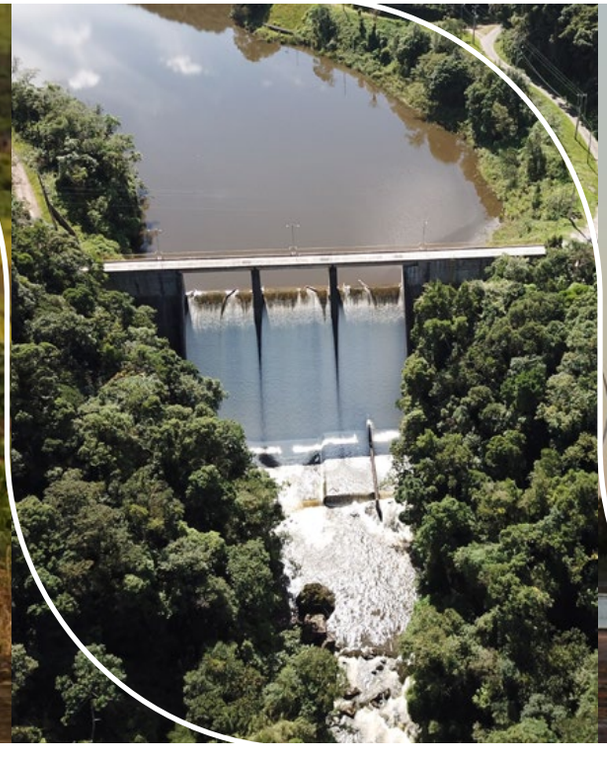
Integrated REPORT | 2020

TECHNOLOGY FOR DEVELOPMENT

COPEL
Pura Energia

PARANÁ
GOVERNO DO ESTADO

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INTRODUCTION

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About the report

This is the 2020 Integrated Report of Companhia Paranaense de Energia – Copel, on the Company's performance in the period between January 01 and December 31, 2020. The document gathers the financial information required by the current legislation, and reports the business model of its wholly owned subsidiaries, and performance in terms of human, intellectual, social and relationship, natural, infrastructure, and financial capitals. GRI 102-50

The accounting data presented in the current report are related to the companies in which Copel holds equity stakes. The non-accounting data comprise Copel (Holding) and its wholly owned subsidiaries Copel Geração e Transmissão S.A., Copel Distribuição S.A., Copel Telecomunicações S.A., and Copel Comercialização S.A., indicating, when applicable, any inclusion or exclusion.

Copel's Integrated Report is organized in two parts, the first one being a presentation of the Company's business, and the second one is about the performance of its capitals, with a detailed approach on the relevant topics for the business and on its value generation capacity. The document has been submitted to the approval of the Collegiate Board and of the Board of Directors before being published. GRI 102-32, 102-44

In case you have any doubt or suggestion, or want to clarify any issue on the content of the 2020 Integrated Report, please forward it by e-mail to relato.integrado@copel.com. GRI 102-53

Assumptions adopted to elaborate the 2020 Integrated Report

- Principles of the Global Reporting Initiative GRI Standards and disclosures of the electric power sector supplement, available in version G4. This report has been prepared in conformity with the GRI Norms in option "Essential"; GRI 102-54
- Indicators specifically requested by Aneel in its Accounting Manual for the Electricity Sector; GRI 102-54
- Guidelines from the International Accounting Reporting Standards (IFRS), based on the information derived from the Financial Statements and from the Communication on Progress in relation to the commitments assumed with the Global Compact; an initiative of the United Nations Organization (UN) that establishes guidelines to promote sustainable growth and citizenship, by inviting companies to align their strategies and operations to its universal principles on behalf of sustainable development;
- Provision of Law nº 13,303 (State-Owned Enterprise Act), of June 30, 2016, which establishes, in its article 8th, paragraph IX, the annual disclosure of an integrated or sustainability report;
- Principles for Responsible Management Education (PRME), a global voluntary engagement platform of the United Nations Organization (UN), which has an influence on UniCopel's operations, a corporate education department at Copel.

Other reports issued by Copel

Check them at www.copel.com:

- Management Report and Financial Statements
- 20F Report
- Copel Geração e Transmissão's Socio-Environmental Responsibility and Economic and Financial Report
- Copel Distribuição's Socio-Environmental Responsibility and Economic and Financial Report
- Copel's Materiality Report

In case you have any doubt or suggestion about this report, please contact us at: GRI 102-53

Governance, Risk and Compliance Board - DRC
Corporate Sustainability and Corporate Governance Coordination Office - CSG

E-mail: relato.integrado@copel.com

Relevant and strategic topics

GRI 102-21, 102-29, 102-46

The material topics for Copel, relevant for its activities and stakeholders, are utilized as the basis for the performance report in each cycle and also to support the Strategic Planning process, and are therefore fundamental for conducting the Company's operations.

For the cycle related to year 2020, the materiality matrix defined in 2019 has been revised (please check the Integrated Report 2019), through a robust data survey and processing process, whose updates have considered the impacts of the health and economic crises on Copel and its subsidiaries in 2020. GRI 102-49.

As a result of that process, the material topics approved in the previous cycle have been maintained, and subject "Covid-19 Pandemic" has been included, considering that it has had a huge, widespread, global, and unprecedented impact ever seen in modern corporate history. The materiality proposal for 2020 has been submitted to analysis by the Company's Senior Management, and has been approved by the Collegiate Board (Redir) and the Board of Directors (CAD). GRI 102-32

Covid-19 Pandemic

GRI 103-1

The Covid-19 pandemic, a disease caused by the new coronavirus, which started in Wuhan, in December 2019, and is having implications until the time this report is being published, has already infected more than 133 million people all over the world, according to data disclosed by the World Health Organization (WHO).

In Brazil, the number of cases disclosed by the Ministry of Health has reached 13,279,857 and deaths have amounted to 345,025. The pandemic has directly affected human activities and generated, in the country, a health, political and diplomatic crisis, with direct effects on the economy. The GDP (Gross Domestic Product) fell by 4.1% if compared to 2019, the lowest growth rate in the historical series, started in 1996[1].

As regards the Brazilian electric power sector, the Electric Energy Trading Chamber (CCEE) reported a decrease in energy consumption between January and May 2020, reaching a 12% reduction in the worst month, and the most affected were the production, consumer goods, and service sectors. For the full year, electric power consumption was 1.5% lower if compared to 2019[2]. Further information on the sector can be found in section "Context of the electric power sector and Copel," on page 19.

At Copel, daily activities have been affected in all sectors, with the establishment of remote work for administrative area employees and significant changes in execution and in the healthcare protocols adopted for fieldwork.

The Company has adapted to the new situation, by adopting measures to maintain electric power supply to the population at large and to contribute to ensuring normal operations in the Brazilian Electric Power System.

Considering its relevance and direct influence on Copel's performance at the economic, environmental, social and governance levels, the "Covid-19 Pandemic" has been a material and transversal topic for the remaining matters discussed in the current report, so that each specific content also provides a contextualization of the impacts and measures adopted by Copel in order to keep its business operations, daily activities, and sustainability practices. Such information will be reported in a differentiated manner, enabling the reader to easily recognize the contents associated to the pandemic throughout the report.

1. IBGE. IBGE News Agency, 2021. Available at *link*.
2. Electric power CONSUMPTION fell by 1.5% in 2020, CCEE has indicated. CCEE'S website, 2021. Available at: *CCEE'S website*.

Material topics for Copel in 2020

Legenda

COPEL (OPERATIONS) EMPLOYEES GOVERNMENT REGULATORY BODIES COMMUNITIES SUPPLIERS CLIENTS

DIRECT IMPACT
INDIRECT IMPACT
WITHOUT ANY IMPACT

Material topics for Copel GRI 102-44, 102-46, 102-47		Material topics GRI Standards	Limits within	Limits outside
Covid-19 Pandemic[1]	Corporate governance	General standard corporate governance disclosures non-mandatory for reports in option Essential: 102-17 to 102-39		
		Anticorruption (205-1 to 205-3);		
		Anticompetitive behavior (206-1)		
		Public policy (415-1)		
	Operational efficiency	Organizational profile (EU2)		
		Availability and reliability (EU6)		
		Demand management (EU7)		
		Research & Development (EU8)		
		Planned capacity versus the projected long-term energy demand (EU10)		
		Efficiency of the system (EU11)		
		Transmission and generation losses (EU12)		
		Power supply disruptions (EU28)		
		Average duration of disruptions (EU29)		
		Average availability factor of the plant, broken down as per energy source and regulatory system (EU30)		

Material topics for Copel GRI 102-44, 102-46, 102-47		Material topics GRI Standards	Limits within	Limits outside
Pandemia covid-19[1]	**Health and safety at work**	Health and safety at work (403-1 to 403-10)[2]		
		Employment (EU16 and EU18)		
	Economic and financial performance	Economic and financial performance (201-1, 201-3, 201-4)		
	Staff management	Employment (401-1 the 401-3)		
		Labor relations (402-1)		
		Training and education (404-1 the 404-3)		
		Diversity (405-1, 405-2)		
		Non-discrimination (406-1)		
		Freedom of association (407-1)		
		Availability of specialized workforce (EU14)		
		Percentage of collaborators eligible for retirement in the next 5 and 10 years (EU15)		
	Environmental management	Materials (301-1, 301-2)		
		Energy (302-1 the 302-5)		
		Water and effluents (303-1 to 303-5)[2]		
		Biodiversity (304-1 to 304-4)		
		GHG Emissions (305-1 to 305-7)[2]		
		Waste (306-1 to 306-5)[2]		
		Environmental evaluation of suppliers (308-1, 308-2)		
		Biodiversity (EU13)		

Material topics for Copel GRI 102-44, 102-46, 102-47		Material topics GRI Standards	Limits within	Limits outside
Pandemia covid-19[1]	**Risk management[2]**	General standard corporate governance disclosure non-mandatory for reports in option Essential: 102-30		
		Economic performance (201-2)		
		Client privacy (418-1)		
	Regulatory environment	Environmental compliance (307-1)		
		Socio-economic compliance (419-1)		
	Client satisfaction	Organizational profile (EU3)		
		Access (EU23, EU26, EU27)[2]		
		Provision of information (EU24)		
	Communities and social investment	Market presence (202-1, 202-2)		
		Indirect economic impacts (203-1, 203-2)		
		Market practices (204-1)		
		Child labor (408-1)		
		Forced labor or equivalent to slavery (409-1)		
		Rights of indigenous peoples (411-1)		
		Evaluation in regard to human rights (412-1 to 412-3)		
		Local communities (413-1, 413-2)		
		Social Evaluation of Suppliers (414-1, 414-2)		
		Local communities (sectorial – EU19, EU22)		
		Contingency plans and response to disasters and emergencies (EU21)		
		Consumer health and safety (EU25)		

Nota:
1. The GRI norm does not include any disclosure related to topic "Covid-19 Pandemic," however Copel will transversally evaluate it in all remaining topics, reporting its impact and the contingency measures adopted in relation to each one of them. For further information on this approach, see the content on page 6.

2. Material topic in the *Materiality Map* (mapa de materialidade) for energy infrastructure and power generation companies. The map is produced by the Sustainability Accountability Standard Board (Sasb) and deals with issues that may potentially affect the financial condition or operational performance of a number of sectors.

Sustainable Development Goals

The UN Global Compact, of which Copel is a signatory, has promoted through the Global Compact Network Brazil (RBPG) as initiative to integrate the Sustainable Development Goals (SDG) into the Brazilian Electric Power Sector (BEPS), counting on the participation of companies, the academia, and related organizations. As a result of that work, the priority SDG's for the sector (see picture) and the correlated indicators and goals have been defined.

These indicators and goals will be presented throughout the current report, together with Copel's performance in each one of them. The contents in which the SDG's are discussed can be identified through the icons placed along the chapters.

Thus, Copel transparently deals with its efforts towards sustainable development, in line with the practices promoted and followed by the UN at the global level.

Priority SDG's for the electric power sector

Executive Summary

Pandemic, context of the sector and Copel

Pages 6, 19 to 24

Considering the current health crisis, health and safety have become even more relevant for Copel. It has been necessary to quickly develop actions to prevent infection by the new coronavirus and build a safe environment for workers.
A management commission was created to establish preventive measures and corporate procedures to deal with this issue. The majority of the workforce has been asked to work remotely, but our operations have been preserved, since energy is an essential resource for life. This crisis has strongly affected the Brazilian economy, with effects on the energy sector. In such a context, Copel's business model, based on value generation and continuous investment, has proven to be highly resilient, and has generated good operational and financial indexes.

	DECi	FECi
2019	9.10	6.00
2020	7.81	5.55

Average availability factor of the plants	2019	2020
Average availability factor for energy	94%	93%

ESG Management

Corporate governance

Pages 50 to 69

Copel has approved, at the 201st Extraordinary General Assembly, held on March 11, 2021, its new Bylaws, according to which it will migrate to Governance Level 2 of B3 upon the financial settlement of the secondary public offering of shares or Units to be held by the controlling shareholder. This initiative has led to many improvements in the Company's corporate governance, which have been recognized by renowned institutions. Once again Copel has been included in the portfolio of the Corporate Sustainability Index (CSI B3), with a record score in its history – 79 points in average in all evaluated items. The Company has also kept the Certification from the State-Owned Enterprise Governance Highlight Program of B3, and has been the only company to obtain the maximum score (60 points), having fulfilled all the requirements established in its regulations.

Sustainability management

Pages 70 to 76

The Global Compact turned 20 years in 2020. Copel has been a signatory since the treaty was launched, in 2000. As such, the Company has implemented initiatives directly connected to achieving the Sustainable Development Goals seen as a priority in the Brazilian Electric Power Sector (BEPS), according to the "Integration of the SDG's into the BEPS" study, coordinated by the Global Compact Network Brazil. The Company's performance as regards the SDG's is commented throughout the current report. Copel also takes part in the global SDG Ambition initiative, whose purpose is to stimulate and support the participating companies to include their commitment with the SDG's in their planning and strategic initiatives.

