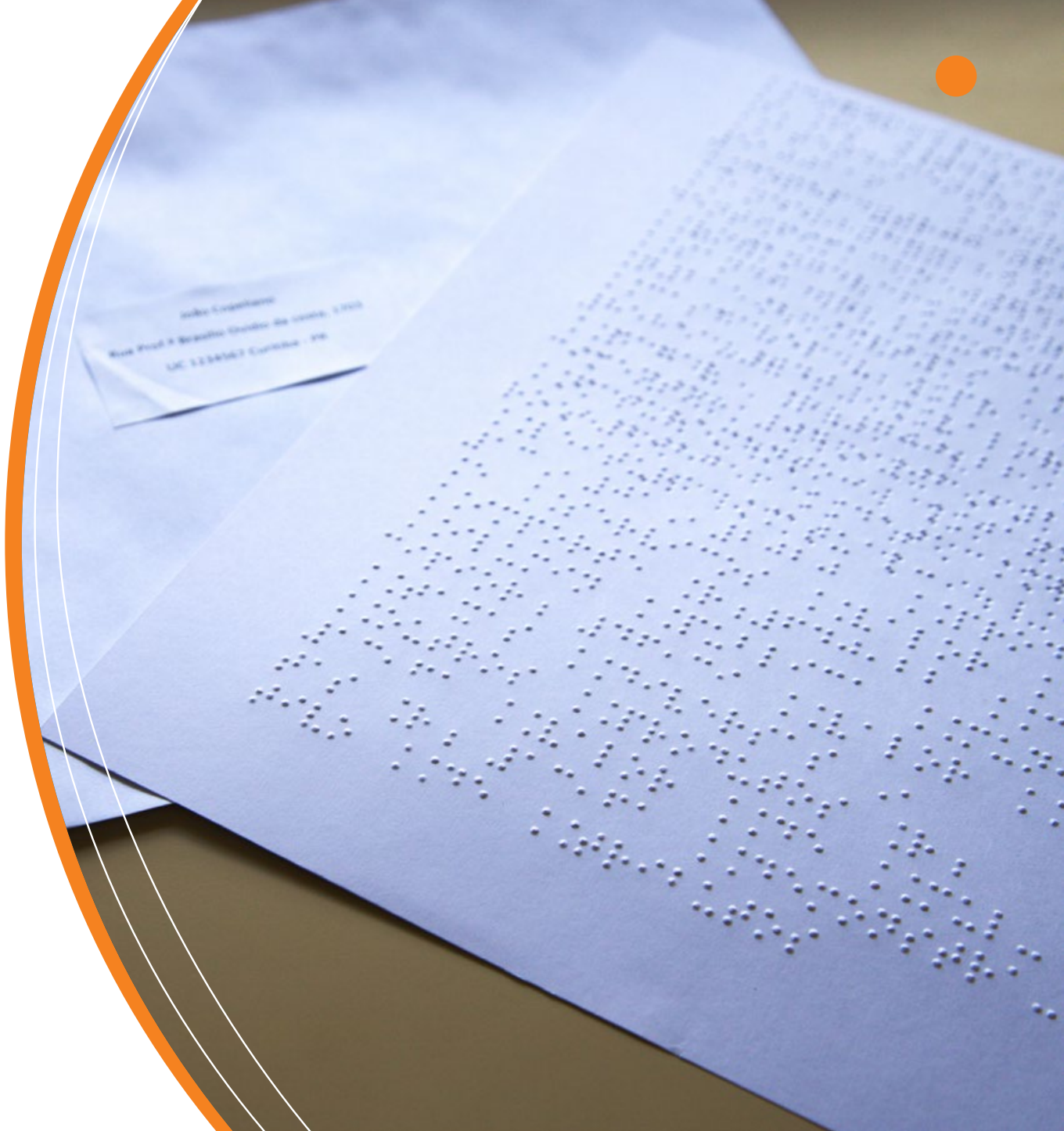
Residential termination for non-payment in 2021

	Less than 48 hours	354.423
	From 48 hours to 1 week	39.457
	From 1 week to 1 month	58.257
	From 1 month to 1 year	47.881
	Over 1 year	0

Accessibility

GRI EU24

The issue of Accessibility is dealt with at Copel and is also focused on electricity consumers. Through the initiative, actions such as making energy bills in Braille available to blind customers have already been implemented. The Company's website is suitable for access by people with visual and hearing impairments. The results of the program are measured by the Satisfaction Survey carried out by the Brazilian Association of Energy Distributors, in which there are specific indicators, such as service without discrimination and a company that respects consumer rights. In the most recent edition, Copel had indexes of 88.2 and 86.5, respectively, in these indicators.



Copel carries out a bidding process to classify and hire its suppliers. For services and products that are related to environmental impacts, the Company requires environmental certificates and qualifications from the company and its professionals.

Suppliers

GRI 102-9, 308-1, 408-1, 412-3, 414-1

Copel's suppliers vary according to the business and include electricity generators and transmitters, manufacturers of materials, heavy machinery, service providers, among others. In 2021, there were 4,899 suppliers across the Company, with which R\$13.4 billion was spent.

The acquisition and contracting processes are based on the Internal Regulations for Bidding and Contracts, in force as of 05/01/2021, as well as in the respective legislation that regulates the forms of contracting (through bidding and its modalities, through waiver in accordance with the foreseen items or by means of unenforceability, characterized by the infeasibility of competition), including Laws No. 10.520/2002 - which institutes the bidding modality called trading, and Complementary Law No. 123/2006 - institutes the National Statute of Microenterprises and Small Businesses. In compliance with current legislation, the Company uses compliance with labor, human rights, tax, and environmental legislation as criteria in the selection of suppliers, which are applicable to all companies that may be contracted. The main policies and goals related to the "supply chain" subject are contained in the following normative documents: Internal Regulation of Bidding and Contracts, in compliance with Federal Law No. 13.303/2016, NAC 030904 - Contract Management; NPC 0201 - Supply Policy, NAC 030406 - Supplier Assessment, Company Code of Conduct, Supplier Manual

and Solid Waste Management Manual, NPC 0322 - Privacy Policy and Protection of Personal Data (LGPD, No. 13.709/2018 of August 14, 2018, General Law for the Protection of Personal Data). The main processes of the Holding are those that provide services or materials with a profile for corporate use, that is, for the common service of the company's business. As an example, providers of cleaning and conservation services, surveillance, reception, property rental, maintenance and renovation of facilities, consulting, travel agency, among others.

Copel carries out a bidding process to classify and hire its suppliers. For services and products that are related to environmental impacts, the Company requires environmental certificates and qualifications from the company and professionals in order to select the most qualified and legally compliant suppliers to perform the contract. As for social impacts, these parameters are included in the requirement to comply with labor, human rights, and tax legislation, applicable to all companies. In the qualification phase



for this process, all suppliers are required to present a “Declaration of Social and Environmental Responsibility,” in which they claim not to hire persons under 18 years of age (except for apprentices over 14 years of age); not adopting a labor relationship characterizing forced labor or slave-like labor; respect human rights; not to allow any form of discrimination; and not to adopt practices harmful to the environment. Depending on the object to be contracted, specific clauses are included in the bidding documents. Contractual demands include incorporating the Global Compact Principles; prioritize the hiring of local and small and medium-sized suppliers; hire and train professionals with disabilities; inhibit moral and sexual harassment practices in the work environment; among others. To reinforce all these points, Copel sends its Sustainability Policy to its suppliers. GRI 308-1, 414-1

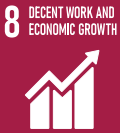
When the environmental or social responsibility contractual clauses are not complied with, Copel applies a sanction according to severity, which includes a written warning, in the case of a low-impact obligation that does not cause

concrete damage to Copel, the environment or third parties, and contractual fines. The most serious cases, which have serious consequences or significant impact on Copel or the public interest or due to the occurrence of a serious accident linked to the execution of the object of the contract, with permanent injury or death, occurred with Copel employees, its contractors or third parties as a result of proven fault or intent on the part of the contractor, result in temporary suspension of participation in bidding and impediment to contract with Copel and its wholly-owned and controlled

subsidiaries for a period of up to two years. Depending on the seriousness, the contract may be terminated and the competent legal bodies informed of the breach.

Copel carries out inspections at the contractor’s headquarters or at the location of the activity at any time to inspect compliance with contractual clauses, including those relating to environmental and/or social impacts. The Company also promotes awareness-raising meetings and makes information material available on topics such as forced or slave-like labor. GRI 408-1, 409-1

8.3 Promote development-oriented policies that support productive activities, decent job creation, entrepreneurship, creativity, and innovation, and encourage the formalization and growth of micro, small and medium-sized enterprises, including through access to financial services

 <p>8 DECENT WORK AND ECONOMIC GROWTH</p>	Indicator	Percentage of participation of micro, small and medium-sized companies in the business volumes carried out by energy generation, distribution, and transmission companies.
	Base line	Update
	Suggested goal	Foster strategies/initiatives for contracting micro, small and medium-sized companies, expanding the participation of these companies in the value chain (goal/objective of implementation).
	Copel’s Performance	Copel adopts practices of differentiated and favored treatment for Micro and Small Businesses (ME and EPP), provided for in Federal Law 147/2014, enabling the participation of these suppliers in the contracting processes.



DIREITOS HUMANOS NO TRABALHO:

Vamos Conversar?

Human rights at work: Shall we talk?



Copel's Human Rights Policy was created in April 2020, and formalizes guidelines to prevent, mitigate and repair violations that may occur in the Company, in its production chain or in impacted communities, providing decent, inclusive work environments and eliminating inequalities. The document was revised in December 2021, when it incorporated guidelines to combat discrimination in relation to gender, sexual orientation, race/color, beliefs, origin and ethnicity, people with disabilities and age; dissemination of the reporting channel and appreciation of diversity.

Based on it and on its own methodology for identifying human rights risks, developments are foreseen in the company's various areas of activity.

The policy follows the Universal Declaration of Human Rights,

established in 1948 by the UN, comprising basic civil, political, economic, and cultural rights common to all human beings. The document also follows the international standard of the UN Guiding Principles on Business and Human Rights, the Global Compact Principles, the Declaration of Fundamental Principles and Labor Rights of the International Labor Organization (ILO), and ISO 26000/2010: Social Responsibility.

The policy is added to Copel's Human Rights Program, guided by the same documents and initiatives. The Program is based on the following practices:

- analysis, elaboration, and refinement of Copel's policies and regulations for the prevention, inspection, and mitigation of violations;



- production and dissemination of teaching materials, with information on Copel's reporting channels to be accessed if violations are identified;
- and holding courses, lectures and awareness-raising actions aimed at the internal public, outsourced employees, the production chain, and the local community.

Check out the main actions developed through the program:

- offer of training on Human Rights prepared by Copel in a Distance Learning format (DL), composed of contents that include the relationship between human rights and the Constitution of Brazil, guidance to identify violations inside and outside the Company and the applicable complaints channels.

By the end of 2021, 2,337 employees had completed the course. Of this total, 27 finished in 2021. GRI 412-2

- availability of a booklet and video on Human Rights at work, in simple, objective, and accessible language. Its target audience is the Company's outsourced employees, which is why a commitment was made to show the video at all company integration meetings. The materials are available on Copel's website and social networks.
- availability of a Manual for the Identification and Prioritization of Risks in Human Rights that presents a methodology developed by Copel for its activities and those of its contractors.

- Launching of **booklets for the Migration and Refuge Project**, structured to facilitate access for migrants, especially those receiving humanitarian and refugee services, to information on the Company's basic services and the social programs of the Federal and State governments. The material was published in 5 languages: Haitian Creole, Spanish, French, English and Portuguese, with dissemination to various institutions through the State Council of Migrants and Refugees of Paraná (CERMA) and to Copel's service teams. The launch event had the participation of *Cáritas Brasileira*, an organization that works with this audience and that presented an overview of the migration and refuge scenario in the State of Paraná. ([access](#))

Social Responsibility

GRI 103-1, 103-2, 103-3, 203-1

The implementation of new ventures generates jobs and income for the municipalities, as well as promotes local development. However, situations are identified that need mitigation or compensation through social programs described in the basic environmental plans (PBA), in simplified environmental reports and in the reports detailing the environmental programs of each enterprise.

Throughout 2021, Copel invested R\$ 2.1 billion in energy generation, transmission, and distribution works

Distribution Business Investments

Copel Distribuição invests in the development of the electrical system to meet the consumer market's demand in the State of Paraná. The investments are intended for the expansion, renewal, and improvement of the Company's assets, aiming to maintain the quality and reliability of the electric energy supply in the state of Paraná, within the levels recommended by the regulatory body. In 2021, Copel Distribuição invested approximately R\$1,227 million in the development of the electrical system infrastructure. Investments were concentrated in the construction and expansion of substations, lines, and distribution networks.

In the context of substations and high voltage distribution lines, we highlight the energization of the Chaves Boa Vista

11.4 Strengthen efforts to protect and safeguard the world's cultural and natural heritage

	Indicator	Number of socioeconomic diagnoses carried out in traditional communities belonging to the projects' area of influence.
	Suggested goal	By 2025, carry out socio-economic diagnoses in traditional communities impacted by electricity sector operations to support the implementation of voluntary projects.
	Indicator	Projects aimed at preserving material and immaterial historical heritage and which have become self-sufficient (not exclusively dependent on resources from companies in the sector).
	Suggested goal	By 2030, ensure the maintenance of projects aimed at preserving material and immaterial historical heritage, ensuring greater efficiency in allocated resources and effectiveness of initiatives.
	Copel's Performance	Copel carries out projects for the preservation of material and immaterial historical heritage through Copel GeT and Copel DIS. The initiatives can be checked in the socio-environmental reports of these wholly owned subsidiaries, available on the website.

da Aparecida Station and the Antônio Olinto and Santa Amélia substations, all operating at 34.5 thousand Volts. Operating at 138 thousand Volts, we highlight the Vila Gaúcha Substation. In addition to these projects, seven (7) new high voltage transformers (above 69 thousand volts) and two (2) new medium voltage transformers (34.5 thousand volts) were installed. Regarding the high voltage distribution lines, four (4) circuits were completed or renovated in the concession area. These structural works have an important role in increasing the strength of the distribution system, increasing the energy availability to the state, and improving the population's quality of life. Investment amounts in these segments were R\$362 million in 2021.

In the scope of medium and low voltage networks, the company invested approximately R\$ 865 million, with emphasis on the actions of the Paraná Triphasic, Intelligent Networks and Total Reliability Programs.

In the Paraná Triphasic program, whose objective is to make investments to triple-phase and interconnect rural distribution

networks, the Company built around 3,700 km of networks in 2021. In the Reliability Program's scope, the main highlights of 2021 were the installation of equipment for expanding communication coverage, automating equipment, building networks to increase reliability, and installing equipment to enable automatic reconfiguration of the distribution system. In the Smart Networks program, the company installed around 185,381 smart meters.

Specifically with regard to social investments in infrastructure in the communities, actions were developed throughout 2021 aimed at improving the facilities of institutions that provide social care to the elderly, families in situations of vulnerability and refugees in the municipalities of Londrina, Maringá and Cascavel, linked to the Boa Vizinhança Program, totaling an investment of approximately twenty-two thousand reais (R\$ 22,000.00) with the Company's own resources.



Generation Business Investments

BNDES Brisa Potiguar Project

Linked to the Brisa Potiguar Wind Complex, the subsidiaries of Copel GeT, Nova Asa I Energias Renováveis S.A. and Santa Maria Energia Renováveis S.A., provided funds for social investment in contracts signed with BNDES. The investments will be made for the four municipalities where the wind farms of the complex were installed, with investment for the acquisition of goods that will be tendered by the company and passed on to the municipalities through donation with charges. It will be up to the municipalities to carry out all prior adjustments that may be necessary for the receipt, installation, and operation of each of the items.

BNDES HPP Colíder Social Project

In 2021, the social project in the municipality of Itaúba, in the state of Mato Grosso, was completed, with the delivery of the Van vehicle for public health, which reinforced the infrastructure for transporting patients between the municipalities in the region that carried out the displacement for care in clinics and hospitals.

Interactive Classrooms Project

The other project completed was the Education project - "Interactive Classrooms" - Copel delivered 25 notebooks to the municipality, the last equipment needed to implement the classrooms.

Actions to Combat the Pandemic

In 2021, Copel donated financial resources to support the fight against the Covid-19 pandemic through the Invoice Solidarity campaign. For each customer opting for a digital invoice, the Company donated R\$ 2.00 to promote actions to combat Covid-19, and if they opted for automatic debit, another R\$ 3.00 was added to the donation. The amount of R\$ 1.1 million was raised, which resulted in the purchase of 21 respirators and fans for the public health network of the state of Paraná.

Copel also donated 217 cylinders to the Government of Paraná for medical oxygen storage.

In voluntary actions by employees, around R\$ 55 thousand were collected for the purchase of food via the Solidarity Basket, from the State Government. In all, 820 basic food baskets were purchased, totaling 16 tons of food.

Community engagement initiatives

GRI 413-1, PRME 3, 5, 6

EletriCidadania

Copel's corporate volunteer program.

Employees can voluntarily and spontaneously dedicate up to eight hours of their workday every two months to carry out social actions.

In 2021, 192 volunteers were involved in actions, who performed 1,109 hours of volunteer work. Due to the new coronavirus pandemic, volunteer actions needed to be adapted to be carried out at a distance. Among the initiatives, the following stand out:

1. Professions Cycle Project: developed in partnership with Tecpar, it aims to help high school students from public schools in the planning of their careers, providing the opportunity to learn about different areas of activity so that they can evaluate the careers with which they identify. This project mobilized 133 volunteers who did 261 hours of volunteering and was divided into two phases:

- **Professions Exhibition:** opening lecture on Career Planning and videos on various professions, showing the daily life of professionals, the necessary training, etc. The Professions Exhibition videos are available on the Official Tecpar Youtube Channel.

- **Mentorship:** online meetings with a mentor, that is, a professional volunteer who offers advice related to the planning and/or development of the professional life of high school students, reporting on learnings and obstacles overcome by them, expanding perspectives on the different realities that surround them.

2. Paraná Volunteering Week: initiative of the Government of Paraná, held from September 24th to 30th, to encourage and multiply voluntary actions throughout the state, providing prestige and also collaborating with projects and actions already carried out. During this week, 154 Copel employees and volunteer community members were involved in these actions:





- **Share Energy Campaign:** Solidarity drive-thru at seven Copel poles for the collection of non-perishable food and sanitary towels. 6 tons of food, 488 packages of sanitary towels and 41 hygiene items were collected. 500 seedlings of native plants were distributed to donors. The items collected were donated to ten social institutions in Paraná, which serve 2,628 people in vulnerable situations.
- **“Protection and integration of migrants and refugees in the state of Paraná” lecture with Cáritas Paraná:** event to launch the booklet “Migration and Refuge Project” to facilitate access to Copel’s electricity services. The booklet is available in five languages: Portuguese, English, Spanish, French and Haitian Creole.
- **Seedlings planting in Maringá:** 31 volunteers planted 450 seedlings of plants for landscaping and two seedlings of yellow ipê in Praça Professora Nadir Aparecida Cancian and in front of the Copel building, in Maringá.

- **Launch of five new educational videos of the Illuminating Generations Program:** the Program’s volunteers intensified the dissemination of the videos to students from the municipal education network of Paraná and delivered kits containing a booklet with guidelines and activities on the conscious and safe use of electric energy, notebook, pencil, eraser, ruler, and sharpener. Results obtained: 1,479 participating students on 09/30/2021 (among videos and materials received).
- **“Show your Talent” Training** - how to prepare a resume and video resume and how to behave in a job interview” for students participating in the mentorship of the Professions Cycle Project and vacancies for the community.
- **Garbage removal effort from the Cascavel River basin:** action in partnership with Sanepar, which involved the participation of 40 volunteers in planting 150 seedlings and cleaning the Cascavel River, around the Municipal Lake, where approximately 12 tons of trash.

Get more information about the EletriCidadania Program on the [Sustainability Portal](#).

Cultivate Energy

Corporate program that enables the implementation of community gardens under Copel’s power lines in partnership with municipal governments. Developed as an auxiliary strategy in the fight against irregular occupations in properties under the Company’s responsibility, it also aims to promote the environmental improvement of urban space and encourage food security and income generation for socially vulnerable families.

The program is aligned with the municipal public policy on food security and contributes to the Sustainable Development Goals, more specifically to SDG 2 - Zero Hunger and Sustainable Agriculture (goals 2.1 and 2.4); SDG 10 - Reduce inequality within and between countries (targets 10.1 and 10.2), and SDG 17 - Strengthen the means of implementation and revitalize the global partnership for sustainable development (target 17.17).



In addition to the continuity of the productive gardens in Maringá, Cascavel and Ponta Grossa (Vila Esperança Community Garden, Parque Itaipu Community Garden, Cidade Canção Community Garden, Parque Verde Community Garden and Costa Rica Community Garden), in 2021 production was consolidated in the two new gardens inaugurated in Curitiba in 2020, which represented the expansion of the program through the partnership with the capital of Paraná, and benefiting some of the poorest regions of the city, in the Uberaba and Cidade Industrial neighborhoods.

In 2021, the Jardim Nova América Community Garden

was inaugurated in Umuarama, and the Clênio Faust Garden was implemented in Francisco Beltrão. Copel also received new demands from municipalities interested in participating in the program. Campo Mourão, Londrina, Guarapuava, Marialva, Paranaguá and São José dos Pinhais are some of them.

The nine community gardens currently in operation benefit approximately 862 people directly, and another 1,164 people indirectly, considering the average number of interactions of direct beneficiaries with third parties, who access the food produced in the gardens through exchange, donation and/or commercialization.

Iluminando Gerações

The Iluminando Gerações Program provides information and preventive guidance to communities in the municipalities in Copel's concession area on sustainability, conscious and safe use of electricity, use of natural resources and correct disposal of waste, through lectures, theater, and distribution of booklets. In 2021, due to the continued interruption of face-to-face classes in schools, due to the pandemic, the program's actions focused on expanding educational videos and providing public access. The videos created by the Program were also broadcast on the educational channel of the Secretary of State for Education as complementary content to those made available in virtual classes for students during the pandemic. 80,000 students were assisted by viewing the videos produced and receiving school kits with booklets produced by Copel.

Migration and Refuge Project

The project was created in 2020 with the objective of facilitating the access of migrants and refugees to information about Copel's basic services and the social programs of the Federal and State governments, since Paraná was one of the states in Brazil that received the most migrants and refugees in recent years. The first consolidated step was the publication in 2021 of a booklet for this audience in five of the most expressive languages in the state: Haitian Creole, Spanish, French, English and Portuguese.

The material was disseminated to several institutions through the Paraná State Council of Migrants and Refugees (CERMA) for Copel's service teams and is available on the [Sustainability Portal](#). The texts followed the logic of linguistic integration, which means not only translating the content, but also teaching the terms in Portuguese, so that the reader becomes familiar with the words and identifies them when accessing the Company's website and other channels. In 2022, it will be expanded in partnership with the Eletricidadania program, of corporate volunteering.

Actions promoted by the Government of Paraná GRI

GRI 203-2

Electricity Social Tariff (TSEE)

Program that offers discounts on electricity consumption, up to a monthly limit of 220 kWh, to families enrolled in the Single Registry of Social Programs of the Federal Government, provided that the other criteria set out in Aneel Resolution No. 414/2010 are observed. In 2021, 370,919 consumer units were benefited, and an amount of R\$95,480,968.48 were transferred by Aneel for the execution of the program.

Programa Luz Fraterna

Government program that pays the bills of consumers enrolled in the Social Electricity Tariff, provided that monthly consumption does not exceed 120 kWh. In 2021, an average of 183,000 families were served by the program, representing a 15.3% increase in the average number of families served in relation to the previous year.

Night Irrigation Tariff and Rural Night Tariff

The Rural Night Tariff aims to encourage agricultural productivity through a 60% to 70% discount on the electricity tariff used for production in the period between 9:30 pm and 6 am. In 2021, 13,868 consumer units of rural producers benefited from the program, and the discount granted on electricity bills was equivalent to R\$52.6 million.

The Night Irrigation Tariff, on the other hand, offers subsidies for the construction or reinforcement of networks to serve irrigators. In 2021, 3,789 consumer units benefited, totaling R\$ 15,977,979.73 in subsidies.

Morar Bem Paraná Program

Program that aims to encourage the construction and acquisition of new housing units, requalification, expansion or renovation of urban and rural properties, land tenure regularization and urbanization for families with a monthly income of up to six minimum wages (national), as well as developing social interest in the State of Paraná. Copel is

responsible for building energy distribution networks and implementing service entrances to housing units, through reimbursement by the State Government, through the State Secretariat for Planning and Structuring Projects (SEPL). In 2021, 1,675 consumer units were serviced and more than R\$4.95 million was transferred to Copel DIS.