In the month of April, Copel launched its Human Rights Policy, which formalized its guidelines for this issue. This document goes along a global movement and increasing involvement of companies with human rights, and serves as a reference to prevent, mitigate and remedy violations that might occur in the Company, in its production chain, or in affected communities.

394 hours of training
for employees on human rights in 2020

Human capital

Pages 78 to 105

The majority of employees at Copel have had to adapt to remote work, necessary to ensure social distancing during the pandemic. Employees' wages have been fully maintained and timely paid, and payments of the Profit and Result Sharing Program (PRSP) have been anticipated. The Company's communication has been adapted to the digital format, in order to keep the majority of corporate practices, events and meetings. With the purpose of promoting the best strategy for remote work, workshops have been held with the managers to identify the difficulties posed by remote work and improvement opportunities, enabling them to adjust to specific cases. For those employees who could not stay home, the Company has established strict protocols. Everything has been done in conformity with the Staff Management Policy and with the Labor Safety and Health Policy, among other norms.

Total number of own employees as per labor contract and gender

			total
Permanent contract[1]	1,513	5,154	6,667[2]

Notas:
1. Copel does not hire own employees under a temporary contract.
2. The reduction in the total number of employees from 7,095, in 2019, to 6,667 in 2020 was due, mainly, to the dismissal of 315 employees who adhered to the Termination Incentive Program (TIP). Altogether, 431 employees left the Company in that year. No new hiring through public contest has been undertaken. Three employees have been reintegrated.

Human capital

Pages 78 to 105

Injuries associated to work

GRI 403-9

Number and rate of injuries associated to work with severe consequences (excluding fatalities)[1]	Employees	Contractors
Injuries	0	1
Frequency rate[2]	0.00	0.08

Number and rate of reportable injuries associated to work[1]	Employees	Contractors
Injuries	23	119
Frequency rate[2]	2.19	7.35

Notes:
1. Data comprising the information provided by Copel DIS and Copel GET.
2. To calculate the rates 1,000,000 hours or work were taken into consideration, according to NBR 14,280 – Labor Accident Registry – Procedures and Classification.

Social and relationship capital

Pages 106 to 125

Throughout the pandemic, in 2020, Copel acquired 200 thousand RT-PCR test kits and 1.2 million masks in the total amount of R$ 5 million Brazilian reais, which have been distributed to hospitals, according to demand mapped by the Health Secretariat of the State of Paraná (Sesa). Benefited persons added up to 5,637,834 inhabitants and 363,077 health professionals, which correspond to around 49% of the total estimated population. The Company also organized voluntary activities through the Corporate Voluntary Work Program – EletriCidadania.

Covid-19 Pandemic

Donation of R$ **5** million in tests and masks

Communities

155 volunteers

1,002 hours de voluntariado

Suppliers

2,653 suppliers contracted by Copel in 2020

R$ **11.28** billion in amounts paid

Intellectual capital

Pages 126 to 135

At the end of 2020, Copel launched a public call to hire an expert consultancy company for the implementation of the Open Innovation Program for Start-ups, to be executed in 2021. It is expected it will accelerate the development of new products and services for the implementation of new businesses and to explore new markets. Also in 2020, Copel signed a technical cooperation agreement with the Brazilian Industrial Development Agency (ABDI) for the utilization of a technological sandbox – or "live laboratory" – of technologies for smart cities, called Living Lab. Urban mobility and smart cities are topics to which Copel should dedicate special attention in the next few years. Both contribute to reduce carbon emissions and to promote access to power supply, in convergence with the Sustainable Development Goals prioritized by the electric power sector and the Company. The traditional Research and Development activities have also been maintained, in which R$ 83.12 million have been invested.

R$ **83.12** million
invested in Research
& Development

Natural capital

Pages 136 to 160

The adoption of remote work for a large part of our workforce has generated positive impacts from the environmental point of view. There has been a reduction in water, energy, paper, and fuel consumption, and in waste generation associated to administrative tasks. Many meetings have been held online, which has enabled us to avoid displacements and, consequently, has had a bearing on greenhouse gas emissions. The Company periodically monitors its emission rates, keeps track of government decisions on carbon pricing, evaluates the climate risks posed by new investments, and analyzes measures to adapt its business to the impacts of these changes. Management is guided by a specific policy and follows a model based on performance and efficiency analyses. In addition to depending on nature, Copel's activities affect the environment according to the employed resource and the enterprise in question. The impacts are detailed in the environmental studies, undertaken according to the regulatory requirements and whose results are used to support the development not only of mitigation actions, but also to promote preservation or recovery. Copel's environmentally responsible operating guidelines, as well as those of its wholly owned subsidiaries and controlled companies, are defined in the Sustainability Policy.

Comparativo das emissões de 2020 e 2019 (em tCO_2e)

	Scope 1	Scope 2	Scope 3	Total
2019	13,779.31	231,903.39	18,202.89	263,885.59
2020	25,534.76	174,382.95	13,857.71	213,775.42
Variation (%)	**85.31**	**-24.80**	**-23.87**	**-18.99**

Infrastructure capital

Pages 161 to 175

43 own plants

23 hydroelectric plants

29 wind power stations

2 thermoelectric plants

11 plants with equity interest

6,399.6 MW of total installed capacity

3,018.9 MW on average of physical guarantee

7,443 km of transmission lines

20,674 MVA of transformation power in the transmission substations

Annual Allowed Revenue of **R$ 1,146.0 bilhão**

Investments in enterprises that will add **142 km** to extend the transmission lines

338.02 MVA added to the distribution system

177.1 km of new **138 kV** transmission lines

4.8 milion clients in the wire energy market

4.8 milion in the captive energy market

965 energy trading **clients** in **22 states**
4th position in the ranking of energy sale by traders in the accumulated total for 2019

34.2 thousand km of backbone grid and **399** serviced municipalities

Financial capital

Pages 175 to 181

According to the ranking of the 1000 largest companies in Brazil in 2019, assessed by newspaper Valor Econômico, Copel has the highest net equity in the Southern region and the 18th in Brazil, amounting to R$ 17.6 billion. These figures reflect the business investments made in 2019, which amounted to R$ 1.9 billion.

Fitch Ratings, one of the main independent credit risk rating agencies in the world, has raised Copel's reliability rating for investors. The National Long-Term Rating reported by that agency has become AA+(bra), instead of AA(bra), the rating assigned in 2019. The Corporate Rating Perspective has also been raised from Stable to Positive, which indicates the possibility of an eventual rise in the future.

Accrual of **R$ 2,764.0 million** to the Net Operating Revenue, **17.4%** higher than in 2019

Ebitda of **R$ 5,263,2** million, **24%** higher than in 2019

28.2% of Ebitda Margin (Ebitda/ROL)

R$ 3,909.7 million net profit, **89.5%** higher than in 2019

Message from the CEO

GRI 102-14

In 2020, we experienced an unprecedented crisis in Brazil and around the world, caused by the new coronavirus. We faced a ruthless enemy that has forced humanity to reinvent itself. We had to conciliate care for people's health and productive activities. Despite these difficulties, we reached the end of the year with an excellent result for the Company, our investors, and the State of Paraná.

In view of the pandemic, we gave priority to the health and safety of our employees, with the implementation of home working for a large part of our professionals, and the adoption of strict prevention measures for those who continued to perform fieldwork. Our employees did their best to ensure the provision of essential services to the population, and to supply quality electric power to more than 11 million people in the State of Paraná.

To help consumers, we suspended power cuts due to default for four months for residential units, low-income families, and clients that perform essential activities. We also offered special schemes for installment payments, facilitating the negotiation of debts. In addition to that, around 300 thousand families have been included in our programs to provide assistance to vulnerable populations, and they have been directly benefited by the measures adopted by the Federal Government and ANEEL to support the sector during the new coronavirus pandemic. Of that total, 160 thousand have not paid their electric power supply bills after being registered in the Fraternal Light/ Luz Fraterna program, managed by the Government of the State of Paraná.

We have also contributed to fight the new coronavirus: Copel has donated R$ 5 million for the acquisition of test kits and masks destined to professionals who are on the frontline to fight the pandemic in Paraná. The Company has also assumed the commitment to make new donations to every client that opts for the digital bill or automatic debt, which will be implemented in 2021.

In the generation and transmission sector, we have strived to build enterprises able to reinforce the electric system and increase energy offer and supply in the country. The highlights are PCH Bela Vista, whose works will be concluded soon, in the Southwestern region of Paraná, and the Jandaíra Wind Power Complex, in the State of Rio Grande do Norte, which is under construction.

In order to promote strong operating conditions in the entire electric power sector, we have helped lead a movement to create Covid Account/Conta Covid, which has benefited consumers by relieving the impacts of the crisis on their electricity bills, and has contributed to preserve the cash flow of companies in the sector. In addition to that, in July a lawsuit was passed into matter adjudged exempting Copel from the obligation of collecting the Pis and Cofins

Works at PCH Bela Vista, in the city of Verê-PR

social contributions over the ICMS Tax (Tax over Merchandise and Services Circulation) befalling the electric power tariff, which has enabled the sector to actually reduce electricity bill values to those who live in the State of Paraná.

At the same time, we have strongly endeavored to preserve the Company's cash flow, with an austere cost management and focus on productivity. The result has been the highest profit in Copel's history, of R$ 3.9 billion. And we have also strictly fulfilled our investment goal, with works to expand energy generation, transmission and distribution, contributing to strengthen the electric power sector and to provide quality infrastructure to foster the country's development.

In the telecommunications area we concluded the first privatization promoted by the Government of the State of Paraná in the last 20 years, and transparently and efficiently: the divestment of Copel Telecom, in an auction held in B3, for R$ 2.39 billion, achieving a 70.94% premium, or almost R$ 1 billion.

In the energy distribution area, we have made the largest investment in infrastructure works in Copel's history: more than R$ 1 billion allocated to expand and modernize the State's grid. The highlights are 2,807 kilometers of new three-phase grids as a part of the Paraná Three-Phrase Grid/Paraná Trifásico program, and the launch of the Smart Power Grid/Rede Elétrica Inteligente initiative, the largest distribution grid modernization program in the country.

In the generation and transmission sector, we have strived to build enterprises able to reinforce the electric system and increase energy offer and supply in the country. The highlights are PCH Bela Vista, whose works will be concluded soon, in the Southwestern region of Paraná, and the Jandaíra Wind Power Complex, in the State of Rio Grande do Norte, which is under construction. Together, these power-generating units will produce sufficient energy to serve 400 thousand people.

With the responsibility of being pioneers among electric power sector companies in signing the Global Compact, in 2020 we ratified the importance of that program's principles and of the Sustainable Development Goals (SDG's), through our commitment with document "A Statement from Business Leaders for Renewed Global Cooperation," thus renewing the spirit of cooperation all over the world.

We also take part in SDG Ambition, a global reach program of the Global Compact that promotes the inclusion of sustainability in corporate strategies, and the definition of bold and ambitious corporate goals, so we can all achieve the SDG's. We have continued to build awareness among all of our related parties through the SDG Education/Educa ODS Program, and implementing actions to achieve the SDG's, and especially those prioritized by the Brazilian electric power sector. These and other actions, such as the donations made to fight the pandemic and the Solidary Electricity Bill/Fatura Solidária program, have contributed to enable Copel and its power distribution subsidiary to obtain the Sesi SDG 2020 seal, which acknowledges the good management practices of companies operating in the State of Paraná.

In 2020 we launched the Human Rights Policy, to send a clear signal to our employees and remaining stakeholders on how we must act, and promoted the social inclusion of immigrants by translating information into the languages spoken by refugees, such as Spanish and Haitian Creole. Our Diversity Program and the Permanent Commission that manages this topic have seen a deep transformation, with the purpose of making Copel a company increasingly adherent to the most inclusive corporate practices. In the environmental area, we have promoted the replacement of risk areas for green and productive areas by facilitating the creation of community gardens under the company's transmission lines through the Cultivate Energy/Cultivar Energia Program.

For the 15th time we have been included in the Corporate Sustainability Index - CSI B3, having achieved the best performance in the history of Copel's participation in that rating, and now we are back in the Dow Jones Sustainability Index evaluation.

We have strongly strived to make our operations aligned with a low-carbon economy. The Company's actions have been included in the Carbon Efficient Index (ICO2) portfolio of B3, demonstrating its commitment with transparency in regard to emissions. We have advanced two levels by being granted concept B for Climate Change Management in the CDP (Carbon Disclosure Program), one of the main initiatives in the financial sector aimed at reducing companies' greenhouse gas emissions.

With such results, in the next years we will continue to make strong investments in renewable sources and actions to promote a more efficient company and a fairer world. Our new Bylaws were approved In March 2021, which created the Sustainable Development Committee, with the purpose of keeping Copel among the companies with the best governance practices and actions in regard to issues related to ESG, thus establishing a clear direction for the Company's sustainability strategy. We are also implementing the Carbon Neutrality Plan, with initiatives that will help us neutralize the Company's emissions until 2030.

Finally, we believe the results obtained so far have been a huge encouragement for us to continue striving to achieve even better results, while strengthening our role in the State of Paraná and in the country: a company with operations in 10 states, concerned with its consumers and employees, and dedicated to contributing to foster sustainable development in Brazil.

Daniel Pimentel Slaviero
CEO

Marcel Martins Malczewski
Chairman of the Board of Directors

CONTEXT OF THE SECTOR AND COPEL

Hydroelectric Plant Governador Ney Aminthas de Barros Braga, in the cities of Magueirinha and Reserva do Iguaçu-PR

Context of the sector

The restrictions imposed to economic activities in order to restrain the Covid-19 pandemic have directly influenced the expectations to resume economic growth in 2020. The measures to restrain the crisis implemented by the Federal Government mitigated the effects of the crisis, but have not been sufficient to compensate for the decreased consumption seen in many sectors of the economy.

The industrial sector immediately reflected the downturn in consumption, but saw a gradual recovery as of the second half of the year, with different dynamics in each production sector. Some sectors, such as the food industry, have been able to keep positive physical production rates, while segments such as the automotive, towing truck, and vehicle body industries saw substantial declines of up to 30%. The trade sector quickly embraced the adhesion of new clients through e-commerce, but the service sector significantly reflected the need for social distancing imposed by the pandemic. Despite the deterioration of economic conditions, the drop in the Gross Domestic Product, of -4.1%, was less intense than previously projected during the first months of the crisis.

Industry in the State of Paraná, however, reported good results as of the second half of the year. The food industry, as observed in average around Brazil, has been the industrial sector with the best results. The largest soy harvest reported in the State of Paraná has been a preponderant factor for the expansion of local agriculture, which together with the injection of resources from the emergency aid program, has strongly contributed to the expected GDP results in the State. The service sector has reflected the downturn in many activities, however the indicator assessed by IBGE (the Brazilian Institute of Geography and Statistics) has been pointing to a trajectory of recovery.

Aerial view of pole Km3, in Curitiba-PR

Regulatory environment

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

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

It applies to the MME to define the policies for the sector, which regulate the utilization of natural resources and remaining electric power generation sources and the initiatives to foster development and the adoption of new technologies.

Aneel is responsible for establishing rules for the electric power generation, transmission, distribution, and commercialization segments, in addition to tariffs in order to offer favorable conditions to develop the market, with an even balance between agents and to benefit society.

The Agency manages the concession, permission and authorization grants for enterprises and electricity supply services by delegation of the Federal Government, and it also defines the quality standards and the technical and economic indicators for the services, being also responsible for supervising their fulfillment. Together with the Electric Energy Trading Chamber (CCEE), it also establishes all the actions associated to the free energy market, whether regarding mechanisms for the market itself, which kinds of clients might migrate to the same, and price calculation.

The rules set by these many bodies directly affect therefore both the operation itself and client relations, and Copel must adapt itself and comply with such resolutions, under the penalty suffering sanctions (warnings and fines), in addition to being at risk of not having its investment values recognized or even loosing its concession. In addition to that, any eventual change in the policies directed to the electric power sector interfere with the Company's business, regarding both strategic and operational issues, and might affect its 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 to the regulatory environment and make its monitoring even more important.

Copel is an agent that operates in the electric power sector by taking part in specific meetings with the regulatory body, in hearings and public consultations, and by providing subsidies for decision-making in the sector. The Company is involved with the elaboration of normative acts, which contribute to improve the regulatory frameworks, and thus to generate value in the mid- to long terms. The Company's regulatory affairs area is responsible for overseeing and acting in that regard, by disclosing on a daily basis all the acts and news related to the electric power sector, mapping risks, identifying the

Copel is an active player in the electric power sector through its participation in specific meetings with the regulatory body, in public hearings and consultations, and in the sector's decision-making process. The Company is involved with the elaboration of normative acts that contribute to improve the regulatory frameworks, and therefore to generate value in the mid- and long terms.

involved areas and processes, and ensuring compliance with the regulatory deadlines, in addition to controlling the remuneration base set by the regulations and the tariff readjustment and review processes, so that the energy tariffs established by Aneel can adequately remunerate the investments made by the Company, while offering moderate and affordable prices for consumers. The area also identifies opportunities to improve the legislation and provide greater competitiveness to Copel in relation to the remaining agents operating in the sector. GRI 102-43

The professionals hired by the regulatory affairs area are submitted to a constant upgrading process and are involved with discussion forums, including participation in sector associations, congresses, and seminars, among other events. These processes are managed by the Corporate Regulatory Affairs System, which will be replaced in 2021 for another software, being developed by Copel's own Information Technology area. The regulatory affairs area is shared between Copel (Holding) and its wholly owned subsidiaries, acting in conformity with every contract. Its performance is evaluated through specific indicators: control of the deadlines to fulfill the regulatory consultancy requirements; control of the terms to fulfill the administrative processes; and the effective participation in the Public Hearings and Consultations held by Aneel, with that first indicator being a part of the Company's regulatory affairs area's performance evaluation.

Main regulatory alterations in 2020

Law 14,052/2020 was enacted at the start of September, which among other things revoked the fine paid by hydroelectric plants when production is below the minimum required level due to non-hydrological causes, that is, not associated to factors that influence water availability. The legislation also establishes that, in the case of an electric power supply disruption, the distributing company is subject to a compensatory fine, paid to the directly harmed system's users, according to the minimum and maximum values. Such payment will not be due in situations such as short-term disruptions, a disruption caused by a technical flaw inside the area under the domain of an end user, in the case of a suspension due to consumer payment default, disruptions scheduled by the distribution concessionaire or permissionaire, and disruptions derived from load relief operations requested by the National Electric System Operator (ONS).[3]

In addition to that, on December 01 Aneel Normative Resolution Nº 895/2020 entered in force, which "establishes the methodology to calculate the compensation due to hydroelectric plant owners registered in the Energy Reallocation Mechanism (MRE), according to the terms of Law nº 13,203, of December 08, 2015, altered by Law nº 14,052, of September 08, 2020."[4]

3. PUBLISHED law on hydrological risk with a veto on the transfer of resources from pre-salt operations to pipelines. Senado Notícias/Senate News, 2020. Available at: Senado Notícias/Senate News.
4. BRAZIL. Aneel Normative Resolution Nº 895, of December 01, 2020. It establishes the methodology to calculate the compensation due to hydroelectric plant owners registered in the Energy Reallocation Mechanism (MRE), according to the terms of Law nº 13,203, of December 08, 2015, altered by Law nº 14,052, of September 08, 2020. Available at: Imprensa Nacional/National Press – General Secretariat of the Presidency of the Republic.

Christmas Tree at the Civic Center/Centro Cívico, in Curitiba-PR

Participation in associations

GRI 102-13

Representation in electric power sector associations and Copel's regulatory affairs area's operations, together with its technical areas, have enabled the Company to actively take part in setting the sector's regulations, according to the interests of its stakeholders and society as a whole.

This participation occurs at the level of its subsidiaries, through representatives with expertise in its business operations. Further information on the entities in which Copel GeT and Copel DIS take part, and at which level, is available in these subsidiaries' Socio-Environmental and Economic and Financial Reports. The associations to which Copel COM and Copel CTE are affiliated are reported in the GRI Content Index available in the current report (page 184). Copel (Holding) takes part in entities dedicated to promoting sustainability, and it has assumed as well a number of commitments in that sense, according to the information found on page 72.

Covid-19 Pandemic

GRI 103-2, 103-3

The electric power sector's regulatory environment has suffered two large impacts generated by the pandemic: an average income reduction among the Brazilian population due to the economic recession and its deterioration, which has led to a significant increase in the payment default rate affecting electric power distributors; and a migration of energy load from the industry and commerce to households due to social distancing, making it necessary to reconfigure the energy generation, transmission and distribution systems.

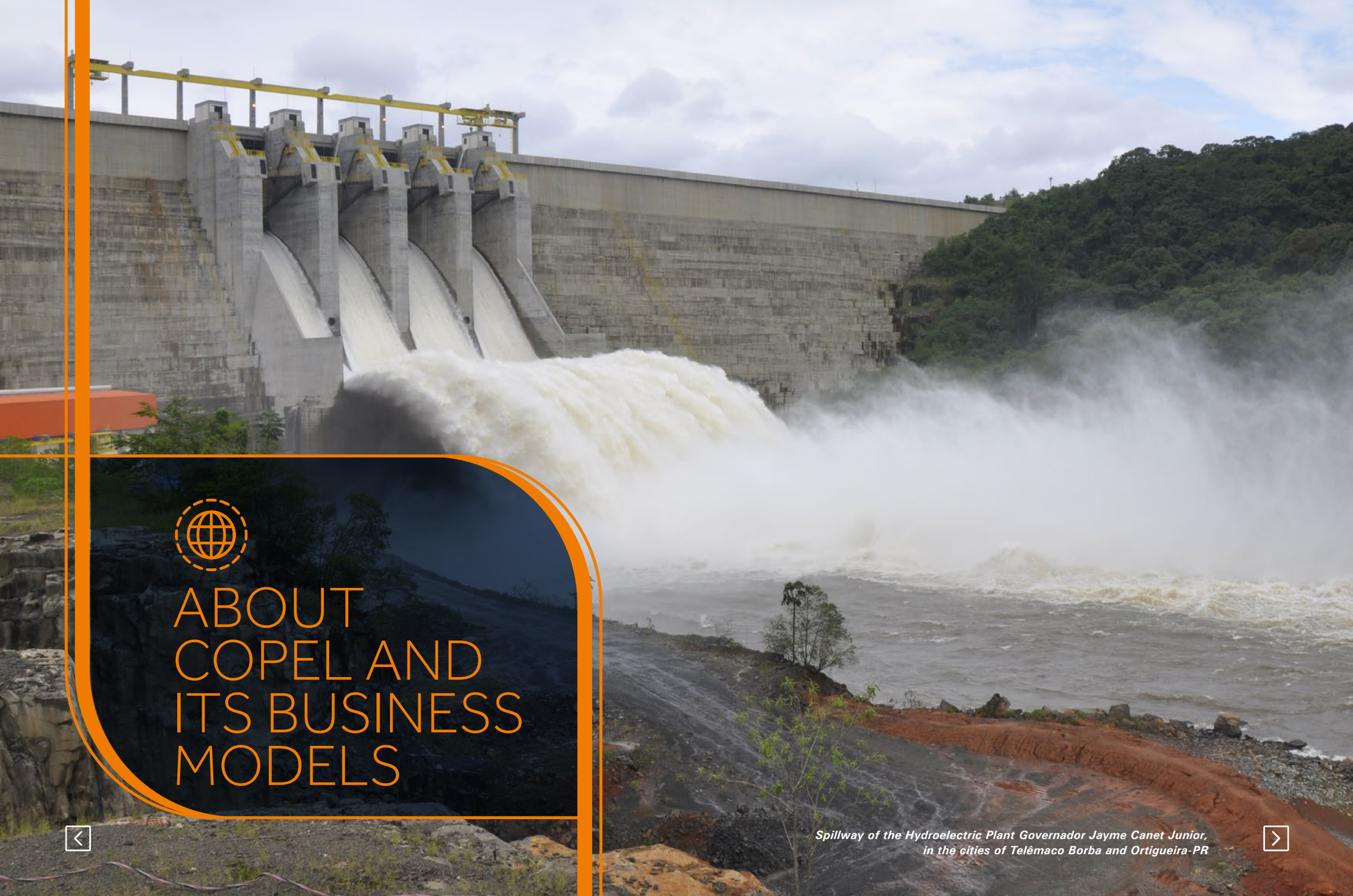
Already at the start of the isolation period, Aneel started to monitor certain indicators with the highest frequency, and especially those related to payment default and consumed load, as well as consumer services and quality of supply. It also enacted a regulation establishing measures to preserve the provision of public electric power distribution services, among which deserve highlight:

- prohibition to suspend electricity supply due to payment default to some consumption classes, such as households;
- suspension of the cancellation of the Social Electricity Tariff benefit;
- exemption of complimentary billing, as mentioned in art. 105 of Normative Resolution 414/2010, to consumer units that did not record a minimum of three demand values equal or superior to the contracted ones; and
- determination that distributors should adopt many measures aimed mainly at maintaining electric power supply to consumer units, and at suspending on-site customer services, establishing many guidelines on the provision of public electric power supply services.

The agency also created the "Covid Account," through which it injected resources in the sector to reduce the impacts of the financial effects caused by the pandemic on electricity bills and on electric power sector companies. Distributors now count on a 60-month term to make payments. Their guarantees are the regulatory assets already included in the ordinary pricing processes, that is, in the annual calculation of the readjustments granted to energy distributors. Copel's regulatory affairs area proposed to Aneel to have this measure already apply to the 2020 tariff readjustment, thus reducing the average effect on consumers in that same year.

That measure also enabled electric power sector companies to honor their contracts and preserve their cash flows, which has benefited power transmission and generation companies alike. Overall, Copel has not felt the impacts of payment default on its contracts in the regulated environment, while in the free contracting environment it has just had to hold minor renegotiations. In this latter environment, however, the pandemic has caused price instability in the short-term market, mainly related to the downturn and to load resumption in the national interconnected system.

ABOUT COPEL AND ITS BUSINESS MODELS



Spillway of the Hydroelectric Plant Governador Jayme Canet Junior, in the cities of Telêmaco Borba and Ortigueira-PR

Companhia Paranaense de Energia

GRI 102-2, 102-6, 102-7

Created on October 26, 1954, and with headquarters in the city of Curitiba (PR), Copel operates in ten Brazilian states (see the map) in the energy generation, transmission, distribution and commercialization segments, in addition to telecommunications and natural gas. The Company's electric system is composed of its own generation complex with plants, transmission lines, substations, distribution system lines and electric grids, and a modern optical telecommunications system, which covers all the cities in the State of Paraná.

In the energy segment, its main clients are regulated market consumers (households, industry, and commerce) and free market consumers (industry and commerce), both inspected and supervised by Aneel. Copel Telecomunicações operates mainly offering corporate solutions in the 399 municipalities of the State of Paraná, also servicing retail clients in 84 municipalities in Paraná and 1 municipality in the State of Santa Catarina.