Safe use of electricity

GRI EU25

The number of individuals involved in accidents with electricity in Copel's network decreased from 34, in 2020, to 24, in 2021. The number of deaths, however, increased from 9 to 15. That year, there were 104 lawsuits related to Public safety in progress, while 6 have been resolved.¹

Annually, Copel promotes the Safety Month with the Community, in which actions to guide the population on the safe use of electricity are intensified, through lectures

for public school students, guidance for civil and rural construction workers, visits to private works, delivery of informative material in shops and for informal service providers, leafleting in public places, and dissemination on radios, TVs, and social networks. Copel also promotes several recreational initiatives to educate the population about the safe use of energy, such as actions linked to the Iluminando Gerações Program, carried out with elementary school students from municipal schools, companies and non-governmental institutions. The program also addresses conscious use and care for the environment. In its participation in the Paraná Cidadão and Mutirão da Cidadania government programs, the Company deals with the safe use of energy in educational games and in a vehicle called Energy Efficiency VAN. The topic is also on the Awareness Program agenda with construction workers and specific relationship actions.

1. In the 2020 Copel Integrated Report, the value of 33 accidents was published instead of 34.



Management of displacement impacts

GRI EU20, EU22

Copel is committed to providing full support to the population compulsorily relocated due to the implementation of its projects, reformulating the principles of respect for people and human dignity.

In the case of hydraulic energy generation projects, Copel complies with environmental legislation and applies the population's socioeconomic register. For transmission projects, joint work is carried out between the social, land and engineering areas, still in the phase of defining the route, in order to avoid situations that could be relocated as much as possible. During the planning phase of the projects, a telephone (0800) and e-mail communication channel is disclosed to the entire population directly affected, so that they can resolve doubts about the process. Once the project is established and the families that can be relocated are identified, approaches are carried out in loco, in addition to the contact of the land and social technician responsible for monitoring the process being made available.

At this stage, dialogues with those affected are strengthened. In cases of involuntary displacement, Copel acts on two fronts:

- in situations where those affected are owners, it carries out an assessment of the unfeasible property's area, the property, and other improvements, in addition to production losses, in accordance with specific legislation. After collecting the indemnity amounts, the negotiation process begins, focusing on an amicable agreement. At the end of the process, compensation is paid. In specific cases, in which the family presents some type of vulnerability or needs support in the relocation, Copel carries out social monitoring.
- when dealing with squatters and sharecroppers, in which compensation is impossible for legal reasons, it assesses the residence, improvements and productive losses. If their value does not allow for self-relocation, the family receives additional assistance through social compensation, to ensure that they go to a dignified and

safe place. This entire process is monitored by the Company's social area team, which also makes contact with municipal public services to accompany the family in their adaptation process.

Copel is monitoring the upgrading of the 230kV Santa Monica - Pilarzinho Transmission Line (SMC-PIL), authorized by Aneel Authorization Resolution nº 8.543/2020; with the forecast of replacement of approximately 60% of the structures, in addition to the conductor cables along the entire length of the TL. During the work studies, it was found that this line has approximately 235 irregular occupations, of which 89 occupations directly affect the 40m strip and need to be handled in order to release the area.

The lawsuits proposed by Copel Geração e Transmissão have deadlines outside the Company's controls, which sought, together with Companhia de Habitação do Paraná - Cohapar and the Municipality of Almirante Tamandaré, for alternatives for the relocation of families, thus outlining a Technical

Cooperation Agreement, with the objective of releasing the security lane of irregular occupations, making it possible to carry out the rehabilitation work within the deadlines stipulated by Aneel and, consequently, adequate housing outside the risk areas.

It was not possible to issue the agreement for all 89 cases that directly affect the area, thus 55 priority cases were chosen by the construction and land engineering, for which consultations will be carried out for the proposal of the Agreement; if, of the 55 prioritized occupants, a part does not adhere, the other occupants will be consulted until the closure of the 55 units. The expense in 2021 was R\$ 43.8 thousand per family served. The total forecast for the service is R\$ 2.4 million.

Regarding electricity distribution operations, there was no need to move people, however, the Company paid compensation to properties on the occasion of the installation of new lines and substations. In 2021, R\$ 53.6 million was allocated to this type of cases.





Relationship with indigenous peoples

GRI 411-1, 413-1, PRME 3, 5, 6

Copel runs Socioeconomic and Cultural Sustainability Programs in Indigenous Lands in two communities where it has facilities: Apucarantina, in the municipality of Tamarana (PR), where the Apucarantina hydroelectric plant is located, and Barão de Antonina, in São Jerônimo da Serra (PR), intercepted by the 230 kV Figueira – Apucarana Transmission Line. The actions are agreed in Terms of

Conduct Adjustment (TACs) signed between the Company, the respective indigenous communities, the National Indian Foundation (Funai) and the Federal Public Ministry (MPF). The execution of activities was made possible through the creation of specific funds in the ownership of these indigenous lands (TIs), with the objective of sponsoring projects within them. The innovation of the governance model adopted is its hybrid management, since the funds are managed by joint management committees, composed of Copel representatives and indigenous

representatives, with monitoring by Funai and the MPF. The application of resources is defined in a dialogue with the communities and their representatives, respecting their forms of organization and tradition.

In 2021, due to the measures to contain the Covid-19 pandemic and in compliance with the determinations of Funai Ordinance nº 419/ Pres, which restricted access to indigenous lands, face-to-face activities with these communities were temporarily suspended.

In addition, the following actions were taken:

- Apucarantina TAC (2002) Named Financial Compensation TAC. In 2021, the following activities were carried out under this TAC:
 - Monitoring the calculation of annual financial compensation amounts and accountability to TAC signatories.
 - Monitoring of monthly payments of energy consumption bills of the Indigenous Community of Apucarantina.
 - Articulation with Copel Dis, Municipal Social Assistance Secretariat (SMAS) of Londrina, FUNAI and MPF for the permanent registration update of the families who own the APC IT consumer units, aiming at maintaining the benefits of the Electric Energy Social Tariff.

- Monitoring, together with Copel Dis, the process of completing the installations of the service entrances and network extension to regularize the interconnections in the Apucarantina Indigenous Land.
- In addition, this year, negotiations began for the construction of an educational program for the efficient and safe use of electricity in partnership with the State University of Londrina; this action will contribute to the implementation of one of the proposed counterparts and the strengthening of relations with the interested parties.
- Apucarantina TAC (2006) Named Financial Indemnity TAC: Expenses for 2021 focused on holding a single face-to-face meeting of the Management Committee, with the participation of representatives of the Apucarantina Indigenous Community, Funai

and Copel GeT employees, in 12/06/2021. At this meeting, the release of the payment of the remaining expenses for 2020 was approved, finalizing the resources available in the Fund. In addition, in 2021, the Final Report of the RTVGSC Program 004/2020 was also filed with the MPF and Funai, informing the actions taken over the 12 years of TAC implementation - 2008 to 2020.

- Barão de Antonina TAC (2006) Named Financial Compensation TAC: In 2021, a payment of R\$ 76,779.02 was made (on 04/15/2021) in favor of the Indigenous Community.
- Barão de Antonina TAC (2009) Named Financial Indemnity TAC: In 2021, seedlings of native species were supplied to restore areas near and upstream of the mine where water is collected for use by the community.



HUMAN
CAPITAL



Copel is part of B3's IGPTW Portfolio

Copel is listed on the B3 IGPTW, a theoretical portfolio of assets, prepared according to the certified companies and the best companies to work for, based on the national ranking cycle, both prepared by the Great Place to Work (GPTW).

People Management



GRI 102-43 PRME 1, 2, 3



Copel assesses employee satisfaction with people management through internal culture, innovation, and organizational climate surveys. The Company also considers external rankings, such as the Great Place to Work, in which it appeared, in 2021, for the second consecutive year. Based on the results of these initiatives, action plans are drawn up to improve the most critical aspects.

Human Capital and Diversity Profile

GRI 102-7, 102-8

Total employees by job type and gender

Owned employees	Full time	Part-time	Total by gender	Percentage
 Women	1,411	6	1,417	22.2%
 Men	4,963	3	4,966	77.8%
Total	6,374	9	6,383	

Outsourced employees	Full time	Part-time	Total by gender	Percentage
 Women	887	0	887	10.5%
 Men	7,529	0	7,529	89.5%
Total	8,416	0	8,416	
Grand total (owned and outsourced)	14,790	9	14,799	

Notes:

1. Copel does not have its own employees with temporary contracts.
2. The data refer to Copel and its wholly owned subsidiaries. The reduction in the total number of employees from 6,667 to 6,383 is mainly due to the dismissal of 153 employees who joined the Incentive Dismissal Program (PDI). In all, 287 employees left the Company in the year. The replacement of personnel through recruitment via a public contest was of only one employee, who was added to the three employees reinstated on the INSS initiative to cancel their disability pensions. There are no other seasonal factors that generate significant variations in the number of employees
3. In addition to the informed third parties, Copel has 106 outsourced apprentices.

Women in leadership positions

The search for gender equality is a commitment signed by Copel, as presented on [page 233](#). In this sense, the Company has already achieved a proportion of the leadership positions occupation equivalent to the participation of women in the workforce: 689 executives in management positions compared to 1417 women in total.

- 108 women in management positions, representing a total of 22.83% of the total number of managers.
- 63 women in initial management positions, representing a total of 23.77% of the total number of initial managers.
- 8 women in senior management positions, representing a total of 18.18% of the total senior management.
- 1 woman in a management position, representing 14.29% of the total number of boards.
- 1 woman on the Board of Directors, representing 11.11% of the total.
- 46 women in management positions in revenue-generating areas, representing a total of 14.60% of the total of these managers.
- 161 women in STEM (Science, Technology, Engineering, and Mathematics) areas, representing 14.72% of the total professionals in the areas
- 302 women in administrative positions, representing 45.28% of the total number of professionals in these positions.

Nota de tradução: Ciências, Tecnologia, Engenharia e Matemáticas – CTEM.

Total employees by functional category and gender (405-1)

	Total by functional category	%	♀	%	♂	%
Owned employees						
Operational	29	0.45%	0	0	29	100%
Technical High School Professional	1,577	55.48%	110	93.02%	1,467	6.98%
High School Professional	3,541	24.71%	974	73.06%	2,567	27.51%
Higher Education Professional	1,236	19.36%	333	26.94%	903	73.06%
Total	6,383	100%	1,417	22.20%	4,966	77.80%
Outsourced employees						
Conservation/ Security of Facilities	998	11.86%	357	35.77%	641	64.23%
Engineering Works	2007	23.85%	47	2.34%	1,960	97.66%
Administrative Services	218	2.59%	69	31.65%	149	68.35%
Auxiliary Services	22	0.26%	16	72.73%	6	27.27%
Business/ Support Services	433	5.14%	294	67.90%	139	32.10%
Technical/ Operational Services	4738	56.30%	104	2.20%	4,634	97.80%
Total	8,416	100%	887	10.54%	7,529	89.46%

Total employees by region





Diversity indicators of owned employees (%) | GRI 405-1

	Operational	Prof. Nível Médio	Intermediate Level Tech. Prof.	Higher Level Prof.	Total
By age					
Up to 30	0.00%	1.98%	1.46%	0.89%	1.63%
Between 30 and 50	6.90%	68.54%	74.32%	68.53%	69.69%
Above 50	93.10%	29.48%	24.22%	30.58%	28.69%
Total	100%	100%	100%	100%	100%
Other diversity groups					
% of black and mixed (in relation to the total number of employees by job category)	17.24%	13.81%	15.47%	7.69%	13.05%
total % of owned employees corresponding to Persons with Disabilities at Copel (in relation to the total number of employees per functional category)	0.00%	3.02%	0.51%	0.81%	1.96%



Rotation | GRI 401-1

	Total admissions ¹	Admission rate (%)	Total terminations	Rotation rate (%)
 Men	3	75%	190	1.87%
 Women	1	25%	97	3.24%
Total²	4		287	2.18%
By age				
Up to 30	0	0	20	4.41%
Between 30 and 50	2	50%	158	1.71%
Above 50	2	50%	109	3.17%
By region				
South	3	75%	284	2.18%
Southeast	0	0	1	2.27%
Midwest	0	0	2	2.38%
Northeast	1	25%	0	5.00%

Notes:

1. Considers 1 admitted and 3 reinstated.
2. The turnover rate is calculated using the formula (hired + terminated/2)/by the total number of employees in the previous year.

The Permanent Commission on Diversity, which is linked to the Diversity Program, has the role of planning, executing, and monitoring actions and strategies to combat discrimination in the workplace.

Diversity Program and Standing Diversity Commission

GRI 406-1, PRME 3, 6

The encouragement and good management of diversity provide greater productivity and employee engagement, generate better social, economic, and financial performance, and positively influence stakeholders to

adopt best practices related to the topic. In addition, they minimize the risks of lack of plurality of ideas and limitation of the staff's creative potential, as well as the risk of non-compliance with Law No. 8.213/1991 (Quotas Law).

Since 2015, Copel has had a Permanent Committee on Diversity that is linked to the Diversity Program, whose role is to plan, execute and monitor actions and strategies to combat discrimination in the workplace, as well as promote the appreciation of diversity. In 2021 it was renewed and its pillars are a) awareness and training; b) active communication, transparency, and dialogue; c) analyses, indicators, and strategy. To this end, resources are allocated annually from Copel (Holding) and its subsidiaries to carry out the initiatives proposed by the Committee, reviewed at each new period.

Its priority themes are gender, race/color, LGBTQIA+ groups, accessibility, and people with disabilities, although the Commission

is not limited to these. The objective of the actions is to achieve a safe, healthy, and respectful corporate culture for all people, also influencing the company's stakeholders. After all, by becoming a catalyst for important issues, Copel considers itself to have a positive impact that goes beyond the corporate scope. The processes under the responsibility of the Commission and the Diversity Program, in addition to considering Copel's values and policies, take into account dialogue with society, alignment with public policies and with the 2030 Agenda.

The Commission has specialists in the topics covered and representatives of the areas mapped as strategic for the promotion of diversity, in addition to promoting periodic consultations with the internal staff. Aiming at their continuous training and updating, its members undergo mandatory training annually, which can be extended to other relevant areas or open to all interested parties, depending on the objective.

2021 Achievements

GPTW survey analysis

The GPTW survey is applied annually at Copel, with the participation of more than 80% of the workforce. In 2021, the Diversity Commission started to carry out a stratified analysis of the results, with the purpose of creating and monitoring satisfaction indicators linked to gender, race, age, sexual orientation, and disability. Thus, a new mechanism was created to map and monitor priority aspects for the promotion of diversity in the company.

Diversity Trainings and Events

- “The electricity sector and indigenous and traditional populations” was intended for areas that work directly and indirectly with these populations, with the aim of updating professionals on the subject and, consequently, refining Copel’s practices.
- “Communication for Respect and Promotion of Diversity” is promoted annually to Copel’s Communication and Marketing professionals, with a different focus each edition. In 2021, the training was about images, representation and intersectionality.

- “Diversity and Inclusion: LGBTI+ people and the work environment” addressed basic concepts about gender and sexual orientation, legal aspects, and the challenges to foster inclusive and diverse workspaces. It was open to all Copel stakeholders. In addition, meetings were held on the topic with Copel’s Compliance and HR areas.
- “Why do we need to talk about racism at work?” was open to the Company’s stakeholders and clarified the concept of Structural Racism, which is fundamental for understanding ethnic-racial relations in Brazil. The training also addressed the subjective manifestations of racism, historical facts, and indications of how the non-black population can act in the face of racism in the country, especially in the workplace.

Events

- “Men’s X-Ray” was a sincere conversation about masculinity with Papo de Homem, aimed at the male audience, which today represents more than 70% of the internal staff.

- “**Within Pandemic Limits**” was a dialogue with women, about the burden and mental health of this group, which during the Covid-19 period, was significantly impacted.
- “**Women in Science**” featured researchers from Copel, Tecpar, Sanepar and the Federal University of Paraná, and addressed the role of women in Science and the application of research in companies. It was open to all audiences, with special invitations to elementary schools.
- **Launch of the first edition of “ExataMente: girls and women in exact sciences,”** with state school Leoncio Correia.
- “**Inclusion, Volunteering and the Role of the Allied Person,**” held together with the Corporate Volunteering Program, Electricidadania, was a lecture for Copel volunteers, encouraging activities with these groups.

The training and events took place in an online format and with a sign language interpreter, totaling 18 hours in the year.

In all, 1,175 people participated, including employees, managers, suppliers, schools, partner companies and the community in general. Nevertheless, participants gave scores above 90 in all actions, on a scale from zero to 100, reaching the target established by the Commission.

ExataMente Project

Women are only 13% of Copel's engineering, where entry is by public contest. This is a reflection of the Composition of many faculties. Research shows that girls are discouraged from entering exact sciences courses during school life, so they represent a smaller percentage. ExataMente works with high school students to encourage women to enter these careers, with the support of Copel engineers and through conversation circles. When the Covid-19 pandemic subsides, technical visits to the Company's facilities will be planned.

Accessibility

Capacity building, accessibility, legislation, visible and non-visible disabilities were the main topics of informative communications

about people with disabilities, listed after a consultation with this group at Copel. In addition to giving suggestions, interested people participated in a planning meeting with the Diversity Commission. The works to make all Copel facilities accessible, which began in 2015, are in the process of being completed, in line with current legislation.

Diversity Newsletter

Launched in December, it provides a summary of the Commission's actions in the period and encourages contact with diversity content in the company. With the objective of making the subject a constant and impacting the corporate culture, the newsletter is published quarterly.

Diversity Focus Groups

In order to improve contact with the internal staff of different municipalities and facilitate listening, with a view to expanding the engagement and adequacy of the Commission's actions, focus groups were structured with voluntary registration for the topics: gender, race/color; accessibility and people with disabilities, age and religiosity. The meeting schedule will start in 2022.



Campaign to Eliminate Violence against Women

Faced with the increase in cases of violence against women, aggravated by the social distance maintained during the Covid-19 pandemic, the Commission has prepared a campaign of four short videos that started in 2021 and will end in 2022. The content was prepared based on the guidelines of the Public Ministry and the Maria da Penha Institute. The performance was made voluntarily by members of Copel's Energia Boa theater group, which increased the engagement and identification of the internal staff. The material is available on the Sustainability Portal and on Copel's YouTube channel. Throughout the year, communications on diversity were published on Copel's website, on the Sustainability Portal, on the Company's internal channels and in contact with suppliers. Events and campaign videos are available on Copel's YouTube channel.

In 2021, Copel received, for the third time, the Pro-Equity of Gender and Race Program

seal, coordinated by the Secretariat of Policies for Women (SPM), linked to the Ministry of Women, Family and Human Rights (MDH).

The Pro-Equity of Gender and Race Program was created to disseminate new concepts in people management and organizational culture to achieve equality between women and men in the work world. In the sixth edition of the seal, 122 companies participated and 64 were awarded.

The promotion of Diversity is mainly linked to Sustainable Development Goals 5, 8, 10, 16 and 17. Throughout its existence, the Commission has contributed to the promotion of human rights, especially by aiming at more egalitarian working relationships. Diversity, therefore, represents an opportunity for Copel to consolidate universal values in its practices.

In 2021, a case of discrimination was registered, through the reporting channel, for which the necessary measures were applied in accordance with Copel's internal rules. GRI 406-1

Compensation and benefits

GRI 202-1, 401-2

Copel's careers and their respective compensations are established in the document Careers and Compensation Structure, based on market practices for position, function and level of education and qualifications. The benefits and short-term variable compensation are established in the Collective Bargaining Agreement, held annually between the unions and Copel. The human resources area is responsible for managing this process, which aims to identify positions and functions necessary for the development of the Company's activities; define the training required to perform the activities of each position and function; establish levels of maturity and complexity of positions and functions to meet the demand for jobs; establish rules for the functional (vertical) and salary (horizontal) movement of employees; and highlight opportunities for career growth and development.

The benefits package offered by Copel is granted to all employees, regardless of their working hours. This package exceeds that defined by legislation.

The benefits package offered by Copel to its staff exceeds that defined by the legislation, being compatible with that of companies that are reference in people management. This package is granted to all employees, regardless of their working hours. Annually, Copel's Balance of Benefits (BBC) is published, a statement of salary, bonuses, profit sharing, pension plan, food allowance, day care allowance, performance award and health plan, among others. The BBC is available to employees on the SAP Portal.

According to the latest BBC, the benefit that encompassed the most people and mobilized resources in 2021 was the PLR (Participation in Profits and Results), with 100% of employees assisted and R\$ 419.1 million in expenses. The benefits policy is one of the Company's attractions. The package, including the one that is extended to family members, can be consulted on page 197. Periodically, Copel sends employees information on the subject, via e-mail.

The Performance Award (PPD) is a variable and periodic remuneration to recognize employees for extraordinary performance, conditioned to the achievement of different levels of financial, operational and sustainability goals.

The purpose of the PPD is to reinforce the culture of meritocracy at Copel and recognize the results at different organizational levels (management, superintendence, department, division). In practice, it is an opportunity for the goals to be discussed and monitored more frequently and with greater attention by everyone, facilitating the prioritization of activities and the definition of work methods, encouraging the employee to plan his work to achieve their area goals and stay informed about the accumulated results in each period.



Parental leave

All of Copel's own employees are entitled to parental leave. The benefit totals six months for women and 20 days for men. Additionally, in the case of women, after returning from leave, the working day is reduced to 6 hours for 60 days, for breastfeeding. Copel, in partnership with Fundação Copel, continuously conducts training for future parents, with guidance on initial care and as a way of encouraging the monitoring of parents in prenatal consultations.

GRI 401-3

	Beginning 2020 End 2020		Beginning 2020 End 2020		Beginning 2020 End 2020	
	Maternity	Paternity	Maternity	Paternity	Maternity	Paternity
License	29	180	18	6	156	47
Employees who did not return after Leave	0	0	Return in 2022	-	46	155
Return to work rate (%)	100	100	-	-	97.87	99.36
Employees who did not stay within 12 months of leave	2	3	-	-	-	-
Retention rate (%)	7	2	-	-	119.57	122.58

Breastfeeding rooms

Copel maintains breastfeeding rooms in some of its units so that employees who return from maternity leave have an appropriate environment for the removal and storage of milk to be offered to the infant, so that they can continue breastfeeding. The environments are certified by the Ministry of Health, in recognition of the support given to the women who make up the Company's staff.

Social Name

The adoption of the social name at Copel is a way for people to use the identity with which they identify. In order to make them feel comfortable in their work environment, the employee can choose to use the social name on the badge, e-mail, and internal telephone guide, according to internal regulations. This action contributes to significant cultural advances in the internal environment related to the gender issue, an issue addressed in the scope of the corporate diversity program.



Diversity Copel



Supplementary pension and retirement plan

GRI 201-3, 404-2

Copel offers, through Fundação Copel, a supplementary pension plan for retirement, in which the employee has the possibility of forming a financial reserve fund during his professional life. For each regular contribution, the sponsor (Copel) contributes the same amount and employees have the option of making contributions to increase future income, without the sponsor's counterpart. The reserve formed is transformed into a benefit at the time of

retirement. Upon retirement, the employee receives a monthly amount for life, which is calculated based on the accumulated total, that is, according to their savings reserve. All Copel employees are eligible for retirement plans, simply by joining, which also makes them beneficiaries of the health plan.

In addition, Fundação Copel promotes Viva Tranquilo, a financial and social security education program for employees, on the importance of a supplementary pension plan. It also encourages employees to transfer their pension from banks and

insurance companies to the Foundation. On the institution's page, the employee can simulate the value of their future benefit based on their current contribution and extra contributions. Viva Tranquilo helps employees in their transition to retirement, addressing issues such as managing finances and the importance of an active life. In addition, Copel has maintained, since 1979, the Retirement Preparation Program (PPA), with a series of lectures on social security financial education, consumption and savings behavior, entrepreneurship, quality of life and health.



In the next 5 years, 24% of Copel’s own workforce will be able to retire, as shown in the table below:

Current or estimated percentage of workers who may retire in the next 5 or 10 years by job type | GRI EU15

Job type	%
Line and connection workers	19.89%
Power plant operators	17.17%
Engineers	17.41%
Maintenance mechanics	20.14%
Others	26.68%

Relocation program

The search for new opportunities and challenges is transparently disseminated through the Relocation Program. Opportunities are made available on the Employee Portal and published by e-mail, allowing those interested in changing their role, area, or location to apply for the available vacancy. This practice makes it possible to value and enhance human capital within the Company, with equal opportunities for employees in the process of moving.

Professional development management

GRI 404-2, EU14, PRME 1, 2, 3

Professional development at Copel is guided by the management of competencies, determined by the identification of the training and qualification needs of the staff. The Corporate Education Policy establishes guidelines for the promotion of training actions, ranging from basic training to postgraduate and research courses. Actions are organized into corporate programs; training for qualification (aimed at basic training to exercise the function); mandatory training (courses aimed at specific activities); training for professional development; events (seminars, lectures, workshops, congresses, etc.); and research and development projects.