Copel operates as a semi-public corporation, controlled by the State of Paraná, and currently its shares are traded in the Stock Exchanges of Sao Paulo, New York, and Madrid. GRI 102-5

Divestment in the telecommunications business

GRI 102-10

On July 15, 2020, Copel informed the market, through Relevant Fact, on the approval by the Board of Directors of a 100% divestment of its stake in Copel Telecomunicações. The public auction was held on November 09, when Bordeaux Fundo de Investimento em Participações Multiestratégia was declared winner after submitting the highest offer, amounting to R$ 2.4 billion, accounting for a 70.94% premium in relation to the minimum bidding amount. The stock purchase and sale contract was signed in January 2021.

The studies undertaken to divest Copel Telecomunicações identified assets considered strategic for Copel Distribuição and for Copel Geração e Transmissão, wholly owned subsidiaries of Copel, which will be, therefore, maintained by the Company together with other administrative assets. It has been defined that all employees attached to Copel Telecom will be relocated to the remaining subsidiaries.

This divestment was considered opportune and advantageous to Copel because its core business is in the electric power sector, to which Copel has been giving priority, according to the best corporate portfolio management strategies. In addition to that, there is a high and increasing competition in the broadband Internet market, with the implementation of optical fibers by all telecommunication players, which also offer other aggregate products/services, such as Cable TV, mobile and fixed telephony, among others, which would require large investments to maintain and improve Copel Telecom's competitiveness.

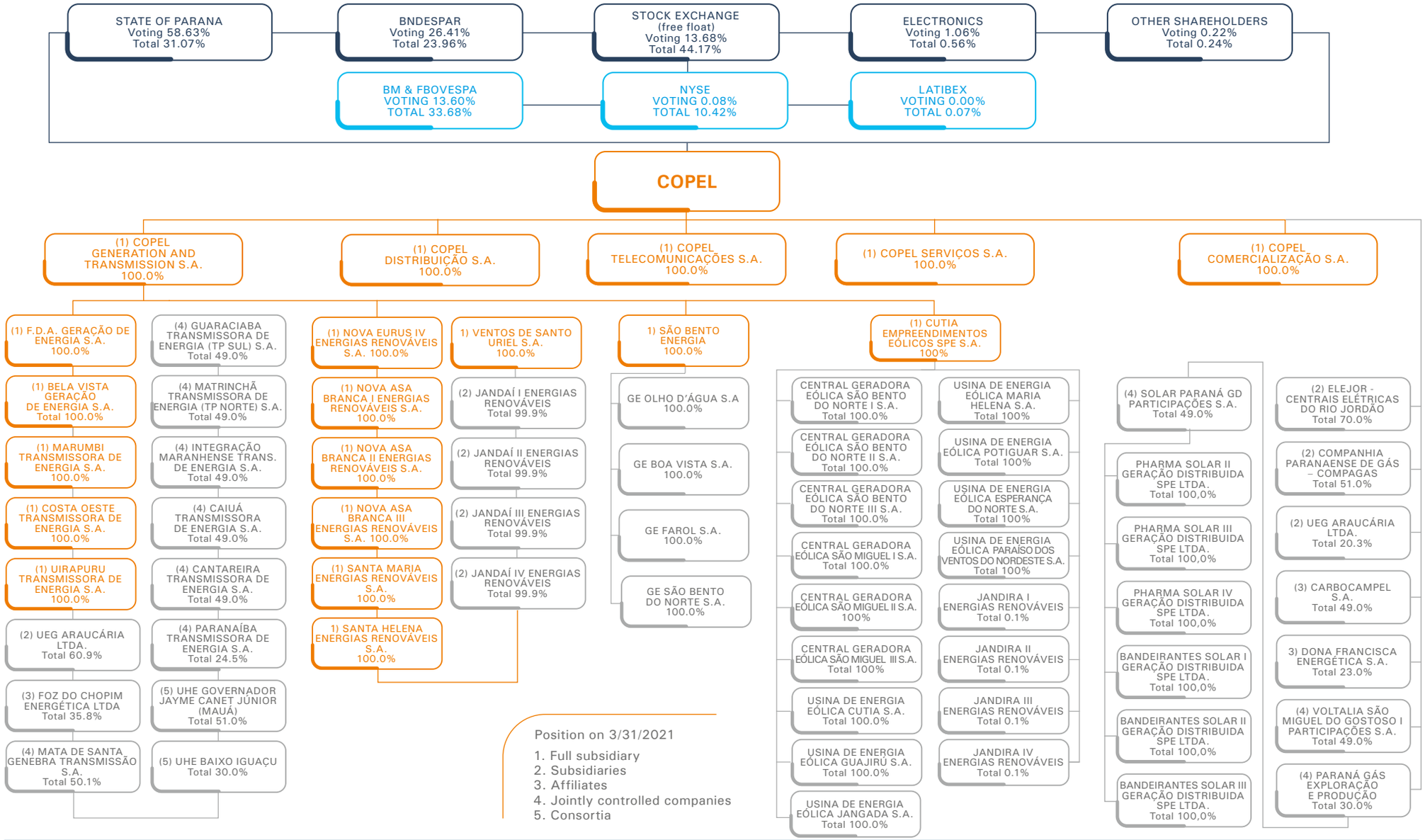
Get to know Copel Telecom at the *website.*

Map of Copel's operations

GRI 102-4, 102-6

- TRANSMISSION LINE
- HYDROELECTRIC PLANT
- SUBSTATION
- WIND FARM
- DISTRIBUTION LINE
- OPTICAL FIBER RING

Shareholder structure



Business models

Copel Generation and Transmission

THE CAPITALSS BELOW ARE REPRESENTED BY COLORS FOR IDENTIFICATION, IN THE GENERATION OF VALUE, WHICH RELATED TO THE VALUE GENERATED AND TO WHICH PARTIES INTEREST

CAPITALS

FINANCIAL	NATURAL	HUMAN	SOCIAL AND RELATIONSHIPS	INFRASTRUCTURE	INTELLECTUAL
R$ 457.3 million invested	Water consumption 11.55 m³/s per MWh	» 1,533 own employees » 452 third-party employees	Several relationship channels with interested parties: »Social programs »Corporate volunteering »Engagement with the community	» 20 hydroelectric plants » 2 thermoelectric plants » 25 wind farms » 7,007 km of transmission lines Substations with a transformation capacity of 20 thousand MVA	» R$ 1,153 million invested in training and personal development » R$ 32.64 million invested in R&D

INTERESTED PARTIES ARE REPRESENTED BY ICONS TO IDENTIFY WHICH ARE IMPACTED BY THE GENERATION OF VALUE.

SHAREHOLDERS · EMPLOYEES · CUSTOMERS · COMMUNITY · SUPPLIERS · REGULATING BODIES SECTORIAL ENTITIES · FINANCERS · INVESTMENTS

VALUE GENERATION

» Rising profitability in recent years » Financial efficiency	» 27.5% PROFIT IN RELATION TO 2019 » R$ 2,956.6 MILLION IN EBITDA
» Valuing and investing in people	» GPTW SEAL » R$ 248,596 THOUSAND PAID IN SALARIES » R$ 81,384 THOUSAND PAID IN BENEFITS » 44 THOUSAND HOURS OF TRAINING
» Clean energy » Cheaper energy	» 92% OF THE GENERATOR FARM USES RENEWABLE SOURCES
» Operational efficiency	» 93% AVAILABILITY OF THE GENERATOR FARM » MORE THAN 99% AVAILABILITY OF TRANSMISSION LINES
» Social Investments and Programs	» 283.45 HOURS OF VOLUNTEERING » R$ 6,444.40 THOUSAND RESOURCES APPLIED
» Certification Program and Program supplier development	» 90.6% ISF - SATISFACTION INDEX OF SUPPLIER
» Ethics and integrity in business	» COMPLIANCE WITH THE STANDARDS » COMPLIANCE WITH GENERATION AND TRANSMISSION PARAMETERS » COMPLIANCE WITH CONCESSION CONTRACTS

Mission
Provide energy and solutions for development with sustainability.

Vision
Be a reference in business in which it operates generating value in a sustainable way.

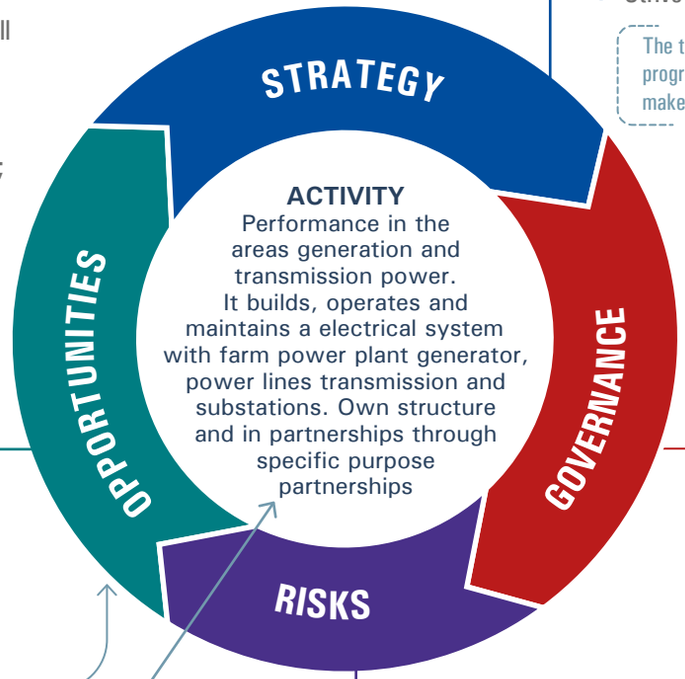
Note:
we are considering own plants and interest.

- Expand participation in the generation and transmission market in a sustainable and profitable way;
- Invest in innovation, seek best practices and research new technologies;
- Renew and modernize assets with a long-term vision;
- Maximize the profitability of the energy marketing;
- Optimize the concession's resources;
- Maintain concessions and authorizations;
- Train and qualify employees continuously;
- Retain knowledge; and
- Strive for safety at work.

The training of employees, added to the programs, innovation and business strategies make the model adaptable.

- Federal Government forecast for generation, expansion with new grants that would require investments of R$ 125 billion by 2030, according to the PDE - 2030 Decennial Energy Plan;
- Of this investment forecast, approximately 54% will be allocated to new wind and solar projects;
- The need for complementary generation with natural gas, which accounts for 29% of the investments foreseen in the PDE, due to the greater use of wind and solar sources;
- Opportunities for electricity generation from biomass and small hydroelectric plants;
- Federal Government forecast for expansion of transmission with new concessions and authorizations that would require investments of R$ 23 billion by 2030, according to PDE 2030; and
- Four transmission auctions already scheduled by the Ministry of Mines and Energy, two per year until 2022.

Through innovation, Copel GeT seeks new sources, alternative sources and business models, accompanying the country's energy transition movement.



Better corporate governance among state-owned companies, according to [B]³. Seeking to migrate to Level 2 of Corporate Governance of [B]³.

Main business risks:

- expiration of concessions;
- Hydrological risk;
- Regulatory risk;
- Performance drop;
- Dams;
- Cybersecurity; and
- Operational discontinuity of assets GET and its wholly-owned subsidiaries.

For all risks defined as main, there are monitoring KPIs and mitigation plans.

Differential: Excellence in asset management generation and transmission.

Copel Distribuição

THE CAPITALS BELOW ARE REPRESENTED BY COLORS FOR IDENTIFICATION, IN THE GENERATION OF VALUE, WHICH RELATED TO THE VALUE GENERATED AND TO WHICH INTERESTED PARTIES.

CAPITALS	FINANCIAL	HUMAN	SOCIAL AND RELATIONSHIPS	INFRASTRUCTURE	INTELLECTUAL
	R$ 1,048 million invested **R$ 524** million in funding	**4,641** own employees **3,598** third-party employees	Several relationship channels with stakeholders Community engagement Corporate volunteering Community Employees	**378** substations **202,085 km** of distribution lines and networks **161** own active properties	**R$ 50.5** million invested in R&D **R$ 24.6** million invested in systems Information Technology

INTERESTED PARTIES ARE REPRESENTED BY ICONS TO IDENTIFY WHICH ARE IMPACTED BY THE GENERATION OF VALUE.

COPEL (HOLDING) · EMPLOYEES · CUSTOMERS · COMMUNITY · SUPPLIERS · REGULATING BODIES

VALUE GENERATION

» Financial efficiency » Economic sustainability » Corporate governance	» R$ 2.06 BILLION IN EBITDA » R$ 8,729 MILLION IN DISTRIBUTION ASSETS » R$ 11.6 BILLION IN NET REVENUE IN 2020 » TARGET ACHIEVED FOR CONCESSION MAINTENANCE	
» Excellent place to work	» GPTW SEAL 2020 ** » 196 THOUSAND HOURS OF TRAINING » R$ 943 MILLION IN SALARIES AND BENEFITS	
» Social Investment » Safety in use of electrical energy	» 523 HOURS OF VOLUNTEERING » 32 THOUSAND BENEFITS IN SCHOOLS SPEAKERS » R$ 5 MILLION IN DONATIONS TO COMBAT COVID-19 IN PARANÁ » R$ 19.7 MILLION FOR ENERGY EFFICIENCY INITIATIVES	
» Satisfaction with services rendered	» SATISFACTION INDEX WITH PERCEIVED QUALITY » DEGREE OF SATISFACTION ANEEL (SEE PAGE 109)	
» Corporate governance	» GOVERNANCE IN COPEL DIS PROJECTS	
» New technologies and improvement of processes and operations	» 6 PUBLISHED PATENTS » 4 PATENTS APPLIED » 46 RESEARCH PROJECTS	

Mission
Provide energy and solutions for development with sustainability.

Vision
Be a reference in business in which it operates generating value in a sustainable way.

*Refers to the nominal value of the contracts new ones, started in 2020.
**Great Place to Work ranking, see page 82.

Main strategic objectives Copel DIS 2021 - 2025

- Ensure corporate sustainability;
- Prepare the company and the customer for digital transformation;
- Renew and expand assets;
- Promote the culture of meritocracy and develop high performance teams;
- Consolidate the culture of safety, health and quality of life;
- Ensure technical rigor in project management;
- Consolidate the culture of innovation;
- Promote a leap in quality of supply in the rural area;
- Ensure governance, risk management and compliance.

- Deployment of disruptive technologiess

Seeking to be the most modern distributor in Brazil, Copel Distribuição has as one of its objectives to promote the culture of innovation, which is essential for achieving operational efficiency and obtaining more and more expressive results.

Better corporate governance among state-owned companies, according to [B][3].

Main business risks:

- Loss of the concession;
- Regulatory instability;
- Severe climatic adversities; and
- Cybersecurity.

Differential: quality of service, focus on customer service and investments in innovation.

Note:
Copel DIS does not demand natural resources for the execution of its business activities.

Copel Comercialização

THE CAPITALS BELOW ARE REPRESENTED BY COLORS FOR IDENTIFICATION, IN THE GENERATION OF VALUE, WHICH RELATED TO THE VALUE GENERATED AND TO WHICH INTERESTED PARTIES.

CAPITALS

FINANCIAL	HUMAN	SOCIAL AND RELATIONSHIPS	INTELLECTUAL
Net Operating Revenue of **R$ 2,420,657 thousand**	**38** own employees	Several relationship channels with key stakeholders (consumers, traders and generators)	MEG (Management Excellence Model) Business knowledge National energy operator certificate Innovation

INTERESTED PARTIES ARE REPRESENTED BY ICONS TO IDENTIFY WHICH ARE IMPACTED BY THE GENERATION OF VALUE.

COPEL (HOLDING) · EMPLOYEES · CUSTOMERS · COMMUNITY · SUPPLIERS · REGULATING BODIES

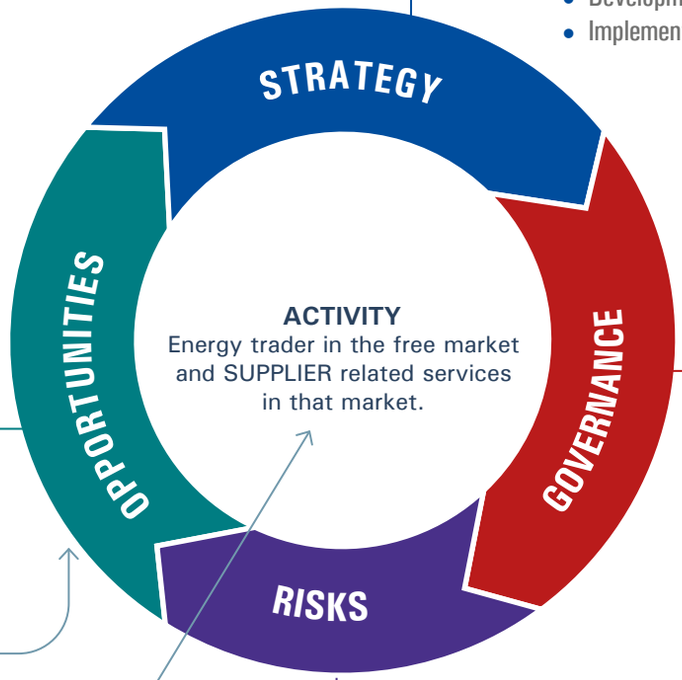
VALUE GENERATION

- » Upward profitability in recent years
  - » **SIGNIFICANT INCREASE IN PROFIT IN RELATION TO 2020**
  - » **2nd LARGEST TRADING TRADERS IN RENEWABLE ENCOURAGED ENERGY, AMONG THE 5 LARGEST COUNTRY TRADERS**
- » Trusted brand
  - » **IMAGE: REPOSITIONING THE FANTASY NAME FOR COPEL FREE MARKET**
- » Credibility
- » Market development
  - » **504 CUSTOMERS CONQUERED IN 2020**
  - » **3 NEW RETAILER CLASS CLIENTS**
- » Intellectual property with the seal Copel brand
  - » **R$ 15,950 THOUSAND PAID IN SALARIES AND BENEFITS**
  - » **355 HOURS OF TRAINING**
  - » **GROUP REFERENCE IN GPTW RESEARCH**
  - » **HOME OFFICE WORK INSTITUTION**
- » Propriedade intelectual com a chancela da marca Copel
  - » **10 NEW CONTRACT MANAGEMENT CLIENTS IN 2020**

Mission
Provide energy and solutions for development with sustainability.

Vision
Be a reference in business in which it operates generating value in a sustainable way.

Note:
Copel COM does not demand natural resources for the execution of your business activities. As your activity is strictly commercial, it does not demand manufactured capitals either.



- Achieve a 4% market share by 2024.
- Be recognized by the market (generators and buyers) for excellence in care and services provided until 2024.
- Have an engaged and entrepreneurial workforce.
- Development of Culture geared towards the market.
- Implementation of the Digital Transformation Program.

Better corporate governance among state-owned companies, according to [B][3].

- Risk of default.
- Liquidity risk.
- Market risk.

- New regulatory framework.

Copel COM uses analysis of the market and its needs for planning creative actions new products and services for its customers.

- Copel's ranking enables acquisition renewable incentive energy, with contracts terms at competitive prices.
- Integrated portfolio management for Copel's plants with Comercializadora's portfolio.
- Commercialize Renewable Energy Certificates
- Operate in the natural gas free market.

Differential: trader with the Copel seal, which translates into robustness and reliability and brings with it its own generation portfolio and in-depth knowledge of Paraná's customers. **Business model:** adaptable according to a broader view of the opportunities that this new environment provides and will provide.

Copel Telecomunicações

THE CAPITALS BELOW ARE REPRESENTED BY COLORS FOR IDENTIFICATION, IN THE GENERATION OF VALUE, WHICH RELATED TO THE VALUE GENERATED AND TO WHICH INTERESTED PARTIES.

CAPITALS	FINANCIAL	HUMAN	SOCIAL AND RELATIONSHIPS	INFRASTRUCTURE	INTELLECTUAL
	R$ 54.13 million in investments	**355** own employees **774** outsourced employees	Several channels of relationship with main stakeholders **1,377** customers benefited from Paraná Connected Corporate volunteering	**36,481** total kilometers of cablesfiber optic **24,456** kilometers of access network	MEG (Management Excellence Model) Business knowledge Balanced Score Card **12,262.30 hours** of training

INTERESTED PARTIES ARE REPRESENTED BY ICONS TO IDENTIFY WHICH ARE IMPACTED BY THE GENERATION OF VALUE.

COPEL (HOLDING) · EMPLOYEES · CUSTOMERS · COMMUNITY · SUPPLIERS · REGULATING BODIES

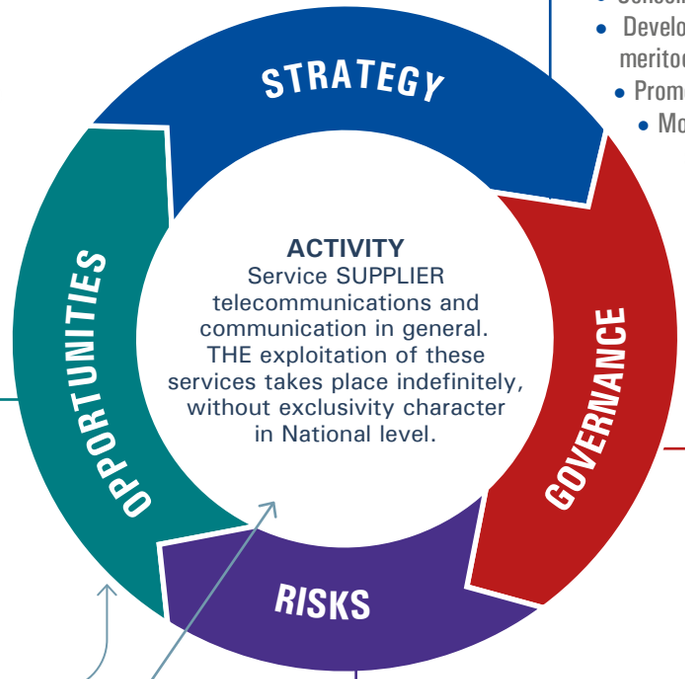
VALUE GENERATION

- » Excellence in the provision of services
  - » GUARANTEED INSTANT SPEED CONTRACTED: 99.03%
  - » GUARANTEED AVERAGE SPEED CONTRACTED: 98.49%
  - » AVAILABILITY RATE: 99.90%
  - » SUBSCRIBER RESPONSE RATE: 99.96%
- » Indirect impact on the development of the State of Paraná
  - » 78.09% FROM LOCAL SUPPLIERS (PARANÁ)
  - » R$ 105,768,894.6 MILLION IN CONTRACTED VOLUME
- » Sharing the service for communities and concern for the environmental impacts
  - » HIGH QUALITY DATA LINK AVAILABILITY TO ALL STATE SCHOOLS
  - » DATA INFRASTRUCTURE AVAILABILITY INTERNET IN EVENTS
  - » CARBON ZERO
  - » 100% RECYCLING OF OPERATING WASTE
- » Corporate governance
  - » 12,262.30 HOURS OF TRAINING
  - » TRAINING APPLICABILITY: 82.49%
  - » DEGREE OF EMPLOYEE SATISFACTION (GREAT PLACE TO WORK) 67 %%

Mission
Provide energy and solutions for development with sustainability.

Vision
Be a reference in business in which it operates generating value in a sustainable way.

Notes:
1. Copel Telecom does not require natural resources to carry out its business activities.
2. Copel Telecom does not have its own Mission and follows Copel's corporate purpose of providing sustainable solutions.
3. Copel Telecom basically performs administrative tasks, and so it has only indirect negative impacts on society, the environment, and the economy. Its potential direct impacts are related to the risks the company is subject to.



- Reconciling sustainable growth, profitability, indebtedness and distribution of results;
- Guarantee the quality of services provided with efficient, integrated processes and with gains in scale;
- Increase the customer base with the alignment of sales, activation and maintenance actions;
- Ensure corporate, environmental, governance, risk management and compliance sustainability by maximizing and promoting excellence in risk management and internal controls;
- Consolidate the culture of safety, health and quality of life;
- Develop high performance teams and promote the culture of meritocracy and consequence management.
- Promote the culture of innovation and digital transformation;
- Monitor the Business Plan approved by the Executive Board, seeking confirmation and implementation of strategies and achievement of the expected financial results.

- Heating of the Telecommunications market with the increase due to the Covid-19;
- The telecommunications sector (due to changes in the habits of consumers) has become an essential good and no longer a superfluous one;
- Government policies aimed at encouraging investment in building networks and increasing broadband penetration;
- In Brazil, broadband penetration is low, with a vast room for growth.

Better corporate governance among state-owned companies, according to [B][3].

- Losses of competitiveness for the competition;
- Do not rationalize and/or automate business processes, impacting the scale, quality and cost contracted;
- Lack of innovation in products or services.

Differential:

- Copel brand;
- Product quality (essential competence);
- Quality of the optical network in Paraná (essential competence);
- Quality in speed, trend and availability.

Operational efficiency

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

Achieving operational efficiency means reaching world-class levels, while decreasing demand for resources and inputs and at a lower cost. Maintaining that level is one of Copel's strategic objectives, as shown in its Strategic Map, and it applies to the entire Company in its indicators and goals.

In that sense, Copel contracted, in 2020, a world-class consultancy company to develop a project called 2020-2024 Value Maximization Journey (Jornada Maximização de Valor 2020-2024), whose scope included top-down analyses on efficiency gain opportunities; a survey on the Full Time Equivalent of processes (to measure the degree of an employee's involvement with activities); definition of comparative benchmarks and gaps; and the creation of initiatives, ways to quantify opportunities, and action plans. Each plan will be executed with a specific schedule and objectives, from the creation or extinction of sectors, to the contracting of third parties, among other measures. More than 200 initiatives have been identified that will have an impact on the Company's financial standing and productivity, including some that target operational efficiency.

At Copel there are areas dedicated to managing efficiency, which assess the performance metrics. The operational areas inform and take action in regard to failures. The plants, transmission lines, substations, and distribution and telecommunications systems are serviced by their own maintenance teams. There is also a maintenance team located in Curitiba, which provides support to deal with more complex issues that go beyond the competencies of the field teams. Copel has developed all of its operational management software.

Since 2018, the Company has followed the Management Excellence Model (MEG) guidelines, set by the National Quality Foundation (FNQ), and has adopted a shared-cost structure model to leverage the synergies between its business units. The operational and maintenance processes for all energy generation plants and the energy transmission infrastructure count on ISO 9001 (Quality Management Systems) certifications.

The main operational efficiency indicators for energy generation are Power Availability (%), Failure Rate (%), Equivalent Forced and Programmed Unavailability Rates (TEIFa and TEIP), and Average Repair Time (TMR), as defined in Module 9 of ONS' Grid Procedures, Submodule 9.2 - Performance Indicators for Equipment and Transmission Lines and for the Power Transmission and Generation Functions. As regards transmission, the Variable Portion (PV) discount, operational efficiency (PMSO/Km LT and PMSO/modules), and maintenance plan execution indicators are monitored. The operational efficiency goals are monitored through periodical reports and the Critical Analysis Meetings (RAC), every quarter. When there is any deviation in relation to the planned goals, an action plan is elaborated in the Company's Strategic Management System (SGE).

As regards distribution, operational efficiency is a requirement of the concession contract, in which economic and financial and quality of supply goals are established which, when not achieved, lead to penalties that will range from a restriction in the payment of dividends to shareholders to contract termination. Thus, the distribution area's operational performance might directly affect Copel's profit, the level of quality perceived by its clients, and regulatory bodies' expectations.