Copel also offers courses with content related to quality management, processes, and projects, and on tools to support this management, for the entire internal public. The Company runs a foreign language training program for employees who use another language in their work activities. Copel invests in lato and stricto sensu postgraduate courses for professionals who need to deepen their knowledge in their area of expertise.

Since 2016, the Company has also signed, through a public notice, partnerships with educational institutions that are interested in granting benefits to employees, some of which are extended to dependents. The partnerships include basic, higher, and professional education, and qualification and improvement courses.

Performance evaluation

Copel has been running its Performance Management Program, called Nossa Energia, since 2013. The intention is that, at each cycle, lessons learned and improvements are acquired to provide greater adherence to the Company's culture and reality.

Until the 2020 cycle, evaluated in 2021, the Nossa Energia program consisted of Organizational Competencies evaluated equally by all employees. For managers, the People Management Competency was also added. The program subsidizes decision-making regarding promotions, functional suitability, participation in conferences, training, graduate programs, and foreign language courses, among others.

For the 2021 cycle, in line with Copel's strategic objectives, defined in the Strategic Map (2021-2025), the Nossa Energia program was revitalized, with a focused and structured Performance Management program with well-defined competencies as a guideline. This revitalization process counted on the participation of a large part of Copel's leadership and with the support of the consulting firm of Fundação Instituto de Administração - FIA/USP.

The new Nossa Energia model is anchored on the following pillars: Competencies, Areas of Operation and Levels of Complexity, which seek to assess and differentiate the attributions and responsibilities of professionals, according to their role, development, maturity, and career evolution. The model also started to have self-assessment, mid-term assessment and the preparation of development plans as mandatory steps for all employees. Furthermore, the evaluation consistency analysis step was incorporated into the evaluation process flow, which aims to enable a greater degree of balance and homogeneity in the application of the evaluation, through



the consolidation of previous evaluations and critical analyzes with recommendations pointing out some situations that must be observed by managers.

As a rule, the program covers all Copel employees considered suitable, with the exception of graduates, newly hired / reinstated or on leave employees who worked less than 180 days during the assessment cycle. In this last cycle, employees belonging

to the risk group were also dismissed, unable to work (in person or remotely) for 180 days or more, due to the nature of the activities and/or procedures related to the coronavirus pandemic (Covid-19). With this, despite the persistence of the difficulties imposed by the pandemic, 100% of the employees able to receive the evaluation were evaluated.

In 2021, 100% of eligible employees were evaluated. GRI 404-3



Investment in human capital

Investment in training and development



Note: the drop in investments made in 2020 and 2021, compared to previous years, is justified by the impacts of the Covid-19 pandemic on labor relations.

Total and average hours of training by gender | GRI 404-1

	Total employees	Training hours	Average training hours
♂ Men	4,966	121,499.19	24.47
♀ Women	1,417	22,849.19	16.13
Total	6,383	144,348.38	22.61

Total and average training hours by employee category | GRI 404-1

	Operational	High School Prof.	Tech. High School Prof.	Higher Education Prof.	Total
Total employees	29	3,541	1,577	1,236	6,383
Training hours	584.50	48,645.34	48,646.08	46,472.43	144,348.35
Average training hours	20.16	13.74	30.85	37.60	22.61

Occupational Health and Safety

GRI 103-1, 103-2, 103-3, 403-1,403-2, 403-3, 403-4, 403-5, 403-7, 403-8, EU16, EU18, PRME 1, 2, 3

Occupational health and safety are topics present in Copel's Strategic Map and Strategic Reference, constituting one of the Company's values. Based on this premise, we seek to ensure a healthy work environment, in which workers and managers collaborate for the continuous improvement of protection and promotion of safety, health and well-being for all.

The guidelines adopted by Copel are contained in the Occupational Health and Safety Policy. Management is carried out by a multi-professional team, from engineering, occupational medicine, and social assistance, which monitors absenteeism indicators, the performance of periodic and preventive exams, and the frequency and severity rates of accidents involving its own staff and third parties. Health and safety indicators are defined in the strategic planning process based on the Balanced Scorecard methodology, being included in the Management Agreement, and broken down into indicators of the Management Commitments of the superintendencies and departments.

To promote a health and safety culture, Copel carries out a series of initiatives, detailed below.

- **Medical Control and Occupational Health Program (PCMSO) - NAC 40406 - Medical Examinations:** establishes rules for occupational examinations
- **Occupational Health and Safety Management – GSST:** its purpose is to define procedures and identify risks and preventive actions for the execution of operational tasks.
- **Preserving Life Program (PPV):** establishes the inspection, in the field, of the technical and safety procedures during the execution of the activities of employees and contractors, in accordance with the standards of the GSST area.
- **Preliminary Risk Analysis (APR):** application that records the prior assessment of the risks involved in carrying out a particular job.

Risk assessment, identification of possible hazards and application of the control hierarchy to eliminate or minimize them is carried out annually in accordance with the Environmental Risk Prevention Program (PPRA).

- **Copel Video Monitoring (VMC):** process of distribution operational teams that uses images from cameras installed in fleet vehicles to improve accident prevention mechanisms.
- **Serious Accident Analysis Meeting (RAAG):** when a serious accident occurs, the RAAG is held with the participation of staff, the security area, Cipa and the manager of the responsible area, in order to identify the causes and provide blockages.



- **Minor Accident Analysis Meeting (RAAL):** when a minor accident occurs, the RAAL is held, with the participation of the occupational safety area's technical staff, in order to identify the causes of the accident and provide blockages. Integration in Occupational Health and Safety: meetings with outsourced employees in which all precautions related to occupational health and safety are addressed.
- **Safety Month:** meetings held with each superintendence, in which everyone concentrates efforts on taking preventive actions.
- **Joint committee formed between Copel and the Union of Electricity, Gas, Water, Works, and Services Companies of the State of Paraná (Sineltepar):** it aims to improve the workforce's health and safety conditions.
- **Internal Accident Prevention Commissions (Cipas):** distributed among Copel's establishments with the responsibility of identifying the risks of the work and preparing the risk map and the plan that enables preventive action. During their participation in Cipas, employees discuss issues related to health and safety. If it

is necessary to forward a situation for analysis, the requests arising from these discussions are communicated to the occupational safety areas, which will provide the appropriate referral. Cipas annually promote Internal Accident Prevention Weeks, when lectures on topics related to health and safety are presented, given by both employees, and externally hired professionals.

- **BMI (Body Mass Index) Program:** application of a manual that establishes the procedures for the control and monitoring of the body mass index and weight of the workforce (owned employees and third parties) who perform the electrician function, as there are critical indexes that must be followed for the promotion of safety and health at work and accident prevention.
- **Safety Sectors:** Cipas groups formed by departments and/or divisions whose attributions are to multiply good safety practices and engage employees in carrying out preventive actions.

- **Technical Meetings:** to promote a culture of safety at work and develop the performance of the electrician's role, Copel encourages the participation of these employees in the Electricians' Rodeo, with the basic premise of following safety standards, act with expertise and have the ability differentiated.
- **Safety Trophy:** created with the purpose of encouraging and offering recognition for accident prevention work carried out by the areas that make up the Cipas.

The assessment of risks, identification of possible hazards and the application of the control hierarchy to eliminate or minimize them is carried out annually in accordance with the Environmental Risk Prevention Program (PPRA) in all areas of the Company, whether administrative or field. In external activities, inspections are carried out by employees who have knowledge of safety standards and procedures, following specific parameters. The workers themselves can report hazards or hazardous situations related to work through Caça ao Risco, a process in which the accident analysis group and the responsible Cipa president will take the

necessary measures to block it or improve the standards of procedures to field activities.

The standards related to training in occupational health and safety are NPC 0402 - Occupational Health and Safety Policy, NAC 040414 - Occupational Health and Safety and NAC 040501 - Personal Training and Development. No employee or third party may perform any activity considered to be risky or unhealthy, or that require specific knowledge without carrying out the necessary training.

The Training area surveys the needs and these are identified, analyzed, and monitored by the employee's management, following the guidelines of the Training area. There is the SG3 system, which aims to control and audit all documentation related to contracted third parties, including health and safety training, offering a complete document audit of Labor, Social Security, Land, Safety and Occupational Medicine obligations.

At the beginning of the activities, the contractors undergo Integration training, in which the risks and precautions related to





health and safety for the execution of the tasks are addressed. Additionally, for risky activities, certificates of mandatory training completion are required, as provided for in the MTE Regulatory Norms, in addition to the presentation of a valid Occupational Health Certificate (ASO).

For owned employees, training is provided in the company itself by its own employees or by a company contracted for this purpose, or external training on the premises of the contracted company. For outsourced employees, the training is external, except for the Safety Integration, which is carried out by Copel, preferably on the company's premises.

Personal Protective Equipment (PPE) is provided to employees according to the company's Technical Specifications, appropriate to the risk, upon registration through the Term of Receipt and Responsibility for PPE and Uniforms and replaced whenever necessary, due to wear, damage, or other needs, according to the

internal standard that deals with safety equipment and uniforms. For contracted parties, PPE must follow Copel's Technical Specifications, available on the company's website, following the same criteria for supplying them. The supply must also be registered through the aforementioned Term of Receipt.

Whenever necessary, the work safety areas, together with Copel (Holding), change the technical specifications of their PPE, replacing them with more effective ones. Under Regulatory Rule-10, federal employment regulation, employees have the right to refuse work situations that could cause illness, injury, or accident. At Copel, everyone is protected from reprisals by the Occupational Health and Safety Policy and the Code of Conduct.

With regard to health, employees undergo not only legal examinations, but also special assessments whenever there is a suspicion of illnesses that are caused by or may

interfere with work activities. Whenever a restriction is identified, action is taken in conjunction with local management so that there is no exposure to a certain risk (either through its elimination or other forms of control). There is also ongoing coordination of actions with occupational safety professionals, analysis of environmental risks identified and recorded in an electronic management system and association with complementary exams for monitoring and control of exposure and aptitude. Owned employees have access to services either by calling, as in the case of monitoring absenteeism or external legal examinations, or by personal demand manifested to management or by submitting statements and other medical certificates.

All of Copel's own employees are covered by a health and safety system.

Health and quality of life

GRI 403-6

Copel provides a health insurance (a closed non-profit pension and supplementary assistance entity), with monthly fees that are co-participated and offer, through a vast network accredited in the State of Paraná, medical, dental, and pharmaceutical care, including an outpatient plan, hospital and obstetric care and psychology and physiotherapy care. In addition to the periodic medical examinations, the Company includes an additional stage of preventive examinations associated with cardiac, gynecological, prostatic, colorectal, and ophthalmological diseases, according to the age and sex of the employee, providing specialized medical evaluation and complementary exams, free of charge. It also provides, in an institutionalized way, the chemical dependency program, with specific medical treatment for the recovery of employees from the use of illicit drugs and alcohol, including hospital and outpatient, medical and psychological care. Expenses are fully funded and the Company's social and health services are monitored, adapting environmental activities and risks for personal and collective safety. Since 2019, the Equilibradamente program has been carried out, with the aim of promoting the treatment and monitoring of eligible beneficiaries with emotional disorders such as anxiety, depression, among others. Treatment is free. Consultations are carried out online, with psychologists, and a hotline is available for emergency consultations with the specialized team, 24 hours a day. A team of specialized professionals guides employees in situations considered to be risky. There is also an application to monitor the health of employees who use the program. Copel also offers annual flu vaccination free of charge, within its premises, as per the prior request for the dose through an electronic system and decentralized application calendar at various Company addresses. In conjunction with the Cipas, information and awareness campaigns are conducted on Yellow September, Pink October, Blue November, among others, with lectures and material on suicide prevention, breast, and prostate cancer, encouraging the use of the health insurance's partner network.


Work-related injuries | GRI 403-9

Owned employees	2020	2021
Fatalities	0	0
Rate	0	0
Serious injuries	0	0
Rate	0	0
Other types of injuries	23	21
Rate	2.19	1.85

Third party employees	2020	2021
Fatalities	5	2
Rate	0.31	0.13
Serious injuries	1	0
Rate	0.08	0
Other types of injuries	119	118
Rate	7.35	7.38

Calculation of rates considered 1,000,000 working hours, according to NBR 14.280 - Occupational Accident Record - Procedure and classification.

8.3 Promote development-oriented policies that support productive activities, decent job creation, entrepreneurship, creativity, and innovation, and encourage the formalization and growth of micro, small and medium-sized enterprises, including through access to financial services

	Indicator	Number of deaths resulting from accidents at work (owned and third parties).
	Base line	28 deaths recorded in 2019.
	Suggested target	Zero occurrence of deaths of owned
	Copel's performance	In 2021, Copel recorded 2 deaths in its business operation

Training in Occupational Health and Safety | EU18

Contractors and subcontractors undergoing safety training	4,726
Total contracted and subcontracted employees	14,799
Percentage of contracted and subcontracted employees undergoing safety training	31.93%

Note: 100% of employees and outsourced workers received mandatory occupational health and safety training.



INTELLECTUAL CAPITAL



Research, Development, and Innovation

PRME 4 | EU8

For the electricity sector, investment in R&D is also a regulatory requirement, established by Federal Law No. 9.991/2000 and supervised by the National Electric Energy Agency (Aneel) within the scope of the Research and Technological Development Program for the Electric Energy Sector (ProP&D). All companies in this sector must allocate part of their net operating revenues (NOR) to the activity.

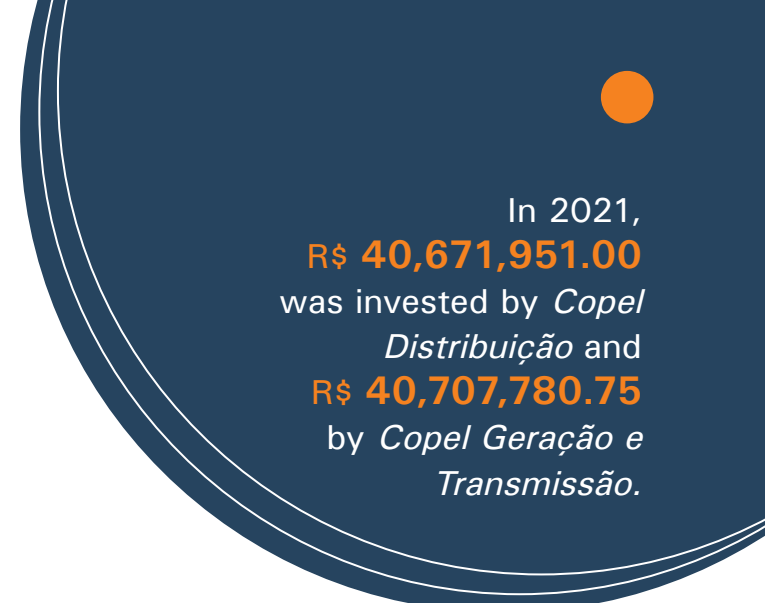
ProP&D proposes several lines of research, such as alternative sources of electricity generation, management of basins and reservoirs, energy efficiency and quality and reliability of services, among others. The Company develops projects along these

lines, always linked to its strategy, based on demands arising from everyday problems, such as the need for new technologies or the construction of low-cost generation projects. Each project has its own schedule, with deadlines for completion that are regulated by Aneel.


The R&D areas of the subsidiaries support the initiatives' management, including the initial hiring, the management of monthly payments and the monthly verification of the financial statements. In 2021, R\$40,671,951.00 were invested by Copel Distribuição and R\$40,707,780.75 by Copel Geração e Transmissão. The monitoring of R&D programs and their

budget execution can be checked on the Innovation Portal, which serves as a support tool for project managers.

The indicator for monitoring the Innovation Sector, of the Business Development Department, in 2021, was the number of hypothesis tests, proofs of concept or



9.1 Develop quality, reliable, sustainable, and robust infrastructure, including regional and cross-border infrastructure, to support affordable technology for all

9 INDUSTRY, INNOVATION, AND INFRASTRUCTURE 	Indicator	Number of public electric stations installed.
	Base line	913 public electric stations in 2019 (IEA).
	Suggested target	Achieve by 2030 at least 80,000 public electric stations installed in the country.
	Copel's Performance	Copel manages an electric road that connects the state of Paraná from east to west and has been investing in studies and tests of electric stations at its facilities.



innovation businesses started in the year. In 2021, six proofs of concept (POC) were carried out. The registration of the numbers of hypothesis tests, proofs of concept or innovation businesses started in the year are monitored by the Innovation Sector of the company's Business Development Department, which also monitors the indicator's evolution and collaborates in the Company's actions to promote the dissemination of the innovation culture. Also, in early 2021, Copel, in partnership with Renault do Brasil, launched the Copel Carsharing Program with the aim of developing a proof of concept focused on sustainable electric mobility at Copel's Km3 hub in Curitiba, allowing the shared use of electric vehicles by means of temporary rental via the app, for the professional and private use of employees, this being an unprecedented factor in the Company's environment.

Open innovation is the systematic that aims to improve the development of products or services, increasing the efficiency of the development and innovation processes of organizations, with a shorter term, lower cost, or adding new services through partnerships with different entities, such as startups, educational institutions, or technological institutes.

In the corporate strategic map, innovation gained momentum and was considered even more essential to leverage results. Copel clearly sees the importance of innovation to remain active and strong in the markets where it operates. In 2021, the Investment and Innovation Committee was established, composed of 3 CAD members, and published, in early 2021, the Economic/Financial/Accounting Investment Policy - NPC 0109, also dealing with investments in innovation.


Copel Volt, with a budget of around R\$ 2 million, is an initiative with the objective of bringing agility to the development of new products and services for the implementation of new businesses and entry into new markets. The challenges addressed are: electromobility; energy and beyond energy; clean energy and new energy matrices; new business models; customer relationship.

To reach the number of 30 startups participating in the Pitch Days, around 50 members of the innovation committee evaluated more than 200 companies from all over the world, enrolled in the scouting phase. Before the last phase, 15 startups had the opportunity to participate in three days

Copel Volt, with a budget of around R\$ 2 million, is an initiative with the objective of bringing agility to the development of new products and services for the implementation of new businesses and entry into new markets.

of Bootcamp provided for in the program. After the Bootcamp phase, 5 startups were selected to receive the financial support for the execution of the proofs of concept, the PoCs, that is, an opportunity for startups to present evidence that the solutions they defend can be successful in the real environment of application. The development of PoCs will take place in 2022.

9.4 By 2030, modernize infrastructure and rehabilitate industries to make them sustainable, with increased efficiency in the use of resources and greater adoption of clean and environmentally sound industrial technologies and processes; with all countries acting in accordance with their respective capabilities

9 INDUSTRY, INNOVATION, AND INFRASTRUCTURE 	Indicator	Number of patents and licenses requested per year / Total amount invested in R&D projects per year.
	Base line	Average of 15.4 patents and licenses requested per year (average of 21 years of program monitored by Aneel).
	Suggested target	By 2030, increase the number of patents and licenses requested for every million reais invested in R&D projects.
	Copel's Performance	In 2021, twenty-one (21) applications were filed among patents, industrial design and software registration with the National Institute of Industrial Property (INPI), which resulted in three (3) patent grants, six (6) registration certificates of industrial design and nine (9) certificates of software registrations.

Investment in Research and Development in 2021 (by topics)	2021	% in relation to total investments	2020	% in relation to total investments
Energy storage	R\$ 2,824,659.65	3%	R\$ 2,734,966.00	3%
Energy Efficiency	R\$ 7,351,989.21	9%	R\$ 2,034,225.73	2%
Alternative sources of electricity generation	R\$ 2,170,382.58	3%	R\$ 8,802,238.55	11%
Management of Basins and Reservoirs	R\$ 371,068.65	0%	R\$ 947,687.03	1%
Environment	R\$ 6,952,157.43	9%	R\$ 7,094,331.50	9%
Measuring, billing, and combating commercial losses	R\$ 1,174,690.00	1%	R\$ 1,783,024.00	2%
Operation of Electric Power Systems	R\$ 7,424,135.32	9%	R\$ 11,335,544.81	14%
Electric Power Systems Planning	R\$ 12,441,896.39	15%	R\$ 9,153,478.50	11%
Supervision, Control and Protection of Electric Power Systems	R\$ 10,557,231.21	13%	R\$ 10,224,057.54	12%
Safety	R\$ 7,208,946.81	9%	R\$ 3,893,698.17	5%
Quality and Reliability of Electric Power Services	R\$ 8,183,922.37	10%	R\$ 4,807,064.63	6%
Others	R\$ 13,808,435.05	17%	R\$ 19,606,243.45	24%
RD&I Management	R\$ 909,355.98	1%	R\$ 706,979.99	1%
Total	R\$ 81,379,097.52	100%	R\$ 83,123,539.90	100%



Main R&D projects in 2021

Generation business R&D

Copel GeT has an area dedicated to management and support in the development of scientific/technological projects related to the Research and Technological Development Program for the Electric Energy Sector. The R&D projects developed by the Company are aimed at direct application in its activities, involving the creation of new equipment,

materials, techniques or methodologies. In 2021, Copel Geração e Transmissão invested R\$ 40,707,780.75 in the execution of 36 R&D projects, among which, 7 are strategic, with themes that were established by Aneel through a Public Call for R&D Projects. It also invested more than R\$ 72 thousand in the management of the R&D Program through management projects.

For the next three years, Copel GeT expects an investment of approximately R\$ 50 million in new R&D projects applied to its processes of generation, maintenance, and resource management. Projects must be carried out in at least 6 university centers, 4 research institutes and 4 national technology companies, and approved upon evaluation by the Copel GeT R&D Committee



and/or public call administered by Aneel. Such institutions will have up to 5 years to execute these projects, as defined in the PROP&D (Procedures of the Research and Technological Development Program for the Electric Energy Sector).

In 2021, Copel GeT deposited 4 new patents arising from its R&D projects in progress.

R&D Distribution Business

The Research and Development Program's mission is to produce technical and operational, economic, social, and environmental benefits, generating and adding value to Copel Distribuição and to society as a whole.

Adhering to of the electricity sector's future vision, investments in Research and Development and in Innovation are essential for our positioning in the market within a long-term perspective. It is part of Copel's corporate strategic guidelines to invest in research, development and innovation with

added value. The main objective is to comply with Law 9991/2000 and avoid the risk of fines by the regulatory body, Aneel. Regarding the social issue, there is the opportunity to carry out innovative projects in important areas of society such as urban mobility, security, producing technical and operational, economic, social, and environmental benefits, generating, and adding value for COPEL DIS and for society as a whole.

Electric car sharing

In early 2021, Copel, in partnership with Renault do Brasil, launched the Copel Carsharing Program with the aim of developing a proof of concept focused on sustainable electric mobility at Copel's Km3 hub in Curitiba, allowing the shared use of electric vehicles through temporary rental via an application, for the professional and private use of employees, this as a unique factor in the Company's environment.

2 Zoe vehicles are used, 100% electric, recharged by solar source. To use the

services, simply access the Mobilize Share application and schedule.

The program is another step towards the consolidation of electric mobility in the Company, an initiative that began in 2018 with the implementation of the largest electric road in the country, with 12 charging stations along 730 kilometers of the BR-277 highway, connecting the east end to the western end of the state.

The services meet three global trends in the electricity sector: digitization, decentralization and decarbonization. Vehicles are cleaner, quieter and use energy efficiently.

Subsequently, Copel will analyze data such as usage, behavior, user interest and perception, technical performance, consumption, availability for use, expenses, and revenues, among others, to define the continuity of the initiative.