An efficient management of the process, for example, optimizes the field teams' operations during resumption of power supply disruptions, and the commercial services, thus increasing consumer satisfaction and lowering costs with unnecessary displacements. The results are monitored at critical analysis meetings, held at intervals defined for each hierarchical level. As regards indicators below the established goals, action plans are elaborated according to the "Third Generation Report" methodology, in which the points that have hindered the expected performance are identified and recovery propositions are defined. Some main processes also count on an ISO certification, which requires an evaluation by an external certifying company. Another practice is to map the main business risks and establish internal audit plans for the processes with the most relevant risks. Copel is also subject to periodical inspections by the regulatory bodies, whose results are used to support operational improvements. Benchmarking visits are also made to other companies, in order to know the best practices in the sector and compare goals.

Copel's main goals in the energy distribution area are to control its costs with personnel, materials, services, and other items (PMSO), to increase its revenues through investments, and to achieve the established disruption time (DEC) and disruption frequency (FEC) goals, in addition to the commercial goals established by Aneel, with the main purpose of fulfilling the regulatory concession maintenance and client satisfaction requirements. Electric power availability is guaranteed through a process called Distribution Grid Operation, which involves planning the grids within the mid- to long terms, in addition to short-term actions.

The distribution systems are divided according to their voltage class: medium voltage (13.8 kV and 34.5 kV) and high voltage (69 kV, 88 kV and 138 kV). For the medium voltage system, the planning activity utilizes data on consumption, market growth demand, and measurements at substations. For the high voltage system, the planning activity utilizes the same data, plus those provided by the National System Operator (ONS) and by the Energy Research Company (EPE), with which Copel has developed many different studies. Grid operations are simulated, considering the vegetative growth in a certain region and,

As regards power distribution, operational efficiency is a requirement of the concession contract, in which are established economic, financial, and power supply quality goals which, when they are not achieved, might lead to penalties ranging from restrictions to pay dividends to shareholders to the contract termination.

based on these results, systemic works are planned to fulfill consumers' energy demand. The results of the specific distribution indicators have pointed to improvements every year (see Quality of supply and energy losses, on page 42). The PMSO in 2020 amounted to R$ 1,107,893.

Throughout the year, many initiatives were implemented to enable achieving a good performance, among which the highlights are: engagement of all the team to achieve the strategic objectives; dissemination of the strategic map and its objectives to all employees; improvement of the organizational culture to reinforce the Company's strengths and identify improvement opportunities; optimization of the workforce and management of teams' productivity; actions to promote safety at work, especially for the teams that execute activities in the electric system; an innovation program; planning to expand the system, with the main purpose of guaranteeing abundant and quality energy for consumers; anticipation of climate adversities by structuring the contingency plans; and implementation of an energy efficiency program. Copel has also invested to modernize the electric system and in digital upgrade, whose main programs have included the implementation of the Advanced Distribution Management System (ADMS), the Smart Power Grid, the Paraná Three-Phase/Paraná Trifásico Program, and the Full Reliability/ Confiabilidade Total Program (see page 45).

As regards commercialization, weekly meetings to discuss prices and strategy are held, in which the market situation is analyzed and prices and electric power purchase and sale quantities are defined. Performance in view of the established indicators and goals is evaluated on a monthly basis at the critical analysis meetings. All the information is registered in the Strategic Management System (SGE).

As regards the telecommunications activities, inefficient processes or out of line with each other can cause wastage, rework, and consequently raise costs. As a result, they may affect our clients' perception regarding the quality of the provided services, generating complaints and loss of users and new sales, with direct impact on the revenues or even the application of sanctions by Anatel. From the internal point of view, operational efficiency is measured by the optimization of costs with personnel, materials, services and other expenses, with the purpose of obtaining a greater reduction than the loss of revenue caused by the competitive environment in the segment.

The indicators that must be monitored are value generation for shareholders and clients, the quality requirements defined by the National Telecommunications Agency (Anatel), key processes, and readiness of intangible assets. These indicators are analyzed at staff meetings. When they fall below the established goal or point to a nonfulfillment risk, the problematic points (causes) and improvement proposals are analyzed. Monitoring is undertaken through SGE.

Operation and maintenance (O&M) in the power generation area

GRI EU6

Within the scope of the power generation business, we have adopted the Operation and Maintenance Based on Reliability (O&MBC) concept. This is a structured process that aims at, through cause and effect analyses, defining the ideal management policies to avoid or restrict the consequences of functional failures and their related issues (health, environment, safety, and costs), and may be applied to any physical asset, considering its operational context.

A set of support tools is also applied in the O&M process, among which the highlights are:

- Occurrence Analysis Meetings on failures in Power Generating Units (Anaoco): the fundamental causes of failures are defined together with the actions deemed necessary to avoid the recurrence of problems;

- Support applications portal (Omni): a set of applications to record and control O&M activities in the power generation area. The activities are related to the planning of maintenance actions, team management, management of materials, inventory of equipment, registration of events, occurrence management analyses, and calculation of equipment performance indicators.

7 AFFORDABLE AND CLEAN ENERGY

7.3 Until 2030, increase the energy efficiency improvement rate in the Brazilian economy

Baseline	Electrical efficiency in 2019 (2,149 GWh).
Indicator	Total electrical efficiency (GWh or equivalent).
Suggested goal	Contribute to achieving 5% electrical efficiency gains until 2030.

Copel's Performance

Copel reported, in 2020, a net energy production of 14,534.6 GWh, a lower value than in year 2019, due to water shortage and the Covid-19 pandemic. In order to improve and ensure operational efficiency at its plants, Copel has been making a many investments, such as to modernize the thermoelectric plant of Figueira and to install new equipment in other hydroelectric plants.

All the projects and works in progress can be checked on pages 165 to 173.

Wind Power Complex of Cutia, in the city of São Bento do Norte – RN

Power generation

EU2, EU11

Hydroelectric power generation by Copel in 2020 amounted to 14,590.19 GWh, if compared to GWh 17,113.30 in 2019 and 18,009.20 GWh in 2018. The plants with an installed power superior to 50 MW, which corresponds to the majority of the Company's generation capacity, have their volumes established by the National System Operator (ONS) according to the conditions of reservoirs and the electric system's demand. Therefore, the quantity of energy to be produced is not defined by Copel itself, since it is subject to a decision taken by the ONS. The plants have reached an average availability factor of 93%.

In 2020, no thermal energy was generated in the thermoelectric plant (UTE) of Figueira due to it having been shutdown for modernization works in June 2018. This operation will only be resumed in 2021. In the Gas-Fired Power Plant of Araucária (UEGA), the average annual net efficiency reached 44.01%, calculated based on the plant's current total 201.29 m^3/MWh net thermal efficiency and on a 9,400-kcal/m^3 calorific power for natural gas. UEG Araucária Ltda. operates under an Independent Energy Producer (PIE) regulatory regime, the result of a joint venture between Petrobras (with a 18.8% stake) and Copel GeT (81.2%). The Company is responsible for operating and maintaining the unit within the agreed availability values, however this indicator is managed by the owner, UEG Araucária.

As regards wind power generation, total generated power reached 2.12 thousand GWh in 2020, if compared to 3.01 thousand GWh and 3.21 thousand GWh generated in the two previous years, respectively. This type of generation depends on the availability of wind turbines (affected by operation and maintenance) and on the availability of the wind resource, which may vary in the region throughout time. The value informed in 2020 also comprises the wind power plants located in the Northeastern region, which are specific purpose entities managed by Copel.

Monthly generation in the plants is monitored based on the daily-programmed volume set by the ONS and by the planning team of the operation based on the reports issued every month by the Electric Energy Trading Chamber. A report is elaborated every month on generation in the last 12 months to monitor the amount of energy generated by the Company.

Hours of disruption and operation in the plants in 2020

GRI EU30

Number of planned hours of disruption	47,297
Number of forced hours of disruption (unplanned)	12,712
Total of hours of the plant in operation	351,164
Hours in the period	534,360

Average availability factor of the plants

GRI EU30

	2019	2020
Average availability factor for energy	94%	93%

Manutenção em linha de distribuição

Quality of supply

GRI EU6

Planning of the grids is developed based on expansion studies, undertaken as per voltage class: Medium Voltage Distribution System (13.8kV and 34.5kV) and High Voltage Distribution System (69kV, 88kV and 138kV). For the medium voltage systems, the Company employs data on consumption and client demand, market growth, and measurements at substations. As for the high voltage system, the same kinds of information are utilized, plus data provided by the electric power sector's regulatory bodies – the National System Operator (ONS) and Energy Research Company (EPE). The grids are also simulated considering vegetative growth in a certain region and, based on the results, systemic works are planned to fulfill consumers' energy demand.

In order to manage the implementation schedule, periodical meetings are held to establish the priority reinforcements to be executed, to analyze critical facilities, and to debate about the distribution system's expansion philosophy. For the Paraná Three-Phase and Reliability Programs (see page 45) weekly critical analysis meetings are held, and monitoring is performed as well, counting on the Senior Management's participation.

The results of the investments made are perceived in the evolution of continuity indicators: DEC (Equivalent Duration of Disruptions as per Consumer Unit) and FEC (Equivalent Frequency of Disruptions as per Consumer Unit). In 2018, Copel reported a FEC with a global value of 6.22 disruptions, going down to 6.02 disruptions in 2019 and 5.61 disruptions in 2020. Considering only the events verified in the distribution system (FECi), that value amounted to 5.55, accounting for the lowest level ever achieved by the Company. The global goal established by Aneel in 2020 was of 7.24 disruptions. As for DEC – which accounts for the average

Planning of the grids is developed based on expansion studies, undertaken as per voltage class: Medium Voltage Distribution System (13.8kV and 34.5kV) and High Voltage Distribution System (69kV, 88kV and 138kV).

time consumers suffer power failures within the period of one year –, the global values assessed in 2018, 2019 and 2020 were, respectively, of 10.31 and 9.11 and 7.83 hours. Considering only the events verified in the distribution system (DECi), that value amounted to 7.81 hours, 20% below the global goal established by Aneel (9.83 in 2020), the lowest value ever achieved by the Company. GRI EU28, EU29

In 2020, global distribution losses — technical, non-technical and in the basic grid — accounted for 9.4% of the energy injected in the distributor's system. That percentage was 0.8 percentage points higher than the one seen in 2019. Technical losses, on that same basis, amounted to 6.0%, while non-technical losses amounted to 1.8% in that year.

PERIOD FROM JANUARY TO DECEMBER	DECi	FECi
2018	10.29	6.20
2019	9.10	6.00
2020	7.81	5.55

Global, technical and non-technical losses

GRI EU12

	2018	2019	2020
Global Losses – Distribution (%)	9.7	8.4	9.4
Technical Losses – Distribution (%)	5.9	6.0	6.0
Non-technical Losses – Distribution (%)	2.4	1.0	1.8

Nota: Technical losses refer to that portion of distribution losses inherent to the transportation, voltage transformation and energy measurement processes in the concessionaire's grid. Non-technical losses, on their turn, account for all the remaining losses associated to electric power distribution, such as energy thefts, measurement errors, billing errors, and consumer units lacking measurement equipment, among others. The average global losses in the last three years amounted to 9.1%.

11 SUSTAINABLE CITIES AND COMMUNITIES

11.1 Until 2030, guarantee access to safe and adequate housing and at affordable prices to all, access to basic services, and urbanize slums

Baseline	15% median (series from 2008 to 2018).
Indicator	Percentage of non-technical losses.
Suggested goal	Achieve, until 2030, actual non-technical losses inferior to 13%.

Copel's Performance

Copel's non-technical losses have been lower than 2% since 2019 and the average global losses in the last three years have been of 9.1%. Keeping losses at low levels and within the Company's goals contributes to help the Brazilian electric power sector as a whole to achieve the goal associated to objective 11.1 of the SDG's.

Conscious energy use

GRI EU7, 203-2, PRME 3, 4, 5

Law nº 9,991/2000 and Aneel Normative Resolution nº 892/2020 have established the application of financial resources in the Energy Efficiency Program, with the purpose of promoting the efficient use of electric power in all the sectors of the economy. Every year, Copel makes public calls so that consumers can submit proposals for projects to demonstrate the importance and economic viability of improving the energy efficiency of equipment, processes and end uses of energy. Industrial, residential (condos), rural, commercial, and service sector consumers can take part, as well as public powers, parties responsible for street lighting, and public services.

In 2020, 106 projects were selected after public calls, as a consequence of the process started in 2019, totalizing a record amount of R$ 154.3 million, with the highlight going to nine hospitals and 23 municipalities, which proposed improvements in street lighting systems, municipal schools, or their own buildings. The investment in those projects wil be made in the next two years. Public Call PEE Copel 003/2020 was also published, in which the total amount of R$ 30 million has been made available so Copel's consumers can implement energy efficiency projects.

Altogether, 72 PEE projects were implemented in 2020, with investments amounting to R$ 19.7 million – 7 of them were concluded throughout the year. Among them, the highlight goes to the initiatives developed together with five public universities in the State of Paraná, selected in response to Aneel Priority Project Call 001/2016, and which led, in 2019 and 2020, to the replacement of more than 100 thousand LED lamps and the installation of approximately 2.5 MWp of power generation photovoltaic systems, in addition to the implementation of energy management systems and studies to label buildings. In 2020, it is also worth mentioning the projects implemented together with hospital Santa Casa de Maringá, with the installation of a photovoltaic system, and a street lighting project in the municipality of Carlópolis.

PEE Project with UFPR

GRI 203-2

In December 2020 a photovoltaic solar plant was inaugurated in the campus of the Polytechnic Center, at the Federal University of Paraná (UFPR), in Curitiba. Funded by Copel's Energy Efficiency Program (Programa de Eficiência Energética/PEE/Aneel), this is the largest facility of its kind in Brazil: carport solar parking. R$ 21 million were invested to install this infrastructure, which will generate 1.2 megawatts of energy.