INFRASTRUCTURE CAPITAL



Generation and Energy

Copel operates 50 of its own plants and has a stake in another 11, of which 24 are hydroelectric, 34 wind farms, 2 thermoelectric and 1 solar, totaling a generating park with an installed capacity of 6,616.3

MW and with a physical guarantee of an average of 3,116.8 MW, as detailed in the table of plants in operation below:

GRI EU 1

Enterprises	Installed Power (MW)	Physical Guarantee (average MW)	Property %	Installed Power (MW) Proport.	Physical Guarantee (Average MW) Proport.	Start of Commercial Operation	Expiration of Grant
Hydroelectric Plants							
HPP Gov. José Richa (Salto Caxias)	1,240.0	605.6	100%	1,240.0	605.6	02.18.1999	03.20.2033
HPP Gov. Ney Aminthas de Barros Braga (Segredo)	1,260.0	578.5	100%	1,260.0	578.5	09.29.1992	09.25.2032
HPP Gov. Bento Munhoz da Rocha Netto (Foz do Areia-FDA)	1,676.0	603.3	100%	1,676.0	603.3	10.01.1980	12.21.2024
HPP Gov. Pedro Viriato Parigot de Souza (GPS)	260.0	109.0	100%	260.0	109.0	09.03.1971	01.03.2053
HPP Gov. Jayme Canet Junior (Mauá)	361.0	197.7	51%	184.1	100.8	11.23.2012	05.27.2047
HPP Guaricana	36.0	16.1	100%	36.0	16.1	01.01.1957	07.21.2028
HPP Chaminé	18.0	11.6	100%	18.0	11.6	01.01.1930	08.02.2028
PCH Cavernoso Ii	19.0	10.5	100%	19.0	10.5	05.15.2013	12.06.2050
HPP Apucarantina	10.0	6.7	100%	10.0	6.7	04.06.1949	01.27.2027
HPP Derivação do Rio Jordão	6.5	5.9	100%	6.5	5.9	12.02.1997	06.21.2032
CGH Marumbi	4.8	2.4	100%	4.8	2.4	04.05.1961	-
HPP São Jorge	2.3	1.5	100%	2.3	1.5	01.01.1945	07.24.2026
CGH Chopim 1	2.0	1.5	100%	2.0	1.5	05.28.1963	-
HPP Cavernoso	1.3	1.0	100%	1.3	1.0	12.07.1965	06.23.2033
CGH Melissa	1.0	0.6	100%	1.0	0.6	01.31.1966	-



Enterprises	Installed Power (MW)	Physical Guarantee (average MW)	Property %	Installed Power (MW) Proport.	Physical Guarantee (Average MW) Proport.	Start of Commercial Operation	Expiration of Grant
CGH Salto do Vau	0.9	0.6	100%	0.9	0.6		
CGH Pitangui	0.9	0.1	100%	0.9	0.1	01.01.1911	-
HPP Baixo Iguaçu	350.2	172.4	30%	105.1	51.7	02.08.2019	12.03.2049
HPP Colíder	300.0	178.1	100%	300.0	178.1	03.09.2019	01.30.2046
PCH Bela Vista	29.8	18.6	100%	29.8	18.6	06.12.2021	01.02.2041
HPP Santa Clara e Fundão	240.3	133.0	70%	168.2	93.1	07.31.2005	06.11.2040
HPP Dona Francisca	125.0	75.9	23%	28.8	17.3	02.05.2001	09.21.2037
PCH Arturo Andreoli	29.1	20.4	36%	10.4	7.3	10.25.2001	08.15.2032
PCH Santa Clara I e Fundão 1	6.1	4.9	70%	4.3	3.4	08.13.2005	12.19.2032
Total Hydroelectric Power Plants	5,980.2	2,755.1		5,369.4	2,425.2		
Thermoelectric Power Plants							
UTE Figueira	20.0	10.3	100%	20.0	10.3	04.08.1963	03.27.2019
UTE Araucária	484.2	365.2	81.2%	393.1	296.5	09.27.2002	12.23.2029
Total Thermoelectric Power Plants	504.2	375.5		413.1	306.8		
Solar Power Plants							
Solar Paraná	2.3	-	49%	1.1	-	09.15.2021	09.15.2046 ⁽⁴⁾
Total Solar Power Plants	2.3	-	49%	1.1	-		

Enterprises	Installed Power (MW)	Physical Guarantee (average MW)	Property %	Installed Power (MW) Proport.	Physical Guarantee (Average MW) Proport.	Start of Commercial Operation	Expiration of Grant
Wind Farms							
Palmas	2.5	0.4	100%	2.5	0.4	11.12.1999	09.29.2029
Santa Maria	29.7	15.7	100%	29.7	15.7	04.23.2015	05.08.2047
Santa Helena	29.7	16.0	100%	29.7	16.0	05.06.2015	04.09.2047
Olhod'Água	30.0	12.8	100%	30.0	12.8	02.25.2015	06.01.2046
São Bento do Norte	30.0	11.3	100%	30.0	11.3	02.25.2015	05.19.2046
Eurus IV	27.0	12.4	100%	27.0	12.4	08.20.2015	04.27.2046
Asa Branca I	27.0	12.1	100%	27.0	12.1	08.05.2015	04.25.2046
Asa Branca II	27.0	11.9	100%	27.0	11.9	09.15.2015	05.31.2046
Asa Branca III	27.0	12.3	100%	27.0	12.3	09.04.2015	05.31.2046
Farol	20.0	8.8	100%	20.0	8.8	02.25.2015	04.20.2046
Ventos de Santo Uriel	16.2	9.0	100%	16.2	9.0	05.22.2015	04.09.2047
Boa Vista	14.0	5.2	100%	14.0	5.2	02.25.2015	04.28.2046
Cutia	23.1	9.6	100%	23.1	9.6	12.22.2018	01.05.2042
Esperança do Nordeste	27.3	9.1	100%	27.3	9.1	12.29.2018	05.11.2050
Guajiru	21.0	8.3	100%	21.0	8.3	12.29.2018	01.05.2042
Jangada	27.3	10.3	100%	27.3	10.3	12.29.2018	01.05.2042
Maria Helena	27.3	12.0	100%	27.3	12.0	12.29.2018	01.05.2042
Potiguar	27.3	11.5	100%	27.3	11.5	12.29.2018	05.11.2050
Paraíso dos Ventos do Nordeste	27.3	10.6	100%	27.3	10.6	01.05.2019	05.11.2050
São Bento do Norte I	23.1	10.1	100%	23.1	10.1	01.31.2019	08.04.2050
São Bento do Norte II	23.1	10.8	100%	23.1	10.8	01.29.2019	08.04.2050
São Bento do Norte III	23.1	10.2	100%	23.1	10.2	04.09.2019	08.04.2050

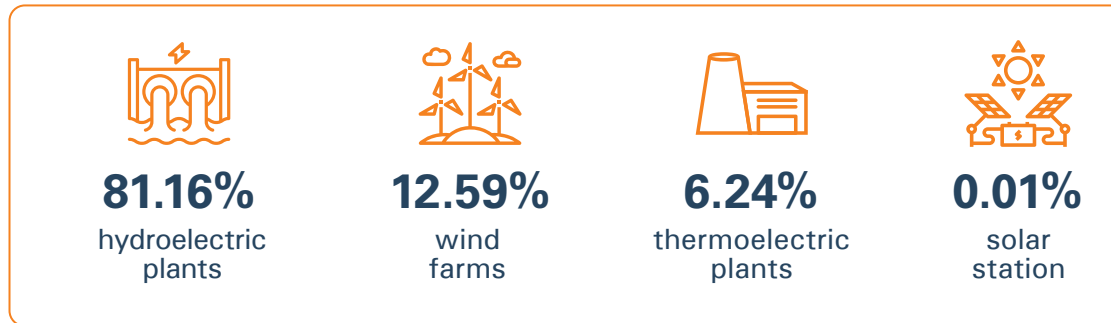


Enterprises	Installed Power (MW)	Physical Guarantee (average MW)	Property %	Installed Power (MW) Proport.	Physical Guarantee (Average MW) Proport.	Start of Commercial Operation	Expiration of Grant
São Miguel I	21.0	9.3	100%	21.0	9.3	02.14.2019	08.04.2050
São Miguel II	21.0	9.1	100%	21.0	9.1	02.02.2019	08.04.2050
São Miguel III	21.0	9.2	100%	21.0	9.2	02.14.2019	08.04.2050
Vila Ceará I (Paraíba IV)	32.0	17.8	100%	32.0	17.8	12.19.2020	01.14.2054
Vila Maranhão I	32.0	17.8	100%	32.0	17.8	02.11.2021	01.11.2054
Vila Maranhão II	32.0	17.8	100%	32.0	17.8	03.31.2021	01.14.2054
Vila Maranhão III	32.0	16.6	100%	32.0	16.6	09.29.2020	01.14.2054
Vila Mato Grosso I	58.9	28.6	100%	58.9	28.6	06.11.2021	12.06.2054
Santo Cristo	27.0	15.3	49%	13.2	7.5	06.30.2015	04.18.2047
Reduto	27.0	14.4	49%	13.2	7.1	06.26.2015	04.16.2047
São João	27.0	14.3	49%	13.2	7.0	06.30.2015	03.26.2047
Carnaúbas	27.0	13.1	49%	13.2	6.4	06.30.2015	04.09.2047
Total Wind Farms	887.9	413.7		832.7	384.6		
TOTAL SOURCES	7,374.6	3,545.1		6,616.3	3,116.8		

Discover Copel's plants

Copel's strategic guideline is to increase the share of renewable energy sources in the generation matrix, in line with its sustainability principles and especially in the sector's decarbonization.

The generation park's composition by installed capacity is:







Net Energy Generation

EU2

In 2021, the electricity generation park produced 20,284.25 GWh, almost 40% more than in 2020, when production was 14,534.60 GWh.

Net Energy Generation by source and by year (GWh)

	2019	2020	2021
 hydroelectric plants	17,750.02	11,232.5	15,798.15
 thermoelectric plants	1,915.02	994.6	2,691.39
 wind farms	99.90	2,307.5	1,784.57
 solar station	-	-	10.14
Total	19,765.52	14,534.60	20,284.25

Plant Efficiency

EU6, EU11, EU30

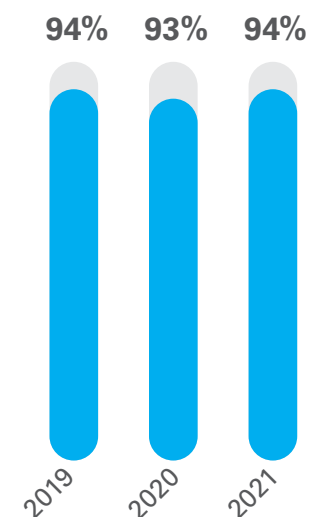
The plants with an installed capacity of more than 50 MW, which corresponds to most of the generation, have the volume dictated by the National System Operator (ONS) according to the conditions of the reservoirs and the electrical system's demand. Therefore, the amount of energy to be produced is not defined by Copel itself, as it is subject to ONS dispatch. The availability factor of hydraulic power plants was 94%, compared to the recent history of 93% in 2020, and 94% in 2019.

Wind generation depends on the availability of wind turbines (affected by operation and maintenance) and on the availability of wind resources, which can vary in the region over time. The amount reported in 2021 also includes wind farms located in the Northeast,

which constitute Copel's special purpose company.

In thermal generation, only the gas unit operated, with an average efficiency of 46.2%. The coal unit continues to be modernized.

Average plant availability factor





Investments in Generation

GRI 102-10, EU10, EU23

PCH Bela Vista

The small hydroelectric plant, located on the Chopim River, will have the capacity to produce 29.81 MW. The PCH has a budget of R\$ 217 million and will benefit around 100 thousand consumers. The work began in August 2019 and partially entered into commercial operation, 3 generating units, still in 2021. The total start-up of the generating plant is scheduled for the first half of 2022.

Jandaíra Wind Farm

With an estimated investment of R\$ 411.0 million, the Jandaíra Wind Farm, which will have 90.1 MW of installed capacity and a physical guarantee of 47.6 MWm, will be built in Rio Grande do Norte, a region in which Copel already has other wind generation assets, which will provide operational synergies with the projects that are already in operation. After the issuance of the environmental licenses, the works started in January 2021, ending the year with 77% of the work carried out. The start-up is scheduled for mid-2022, staggered by wind turbine.

Vilas wind farm

At the end of 2021, Copel concluded the acquisition of 100% of the Vilas Wind Farm as part of the Company's strategy, and of the Investment Policy, to increase its portfolio in renewable energy, expanding the diversification of the generation matrix, predominantly hydraulic. The enterprise comprises 5 wind farms, in operation, with 186.7 MW of installed capacity located in Rio Grande do Norte.

Solar Paraná

Implementation of a complex with 6 photovoltaic plants in rural Paraná, with up to 4.25 MW of installed power and classified as Distributed Generation, according to Aneel. Three plants, already in operation, with a power of 3 MW serve a network of pharmacies in the State of Paraná in remote self-consumption. The other 3 plants will be implemented in 2022 and will serve customers in remote self-consumption or shared generation.

Distributed mini-generation

In 2021, the first generating units of the Bandeirantes Photovoltaic Solar Power Plant, built in northern Paraná, went into operation, totaling 5.36 MWp (megawatt-peak, photovoltaic power unit) of installed power, enough to meet energy consumption of approximately 10 thousand people.

The project is part of Copel's new business model, in which the Company implements and operates distributed energy generation units and the customer signs a lease agreement for the plant. The generated energy is used to offset consumption, resulting in a discount on the electricity bill. This segment is expanding in Brazil and, according to data from the National Electric Energy Agency, solar distributed generation assets with about 2.5 gigawatts of capacity are currently in operation in the country, against about 1 gigawatt in June of last year, totaling more than 200 thousand units connected to the network.

Built in the municipality of Bandeirantes, 100 kilometers from Londrina, in partnership with Sistechne Participações, the solar complex is made up of 6,900 photovoltaic panels, which occupy an area of 10.35 hectares (the size of almost ten soccer fields). Each plate is formed by polycrystalline silicon photovoltaic cells, which, interconnected in series, react with the incidence of the sun's rays, releasing electrons that are transferred to a circuit inside the plate or solar panel.

Copel is working to develop other similar projects and invites companies interested in offsetting their energy consumption through distributed generation to contact Copel via the [website](#) and carry out simulations to verify the feasibility of migrating to the new system.

Modernization of the Governador Bento Munhoz da Rocha Netto Hydroelectric Power Plant

The second phase of the modernization was completed in August 2021, with an investment of R\$150 million. The four 436 MW turbines were modernized and the speed and voltage regulators were replaced. With the increments, a turbine with superior efficiency was obtained, increasing the physical guarantee, and reducing the maintenance cost. The construction and financial schedules were met as foreseen in terms of time, budget, and quality. This modernization stage absorbed around R\$ 150 million in investments.

Modernization of the Figueira Thermoelectric Power Plant

The Company restarted the modernization works in January 2021, with completion expected in mid-2022. The modernization aims to increase efficiency and reduce the emission of gases and particles resulting from the burning of coal.



Investments planned for 2022:

R\$ **331.5** million



Power Transmission

EU4

The segment's main attribution is to provide services for the transport and transformation of electric energy, being responsible for the construction, operation, and maintenance of substations, as well as for the lines intended for power transmission.

The transmission concessions in operation currently generate a RAP of R\$ 1.22 billion, proportional to their participation in the projects.

The Company fully owns and participates in transmission concessions in operation, corresponding to 9,616 km of transmission lines, with transforming power of its substations in the order of 20,462 MVA, as shown in the following table:



Transmission Lines and Substations

Transmission Lines and Substations		Circuit	Voltage (kV)	Extension (km)	Transformation Capacity (MVA)	Start of Commercial Operation	Expiration of the Grant
Owned lines and substations				3,328	14,390		
Contract no. 060/2001	Various transmission facilities ⁽¹⁾	Both	Various	2,063	12,440	Various	01.01.2043
Contract no. 07512001	LT Bateias - Jaguariálva	CS	230 kV	138	-	11.01.2003	08.17.2031
Contract no. 006/2008	LT Bateias - Pilarzinho	CS	230 kV	32	-	09.14.2009	03.17.2038
Contract no. 027/2009	LT Foz do Iguaçu - Cascavel Oeste	CS	525 kV	117	-	12.06.2012	11.19.2039
Contract no. 010/2010	LT Araraquara 2 - Taubaté	CS	500 kV	334	-	07.27.2018	10.06.2040
Contract no. 015/2010	SE Cerquilha III	-	230/138 kV	-	300	06.01.2014	10.06.2040
Contract no. 022/2012	LT Londrina - Figueira C2	CS	230 kV	92	-	06.30.2015	08.27.2042
	LT Foz do Chopim - Salto Osório C2	CS	230 kV	10	-	03.29.2015	08.27.2042
Contract no. 002/2013	LT Assis - Paraguaçu Paulista II C1 e C2	CD	230 kV	83	-	01.25.2016	02.25.2043
	SE Paraguaçu Paulista II	-	230 kV	-	150	01.24.2016	02.25.2043
Contract no. 02112014	LT Foz do Chopim - Realeza	CS	230 kV	52	-	03.05.2017	09.05.2044
	SE Realeza	-	230/138 kV	-	300	01.15.2017	09.05.2044
Contract no. 022/2014	LT Assis - Londrina C2	CS	500 kV	122	-	09.05.2017	09.05.2044
	SE Medianeira Norte	CS	230/138 kV	-	300	06.09.2019	04.07.2046
Contrato nº 006/2016	SE Andirá Leste	-	230/138 kV	-	300	09.07.2019	04.07.2046
	SE Curitiba Centro	-	230/138 kV	-	300	09.04.2019	04.07.2046
	SE Baixo Iguaçu	-	230 kV	-	-	12.21.2020	04.07.2046
	LT Curitiba Centro - Uberaba C1	CS	230 kV	8	-	09.04.2019	04.07.2046
	LT Curitiba Centro - Uberaba C2	CS	230 kV	8	-	09.04.2019	04.07.2046
	LT Baixo Iguaçu - Realeza Sul	CS	230 kV	37	-	08.04.2019	04.07.2046
	LT Curitiba Leste - Blumenau	CS	525 kV	144	-	03.28.2021	04.07.2046
	LT Baixo Iguaçu - Cascavel Oeste	CS	230 kV	57	-	12.21.2020	04.07.2046



Transmission Lines and Substations	Property	Circuit	Voltage (kV)	Extension (km)	Transformation Capacity (MVA)	Start of Commercial Operation	Expiration of the Grant
Special Purpose Companies				6,238	6,1172		
Costa Oeste Transmissora de Energia S.A.	100%						
Contract no. 001/2012	LT Cascavel Norte - Cascavel Oeste	CS	230kV	29	-	08.31.2014	01.12.2042
	LT Cascavel Norte - Umuarama Sul	CS	230kV	130	-	08.31.2014	01.12.2042
	SE Umuarama Sul	-	230/138kV	-	300	07.27.2014	
Caiuá Transmissora de Energia S.A.	49.0%						
Contrato nº 007/2012	LT Umuarama - Guaíra	CS	230kV	105	-		
	LT Cascavel Oeste - Cascavel Norte	CS	230kV	37	-	05.12.2014	
	SE Sanle Quiêria	-	230/138/13,8 kV	-	400	07.02.2014	06.10.2042
	SE Cascavel Norte	-	230/138 kV	-	300	06.01.2014	05.10.2042
Marumbi Transmissora de Energia S.A.	100.0%					07.02.2014	05.10.2042
Contrato nº 008/2012	LT Curitiba - Curitiba Leste	CS	525 kV	29	-		05.10.2042
	SE Curitiba Leste	-	525/230 kV	-	672		
Martrinçã Transmissora de Energia (TP Norte) S.A.	49.0%					06.28.2015	
Contract no. 012/2012	LT Paranatinga - Ribeirãozinho	CD	500 kV	710	-	06.28.2015	05.10.2042
	LT Paranaita - Cláudia	CD	500 kV	594	-		05.10.2042
	LT Cláudia - Paranatinga	CD	500 kV	708	-		
	LT Sinop - Intersecção Santa Carmen	CS	500 kV	21	-	07.29.2016	
	SE Paranaita	-	500 kV	-	-	10.09.2015	05.10.2042
	SE Cláudia	-	500 kV	-	-	07.29.2016	05.10.2042
	SE Paranatinga	-	500 kV	-	-	10.09.2015	05.10.2042
	SE Sinop	-	500 kV	-	800	10.09.2015	05.10.2042



Transmission Lines and Substations		Property	Circuit	Voltage (kV)	Extension (km)	Transformation Capacity (MVA)	Start of Commercial Operation	Expiration of the Grant
Mata de Santa Genebra Transmissão S.A.		50.1%						
Contract no° 001/2014	SE Fernão Dias		-	500/440 kV	-	3,600	02.07.2020	05.15.2044
	LT Bateias - Itatiba		CS	500 kV	414	-	03.05.2020	05.15.2044
	LT Araraquara 2 - Itatiba		CS	500 kV	222	-	03.24.2020	05.15.2044
	LT Araraquara 2 - Fernão Dias		CS	500 kV	249	-	03.05.2020	05.15.2044
Guaraciaba Transmissora de Energia S.A.		49.0%						
Contract no° 013/2012	LT Ribeirãozinho - Rio Verde Norte C3		CS	500 kV	240	-	08.30.2016	05.10.2042
	LT Rio Verde do Norte - Marimbondo II		CD	500 kV	690	-	08.30.2016	05.10.2042
	SE Marimbondo II		-	500 kV	-	-	08.30.2016	05.10.2042
	SE Rio Verde		-	500 kV	-	-	08.30.2016	05.10.2042
Paranaíba Transmissora de Energia S.A		24,5%						
Contract no° 007/2013	LT Barreiras II - Rio das Éguas		CS	500 kV	244	-	01.30.2017	05.02.2043
	LT Rio das Éguas - Luziânia		CS	500 kV	350	-	01.30.2017	05.02.2043
	LT Luziânia - Pirapora 2		CS	500 kV	373	-	01.30.2017	05.02.2043
Cantareira Transmissora de Energia S.A.		49,0%						
Contract no° 019/2014	LT Estreito - Fernão Dias C1 e C2		CD	500 kV	656	-	03.05.2018	09.05.2044
Uirapuru Transmissora de Energia S.A.		100.0%						
Contract no° 02/2005	LT Ivaiporã - Londrina ESUL		CS	500 kV	122	-	07.09.2006	03.05.2035
Total					9,616	20,462		



Transmission Efficiency

EU6

Technical transmission losses are related to the transport of energy to the “Center of Gravity,” where they are apportioned at 50% for generators and 50% for energy consumers, pursuant to current regulations.

The history of increase in the last three years can be explained by the increase in energy generation, restrictions on the transmission system and the installation of new equipment in the system. Another cause of the increase in losses is due to the concentration of generation at points far from the load center, causing a significant variation in the exchange of energy.

Technical Transmission Losses

EU12



2019	2020	2021
2.62%	2.71%	2.74%

Investments in Transmission

EU23

Lot E – Aneel Auction no. 05/2015

Copel received a concession to build, operate and maintain several transmission projects. In addition to the substations and transmission lines that have been operating since 2019, the contract also includes the 525 kV Curitiba Leste - Blumenau transmission line, which began commercial operation in 2021 and represents approximately R\$42.6 million in RAP. Considering the other projects that were already in operation, the entire lot represents a RAP for Copel in the order of R\$ 133.3 million.

Authorizing Resolution No. 7.384/2018

Modernization in the 230 kV substations Realeza Sul, São Mateus do Sul, Pato Branco, Ponta Grossa Sul, Londrina ESU and Ibiporã, and in the Londrina - Ibiporã transmission line, with an investment of approximately R\$ 111.0 million and a RAP of approximately R\$ 15.0 million.

Authorizing Resolution No. 7.515/2018

Modernization of the 230 kV Cascavel, Ponta Grossa Norte, Umbará, Maringá and Uberaba substations, with an investment of approximately R\$ 70.0 million and RAP of approximately R\$ 9.5 million, from the start of

commercial operations. The Umbará, Maringá and Uberaba substations, Ponta Grossa Norte, were completed in 2021. The others have deadlines set by Aneel for completion in the 1st half of 2022.

Authorizing Resolution No. 8.543/2020

Modernization of the 230 kV transmission lines Pilarzinho - Santa Mônica, Bateias - Pilarzinho, Santa Mônica, Bateias and Pilarzinho, with a total investment of approximately R\$ 32.5 million and RAP of approximately R\$ 4.2 million, as from the start of commercial operation, which Aneel expects to be in January of 2023.

Authorizing Resolution No. 9.219/2020

Modernization of the 230 kV Guairá substation, with an investment of approximately R\$ 38.8 million and RAP of approximately R\$ 6.0 million, as from the start of commercial operation, which Aneel expects to be in April of 2024.

Authorizing Resolution No. 9.564/2020

Modernization of the 230 kV Sarandi substation, with an investment of approximately R\$ 21.0 million and RAP of

approximately R\$ 3.4 million, as from the start of commercial operation, which Aneel expects to be in June of 2023.

Authorizing Resolution No. 9.741/2021

Modernization of the 230 kV Campo Comprido-Santa Quitéria transmission line, with an investment of approximately R\$ 4.3 million and RAP of approximately R\$ 577.7 thousand, as from the start of commercial operation, which Aneel expects to be in August of 2023.

Authorizing Resolution No. 10.688/2021

Modernization of the 230 kV CIC substation, with an investment of approximately R\$ 24.4 million and RAP of approximately R\$ 3.7 million, from the start of commercial operation, which Aneel expects to be in April of 2024.



Investments planned for 2022:

R\$ **89.1** million

Energy Distribution

EU4

Copel is responsible for distributing energy to approximately 4.8 million consumers in 1,113 locations in 394 municipalities in Paraná and in Porto União (SC). The Company maintains installations at voltage levels of 13.8 kV, 34.5 kV, 69 kV and 138 kV, manages approximately 202 thousand

km of distribution networks and has 378 automated substations, with an installed capacity of 11.3 thousand MVa. The share is 6.2% of the Brazilian market and 33.3% of the market in the South Region - in Paraná, the share is estimated at 97.0%.