This project also includes the installation of 56 thousand LED lamps in that same university. With the solar plant and the replaced street lighting, savings will be superior to R$ 2 million per annum.

Energy efficiency

	2018	2019	2020
Saved Energy (MWh/year)	6,189.99	14,586.53	7,064.71
Saved Energy (tCO2/year)[1]	544.72	1,283.61	621.69
Demand Reduction at the End Point (kW)	1,169.35	2,521,38	776.30

1. MWh and tCO2 conversion according to yearbook Synthesis Report on National Energy Balance/Relatório Síntese do Balanço Energético Nacional – BEN 2019 (page 10), available at: http://www.epe.gov.br/pt/publicacoes-dados-abertos/publicacoes/balanco-energetico-nacional-2019. (88 kg CO2 for the production of 1 MWh of electric power).

Advances in operational efficiency

GRI EU23

The investment made to expand the distribution grids ensures to consumers and municipalities access to electric power, an input that has a positive impact on the quality of life of the population at large and leverages local economies, attracting new investments in trade and industry.

As the largest program of its kind in Brazil and the largest rural electrification initiative in the State since the 1980's, the Paraná Three-Phase Program forecasts investments for six years in the rural electric grid all over the state territory. It will include 25 thousand kilometers of three-phase grids and investments of around R$ 2.1 billion.

Of that total grid, 2,807 kilometers were already implemented until the end of 2020. This result was 12% above the total planned volume in that year, which pointed to the installation of a 2.5 thousand-kilometers grid, which is longer than the distance, on a straight line, between the municipalities of União da Vitória, in the State of Paraná, and Manaus, in the State of Amazonas.

Out of that total, 668 kilometers were installed in the South-Central region, 646 kilometers in the Eastern region, 573 kilometers in the Western and Southwestern regions, 501 kilometers in the Northeastern region, and 419 kilometers in the Northern region of the State of Paraná. In 2020, the investment exceeded the initially planned amount– R$ 210 million – reaching R$ 261 million. The new three-phase grid is spread all over the State and the works are generating around one thousand direct and indirect jobs in Paraná.

The new cables are shielded, with a reinforced resistance level when hit by tree branches or any other object. The new distribution grids provide power supply redundancy, since the three-phase scheme provides for interconnection between them. Thus, if energy fails at an end point, the other one can take over, and in the case of shutdowns energy supply is more quickly resumed.

The three-phase grids also enable advanced technologies to be installed and integrated into Copel's remaining grids. An example is the automation feature that has been implemented in the entire State, such as the automatic circuit reclosers.

In the Western and Southwestern regions alone, the budget forecasts the start of operation of a total of five new substations, 470 kilometers of high voltage distribution lines, and around 700 new circuit reclosers, switches, voltage regulators, and power transformers.

The Smart Power Grid program was launched in September 2020, to be implemented by Copel, with a total investment of R$ 820 million. This program has as its purpose to modernize electric power management and distribution in the State of Paraná. In its first phase, 151 municipalities will be served in the Eastern (Metropolitan Region of Curitiba), South-Central, Southwestern and Western regions, benefiting approximately 4.5 million people.

With this new system, consumer units will count on digital meters that directly communicate with Copel's Integrated Distribution Operation Center, enabling the Company to control the entire chain, from a substation up to end consumers. With this new system, consumption reading can be done remotely, providing autonomy so citizens can monitor their consumption level in real time by using an application. The smart grid will also include sensors and remote control devices

that enable the grid to reconnect in the majority of cases and, if that does not happen, Copel will be able from its integrated center to immediately detect and solve any eventual shutdown problem.

This will be the largest grid of its kind in Brazil, following a model that has already been implemented in countries such as the United States and Japan. Being fully automated, it will enable, among many other new solutions, to put en end to energy thefts, make cities increasingly smarter, guarantee a broad grid monitoring capability, and also decrease tariffs. The program will be implemented without any additional cost to clients. The first phase of its implementation should last for 30 months, and will offer a new technology to residential consumer units and urban and rural companies.

The Smart Power Grid came into being after a pilot project implemented in Ipiranga, a city in the region of Campos General, in 2018. Five thousand consumer units have been served in urban and rural areas of that municipality with highly satisfactory results. The duration of power supply shutdowns, for example, has decreased by 52% if compared to years 2018 and 2019.

Copel concluded, in July, the first stage of the Full Reliability Program, a set of works with investments amounting to R$ 300 million scheduled to the period between 2020 and 2022, in the grid automation, construction of substations, and communication technology areas, involving field teams and remote operation of the system. All the actions forecasted by the program are dedicated to boosting reliability, that is, to avoid electric grid shutdowns and to allow faster reconnection in the case of any eventual power supply disruption to consumers.

During the first half of 2020, 597 automation points and 52 electric grid self-reconstitution systems were implemented, which can identify a defect and reconnect unaffected stretches without requiring human interference.

Another operational front of the Full Reliability Program is a redimensioning of feeder circuits, in order to avoid that the impact of shutdowns might affect a large quantity of consumer units. In 2020, this segmentation was implemented in 26 distribution circuits.

An automatic energy source transfer system was also implemented in seven energy substations, and two new switching stations were built, in Rosário do Ivaí, in the Northern region of the State, and in Sapopema, in the South-Central region. Until the end of 2022, 86 new switching substations or stations will have been implemented in small municipalities, which do not count yet on one of these units.

In the communication area, the program forecasts the implementation of 65 additional VHF radio repeater sets in the network utilized by electricians, in addition to the implementation of a new satellite communication system to service those points not covered by radio.

7 AFFORDABLE AND CLEAN ENERGY

7.1 Until 2030, ensure universal, reliable, and modern access, and at affordable prices, to power supply services

Baseline	99.8% of the population with access to electric power supply (2019).
Indicator	Proportion of the population with access to electric power supply.
Suggested goal	Until 2030 provide access to electric power supply to 100% of the Brazilian population, by stimulating the use of new technologies and ensuring affordable prices and quality power supply.

Copel's Performance
According to Ordinance 2,344 and Annex I issued by Aneel on July 17, 2012, Copel concluded the Universalization Plan in urban and rural areas respectively in 2006 and 2010. | GRI EU26

11 SUSTAINABLE CITIES AND COMMUNITIES		
	11.1 Until 2030, guarantee access to safe and adequate housing and at affordable prices to all, access to basic services, and urbanize slums	
	Baseline	Not identified to measure a specific goal for the installation of smart meters (develop baseline and monitoring format).
	Indicator	Quantity of installed smart meters.
	Suggested goal	Expand the initiatives associated to smart cities until 2030.
	Copel's Performance Copel is implementing the largest smart power grid in Brazil, with a total investment of R$ 820 million. The program will modernize electric power management and distribution in the State of Paraná. During the first phase alone, 151 municipalities will be served, benefiting approximately 4.5 million peoples.	

Power transmission substation

Energy planning and increased demand

GRI EU10, EU19

As a state responsibility, electric power sector planning is currently developed by the Energy Research Company, according to that disposed in Federal Law 5,174/2004. This entity periodically publishes a series of indicators, studies and reports, including the "National Energy Plan" ("Plano Nacional de Energia") and the "Decennial Energy Plans" ("Planos Decenais de Energia"), documents that forecast and define the energy generation and transmission enterprises of interest for the Brazilian State, based on the Gross Domestic Product (GDP) growth projections.

Before being approved, the plans are submitted to a Public Hearing, when they are disclosed for stakeholder analysis, with the purpose of receiving contributions from many sectors of Brazilian society. Only after such public participation they are then published as public policy instruments for the sector.

The same applies to the service concession notices related to the electric power sector, which go through Public Hearings before being approved. Thus, the process to plan and grant public electric power generation and transmission services is conducted in a participative manner by Copel and the Brazilian State.

Covid-19 Pandemic

GRI 103-2, 103-3

The technological transformation Copel has been going through has been essential for maintaining its operational activities at the expected levels, since it has enabled the remote execution of daily activities by a large part of its employees – 70% have been working at their homes. The implementation of solutions such as Office 365 (a set of Microsoft applications) has enabled the Company to maintain productivity even while working remotely. For that percentage of employees who have continued to perform fieldwork, the equipment deemed necessary to ensure their health and safety has been acquired, and new operational norms have been established.

Commercial activities, however, have been affected due to the closure of on-site customer service agencies and to a halt in power cuts due to payment default until August. In order to circumvent these issues, Copel has adopted many different measures, among which: the elaboration of a specific action plan for its operations center, and their division into three working environments, which has enabled greater distancing between employees; the renegotiation of debts due to payment default; the expansion of customer services through a call center employing on-site attendants to do remote work; and an expansion of virtual services through the Company's website.

Energy commercialization has been economically affected due to consumption decrease and difficulties faced by clients to pay their power bills. In order to mitigate these effects, Copel has reduced or postponed contracts, and has also decreased the contracted amounts through amendments. It has also established criteria and terms of recognition to provide the payment of debts in installments, thus making it easier for clients to pay their debts.

ESG MANAGEMENT

Copel's Wind Power Complex, in the State of Rio Grande do Norte

Corporate governance

Strategic benchmark

GRI 102-16, PRME 1, 2

MISSION

To supply energy and provide solutions while promoting sustainable development.

VALUES

To be a reference in its business sector by generating value in a sustainable manner.

VISION

- **Ethics**
  The result of a collective agreement that defines individual behaviors aligned with a common objective.
- **Respect for people**
  Consideration towards other people.
- **Dedication**
  Capacity to intensely and fully engage with work and contribute to achieve the objectives of the organization.
- **Transparency**
  To render account on the Company's decisions and achievements and inform all stakeholders about their positive or negative aspects.
- **Safety and Health**
  A healthy working environment in which workers and managers collaborate to establish a continuous improvement process in order to protect and promote safety, health, and wellbeing for all.
- **Responsibility**
  Conducting the company's business activities in a sustainable manner, while respecting the rights of all stakeholders, including the future generations, and promoting our commitment to preserve all forms of life.
- **Innovation**
  Application of ideas to processes, products or services in order to improve existing practices or build something different and better.

Corporate governance practices

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

Corporate governance is the system according to which an organization is managed, and it is adopted to ensure a high level of transparency and management control over the business within the long term, while perfecting the relationship between shareholders, the administration, and remaining stakeholders. A fragile governance system, with a low level of protection for shareholders and investors, is associated to higher capital costs and is a critical factor for third parties' investment decisions. So, a well-structured process is fundamental for success, for gaining recognition, and for the longevity of any business, since it provides for a better and higher quality decision-making process, thus contributing to preserve and optimize long-term economic value.

Copel is a semi-public corporation, controlled by the State of Paraná, which holds 58.6% of its ordinary shares with voting right. The Company's corporate governance comprises an efficient set of mechanisms, including both incentives and monitoring, in order to ensure that the performance of its managers is always aligned with the best interests of the Company, of its stakeholders, and of the Government of the State of Paraná. Copel is listed at Governance Level 1 of B3 (Brazil, Exchange, Counter – Stock Exchange of Sao Paulo) and complies with the provisions of Federal Laws nº 6,404/1976 and nº 13,303/2016, with the rules set by the Securities and Exchange Commission (CVM), and with the remaining applicable legislations in force in Brazil. According to its new Bylaws, approved at the 201st Extraordinary General Assembly, held on March 11, 2021, the Company will migrate to Governance Level 2 of B3 upon the financial settlement of the secondary public offering of shares or Units to be held by the controlling shareholder.

Abroad, the Company complies with the norms set by the Securities and Exchange Commission (SEC) and the New York Stock Exchange (NYSE), in the United States, and by Latibex, the Bolsa y Mercados Españoles, in Spain. Copel's corporate governance system also includes the governance of its wholly owned subsidiaries, as established in their sharing contract. The Company's main governance documents and policies are available at website.

Among the best in corporate governance

In order to assess the maturity and quality level of its corporate governance, Copel has adopted the main market practices and compared its performance according to the best global and national benchmarks: Corporate Sustainability Index (CSI B3), in whose portfolio the Company remained in 2021, with a record score in its history – 79 points in the average of all evaluated items; an evaluation methodology in conformity with the Corporate Sustainability Assessment, established by S&P Global (Dow Jones Sustainability Index – DJSI); Pro-Ethics Seals; and Certification from the State-Owned Enterprise Governance Highlight Program of B3, in which Copel has kept a certification since 2018, and has been the only company to obtain the maximum score (60 points), having fulfilled all the requirements established in its regulations.