Wired Market

Wired market (TUSD)	Number of consumers			Distributed energy (GWh)		
	Dec/21	Dec/20	%	Dec/21	Dec/20	%
Captive Market	4,926,608	4,835,852	1.9	19,312	19,180	0.7
Concessionaires and Licensees	2	2	-	86	76	13.2
Free Consumers	2,318	1,871	23.9	11,531	10,025	15.0
Wired Concessionaires	5	5	-	846	798	6.0
Wired Market	4,928,933	4,837,730	1.9	31,775	30,079	5.6

Captive Market

Energy sold (GWh)	2019	2020	2021	% 20/21
Residential	7,499	7,910	8,068	2.0
Industrial	2,648	2,314	2,275	1.7
Commercial	4,730	4,172	4,149	0.6
Rural	2,361	2,451	2,461	0.4
Others	2,546	2,333	2,359	1.1
Total	19,784	19,180	19,312	0.7



Operational Efficiency

EU6, EU28, EU29

Operational efficiency and the quality of energy distribution are evaluated using the indicators Equivalent Interruption Duration per Consumer Unit (DEC) and Equivalent Interruption Frequency per Consumer Unit (FEC). Additionally, comparisons are made with other agents in the sector, in order to identify Copel's current position in relation to its peers.

The FEC indicator has shown a downward trend in the last three years, with the year 2021 presenting the best result in the distributor's history (4.83 for total FEC and 4.76 for FECi). The global goal established by Aneel in 2020 was 7.24 interruptions.

The DEC indicator had the same behavior, showing a downward trend in the last three years, with the year 2021 presenting the best result in the distributor's history (7.22 for total DEC and 7.20 for DECI). Considering only the events that occurred in the distribution system (DECI), this value

was 7.22 hours, 22% below the global target established by Aneel (9.28 for 2021), the lowest value ever achieved by the Company.

Efficiency Indicators

	DECI Copel	DECI Aneel	FECi Copel	FEC Aneel
2019	9.10	10.5	6.00	7.66
2020	7.81	9.78	5.55	7.38
2021	7.20	9.28	4.76	6.84

Global, technical, and non-technical losses | GRI EU12

	2019	2020	2021
Global Losses - Distribution (%)	8.4	9.4	7.74
Technical losses - Distribution (%)	6	6	5.85
Non-technical losses - Distribution (%)	1	1.8	1.89

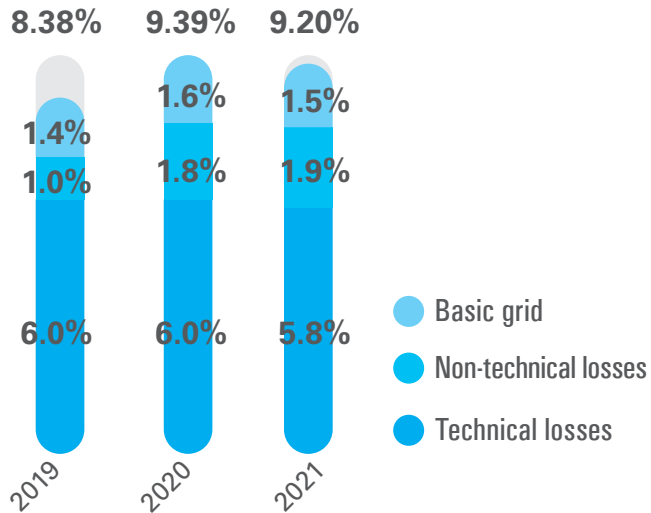
Note: Technical losses refer to the portion of distribution losses, inherent to the transport process, voltage transformation and energy measurement in the concessionaire's network. Non-technical losses, in turn, represent all other losses associated with the distribution of electricity, such as energy theft, measurement errors, errors in the billing process, consumer units without measuring equipment, among others. The average of the global losses of the last three years is 8.51%.

In 2021, global losses represented 9.2% of all energy injected into the distributor's system, with 5.8% of technical losses, 1.9% of non-technical losses and 1.5% of losses in the basic network.

Distribution losses can also be defined as the difference between the electricity purchased by the distributors and that billed to their consumers, that is, calculated through the metering system and the market billed by the Company.

Loss Index

(%)



11.1 By 2030, ensure access for all to safe, adequate, and affordable housing and basic services and upgrade slums

Indicator	Percentage of non-technical losses.
Base line	Average of 15% (series from 2008 to 2018).
Suggested goal	Achieving, by 2030, real non-technical losses of less than 13%.
Copel's Performance	Non-technical losses are calculated on the Distributor's low voltage market: the value realized in 2021 was 4.3% and the regulatory target (Aneel) from Jul/21 to Jun/25 is 4.47%.

Energy Efficiency

GRI EU7, 203-2, PRME 3, 4, 5

Law No. 9.991/2000 and Aneel Normative Resolution No. 892/2020 determine the application of financial resources in the Energy Efficiency Program (PEE), aimed at promoting the efficient use of electricity in all sectors of the economy. Annually, Copel makes public calls for consumers to submit project proposals that demonstrate the importance and economic feasibility of improving the energy efficiency of equipment, processes, and end uses of energy. Industrial, residential (condominium), rural, commercial, and service consumers, public authorities, public lighting, and public services can participate. The public call is part of Copel's Energy Efficiency Program (PEE), which completes 20 years of activities, under the regulation of the National Electric Energy Agency (Aneel). In this period, more

than R\$ 530 million were invested in all the municipalities in the distributor's concession area, operating in various consumption classes, including low-income families.

Copel's program that finances actions to combat electrical energy waste is completing two decades of operation, with the execution of a record public call to encourage projects. The exchange of old equipment for more efficient ones will benefit 11 hospitals, 275 teaching institutions and 27 thousand public lighting points, among others, thanks to the application of a budget estimated at R\$ 147 million.

The performance in the public services area stands out, such as the exchange of equipment in 30 hospitals, more than a thousand charities 25 universities and more


than a thousand public schools. “Another front of the program is the modernization of public lighting, with the allocation of resources to more than 300 municipalities, bringing a huge gain to society, both in terms of energy efficiency and public safety,” he points out.

Energy efficiency	2017	2018	2019	2020	2021
Energy Saved (MWh/year)	6,925.30	6,189.99	14,586.53	7,064.71	17,476.67
Demand Reduction at the Peak (kW)	1,853.52	1,169.35	2,521.38	776.30	2,607.27

Energy efficiency	2019	2020	2021
Energy Saved (MWh/year)	14,586.53	7,064.71	1,601.89
Energy Saved (tCO2/ano) ¹	1,283.61	621.69	-
Demand Reduction at the Peak (kW)	2,521.38	776.30	-

¹Conversion of MWh and tCO2 according to the annual National Energy Balance Synthesis Report - BEN 2019 (page 10), available at: <http://www.epe.gov.br/pt/publicacoes-dados-abertos/publicacoes/balancoenergetico-nacional-2019>. (88 kg CO2 to produce 1 MWh of electricity).

7.3 By 2030, increase the rate of improvement in energy efficiency in the Brazilian economy

 <p>7 AFFORDABLE AND CLEAN ENERGY</p>	Indicator	Total electrical efficiency (GWh or equivalent).
	Base line	Electrical efficiency in 2019 (2,149 GWh).
	Suggested goal	Contribute to achieving 5% gains in electrical efficiency by 2030.
	Copel's Performance	In 2021, the electricity generation park produced 20,284.25 GWh, almost 40% more than in 2020, when production was 14,534.60 GWh. To improve and guarantee the operational efficiency of its plants, Copel is making a series of investments, such as the modernization of the Figueira thermoelectric plant. UEGA's net generation efficiency in 2021 reached 44.01%.

Investments in Distribution

EU 7, EU23

Investment in the expansion of distribution networks guarantees consumers and municipalities access to electricity, an input with a positive impact on the population's quality of life and that enhances local economies, attracting new investments in businesses and industries.

The largest program of its kind in Brazil and the largest rural electrification initiative in the state since the 1980s, Paraná Trifásico provides for six years of investments in the rural electrical network of the entire territory of Paraná, from 2020 to 2025. There will be 25 thousand kilometers of three-phase networks and investments in the order of R\$ 2.8 billion. The program reached 6,693



Investments planned for 2022:

R\$ **1.6** billion

kilometers of new electricity networks already implemented in the state by the end of 2021. This result exceeds by 11% the total planned for the year, which was 6,000 km completed, and is approximately twice and half the distance, in a straight line, between the municipalities of União da Vitória in Paraná, and Manaus, in Amazonas.

The new cables are protected, with a reinforced level of resistance when hit by tree branches or other objects. The new distribution networks provide redundancy to the energy supply, since, with three-phase, there is interconnection between them. That way, if the power goes out at one end, the other takes over and, in case of power outages, the power is restored faster.

The three-phase networks also allow advanced technologies to be installed and integrated with the rest of Copel's networks.

An example is the automation that has been implemented throughout the state, such as automatic reclosers.

In the West and Southwest alone, the budget foresees the start-up of a total of five new substations, 470 kilometers of high voltage distribution lines and around 700 new reclosers, switches, voltage regulators and power transformers.

In 2021, the budget applied to maintenance of distribution networks was around R\$ 132 million. The modernization initiatives resulted in more than 1,300 automated equipment and the implementation of more than 260 self-healing systems (automatic recomposition). As a result, reductions in DEC and FEC of approximately 8% and 14% were recorded in relation to 2020, respectively. Other ongoing projects include, for example, the implementation of the WorkForce Management



The pilot project of the Intelligent Electric Network Program, developed in the municipality of Ipiranga, reduced the need for reconnections and visits, in addition to improving the efficiency of the city's electrical network.

system, with the following advantages; adoption of the Advanced Distribution Management System (ADMS) platform - which controls in real time the network and electrical energy distribution substations equipment, calculates the power flow, manages energy interruptions, among other integrated management and support services; and review of the periodicity of preventive equipment maintenance.

With the new system, the digital meters of the consumer units communicate directly with Copel's Integrated Distribution Operation

Center, facilitating the control of the entire chain, from the substation to the final consumer. With this, consumption reading can be done remotely, giving citizens autonomy to monitor this index in real time, by application. The intelligent network now also has sensors and remote-control devices that allow automatic restarting in most cases and, if this does not occur, Copel can immediately detect and remedy any disconnection problems from the integrated center.

The network will be the largest in Brazil, following a model that already exists in countries such as the United States and Japan. Fully automated, it will allow, among several new solutions, to put an end to energy theft, make cities increasingly smart and ensure extensive monitoring of the network to even lower tariffs. The program will be implemented at no additional cost to customers. The first phase of implementation should last 30 months and will take the new technology to residential consumer units and urban and rural companies.

Intelligent Electric Network Program - the pilot project developed in the municipality of Ipiranga reduced the need for reconnections

and visits, in addition to improving the efficiency of the city's electrical network. The program implementation step, Phase 1, covers the Center-South, Southeast and West regions of Paraná, with direct benefit to 1.5 million people from Paraná (462 thousand consumer units). Phase 2 should cover another 78 municipalities and one million Consumer Units. The phase 2 contracting bidding should be completed in the first half of 2022.

In July, Copel concluded the first stage of Total Reliability, a set of works that totals R\$ 300 million of investments scheduled for the period from 2020 to 2022, in the areas of network automation, construction of substations and communication technology between teams field and remote system operation. All the actions foreseen by the program are dedicated to increasing reliability, that is, to avoiding disconnections in the electricity grid and enabling faster reconnection in the event of an interruption in the supply to consumers.



Another of Total Reliability's action front is the resizing of feeder circuits, in order to prevent the impact of shutdowns from reaching a large number of consumer units.

An automatic source transfer system was also implemented in seven power

substations and two new switch stations were built, in Rosário do Ivaí, in the North of the State, and Sapopema, in the Center-South region. By the end of 2022, 86 new substations or switch stations will have been installed in small municipalities that do not yet have one of these units.

In the area of communication, the program foresees the implementation of 65 additional VHF radio repeater sets for the network used by electricians, in addition to the implementation of a new satellite communication system, to service points without radio coverage.

7.1 By 2030, ensure universal, reliable, modern, and affordable access to energy services

<p>7 AFFORDABLE AND CLEAN ENERGY</p>	Indicator	Proportion of population with access to electricity.
	Base line	99.8% of the population with access to electricity (2019).
	Suggested goal	By 2030, enabling access to electricity for 100% of the Brazilian population, encouraging the use of new technologies and ensuring affordable prices and quality supply.
	Copel's Performance	Copel already meets all criteria for universal access to electricity established by the National Electric Energy Agency (Aneel) and is promoting improvements in distribution assets in remote or difficult-to-access locations.

11.1 By 2030, ensure access for all to safe, adequate, and affordable housing and basic services and upgrade slums

<p>11 SUSTAINABLE CITIES AND COMMUNITIES</p>	Indicator	Number of smart meters installed.
	Base line	Unidentified to measure a specific goal for the installation of smart meters (develop baseline and form of monitoring).
	Suggested goal	Expanding initiatives associated with smart cities by 2030.
	Copel's Performance	Copel already has 305,000 smart meters installed in its concession area. In 2021 alone, 185,000 were installed.



Energy Trading

With regard to the energy trading business, operational efficiency indicators include those related to security in commercialization contracts, cost reduction and predictability, negotiation flexibility, reliability, among others, in addition to the Price Projection Correctness Index, subsidized by the analysis and calculation of market and credit risks of energy purchase and sale operations.

The management of this operation has been improved in recent years, with the adoption of various systems and methodologies for governance and customer and market service, among which the MEG stands out, due to the success in the Company's other businesses.

In 2021, the FNQ coordinated the assisted self-assessment process of Copel Mercado Livre, which promoted the creation of working groups to study, deepen and disseminate MEG knowledge internally. The indicator of the model's implementation percentage has been monitored year after year and the stage of maturity of organizational management in relation to the Fundamentals of Management for Excellence is "Under development."

The energy trading business is undergoing a digital transformation, with a budget dedicated to investments in hardware and software and personnel hiring and outsourcing.

In 2021, the Management Maturity Index was 409.5 points.

The energy trading business is also undergoing digital transformation, with a budget dedicated to investments in hardware and software and personnel hiring and outsourcing. The objective is to create sufficient conditions to expand the customer base and develop new products and services, in order to comply with the commercialization strategies. A variety of tools are being deployed, at different stages:

- Free Energy Market Management System (CML): under development to replace the current contracted system. It will allow the registration of energy purchase and sale operations, generating the energy balance of the portfolios, with features for billing and payment and energy registration at the Electric Energy Commercialization Chamber (CCEE)
- Customer Relationship Management System (CRM): enables the management of sales, marketing, and customer service processes;
- Management System with Telemetry - Simplify: allows consulting data and energy measurement reports, at any time, by consulting services clients;
- Copelmercadolivre.com website: constantly improving with a focus on customer service features through integrations with CML, CRM and Telemetry systems;
- Construction of a marketplace platform;
- Implementation of Robotic Process Automation;
- Signing contracts using the e-Protocol tool, a document management system of the government of the State of Paraná that brings more security, reliability, and ease in the processing of documents, processes, and the like, in a digital and sustainable way, in view of the elimination of the use of paper and printing supplies; and
- Study for the implementation of blockchain technology, to record transactions, track assets and increase trust in commercialization processes.

In 2021, Copel appeared several times in the first place in the Electric Energy Commercialization Chamber ranking, an indication of operational efficiency, even more taking into account that the commercialization market is predominantly private.



FINANCIAL CAPITAL



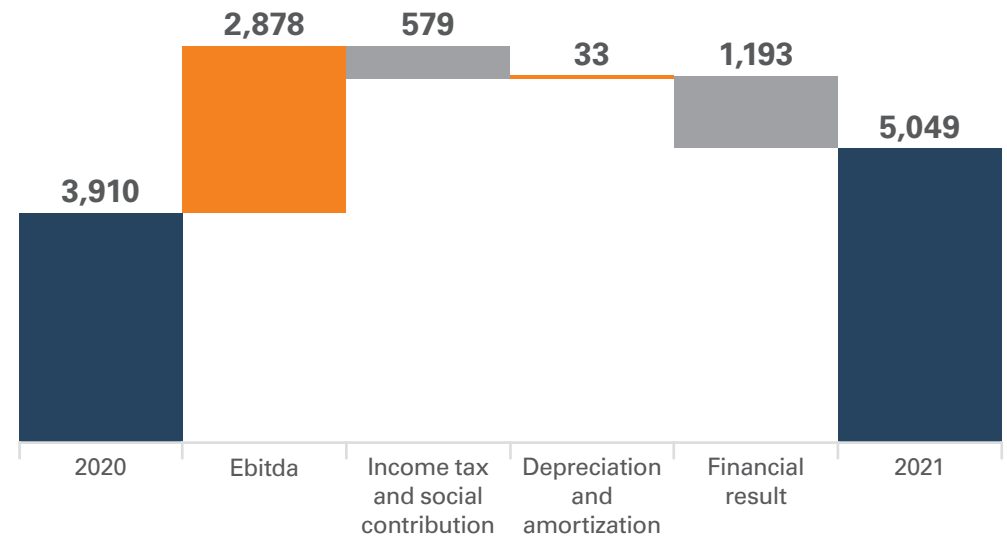
Third largest

Copel maintained its position as the largest company in Paraná, in a survey among the 100 largest in the state carried out by Grupo Amanhã in partnership with the international consultancy PricewaterhouseCoopers (PwC). In the regional ranking, the Company remains the 3rd largest in the South, behind only BRF, 2nd place, and Bunge, ia. Copel is also positioned as the largest company in the energy segment among all representatives of the three states in the region and for having the highest net revenue in the local electricity sector.

The electricity sector was the third fastest growing in relation to 2020. With an increase of 23%, it was behind only the wood and paper and pulp sectors. The classification of companies is based on a survey of public information extracted from various sources, such as financial statements, accounting reports and institutional websites. Criteria such as size, efficiency, and ability to turn revenue into profit are evaluated.

Net Profit

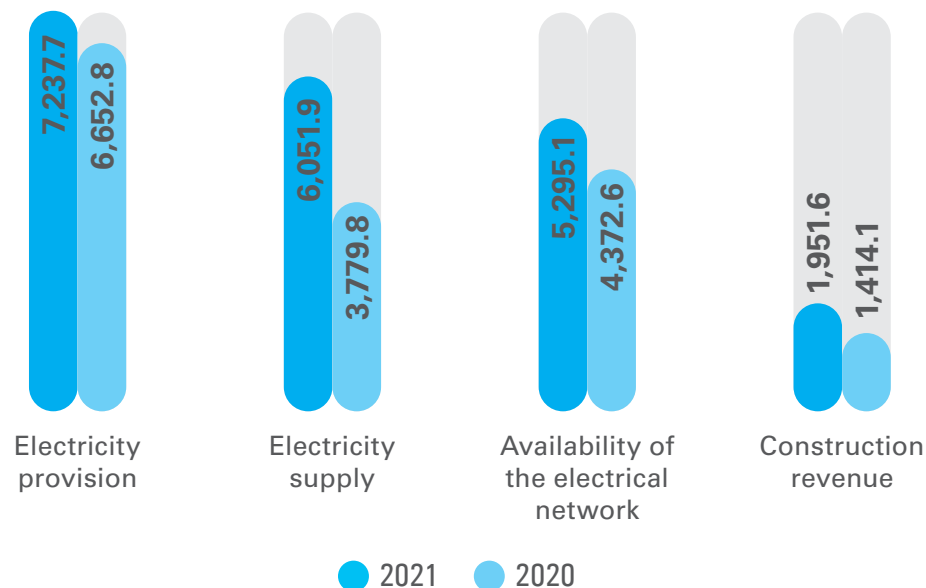
In 2021, consolidated net income was R\$ 5,048.6 million, 29.1% higher than the R\$ 3,909.8 million obtained in the previous year.



Net operating revenue

GRI 102-7

In 2021, Copel's Net Operating Revenue was R\$23,984.29 million, representing an increase of R\$5,351.0 million or a 28.7% increase compared to 2020. This variation is mainly due to:

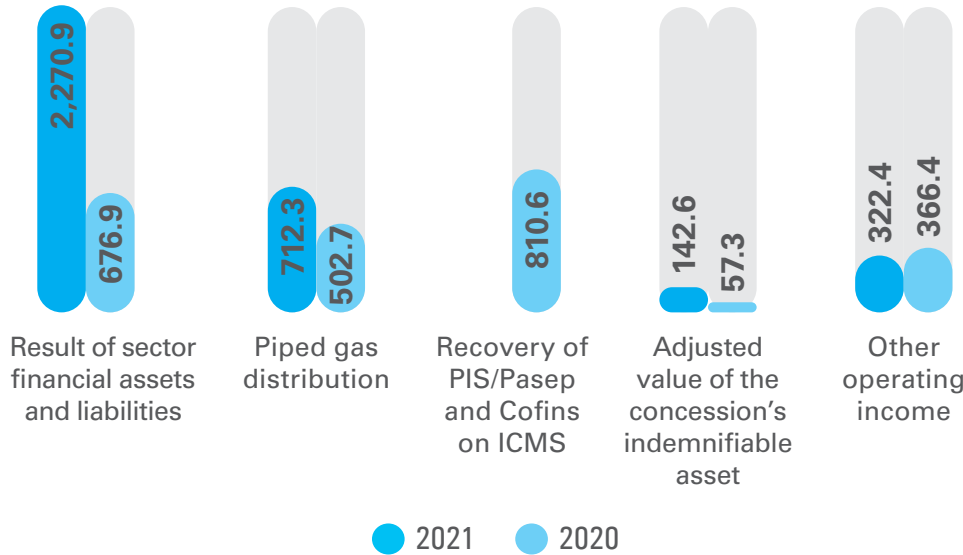


1) increase of R\$ 584.9 million in Electricity Supply Revenue, mainly due to the readjustment reflexes of Copel DIS' Energy Tariff of 11.32% perceived by the consumer as of 06.24.2021 and the growth in the number of *Copel Comercialização* customers;

2) increase of R\$ 2,272.1 million in Electricity Supply, mainly due to the UEGA thermal plant's dispatch, which generated 2,195 GWh in 2021 due to water restrictions, 79% higher than the generation of 1,224 GWh in relation to 2020, as well as due to the higher average PLD of R\$280.37 in 2021, 52% higher than the average PLD of R\$184.42 in 2020 and the 62.3% growth in the volume of energy sold under *Copel Comercialização's* bilateral contracts;

3) increase of R\$922.5 million in Revenue from the Electricity Grid's Availability, essentially due to: (i) the remuneration result on the contracts of energy transmission superior in relation to the same period of the previous year, due to the increase of the contractual indexes (IGPM and IPCA) applied to the asset balance, which was also increased with new works and (ii) the increase in Copel DIS' revenue resulting from the effects of the User Tariff readjustment by 8.73% and the resumption of fio market growth, which showed an increase of 5.6% in 2021;

4) increase of R\$ 537.5 million in Construction Revenue, mainly due to higher investments in the energy distribution segment;



5) increase of R\$ 1,594.0 million in Income from sector financial assets and liabilities, mainly as a result of the energy purchase and charges for use of the network higher than those considered in the calculation of Copel DIS' electricity tariff;

7) positive effect in the previous year of R\$ 810.6 million as a result of the final and unappealable action that recognized Copel DIS' right to exclude the full amount of ICMS from the PIS and Cofins calculation basis, non-recurring in 2021;

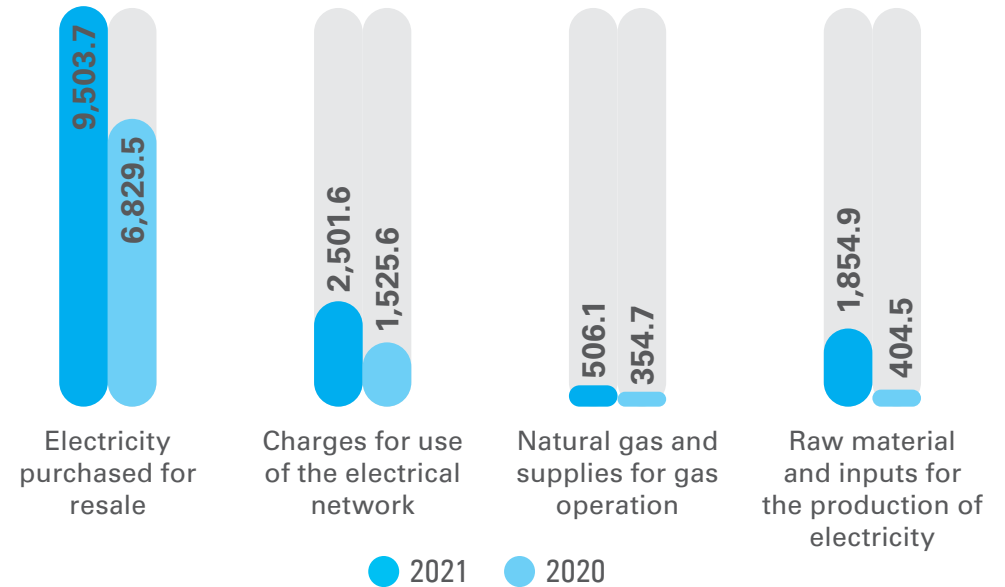
6) increase of R\$ 209.6 million in Revenue from Piped Gas Distribution, due to the increase in consumption and the dispatch of the thermoelectric plant;

8) decrease of R\$ 44.0 million in Other Operating Income, mainly due to the decrease in the fair value of the energy purchase and sale agreements of *Copel Comercialização*, offset by the increase in rental income.

Operating Costs and Expenses

In 2021, operating costs and expenses increased by R\$4,331.0 million, representing a 29.7% increase compared to 2020. This variation is mainly due to:

Unmanageable

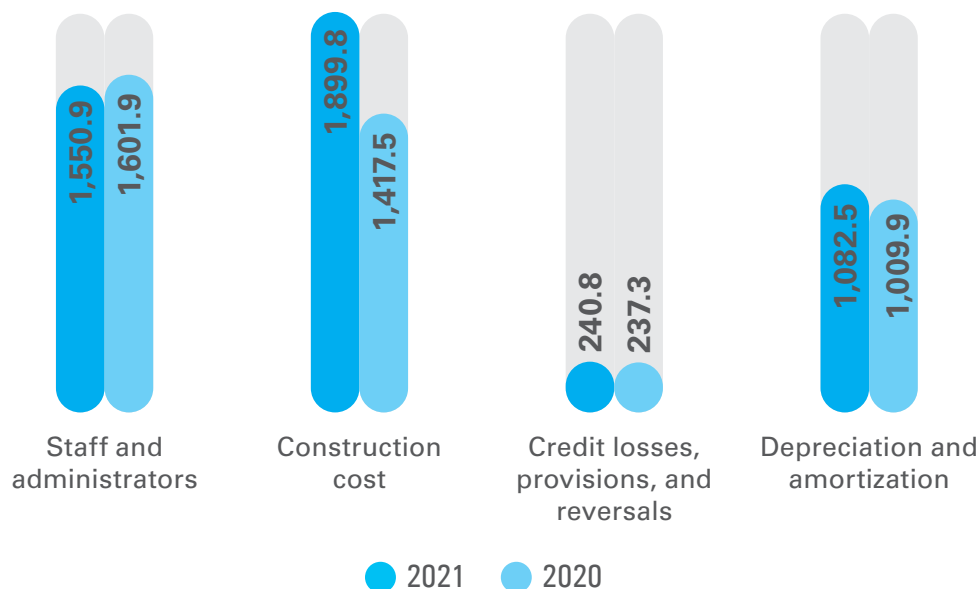


1) increase of R\$ 2,674.2 million in Electricity Purchased for Resale, mainly due to the impact of the water crisis on energy prices and to cope with the higher volume of energy sold in the period;

- 2) increase of R\$976.0 million in Charges for the Electricity Grid's Use, mainly due to the higher value of Charges for System Services - ESS due to the higher thermal dispatch outside the order of merit to face the water crisis and the tariff readjustment of the basic network contracts;
- 3) an increase of R\$ 151.4 million in Natural gas and inputs for gas operations due to the higher volume of acquisitions for resale; and
- 4) an increase of R\$ 1,450.4 million in raw materials and inputs for the production of electricity to meet the dispatch of a thermoelectric plant (UEGA).

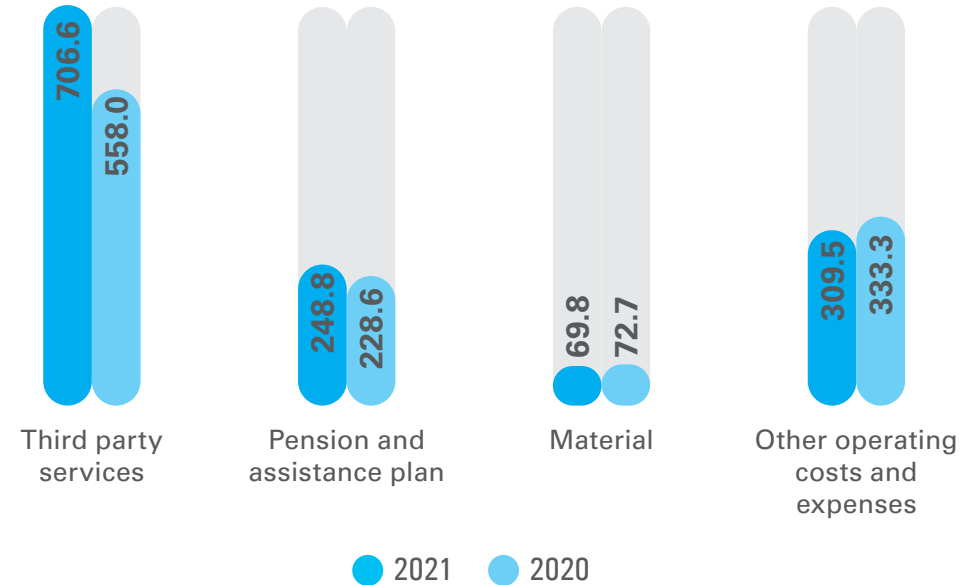
- 5) decrease of R\$51.0 million in Personnel and Managers, mainly reflecting the reduction of R\$114.3 million in the provision for performance and profit sharing, the reduction in the number of employees and the cost reduction policy, offset by the readjustment salary of 10.78% in October 2021 due to the higher inflation rate in the period (3.89% in October 2020), according to the collective bargaining agreement and the R\$73.2 million increase in the provision for the voluntary termination program in the period;
- 6) increase of R\$ 482.3 in construction costs, reflecting investments made in the transmission and distribution infrastructure of energy and piped gas;
- 7) increase of R\$3.5 million in Estimated Losses, Provisions and Reversals, mainly due to the increase of R\$52.6 million in the estimate of expected credit losses and of R\$39.8 million in provisions for litigation, partially offset by the increase of R\$ 110.3 million in the reversal of Impairment in the generation segment, mainly due to higher dispatch from UEGA;
- 8) increase of R\$ 148.6 million in third-party services, due to the increase in costs with maintenance of the electrical system, as a result of actions to reduce interruptions to consumers (DEC/FEC) and the increase in O&M services with full entry of wind farms;

Manageable





9) decrease of R\$ 23.8 million in other operating costs and expenses, mainly due to gains from disposals of assets and rights, greater recovery of costs and expenses, including recovery of invoices and taxes, and gains from updating the values of assets payable in the generation segment, offset by the increase in financial compensation for the use of water resources and the adjustment of coal stock valuation. Additionally, in September 2021, the compensation for the renegotiation of the hydrological risk was recognized through the right to extend the concession of Copel's plants referring to the portion of the costs incurred with the GSF, assumed by the holders of the hydroelectric plants participating in the Energy Reallocation Mechanism - MRE, in the amount of R\$ 1,570.1 million (see explanatory note No. 1(b) of the financial statements)



Debt

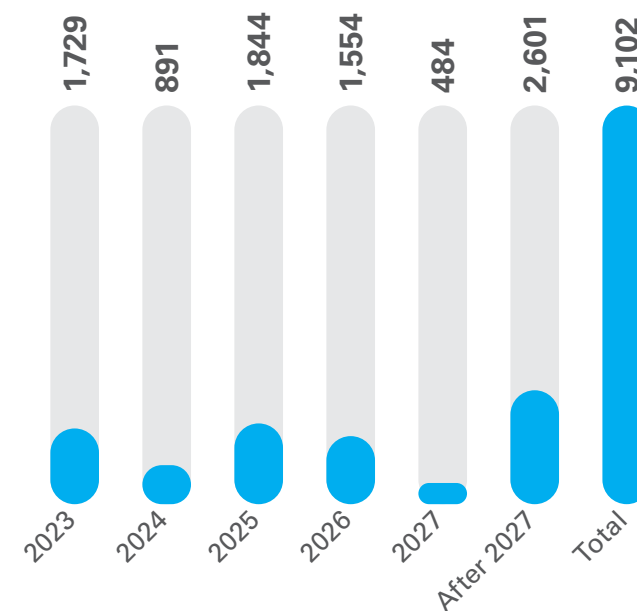
The Company finances liquidity and capital needs mainly with funds provided by operations and through financing, aiming at the expansion and modernization of the businesses related to the generation, transmission, commercialization, and distribution of energy.

It is important to point out that the Company seeks to invest in projects and, for this purpose,

uses financing lines available in the market, which make sense in Copel's capital structure, in terms of financial leverage in view of the return of projects. It should be noted that the prospects for financing, as well as cash available, will be sufficient to meet the investment plan for the year. In 2021, the resources presented in the following table were obtained:

Enrollment - 2021	Company	Financier	Amount (In R\$ millions)
Lot E financing agreement	Copel Geração e Transmissão	BNDES	51.0
Colíder financing agreement	Copel Geração e Transmissão	BNDES	1.2
7th Issue of Debentures	Copel Geração e Transmissão	Debenture holders	1,500.0
6th Issue of Debentures	Copel Distribuição	Debenture holders	1,500.0
Financing agreement	Jandaíra I	Banco do Nordeste	7.3
Financing agreement	Jandaíra II	Banco do Nordeste	18.3
Financing agreement	Jandaíra III	Banco do Nordeste	21.5
Financing agreement	Jandaíra IV	Banco do Nordeste	21.9
Financing agreement	Complexo eólico Vilas	Banco do Nordeste	13.1
Total			3,134.3

Payments made in the year totaled R\$2,609.1 million, of which R\$2,054.6 million were principal and R\$554.5 million were charges. The long-term debt maturity schedule, including loans, financing and debentures is:



Ebtida

In R\$ millions	Consolidated	
	2021	2020
Net income for the period - continuing operations	3,859.0	3,834.2
Net income for the period - discontinued operations	1,189.6	75.6
Deferred IRPJ and CSLL - continuing operations	790.4	24.9
Deferred IRPJ and CSLL - discontinued operations	128.4	(2.2)
Provision for IRPJ and CSLL - continuing operations	469.2	1,260.5
Provision for IRPJ and CSLL - discontinued operations	526.8	45.4
Financial expenses (income), net - continuing operations	327.4	(866.3)
Financial expenses (income), net - discontinued	25.7	33.4
Lajir/Ebit	7,316.5	4,405.4
Depreciation and Amortization - continuing operations	1,082.5	1,009.9
Depreciation and Amortization - discontinued	1.9	107.5
Lajida/Ebitda	8,400.9	5,522.8
Assigned to the shareholders of the parent company	8,208.9	5,426.5
Attributed to non-controlling shareholders	192.1	96.2



In R\$ millions

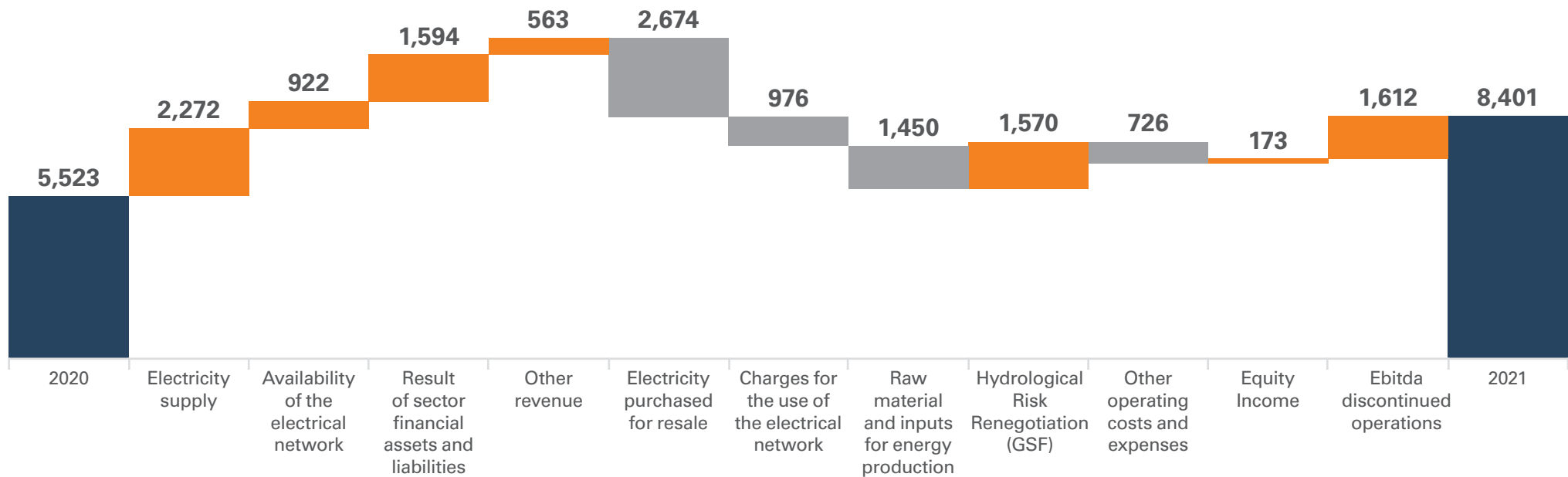
Consolidated

2021

2020

Ebitda Margin Calculation

Ebitda	8,400.9	5,522.8
Net Operating Revenue - ROL	23,984.3	18,633.2
Ebitda Margin% (Ebitda + ROL)	35.0%	29.6%

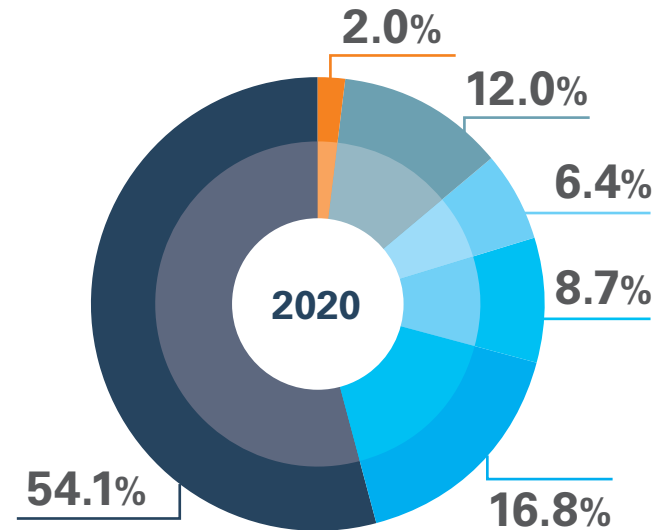
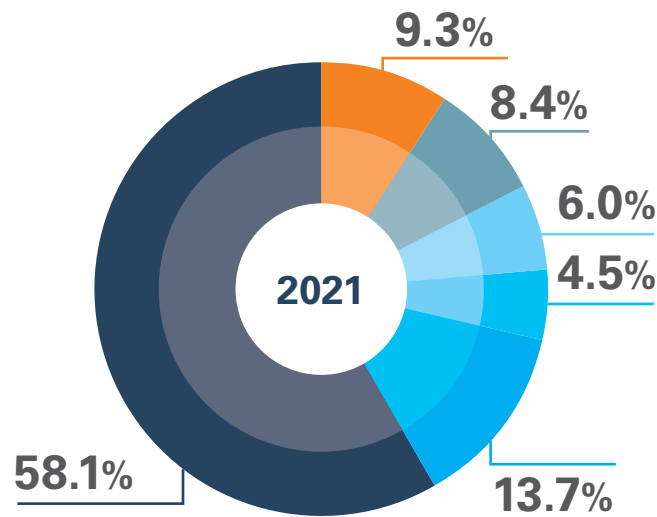




Added Value

GRI 201-1

In 2021, Copel recorded R\$21,227,400,000 in Added Value - a total 41% higher than the previous year, in the amount of R\$15,052,000,000 million. The full statement can be found in the Financial Statements.



- Government
- Retained
- Personnel
- Shareholders
- Third parties
- Discontinued operations

Investment Program

Subsidiary/SPE ⁽¹⁾	Performed		Predicted 2021-2020	Variation% 2021-2020
	2021	2020		
Copel Geração e Transmissão	494.8	457.3	407.3	8.2
Copel Distribuição	1,623.0	1,279.6	1,634.5	26.8
Copel Telecomunicações	54.4	103.4	-	(47.4)
<i>Copel Comercialização</i>	2.0	1.0	2.9	100.0
Copel Serviços	0.7	-	2.4	-
Holding	3.5	0.6	6.7	483.3
Other ⁽¹⁾⁽²⁾	0.5	-	13.3	-
Total	2,178.9	1,841.9	2,067.1	18.3

(1) Regarding Copel's participation in the Project.

(2) Includes Uega.

Covid-19 pandemic

Copel's senior management acted in a timely manner to deal with the continuity of the pandemic in 2021, having found support in the robust corporate governance structure for decision-making and crisis management.

Since the beginning of the health crisis, the Company has maintained a committee that periodically assesses the actions to be taken considering the degree of risk of contamination inside and outside its facilities, as well as the safety conditions for the health of employees, including monitoring of vaccination data. In addition, the topic is dealt with within the scope of the Fiscal Council and the Nomination and Evaluation Committee, respectively, every two and every three months.

Rules were issued to ensure compliance with measures to contain the spread of the disease in the Company and minimize its impacts on administrative, operational, and economic-financial areas. The Contingency

Commission continued to monitor and act on the pillars of people's safety; continuity of essential activities; monitoring of guidelines and requirements from regulatory bodies and preservation of adequate financial conditions to withstand the crisis.

During 2021, the Company continued to telework in areas where it was possible to adopt this format, with travel restrictions, holding meetings by videoconference, daily monitoring of the health and well-being of employees and adoption of contingency protocols, in order to fully maintain the operations of the electricity and piped gas infrastructure, while preserving the health of its professionals.

During the pandemic, Copel's first concern with its economic and financial health was the preservation of cash, in view of the slowdown in global economic activity as a result of restrictions related to social distancing and mandatory isolation. There was special

concern with the liquidity of the energy market and the short-term price, as well as with negotiations with the granting authority for the implementation of guidelines that guarantee the maintenance of the economic and financial sustainability of the entire chain of generation, transmission, commercialization, and distribution of electrical energy. With the constant and systematic assessment of the impacts, Copel was able to implement the necessary measures for the continuity of operations in the period of consumption reduction and default impact, with a view to preserving cash flow.

In January 2022, with 95% of the staff having already taken the first dose, among which 82% with two doses or a single dose, the Board decided to return all employees to Copel's physical premises at the beginning of the year, allowing the hybrid regime established in the Home Office Program, which provides for at least one day and a maximum of four days of telework per week.



GRI CONTENT INDEX

GRI Content Index
Assurance



GRI Content Index

GRI 102-55

For the Materiality Disclosures Service, GRI Services reviewed that the GRI content index is clearly presented and the references for Disclosures 102-40 to 102-49 align with appropriate sections in the body of the report. The service was performed on the Portuguese version of the report.



GRI Standards	Dissemination	Observations	Report page	Omission	
GRI 101: 2016 FUNDAMENTALS					
GRI 102: GENERAL CONTENTS 2016					
GRI 102: General Contents 2016	ORGANIZATIONAL PROFILE				
	GRI 102-1	Organization name	Companhia Paranaense de Energia - Copel	7	
	GRI 102-2	Activities, brands, products, and services		48	
	GRI 102-3	Location of the organization's headquarters	Rua José Izidoro Biazetto, nº158, Curitiba, Paraná, Brasil		
	GRI 102-4	Location of the organization's operations		49	
	GRI 102-5	Nature of ownership and legal form of the organization		48	
	GRI 102-6	Markets served		48, 49	
	GRI 102-7	Size of the organization		48, 140, 192	
	GRI 102-8	Information about employees (owned and third parties)		140	
	GRI 102-9	Supply chain		123	
GRI 102-10	Main changes regarding size, structure, or shareholding		48, 173		

1. Para o *Materiality Disclosures Service*, a *GRI Services* revisou se o Sumário de conteúdo da GRI está apresentado com clareza e se as referências para as *Disclosures* 102-40 a 102-49 estão alinhadas às seções apropriadas no corpo do relatório. O serviço foi prestado na versão em Português do relatório.



GRI Standards	Dissemination		Observations	Report page	Omission	
GRI 102: General Contents 2016	GRI 102-11	Precautionary principle	<p>The Company's principle is to conduct its actions with social and environmental responsibility, minimizing impacts on the environment and society, contributing to sustainable development. Aligning risk management and good socio-environmental practices, the Company's principle is to conduct its actions responsibly and to contribute to the generation of value for all stakeholders. In line with this principle, the risk management methodology adopted by the Company considers legal, regulatory, socio-environmental, and reputational aspects to support the decision-making process and the execution of operational activities. The methodology defines the risk classification criteria, the probability of occurrence and the impacts generated, as well as the implementation of responses to the risks. Additionally, the Corporate Risk Management Policy provides for instruments for the adequate monitoring of risks and protection of the Company's value, highlighting those described below:</p> <ul style="list-style-type: none"> ● Practices for incident reporting and control; ● Monitoring the adequacy and effectiveness of risk responses, the accuracy and completeness of disclosures and the timely correction of deficiencies; ● Periodic reporting of the risk portfolio to the Statutory Audit Committee and the Board of Directors. 			
	GRI 102-12	External initiatives		56		
	GRI 102-13	Affiliations to associations		85		
	STRATEGY					
	GRI 102-14	Message from the CEO			4	
	GRI 102-15	Description of the main impacts, risks, and opportunities			11, 77	
	ETHICS AND INTEGRITY					
	GRI 102-16	Values, principles, standards, and rules of conduct			61, 69, 71	
	GRI 102-17	Advice mechanisms and ethics concerns			11, 74	



GRI Standards	Dissemination	Observations	Report page	Omission	
GOVERNANCE					
GRI 102: General Contents 2016	GRI 102-18	Governance structure		64	
	GRI 102-19	Delegation of authority	As established by Art. 28 of Copel's Bylaws (Holding), it is CAD's responsibility to provide the Company's general direction, including defining objectives and priorities in meeting public policies compatible with the area of operation and the corporate purpose, seeking sustainable development, in addition to approving and monitoring general policies. The Statutory Committee for Sustainable Development has the purpose of advising CAD in proposing guidelines, policies and main topics related to people management and Environmental, Social and Governance (ESG), just as the Investment and Innovation Committee has the purpose of evaluating and issuing a recommendation on the Company's investment plans. The competence to resolve on economic, environmental, and social matters is defined by the Company's Bylaws and detailed in the Internal Regulations of the Gathered Board of Directors. The competencies of the subordinate areas of each executive board are established in Organizational Standards (NOC) and in Competence Levels (NCO).		
	GRI 102-20	Executive-level responsibility for economic, environmental, and social issues	According to Copel's Bylaws, the Chief Executive Officer and the Executive Board together are responsible for economic, social, environmental, climate change and corporate governance issues. See articles 34 (items I, III and IV) and 42 (item I) of the document. The first is related, according to the Board's Internal Regulations, to the Legal and Institutional Relations Director (Article 5), the Finance and Investor Relations Director (Article 4) and the Governance, Risk and Compliance Director (Article 7). All report to the Chief Executive Officer, the Gathered Executive Board, and CAD. The aforementioned documents are available on the Company's website .		
	GRI 102-21	Stakeholder consultation on economic, environmental, and social issues		9	



GRI Standards	Dissemination		Observations	Report page	Omission
GRI 102: General Contents 2016	GRI 102-22	Composition of the highest governance body and its committees		64	
	GRI 102-23	Chairman of the highest governance body	The positions of Chairman of the Board of Directors and Chief Executive Officer or main executive of the Company cannot be accumulated by the same person, as established in § 6 of Art. 17 of Copel's Bylaws.		
	GRI 102-24	Appointment and selection for the highest governance body		65	
	GRI 102-25	Conflicts of interest		70	
	GRI 102-26	Role of the highest governance body in defining purpose, values, and strategy	The attributions of the Board of Directors in the development, approval and updating of purpose, mission statement, vision and values, and definition of strategies, policies and goals related to economic, environmental, and social issues of the organization are provided for in Art. 28th of Copel's Bylaws and in Art. 10 of its Internal Regulations.		
	GRI 102-27	Knowledge and development of the highest governance body		68	
	GRI 102-28	Performance assessment of the highest governance body		66	
	GRI 102-29	Identification and management of economic, environmental, and social impacts		9	
	GRI 102-30	Effectiveness of risk management processes		25	



GRI Standards	Dissemination		Observations	Report page	Omission
GRI 102: General Contents 2016	GRI 102-31	Assessment of economic, environmental, and social issues	<p>Copel adopts an annual calendar of meetings and ordinary assemblies of the governance bodies during which economic, environmental, and social issues are evaluated and resolved, as well as their impacts, risks, and opportunities, as established in Copel's Bylaws and Internal Regulations of the governing bodies. Some subjects have a pre-defined agenda, in accordance with applicable legislation, in particular regulatory issues and those associated with the Instructions of the Securities and Exchange Commission, which determine the obligation of monitoring and rendering of accounts, such as: approval of the Annual Letter of Public Policies and Corporate Governance, Reference Form, Governance Report, Sustainability Report (Integrated Report), other corporate reports and risk and impact monitoring reports. Governance bodies also hold extraordinary meetings.</p> <p>The Company also has a Sustainable Development Committee, which is an independent statutory body, of an advisory and permanent nature, providing advice to the Board of Directors on issues related to people management and environmental, social and governance (ESG) aspects.</p>		
	GRI 102-32	Role of the highest governance body in the preparation of sustainability reports	The role of the Board of Directors in the preparation of sustainability reports is described in article 13 of Copel's Bylaws, item XXIV, according to which the body must approve the document. The CAD also annually approves the materiality matrix on which the report's content is based.		



GRI Standards	Dissemination		Observations	Report page	Omission
<p>GRI 102: General Contents 2016</p>	<p>GRI 102-33</p>	<p>Communicating critical concerns</p>	<p>In 2021, Copel monitored, through its Corporate Risk Management methodology, the process of identifying adverse events with the Strategic Planning review process, a work carried out by the Governance, Risk and Compliance Department. This procedure allowed a comprehensive view of how the risks and critical concerns can impact the strategic objectives defined by the Company.</p> <p>The work was carried out in conjunction with the Company's Superintendencies and Boards of Directors, based on the Three Lines Model, prepared by the IIA (Institute of Internal Auditors), which helps organizations to identify structures and processes that best assist in achieving the objectives, aiming to contribute for strong governance and risk management. Being the 1st line formed by the Executive Boards, superintendents, and managers of the areas, in addition to the managers of projects and processes. This line is responsible for identifying and assessing risks and routinely conducting control procedures in order to mitigate the vulnerabilities of its activities. Tier 2 provides risk management, internal controls, and compliance frameworks, assisting Tier 1 in developing effective processes and controls.</p> <p>The Governance, Risk and Compliance Department operates in the 2nd line. And the 3rd tier, comprising Internal Audit, carries out independent assessments of the effectiveness of governance, risk management and internal controls, including how AI and 2nd tier achieve risk management and control objectives. In accordance with the Company's Risk Management Policy, during 2021, periodic reports were made of the risk portfolio and the respective mitigation plans to Senior Management (quarterly for analysis by the CAE Audit Committee, CF Fiscal Council, and every six months to the analysis of the CAD Board of Directors). This same procedure is also planned for the year 2022. Therefore, Copel's strategic risk management process has been continuously improved, in line with the best market practices and in compliance with current legislation.</p>		



GRI Standards	Dissemination		Observations	Report page	Omission	
GRI 102: General Contents 2016	GRI 102-34	Nature and total number of critical concerns		77, 78, 80		
	GRI 102-35	Remuneration policies		66		
	GRI 102-36	Process for determining compensation		66		
	GRI 102-37	Stakeholder involvement in compensation processes	The only stakeholder involved in the compensation process is the government of the State of Paraná, through the Control Council of State Companies (CCEE).	66		
	GRI 102-38	Proportion between total annual remuneration	In 2021, salaries were increased through monetary correction approved in the Collective Bargaining Agreement. The ratio between the total annual compensation of the highest-paid individual and the annual average of Copel's employees was 5.43%. In 2020, the value was 7.34%.			
	GRI 102-39	Percentage increase in total annual compensation	In 2021, salaries were increased through monetary correction approved in the Collective Bargaining Agreement. The percentage increase in the remuneration of the highest paid individual and in the total annual average remuneration was the same.	11		
	STAKEHOLDER ENGAGEMENT					
	GRI 102-40	List of stakeholder groups engaged by the organization			117, 118, 203	
	GRI 102-41	Collective bargaining agreements	100% of Copel's own employees are covered by collective bargaining agreements.			
	GRI 102-42	Basis for identifying and selecting stakeholders to engage with			117	
GRI 102-43	Approach adopted for stakeholder engagement			74, 118, 140		
GRI 102-44	Main themes and concerns raised with stakeholders			11, 12, 13, 14		



GRI Standards	Dissemination		Observations	Report page	Omission
GRI 102: General Contents 2016	REPORTING PRACTICES				
	GRI 102-45	Entities included in the consolidated financial statements	The entities included in the Financial Statements are Copel Holding, its Wholly Owned Subsidiaries, and Subsidiaries.		
	GRI 102-46	Definition of report content and limits of each material topic		11, 12, 13, 14	
	GRI 102-47	List of material topics		11, 12, 13, 14	
	GRI 102-48	Information reformulations	In 2021 there were no reformulations of information.		
	GRI 102-49	Period covered by the report		10, 203	
	GRI 102-50	Previous report date		7	
	GRI 102-51	Reporting cycle	The 2020 Copel Integrated Report was filed with the Securities and Exchange Commission (CVM) on 05/24/2021.	7	
	GRI 102-52	Contact details regarding the report	Annual	7	
	GRI 102-53	"According" option chosen by the organization	relato.integrado@copel.com	8	
	GRI 102-54	Content Summary GRI Standards	This report has been prepared in accordance with the GRI Standards: Essential option.	8	
	GRI 102-55	Content Summary GRI Standards		203	
GRI 102-56	External verification	The GRI Standards indicators are assured by the independent external auditor Deloitte Touche Tohmatsu, as detailed in the Assurance section of this document.	227		
Electric Sector Disclosures	ORGANIZATIONAL PROFILE				
	EU4	Length of overhead and underground transmission and distribution lines, broken down by regulatory system		175, 181	



GRI Standards	Dissemination	Observations	Report page	Omission
MATERIAL TOPICS				
CORPORATE GOVERNANCE RISK MANAGEMENT AND CYBERSECURITY				
GRI 103: Management Approach 2016	GRI 103-1	Explanation of material themes and their limits	25, 64	
	GRI 103-2	Management approach and its components	25, 64, 65, 78	
	GRI 103-3	Assessment of the management approach	25, 66	
GRI 201: Economic Performance 2016	GRI 201-2	Financial implications and other risks and opportunities arising from climate change	11, 114	
GRI 205: Fight against Corruption 2016	GRI 205-1	Operations subject to risk assessments related to corruption	73	
	GRI 205-2	Communication and training on anti-corruption policies and procedures	71, 72	
	GRI 205-3	Confirmed cases of corruption and actions taken	73	
GRI 206: Unfair Competition 2016	GRI 206-1	Lawsuits brought by unfair competition, trust, and monopoly practices	In 2020, Copel did not identify any lawsuits filed for the aforementioned reasons. 11	
GRI 415: Public Policies 2016	GRI 415-1	Total value of financial contributions to political parties	As a mixed capital company, Copel is legally prohibited from making this type of contribution. Art. 31, item III, of Law No. 9.096, of September 19, 1995, forbids parties to receive, directly or indirectly, in any form or pretext, contribution or pecuniary assistance or estimable in cash, including through advertising of any kind, originating from public entities and legal entities of any nature, except for the provisions referred to in art. 38 of this Law and those from the Special Fund for Campaign Financing. 11	
GRI 418: Customer Privacy 2016	GRI 418-1	Proven complaints regarding breach of customer privacy and loss of customer data	Copel monitors complaints from customers and regulatory bodies about access to personal data, in accordance with the General Law for the Protection of Personal Data (LGPD), and for reasons of data sensitivity, chooses not to disclose them publicly. 11, 78	



GRI Standards	Dissemination		Observations	Report page	Omission
GRI 419: Socioeconomic Compliance 2016	GRI 419-1	Non-compliance with laws and regulations in the social and economic area	In 2021, no monetary sanctions and payment of fines related to social and economic aspects were identified.	11	
OPERATIONAL EFFICIENCY					
GRI 103: Management Approach 2016	GRI 103-1	Explanation of material themes and their limits		18	
	GRI 103-2	Management approach and its components		18	
	GRI 103-3	Assessment of the management approach		18	
Electric Sector Disclosures	ORGANIZATIONAL PROFILE				
	EU2	Net energy production, broken down by primary energy source and regulatory system		11, 12, 172	
	AVAILABILITY AND RELIABILITY				
	EU6	Availability and reliability of electrical power		11, 12, 172, 179, 182	
	DEMAND MANAGEMENT				
	EU7	Demand management programs including residential, commercial, institutional, and industrial programs		11, 183	
	EU8	Research and development		11, 12, 162	
	AVAILABILITY AND RELIABILITY				
	EU10	Planned capacity against projected long-term energy demand		11, 84, 173	



GRI Standards	Dissemination		Observations	Report page	Omission
Electric Sector Disclosures	SYSTEM EFFICIENCY				
	EU11	Average generation efficiency of thermal plants by energy sources and by regulatory regime		11, 12, 172	
	EU12	Losses in energy transmission and distribution as a percentage of total energy		12, 179, 182	
	ACCESS				
	EU28	Frequency of power supply interruptions		12, 182	
	EU29	Average duration of power supply interruptions		12, 182	
	EU30	Average plant availability factor, broken down by energy source and regulatory system		12, 172	
ECONOMIC AND FINANCIAL PERFORMANCE					
GRI 103: Management Approach 2016	GRI 103-1	Explanation of material themes and their limits		15	
	GRI 103-2	Management approach and its components		15	
	GRI 103-3	Assessment of the management approach		15	
GRI 201: Economic Performance 2016	GRI 201-1	Direct economic value generated and distributed		11, 199	
	GRI 201-3	Coverage of defined benefit pension plan obligations that the organization offers		11, 150	
	GRI 201-4	Significant financial assistance received from the government	In 2021, Copel received an amount of R\$27,058,381.00 in tax incentives.	11	



GRI Standards	Dissemination		Observations	Report page	Omission
PEOPLE MANAGEMENT AND WORK HEALTH AND SAFETY					
GRI 103: Management Approach 2016	GRI 103-1	Explanation of material themes and their limits		23, 155	
	GRI 103-2	Management approach and its components		23, 155	
	GRI 103-3	Assessment of the management approach		23, 155	
GRI 401: Employment 2016	GRI 401-1	New employee hires and turnover by age group, gender, and region		13, 143	
	GRI 401-2	Benefits granted to employees		147	
	GRI 401-3	Return to work and retention rates after maternity/paternity leave		13, 149	
GRI 402: Labor Relations 2016	GRI 402-1	Minimum period for notification of operational changes	At Copel, there are no established deadlines for communicating operational changes. This issue is also not provided for in the collective agreement. However, the Company maintains a close relationship with employee representatives and usually informs them in advance when significant operational changes will occur in the organization.	13	



GRI Standards	Dissemination		Observations	Report page	Omission
GRI 404: Training and Education 2016	GRI 404-1	Average number of hours of training, by employee category and gender		13, 154	
	GRI 404-2	Competency management and lifelong learning programs		150, 152	
	GRI 404-3	Percentage of employees receiving performance and career development reviews		13, 153	
GRI 405: Diversity and Equal Opportunities 2016	GRI 405-1	Diversity and Equal Opportunity		66, 67, 141, 142	
	GRI 405-2	Ratio of base salary and remuneration received by women and those received by men	Ratio of base salary between women and men: <ul style="list-style-type: none"> ● Middle Level Professional 100% ● Medium Level Technical Professional 101% ● 100% Higher Level Professional Annual proportion of remuneration between women and men: <ul style="list-style-type: none"> ● Middle Level Professional 101% ● Medium Level Technical Professional 104% ● Higher Level Professional 108% Note: there are no women in an operational role at the moment	13	
GRI 406: Non-Discrimination 2016	GRI 406-1	Total number of incidents of discrimination and corrective measures taken		144, 147	
GRI 407: Freedom of Association and Collective Bargaining 2016	GRI 407-1	Cases in which freedom of association and collective bargaining may be violated	There is a risk of freedom of association and collective bargaining violation in contracts with the assignment of outsourced labor. To mitigate this risk, the Company requires specific items from suppliers in the notices and contracts, which guarantee full compliance with the specific legislation in force. In case of violation of these provisions, the Company applies the applicable penalties, the biggest of which is the contractual termination.		



GRI Standards	Dissemination	Observations	Report page	Omission
EMPLOYMENT				
Electric Sector Disclosures	EU14	Availability of skilled labor	151	
	EU15	Percentage of employees who can retire in the next 5 and 10 years, broken down by occupational category and region	150	
	EU16	Health and safety of employees, contractors, and subcontractors	155	
	EU18	Percentage of contracted and subcontracted workers who have undergone relevant health and safety training	155, 160	
OCCUPATIONAL HEALTH AND SAFETY				
GRI 403: Occupational Health and Safety 2018	GRI 403-1	Occupational health and safety management system	155	
	GRI 403-2	Hazard identification, risk assessment and incident investigation	155	
	GRI 403-3	Occupational health services	155	
	GRI 403-4	Participation, consultation, and communication of workers on occupational health and safety	155	
	GRI 403-5	Training of workers in occupational health and safety	155	
	GRI 403-6	Promotion of worker's health	156	



GRI Standards	Dissemination		Observations	Report page	Omission
GRI 403: Occupational Health and Safety 2018	GRI 403-7	Prevention and mitigation of impacts on occupational health and safety directly linked by commercial relationships		155	
	GRI 403-8	Workers covered by an occupational health and safety management system		155	
	GRI 403-9	Work-related injuries		160	
	GRI 403-10	Work-related health problems	In 2021, there were no recordable occupational diseases or fatalities resulting from work-related illnesses.		
ENVIRONMENTAL MANAGEMENT AND ACTIONS AGAINST CLIMATE CHANGE					
GRI 103: Management Approach 2016	GRI 103-1	Explanation of material themes and their limits		20	
	GRI 103-2	Management approach and its components		20	
	GRI 103-3	Assessment of the management approach		20	
GRI 301: Materials 2016	GRI 301-1	Materials used, broken down by weight or volume		96	
	GRI 301-2	Percentage of materials used from recycling	Copel and its wholly owned subsidiaries do not use recyclable materials in their operations.	96	
GRI 302: Energy 2016	GRI 302-1	Energy consumption within the organization		89	
	GRI 302-2	Energy consumption outside the organization	Copel does not manage energy consumption outside its organizational boundaries.		



GRI Standards	Dissemination		Observations	Report page	Omission
GRI 302: Energy 2016	GRI 302-3	Energy intensity	<p>Copel Distribuição:</p> <ul style="list-style-type: none"> Gasoline - An energy value of 10,400 kcal/kg and a density of 0.742 kg/L was assumed - It was considered that the recorded amount of gasoline consumed in liters contained 27% of anhydrous ethanol, in which, for this, an energy value of 6,750 kcal/kg and density of 0.791 kg/L was assumed. Diesel - An energy value of 10,100 kcal/kg and a density of 0.840 kg/L was assumed - It was considered that the recorded amount of diesel consumed in liters contained 12% of biodiesel, in which, for this, an energy value of 9,000 kcal/kg and density of 0.880 kg/L was assumed. Ethanol - Considered hydrated ethanol. An energy value of 6,300 kcal/kg and a density of 0.809 kg/L were assumed. Electricity - It was assumed that 1 kWh is equivalent to 3,600 kJ Aviation kerosene: Copel sold its aircraft in 2020. <p>CTE: For gasoline and diesel, the conversion of 28.99 Mj/liter of gasoline and 36 Mj/liter of diesel S10 was used. For ethanol, the conversion of 20.09 Mj/liter of ethanol was used.</p> <p>Copel Geração e Transmissão: To calculate fuel consumption, the following proportion was considered: Gasoline with 27% ethanol and Diesel with 12% biodiesel. Electricity consumption includes: Copel Geração e Transmissão administrative units, Copel Geração e Transmissão substation and the plants' own consumption. For energy sold and the plants' own consumption, the following were considered: CCEAL ,CCEARs and CER of SPEs: BRISA I Complex, BRISA II Complex, SÃO BENTO Complex, CUTIA Complex, CUTIA Complex, BENTO MIGUEL Complex, FDA (Foz do Areia), Bela Vista and Vilas.</p>	91	
	GRI 302-4	Reduction of energy consumption		88, 93	
	GRI 302-5	Reductions in energy requirements for products and services	Does not apply to Copel		94



GRI Standards	Dissemination		Observations	Report page	Omission
GRI 303: Water and Effluents 2018	GRI 303-1	Interactions with water as a shared resource		95	
	GRI 303-2	Management of water discharge impacts		94	
	GRI 303-3	Water catchment		95	
	GRI 303-4	Water disposal		95	
	GRI 303-5	Water consumption	Copel's operational activities have non-consultative use of water, and all water withdrawn returns to its water body in the same quality and quantity. For administrative use, from third-party funding, Copel adopts as a standard the consumption of 20%, and the disposal of 80%, of the total withdrawn. Thus, in 2021, 95.29 megaliters were withdrawn from third-party capture, of which 19.06 megaliters were consumed.		
GRI 305: 2016 Emissions	GRI 305-1	Direct Emissions of Greenhouse Gases (GHG) - SCOPE 1		112	
	GRI 305-2	Indirect Emissions of Greenhouse Gases (GHG) - SCOPE 2		112	
	GRI 305-3	Other indirect greenhouse gas (GHG) emissions - SCOPE 3		112	
	GRI 305-4	Intensity of Greenhouse Gases (GHG) emissions		112	
	GRI 305-5	Reduction of Greenhouse Gases (GHG) emissions	The total reduction in greenhouse gas emissions by Copel in 2021 was 17,701.6720 tCO2e.		
	GRI 305-6	Emissions of substances that deplete the ozone layer (ODS)	Copel does not control this indicator.		
	GRI 305-7	NOx, SOx, and other significant air emissions	The Figueira Thermoelectric Power Plant has been in the process of modernization since 2017, not generating ash-type waste, and not emitting particulates, NOx, and SOx, since then. The other subsidiaries and Copel (Holding) do not have operational activities that result in atmospheric emissions.		



GRI Standards	Dissemination		Observations	Report page	Omission
GRI 306: Waste 2020	GRI 306-1	Waste generation and significant waste-related impacts		97	
	GRI 306-2	Management of significant waste-related impacts		97	
	GRI 306-3	Generated waste		97	
	GRI 306-4	Waste not intended for final disposal		98	
	GRI 306-5	Waste not intended for final disposal		99	
GRI 308: Environmental Assessment of Suppliers 2016	GRI 308-1	New suppliers selected based on environmental criteria		123, 124	
	GRI 308-2	Negative environmental impacts in the supply chain and measures taken	Copel carries out an assessment of suppliers that have negative impacts. Practices can be carried out by verifying contractual compliance related to environmental aspects, or by evaluating suppliers for environmental criteria, such as greenhouse gas emissions. Copel's critical supplier identification methodology is being updated.		
GRI 304: Biodiversity 2016	GRI 304-1	Owned, leased, or managed operating units within or adjacent to environmental protection areas and areas of high biodiversity value located outside environmental protection areas		110	
	GRI 304-2	Significant impacts of activities, products, and services on biodiversity		100, 101, 103	
	GRI 304-3	Habitats protected or restored		108	



GRI Standards	Dissemination		Observations	Report page	Omission
GRI 304: Biodiversity 2016	GRI 304-4	Species included on the IUCN Red List and national conservation lists with habitats in areas affected by the organization's operations		110	
Electric Sector Disclosures	BIODIVERSITY				
	EU13	Biodiversity of offset areas compared to biodiversity of affected areas		107	
GRI 307: Environmental Compliance 2016	GRI 307-1	Non-compliance with environmental laws and/or regulations	In 2021, no monetary sanctions and payment of fines related to environmental aspects were identified.		
CUSTOMER SATISFACTION					
GRI 103: Management Approach 2016	GRI 103-1	Explanation of material themes and their limits		32	
	GRI 103-2	Management approach and its components		32	
	GRI 103-3	Assessment of the management approach		32	
Electric Sector Disclosures	ORGANIZATIONAL PROFILE				
	EU3	Number of residential, industrial, institutional, and commercial consumer units		121	
	ACCESS				
	EU23	Programs, including those in partnership with the government, to improve or maintain access to electricity services and customer support		173, 180, 184	
	EU26	Percentage of population not served in licensed distribution or service areas	According to Order 2344 and Attachment I of Aneel of July 17, 2012, Copel concluded the Universalization Plan in urban and rural areas, respectively, in 2006 and 2010.		



GRI Standards	Dissemination		Observations	Report page	Omission
Electric Sector Disclosures	EU27	Number of non-payment residential disconnections, broken down by disconnection duration and regulatory regime		121	
	INFORMATION PROVISION				
	EU24	Practices to address barriers related to language, culture, low literacy, and disability by safely accessing and using electricity services and customer support		122	
SOCIAL RESPONSABILITY					
GRI 103: Management Approach 2016	GRI 103-1	Explanation of material themes and their limits		30	
	GRI 103-2	Management approach and its components		30	
	GRI 103-3	Assessment of the management approach		30	
GRI 202: Market Presence 2016	GRI 202-1	Variation in the lowest wage, broken down by gender, compared to the local minimum wage	The ratio of the lowest wage paid to women in relation to the minimum wage is 1.98. Note: there is no variation between the lowest salary paid to men or women. There is no variation between the lowest wages paid to men and women. Employees working four or six hours a day were not considered. Copel does not have information on the salaries paid to outsourced employees.	147	
	GRI 202-2	Proportion of senior executives hired from the local community	The Company's operations are located in Brazil, and all of the Company's officers are Brazilian. The Company does not have directors of operating units in its structure.		
GRI 203: Indirect Economic Impacts 2016	GRI 203-1	Investments in infrastructure and services offered		127	
	GRI 203-2	Significant indirect economic impacts, including the extent of impacts		133, 183	
GRI 204: Purchasing Practices 2016	GRI 204-1	Proportion of expenses on local suppliers at key operating units	Copel adopts practices of differentiated and favored treatment for Micro and Small Businesses (ME and EPP), provided for in Federal Law 147/2014, enabling the participation of these suppliers in the contracting processes.		



GRI Standards	Dissemination		Observations	Report page	Omission
GRI 408: Child Labor 2016	GRI 408-1	Operations and suppliers with risk of incidents of child labor		123, 124	
GRI 409: Forced or Slave-like Labor 2016	GRI 409-1	Operations and suppliers with risk of incidents of slave labor		124	
GRI 411: Rights of Indigenous Peoples 2016	GRI 411-1	Cases of violation of the rights of indigenous peoples		137	
GRI 412: Human Rights Assessment 2016	GRI 412-1	Operations subject to human rights analysis or assessment	Copel does not have a formalized human rights due diligence process, which is being prepared. However, the Company carries out procedures for evaluating and monitoring occupational health and safety practices and respect for diversity, both in its operations and in its suppliers.	126	
	GRI 412-2	Employee training in human rights policies or procedures		123	
	GRI 412-3	Significant investment agreements and contracts that include human rights clauses or that have undergone a human rights review		130, 137	



GRI Standards	Dissemination		Observations	Report page	Omission
GRI 413: Local Communities 2016	GRI 413-1	Community engagement programs, impact assessments and/or local development	Details on the programs carried out by Copel DIS and Copel GeT can be found in the sustainability reports of these subsidiaries.		
	GRI 413-2	Operations with negative impacts on local communities	<p>Negative impacts occur within the scope of Copel GeT and Copel DIS. The main negative impacts resulting from Copel GeT's operations are: pressure for urban infrastructure and public services resulting from the demographic and urban increase during construction; interference in economic activities related to the use of natural resources and/or linked to the polygon of the properties affected by the projects; compulsory displacement of populations and changes in their ways of life due to changes in economic production, local ties and social organizations; risks of economic downturn and population depletion in the municipalities after the works are completed; and nuisances to populations neighboring the facilities resulting from greater circulation of people and vehicles, emission of typical noise from equipment. The main impacts of Copel DIS are: generation of waste and dust; increased noise and vibration levels; visual impact/alteration of the natural landscape due to vegetation suppression; limitation in land use and occupation; and interference in the daily life of the surrounding communities. The most significant socio-environmental impacts of the distribution networks (low voltage and 13.8 and 34.5 kV) are accidents with third parties, the management of vegetation under the networks and interference in the urban landscape. For more details, see the subsidiaries' socio-environmental reports on copel.com.</p>		
GRI 414: Social Assessment of Suppliers 2016	GRI 414-1	New suppliers selected based on social criteria		123, 124	



GRI Standards	Dissemination		Observations	Report page	Omission
Electric Sector Disclosures	GRI 414-2	Negative social impacts on the supply chain and measures taken	Copel carries out an assessment of suppliers that have negative impacts. Practices can be carried out by verifying contractual compliance related to social aspects, or by evaluating suppliers for social criteria, such as management and labor practices, occupational health and safety, and social responsibility. Copel's critical supplier identification methodology is being updated.		
	LOCAL COMMUNITIES				
	EU19	Stakeholder participation in decision-making processes	Copel follows the socio-environmental legislation in force (Municipal, State and Federal), and the specific criteria of each body responsible for the implementation and operation licensing process in its projects. These legal provisions require consultation with the community directly affected by the enterprise, as part of the preparation of socio-environmental studies. The relationship is carried out through different types of communication channels, which aim to explain the impacts of the projects on the community and the environment, and to collect information on compensatory and mitigating measures, which are duly documented in the licensing processes. Several bodies and entities participate in the licensing processes, such as the Water and Land Institute (IAT), the Brazilian Institute for the Environment and Natural Resources (Ibama), the Chico Mendes Institute for Biodiversity Conservation (ICMbio), the National Historical and Artistic Heritage Institute (IPHAN), National Indian Foundation (Funai), regulatory agencies, city halls, environmental secretariats, sector agents, etc. Organized civil society is represented by unions, community associations, social movements, NGOs, etc.	84	
	EU20	Approach to managing displacement impacts.		135	
EU22	Number of physically and economically displaced persons and compensation by type of project		135		



GRI Standards	Dissemination		Observations	Report page	Omission
Electric Sector Disclosures	CONTINGENCY PLANS AND RESPONSE TO DISASTERS AND EMERGENCIES				
	EU21	Contingency planning measures, disaster/emergency management plan and training programs and recovery/restoration plans	Copel has an Emergency Action Plan (PAE) for accidents involving hazardous substances for substation and warehouse units, or in the event of a transport accident. The team is trained to perform the service, which also has a specialized outsourced company to support the service.		
	CUSTOMER HEALTH AND SAFETY				
	EU25	Number of injuries and fatalities to the public involving company assets, including legal judgments, settlements, and illness legal backlog cases		134	
ENERGY SECTOR TRANSFORMATION					
Electric Sector Disclosures	EU1	Installed capacity, broken down by primary energy source and regulatory system		168	
	EU2	Net energy production, broken down by primary energy source and regulatory system		172	
	EU12	Losses in energy transmission and distribution as a percentage of total energy		179, 182	

Assurance

Companhia Paranaense de Energia – Copel

Independent Auditor's Limited Assurance

Report on Non-financial Information

Included in the 2021 Integrated Reporting

Deloitte Touche Tohmatsu Auditores Independentes Ltda.

INDEPENDENT AUDITOR'S LIMITED ASSURANCE REPORT ON NON-FINANCIAL INFORMATION INCLUDED IN THE 2021 INTEGRATED REPORTING

To the Management and Shareholders of
Companhia Paranaense de Energia - Copel

Introduction

We have been engaged by Companhia Paranaense de Energia - Copel ("Company") to submit our limited assurance report on the non-financial information included in the Company's 2021 Integrated Reporting, related to the year ended December 31, 2021.

Our limited assurance scope does not comprise prior-period information or any other information disclosed in conjunction with the Integrated Reporting, including any embedded images, audio files or videos.

Management's responsibilities

The Company's Management is responsible for:

- Selecting and setting appropriate criteria to prepare the information included in the Integrated Reporting;
- Preparing the information in accordance with the criteria and guidelines set out in the Global Reporting Initiative (GRI Standards) and OCPC 09 - Integrated Reporting, correlated with the Basic Conceptual Framework for Integrated Reporting, developed by the International Integrated Reporting Council (IIRC);
- Designing, implementing and maintaining internal controls over relevant information for the preparation of the information included in the Integrated Reporting, that is free from material misstatement, whether due to fraud or error.

Auditor's responsibility

Our responsibility is to express a conclusion on the non-financial information included in the 2021 Integrated Reporting, based on our limited assurance engagement conducted in accordance with Technical Communication (CTO) No. 07 - 2022, issued by the Federal Accounting Council ("CFC"), and based on Brazilian standard NBC-TO-3000 - Assurance Engagements other than Audits or Reviews, issued by the CFC, which is equivalent to the international standard ISAE 3000 - Assurance Engagements other than Audits or Reviews of Historical Financial Information, issued by the International Auditing and Assurance Standards Board (IAASB). Those standards require that we comply with ethical and independence requirements and other related responsibilities, including as regards the adoption of the Brazilian Quality Control Standard (NBC PA 01) and, therefore, the implementation of a comprehensive quality control system, including documented policies and procedures on the compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

In addition, those standards require that the work be planned and performed to obtain limited assurance that the non-financial information included in the 2021 Integrated Reporting, taken as a whole, is free from material misstatement.

A limited assurance engagement conducted in accordance with Brazilian standard NBC-TO-3000 (ISAE 3000) consists mainly of making inquiries of Management and other professionals of the Company involved in the preparation of the non-financial information,

as well as applying analytical procedures to obtain evidence that enables us to reach a limited assurance conclusion on the information taken as a whole. A limited assurance engagement also requires the performance of additional procedures when the independent auditor becomes aware of matters that cause the auditor to believe that the information included in the Integrated Reporting, taken as a whole, might present material misstatements.

The procedures selected were based on our understanding of the aspects related to the compilation, materiality and presentation of the information included in the 2021 Integrated Reporting, and other circumstances of the engagement and our consideration of the areas and processes concerning the material information disclosed in the 2021 Integrated Reporting, in which material misstatements might exist. The procedures comprised, among others:

- a) Planning the work, considering the relevance, the volume of quantitative and qualitative information and the operating and internal control systems that were used to prepare the information included in the 2021 Integrated Reporting;
- b) Understanding the calculation methodology and the procedures adopted for the compilation of indicators through inquiries with the managers responsible for the preparation of the information;
- c) Applying analytical procedures to quantitative information and making inquiries about the qualitative information and its correlation with the indicators disclosed in the information included in the 2021 Integrated Reporting; and

- d) For cases in which non-financial data is correlated to financial indicators, comparing such indicators with the financial statements and/or accounting records.

The limited assurance engagement also included the compliance with the guidelines and criteria of the GRI Standards reporting framework, applied in the preparation of the information included in the 2021 Integrated Reporting.

We believe that the evidence we have obtained is sufficient and appropriate to provide a basis for our limited assurance conclusion.

Scope and limitations

The procedures performed in a limited assurance engagement vary in nature and timing from, and are less in scope than for, a reasonable assurance engagement. Consequently, the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had a reasonable assurance engagement been performed. Had we performed a reasonable assurance engagement, other matters and misstatements that might exist in the information included in the 2021 Integrated Reporting might have been identified. Accordingly, we do not express an opinion on this information.

Non-financial data are subject to more inherent limitations than financial data, due to the nature and diversity of the methods used to

determine, calculate or estimate such data. Qualitative interpretations on materiality, relevance and accuracy of the data are subject to individual assumptions and judgments. In addition, we have not performed any work related to data disclosed for prior periods or future projections and goals.

The sustainability indicators have been prepared and presented pursuant to the criteria set out in GRI Standards and, therefore, are not intended to ensure compliance with social, economic, environmental or engineering laws and regulations. However, the aforementioned standards provide for the presentation and disclosure of possible non-compliance with such regulations when sanctions or significant fines are applied. Our limited assurance report should be read and understood in this context, which is inherent in the criteria selected (GRI Standards).

Emphasis of matter

Assumptions adopted for the preparation of the 2021 Integrated Reporting

In accordance with the GRI Standards, the Company represents hereby that it “complies” with the “Core/Essential” specifications in its Integrated Reporting for the year ended December 31, 2021, which reports the essential performance indicators and the power sector supplement indicators available in G4 version.



Conclusion

Based on the procedures performed, which are described herein, and on the evidence we have obtained, nothing has come to our attention that causes us to believe that the non-financial information, included in the Integrated Reporting of the Company for the year ended December 31, 2021, was not prepared, in all material respects, in accordance with the criteria and guidelines set out in the Global Reporting Initiative (GRI Standards) and OCPC 09 - Integrated Reporting.

Curitiba, June 15, 2022

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ANNEXES

Global Compact
GRI Annexes
Credits

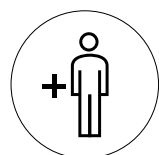


Global Compact

Copel reaffirms its commitment to the United Nations Global Compact and the Sustainable Development Goals (SDGs), in line with its purpose of advancing in the market in a sustainable manner, prioritizing the principles that guide the Company's mission, vision and values.

In this sense, it presents as an attachment to this publication, the Communication on Progress (COP), in which it specifies the initiatives developed to implement the principles of the Pact and the SDGs in its operations. Throughout this Integrated Report, the results of these initiatives and the progress of the signed commitments can be seen. Such information can be found in Copel's GRI disclosure reports.

Global Compact Principles



1. RESPECT
and support internationally acknowledged human rights in the area of influence.



2. ENSURE
the non-participation of the company in violations of human rights.



3. SUPPORT
the freedom of association and recognize the right to collective bargaining.



4. ELIMINATE
all forms of forced or compulsory work.



5. ERADICATE
all forms of child labor from the production chain.



6. STIMULATE
practices that eliminate any type of discrimination at work.



7. ASSUME
practices that adopt preventive, responsible and proactive approaches to environmental challenges.



8. DEVELOP
initiatives and practices to promote and disseminate socio-environmental responsibility.



9. ENCOURAGE
the development and discussion of responsible environmental technologies.



10. FIGHT
against corruption in all its forms, including extortion and bribery.

Sustainable Development Goals



1 NO POVERTY
Eliminate poverty in all its forms, everywhere.



2 ZERO HUNGER
Eliminate hunger, achieve food safety, improve nutrition and promote sustainable agriculture.



3 GOOD HEALTH AND WELL-BEING
Ensure healthy life and promote the well-being for all, in all ages.



4 QUALITY EDUCATION
Ensure inclusive and equitable education, with quality, and promote learning opportunities in life for all.



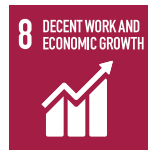
5 GENDER EQUALITY
Achieve gender equity and empower all women and girls.



6 CLEAN WATER AND SANITATION
Ensure water availability and sustainable management and sanitation to all.



7 AFFORDABLE AND CLEAN ENERGY
Ensure reliable, sustainable, modern access to energy, at an affordable price to all.



8 DECENT WORK AND ECONOMIC GROWTH
Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work to all.



9 INDUSTRY, INNOVATION AND INFRASTRUCTURE
Build resilient infrastructures, promote inclusive and sustainable industrialization and foment innovation.



10 REDUCED INEQUALITIES
Reduce inequality within countries and among them.



11 SUSTAINABLE CITIES AND COMMUNITIES
Make cities and human settlements inclusive, resilient and sustainable.



12 RESPONSIBLE CONSUMPTION AND PRODUCTION
Ensure sustainable production and consumption standards.



13 CLIMATE ACTION
Take urgent measures to fight climate change and their impacts.



14 LIFE BELOW WATER
Conserve and promote the sustainable use of oceans, seas, and marine resources for sustainable development.



15 LIFE ON LAND
Protect, recover and promote the sustainable use of terrestrial ecosystems, sustainably manage forests, fight desertification, stop and reverse the earth's degradation and stop losses.



16 PEACE, JUSTICE AND STRONG INSTITUTIONS
Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, responsible and inclusive institutions at all levels.



17 PARTNERSHIPS FOR THE GOALS
Strengthen the means of implementation and revitalize the global partnership for sustainable development.

GRI ANNEXES

Projects / Programs / Management Systems / Participations and Policies

Policies and Management Systems	Principles and Objectives to which they Respond		Start	End
	Global Compact	SDGs		
Adherence to voluntary commitments in an effort to promote sustainability, ethical conduct, and best corporate governance practices: Global Compact; Business Pact for Integrity and against Corruption and Principles for Sustainable Executive Education (PRME).	1 a 10	16,17	Diversos	Continuous
Management for the Supply Chain Sustainability: aims to contribute to the development of suppliers, establishing parameters linked to sustainability, proposing actions that promote and strengthen good practices throughout the supply chain.	1 a 10	8, 16	2008	Continuous
<i>Nossa Energia</i> Program: links obtaining new opportunities in terms of career, compensation, and personal development to performance.	6	8	2013	Continuous
Generation from renewable sources: strategic and sustainability guidelines adopted for the generation business.	7, 8, 9	7, 9, 17	Diversos	Continuous
Ethical Guidance Council: appreciates and issues guidance in processes related to ethical conduct in the Company.	1 a 10	8, 16	2003	Continuous
Commission for the Analysis of Moral Harassment Complaints: responsible for analyzing moral harassment complaints in the Company, placing Copel as a pioneer company in the country in the implementation of a preventive process that guarantees humane and healthy practices in people management.	1 a 10	8, 16	2009	Continuous
Integrity Program and Compliance Portal: a set of internal mechanisms and procedures for integrity, auditing, and incentives to report irregularities and the effective application of codes of ethics and conduct, policies, and guidelines in order to detect and remedy deviations, fraud, irregularities, and unlawful acts committed against the public, national or foreign administration.	10	16	2015	Continuous
Copel's Transparency Portal: its purpose is to make information available in compliance with federal and state legislation.	10	16	2014	Continuous



Policies and Management Systems	Principles and Objectives to which they Respond		Start	End
	Global Compact	SDGs		
Diversity Program: aims to sensitize and mobilize the workforce with a view to promoting equal rights, opportunities, and recognition for all, as well as promoting and supporting internal actions aligned with public policies and movements focused on diversity.	1, 2, 6	4, 5, 8, 10, 16	2014	Continuous
Internal Socio-environmental Commissions - CISAS: act as multipliers of sustainability concepts, enabling the identification of problematic situations in the socio-environmental aspect, strengthening the relationship with stakeholders.	1, 2, 7, 8, 9	12,13	2012	Continuous
Copel Corporate University - UniCopel: implementation of Educational Planning and management of Leadership Development, Postgraduate (lato and stricto sensu) and Languages Programs.		4,8	2007	Continuous
Corporate Climate Change Management Program: its objective is to discuss and decide on actions related to the study of climate change effects, as well as to monitor the actions resulting from the implementation of Copel's Climate Change Policy and the voluntary commitments assumed.	1, 2, 7, 8, 9	11, 12, 13, 17	2011	Continuous
INOV+ GeT Program: innovation promotion program started in 2015 to publicize and recognize innovative initiatives. In 2019, the initiative was restructured, with a permanent platform for receiving innovation proposals that generate value and bring improvements in management.	1,8,9	9	2015	Continuous
Support for Public Policies and Management Improvement				
Participation in the Brazilian Committee of the Global Compact and the National SDG Movement Nós Podemos Paraná	1 a 10	16, 17	2016	Continuous
WG <i>CLIMA</i> - Working group that discusses climate change (including mitigation and adaptation) in the Municipality of Curitiba.	7, 8, 9	9, 11, 12, 13	2016	Continuous
<i>Sustenta Paraná</i> Network - Paraná network for the advancement of sustainability in public management.	1 a 10	16, 17	2016	Continuous
Participation in organizations that discuss and promote energy efficiency: Brazilian Assoc. of Electric Power Concessionaires, Energy Planning Company, Brazilian Electric Power Generation Companies Assoc., Brazilian Electric Energy Distributors Assoc., Brazilian Large Electric Power Transmission Companies Assoc., Brazilian Great Dams Committee, Regional Council of Engineering, Architecture and Agronomy of PR, FUNCOGE, Brazilian Association of Clean Energy Generation, Electric Energy Commercialization Chamber, State Water Resources Council, Brazilian Photovoltaic Solar Energy Association, Brazilian Electricity, Electronics, Lighting and Telecommunications Committee.	7, 8, 9	6, 7, 15	Various	Continuous



Policies and Management Systems	Principles and Objectives to which they Respond		Start	End
	Global Compact	SDGs		
Participation in associations that discuss and promote environmental improvements: Basin Committees of the State of Paraná, Environment Committee of Cigré, Regional Council of Engineering, Architecture and Agronomy of the State of Paraná, Garbage and Citizenship PR Forum, Environmental Committees of the Public Ministry PR.	7, 8, 9	6, 15, 17	Diversos	Continuous
Voluntary participation in the Competitive Paraná Movement and in examining boards of the awards: National Quality, MPE Brazil and Paraná of Management Quality.	1 a 10	12, 17	2000	Continuous
Social and Environmental Programs, Projects, and Initiatives				
Program to collect donations to charities and social service institutions, non-profit and of collective interest, through the energy bill.	1, 2	1, 10, 17	1999	Continuous
Annual donation, through tax incentives, to the Fund for the Rights of Childhood and Adolescence - FIA, Rouanet Law, Elderly Law, Sports Incentive Law, PROFICE, PAIC, PRONON and PRONAS.	1, 2, 5	1, 4, 16	2006	Continuous
Corporate Volunteer Program - <i>EletriCidadania</i> : allows employees to use up to four hours/month to carry out voluntary work.	1, 2, 4, 5, 7, 8	1, 2, 3, 4, 8, 10, 12, 13, 16, 17	2001	Continuous
Coral: promotes the integration of employees, the quality of life at work, the development of culture and music education, as well as the appreciation of the Copel brand in the community.	6	3	2010	Continuous
Breastfeeding support room and reduced working hours: comfortable and cozy place where the mother can remove and store the milk to offer it to her child in due course.	1, 2, 6	3,5	2016	Continuous
<i>Cultivar Energia</i> Program: the objective is to implement community gardens in the safety zones of Copel's electricity networks, in partnership with municipal governments and residents' associations.	1, 7, 8, 9	2, 10,11, 12, 17	2009	Continuous
Corporate Accessibility Program: aims to make the Company adapted to accessibility issues and the inclusion of people with disabilities (PwDs).	1, 2, 6	8, 10, 11, 16	2007	Continuous
Eco-efficiency Program: concentrates the various eco-efficiency initiatives developed at Copel in a single program operating as a hub, interconnecting them, strengthening them, enhancing them, and enabling new forms of action.	7, 8, 9	6, 8, 9, 12, 13	2014	Continuous



Policies and Management Systems	Principles and Objectives to which they Respond		Start	End
	Global Compact	SDGs		
EducaODS Program: aims to train and develop professionals, formal and informal leaders at Copel, for issues related to sustainability.	1 a 10	4, 12	2010	Continuous
Susie Pontarolli Sustainability Trophy: aims to recognize and support initiatives that aim to contribute to the promotion of sustainable development and improved quality of life.	1 a 10	10, 12,17	2012	Continuous
<i>Luz Fraterna</i> Program: Government of Paraná Program that pays the bills of consumers enrolled in the Social Electricity Tariff, provided that consumption does not exceed 120 kWh.	1, 2, 10	1, 7, 10, 11, 17	2003	Continuous
Morar Bem Paraná Program: in partnership with the Paraná Housing Company - Cohapar - provides housing for families with a monthly income of up to six national minimum wages.	1, 2, 10	1, 7, 10, 11, 17	2003	Continuous
Rural Night Tariff Program: incentive to increase agricultural production, for poultry and swine farmers, through tariff discounts for consumer units classified as rural, served at low voltage.	1, 2, 8	7, 11, 17	2007	Continuous
Night Irrigation Program: encouraging the use of irrigation to increase agricultural and poultry production, as well as improving the quality of life in rural areas. Subsidized tariff and equipment for rural consumers.	7,8, 9	2, 7, 8, 11, 12 17	2003	Continuous
Energy Efficiency Program: aimed at the efficient use of electricity in residential, industrial, commercial, and public facilities located in Copel's concession area.	7,8, 9	7, 9, 11, 12	2000	Continuous
<i>Paraná Cidadão</i> Program: promoted by the Special Secretariat for Community Relations, with the objective of offering free services that promote citizenship and social inclusion. Copel participates by providing the internet infrastructure, enabling connectivity with the systems to provide services. In addition, it also participates by providing assistance on its services and guidance on the safe and efficient use of electric energy.	1, 2, 4, 5, 6, 10	1, 7, 9, 10, 17	2003	Continuous



Policies and Management Systems	Principles and Objectives to which they Respond		Start	End
	Global Compact	SDGs		
<i>Paraná Digital</i> Program: digital inclusion in public education, through the connection of state schools to the Internet, in partnership with the State Government and Department of Education, with priority given to locations with low HDI.	1, 2, 6, 10	1, 4, 9, 10	2003	Continuous
<i>Paraná Conectado</i> Program: the initiative provides for fiber optic internet access at popular prices and a speed of 1 Mbps, in accordance with the State Broadband Plan. Despite not being marketed since 2017, the customer base is maintained.	1, 2, 4	1, 9, 10	2010	2020
Social Electricity Tariff: Established by Law 10.438/2002, it offers discounts on electricity consumption, up to a limit of 220 kWh, to families registered in the Federal Government's Single Registry of Social Programs, provided that the other criteria set out in the Aneel Resolution 414/2010 are obeyed.	1, 2	1, 7, 10, 11	2002	Continuous
<i>Mais que Energia</i> Project: implementation, expansion and consolidation of projects and social investment programs for the community.	1, 2	1, 7, 10, 11, 16, 17	2014	Continuous
Smart Grid Project: installation of 2000 telemetering points in the urban area of Curitiba and 1000 points in the rural area of Colombo and Bocaiúva do Sul. for billing without offsets.	7, 8, 9	7, 9, 11, 12, 13, 17	2015	Continuous
Telemetering: enables the automated collection of data in real time (on time), optimizing the process in view of the precision in the collection, treatment, and availability of data, including for customers, via the Internet.	8, 9	7, 9, 13	2010	Continuous
<i>Iluminando Gerações</i> Project: lectures to students in the 4th year of elementary school in public schools, with an informative and preventive nature regarding the conscious and safe use of electricity, use of natural resources (energy and water) and correct disposal of waste.	1, 2	4, 11, 12	1970	Continuous
<i>Mais Clic Rural</i> Program: improving the quality of electricity supply in rural areas, focusing on agricultural activities integrated with production processes sensitive to interruptions.	1, 2, 7, 8, 9	7, 11, 12	2015	Continuous
Corporate Waste Management Program: aims to implement and systematize the best waste management practices, so that all waste generated is treated or disposed of correctly, so as not to harm the environment.	7, 8, 9	8, 11, 12	2006	Continuous



Policies and Management Systems	Principles and Objectives to which they Respond		Start	End
	Global Compact	SDGs		
<i>PrevenCão</i> : public awareness of the importance of caring for pets to prevent accidents with readers.	1, 7, 8	3, 12	2015	Continuous
Urban Forests Program: works together with city halls in planning the afforestation of public roads, contributing to the environmental improvement of cities, and reducing interruptions in energy supply caused by the conflict between vegetation and electrical systems.	7, 8, 9	11, 15, 17	2008	Continuous
Riparian Forests Program: aims to recover natural environments surrounding the reservoirs of the plants and other areas of interest to the Company.	7, 8, 9	6, 15	2006	Continuous
Ichthyofauna Monitoring and Repopulation Program: aims to monitor and repopulate the Company's reservoirs and rivers where Copel's projects exert some influence.	7, 8, 9	6, 15	1993	Continuous
Experimental Station for Ichthyological Studies: to study and reproduce species suitable for repopulating the rivers and reservoirs of Paraná.	7, 8, 9	6, 15	1992	Continuous
Control of invasive and/or exotic species: monitoring and control of invasive and/or exotic species of fauna and flora.	7, 8, 9	15	2000	Continuous
Recovery of degraded areas: monitoring and recovery of degraded areas.	7, 8, 9	15	1999	Continuous
Forest Gardens: aims to produce seedlings suitable for application in the Company's other programs.	7, 8, 9	15	1973	Continuous
Botanical Garden: aims at the conservation and research of plant species and also houses collections of exotic ornamental plants.	7, 8, 9	15	2010	Continuous



Policies and Management Systems	Principles and Objectives to which they Respond		Start	End
	Global Compact	SDGs		
<i>Iguaçu Regional</i> Museum: presents the social, cultural, and environmental characteristics of the populations that have occupied the Iguaçu River banks. It maintains a collection from the Archaeological Rescue and Cultural Memory and Scientific Use of Flora and Fauna programs in the implementation of HPP Gov. Neymar Braga.	7, 8, 9	4, 11	2000	Continuous
Internet Without Bullying Program: the project aims to sensitize children and young people in the 7th, 8th, and 9th grades of elementary school in state schools in Paraná, to the problem of cyberbullying, through sensitization lectures. It seeks to obtain the commitment of students not to practice and report cases of bullying, as well as instruct teachers to detect cases and know what to do. Won the 2019 SDG Award from the Global Compact Brazil, in the Large Companies Category, Eixo Paz.	1, 2	4, 16	2017	2021
Optical Fiber Recycling: Seeks a sustainable approach to the treatment of waste typical of telecommunications operations. The fiber optic scrap produced by Copel Telecom is entirely destined for recycling, which is the priority method of waste disposal according to Law No. 12.305/10 - National Solid Waste Policy (PNRS). Valued by-products are generated that will be reintroduced into the production chain, fostering the Circular Economy. This initiative was recognized as "Best Practice" in the Sesi ODS Award 2018.	7, 8, 9	9, 12, 13, 17	2016	2021
Zero Carbon: Neutralization of greenhouse gas emissions through the acquisition of carbon credits in the REDD + modality: Reduction of emissions from avoided deforestation and forest degradation and sustainable management of forests. Copel Telecom became Carbono Zero for the second consecutive year. This initiative received an "Honorable Mention" at the Sesi ODS Award 2019.	7, 8, 9	13, 15, 17	2018	2021

Credits

Coordination

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Selection, Collection and Analysis of Disclosures

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