Copel's New Bylaws - advances in corporate governance

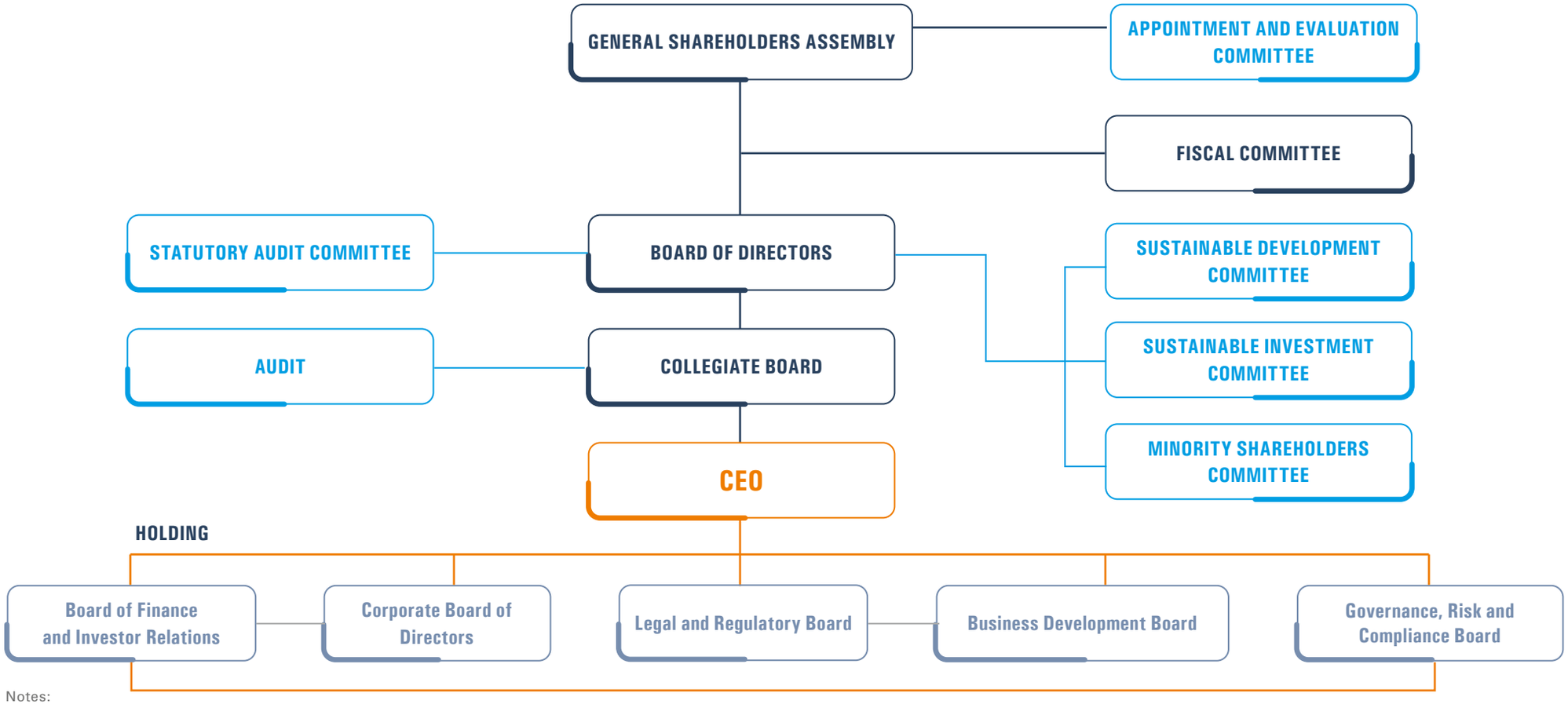
Copel's new Bylaws establish new provisions, among which:

- to guarantee that the current statutory device that mandates the integral application of tariff readjustments, homologated by the National Electric Energy Agency (Aneel), cannot be altered or excluded without the approval of the majority of shareholders holding preferential shares;
- to increase from two to three the number of members elected by the minority shareholders to the Board of Directors (CAD);
- inclusion of an independent external member in the Statutory Audit Committee; and
- establishment of 3 advisory committees for CAD:
  - Investment and Innovation Committee, with the purpose of evaluating and issuing recommendations for the Company's investment plans, composed of 3 CAD members, with one of them being a representative of the minority shareholders;
  - Sustainable Development Committee with the purpose of assisting the CAD to propose guidelines, policies and main topics related to staff management and ESG;
  - Minority Shareholders Committee with the purpose of analyzing and issuing recommendations and opinions on matters involving transactions between the Company and the controlling shareholder.
- a units transaction, including the breaking down of stocks at the ratio of 1 to 10 (according to the Notice to Shareholders issued on March 12, 2021); the possibility of converting stocks at the ratio of one ordinary share (ON) for a class B (PNB) preferential share, and vice-versa; the formation of units composed of five shares issued by the Company, with one ON (CPLE3) and four PNB (CPLE6);
- adhesion to Corporate Governance Level 2 of B3, which establishes, among other points: tag along of 100% for Ordinary and Preferential shares, thus providing equitable treatment to the Company's shareholders; and right of vote for the preferential shareholders in matters regarding transformation, incorporation, demerger, and merger of the Company. Such advances have added up to the Company's robust already existing Corporate Governance system, and to the new dividend policy, approved on January 20, 2021, according to Relevant Fact 04/21. Leaving Level 1 and migrating to Corporate Governance Level 2 of B3 is conditioned to the future realization and settlement of a secondary stock distribution public offer or units owned by the State of the Paraná, and issued by the Company, according to Relevant Fact 01/21, of January 08, 2021. Such restraint is forecasted in Art. 114 of the Company's Bylaws.

Corporate governance structure

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

Copel's corporate governance structure is composed of statutory bodies, with different levels of responsibility, as follows: General Shareholders Assembly, with its Appointment and Evaluation Committee and the Fiscal Counsels; Board of Directors with its statutory advisory committees: Statutory Audit Committee, Investment and Innovation Committee, Sustainable Development Committee and Minority Shareholders Committee; Internal Audit and Collegiate Board advised by non-statutory internal bodies, such as for example the Ethics Committee. Click on the names found in the image below to have access to further details. Other information, such as composition as per gender, stakeholders' participation, and technical competencies can be checked in Annex on pages 221 to 224.



Notes:
1. The Appointment and Evaluation Committee is shared with Copel's wholly owned subsidiaries (Holding).
2. Internal Audit is administratively subordinated to the Office of the Chairman of the Board, and functionally to the Board of Directors.

Appointment and performance evaluation of the members of statutory bodies

GRI 103-1, 103-2

Nomination and Appointment Process

102-24, 103-2

The Board of Directors members are, initially, nominated by the controlling shareholder (the State of Paraná), with the exception of the seat destined to a representative of the employees, for which an internal election process is held. Copel summons its shareholders to nominate the candidates via a Notice to the Market, published in the Board of Investor Relations' website, in conformity with Art. 21-L and 21-M of the CVM Instruction 481/2009 and the applicable legislation.

The Governance, Risk and Compliance Board evaluates each candidate as regards their requirements and impairments. The Appointment and Evaluation Committee verifies the conformity of nominations with internal norms and the applicable legislation, and especially with the Nomination Policy and the Internal Norm on the Nomination of Statutory Body Members (NAC 030311).

According to item 4,2,8 of NAC 030311, Board of Directors members are required to have knowledge and experience only as regards economic topics: "state-owned companies and semi-public corporations, which have their stocks listed in the New York Stock Exchange – NYSE and/or in B3, must make sure that at least one of the management advisors have recognized experience in corporate accounting matters in order to become a member of the Statutory Audit Committee."

Both the Nomination Policy and NAC 030311 point to diversity as a principle to be considered when selecting advisors, including diversity as regards educational background, qualifications and experience, including gender, religion, age, and race.

Remuneration of the members of corporate governance

GRI 102-35, 102-36

The remuneration of Chief Management Officers, Fiscal Counsels and members of statutory committees is defined on an annual basis by the General Assembly, following the determinations of the majority shareholder as established in Normative Deliberation nº 003/2019, issued by the State Companies Control Council (Conselho de Controle das Empresas Estaduais/CCEE/PR), which disposes on the general governance norms to be observed by state-owned companies and semi-public corporations under direct or indirect control of the State of Paraná.

The annual remuneration shall include burdens, representation allowance, and health and retirement plans. No payment/compensation is linked to the achievement of any goal, to variable remuneration, or to any performance indicator.

Evaluation of statutory bodies' performance

GRI 102-28, 103-3

Copel's (Holding) and its wholly owned subsidiaries' statutory bodies are annually submitted to a performance evaluation process, as established in Art. 81st of the Bylaws and in the Annual Performance Evaluation Policy for Statutory Bodies (NPC 0319). The requirement to perform such analysis is also forecasted in the applicable legislation and is a part of the best corporate governance practices. The Board of Directors is responsible for it, counting on the methodological support of the Appointment and Evaluation Committee.

The process comprises collective (peers and the body) and individual (self-evaluation) evaluations, and its independence is ensured by the contracting of an external consultancy company, which must develop the model and apply the same, according to the terms of Federal Law nº 13,303/2016. In addition to the statutory bodies, the members of the Executive Board and of the Corporate Governance Secretariat must also be evaluated.

Development of the members of governance bodies

GRI 102-27, PRME 1, 2, 3

The members of Copel's Senior Management are submitted to high-level on-site and virtual training on economic, environmental, and social topics. In 2020 the Program for the Development of Advisors and Chief Management Officers (Programa de Desenvolvimento de Conselheiros e Administradores) was implemented in partnership with the Brazilian Institute of Corporate Governance (Instituto Brasileiro de Governança Corporativa), with eight modules. Topics related to Federal Law nº 13,303/2016 were discussed – role and mission of the Council, Chief Management Officers' responsibilities, corporate legislation and Anticorruption Law; new business context, strategic challenges of governance, and essence of business value; strategic direction and monitoring; risk management roles; audit committee and compliance risks; innovation; staff management: control function; and corporate performance monitoring.

Within the scope of the Integrity Program, the Company's Chief Management Officers continued to receive qualification. In August, the offered training gathered 63 Chief Management Officers to qualify them in regard to the following topics: legislation and governance; capital market and information disclosure, Federal Law nº 12,846/ 2013 – Anticorruption Law; Copel's code of conduct; internal controls; best practices for the Board of Directors and the Fiscal Counsels, with this action being conducted by the Brazilian Institute of Corporate Governance (IBGC).

Integrity

Integrity Program and Code of Conduct

GRI 102-16, PRME 1, 2, 3

Copel's Integrity Program, whose more recent review and approval process by the Board of Directors occurred on June 17, 2020, was created based on Law nº 13,303/2016 (Anticorruption Law) to prevent, detect and mitigate any possible harmful act that might involve, for example, the practice of bribery, kickback, conflict of interests, frauds in bidding and payment processes, among others. Its rules are applicable to all employees, Chief Management Officers, and Fiscal Counsels.

The Code of Conduct, in force since 2003, is periodically revised, being also submitted to public consultation every four years. This document incorporates Copel's values, the principles of the UN Global Compact and of corporate governance, and establishes a set of conducts related to topics such as integrity, conformity, transparency, safety and health, social and environmental responsibility, and respect and relationship with the many segments and communities in which the Company operates.

The Code of Conduct is the guiding instrument for the acts undertaken by all those who perform any activity on behalf of Copel and its equity holdings, establishing parameters of conduct for employees, members of the Board, Councils, and Committees, trainees, suppliers, service providers and contractors. It is important to stress that any noncompliance with its principles and commitments subjects an individual to the penalties forecasted in the functional disciplinary norms.

The Code of Conduct is delivered to Copel's employees and Chief Management Officers through a receipt protocol. It is also available to all stakeholders at the Compliance Portal and is mentioned in Copel's Suppliers' Manual, delivered to each supplier upon signing any contract, when a Term of Awareness and Commitment is also signed, containing the Company's principles and guidelines. For commercial partners, the many anticorruption measures, policies and norms are communicated during workshops, seminars, and other events.

According to the Bylaws, the Governance, Risk and Compliance Board, which report directly to the Office of the Chairman of the Board, is the party responsible for managing the topics related to Copel's integrity, norms and values.

Conflicts of interest

GRI 102-25

Copel's guidelines to deal with conflicts of interest are described in its Bylaws and in the internal regulations of the statutory bodies, according to the applicable legislation, any specific policy, and the best corporate governance practices set by the Brazilian Institute of Corporate Governance (IBGC). The Policy on Transactions with Related Parties and Conflicts of Interest indicates the rules so that transactions between related parties are undertaken in the best interest of Copel and of its wholly owned subsidiaries, based on the principles of independence, competitiveness, conformity, transparency, equity, and commutativity. The Policy is also applicable, as a recommendation, to controlled and jointly controlled companies, and indicated to affiliated companies and other equity holdings, in compliance with their corporate procedures.

When any conflict of interest or private interest in relation to a certain subject to be decided is verified, it is the duty of the Chief Management Officer him/herself to immediately manifest in that regard. In case he/she fails to do so, anyone attending a meeting who is aware of any such fact must immediately manifest in that regard.

In such situations, the involved Chief Management Officer must be removed from any such discussion and deliberation, and temporarily leave the meeting. Verified conflicts are registered in the minutes of the respective Board of Directors meetings and made available at Copel's website.

Training on integrity

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

Copel provides every year to all employees and Chief Management Officers specific training on the Code of Conduct, under the distance learning modality. These activities have been developed based on the evaluations regarding the risk of fraud and corruption, with the purpose of targeting the most vulnerable business areas and processes.

For Chief Management Officers, training is divided into modules, in which are discussed issues related to the Code of Conduct; to the Anticorruption Law; to the Policies on Transactions with Related Parties and Conflicts of Interest, and the Risk Management Policy, among others; to Internal Controls; and to strategic corporate risk management.

Employees take part in the Compliance Ambassadors Program, which in 2020 provided qualification to professionals from many areas, in order to discuss this topic specifically as regards their operational activities. Altogether, 598 people have taken part in this program.

Those responsible for internal controls are also submitted every year to specific training promoted by the Governance, Risk and Compliance Board in partnership with UniCopel (the Company's Corporate University).

Governance body members and own employees trained on policies and procedures to fight corruption | GRI 205-2

Governance body members	Governance body members who have been trained	Percentage of governance body members who have been trained (%)
29	15	51.72

Employees	Employees who have been trained	Percentage of employees who have been trained (%)
6,667	3,057	52.60

Functional category	Total number of employees, as per functional category	Total number of employees, as per functional category, who have been trained	Percentage of employees, as per functional category, who have been trained (%)
Operations	33	15	45,45
Mid Level Technical Professionals	1,609	786	48.91
Mid Level Professionals	3,772	1,954	51.82
Higher Level Professionals	1,284	752	59.87
Trainee	171	30	17.54
Director[1]	9	4	44.44
Advisor[1]	33	2	6.06

Note: 1. These 171 trainees, 9 directors and 33 advisors are not included in the total number of employees shown in the previous table; however, they have been included in this table because they have been trained on the policies and procedures to fight corruption.

Anticorruption practices

Copel's anticorruption practices are based on law 12,846/2013 (Anticorruption Law) and on Decree nº 8,420, which deal with the implementation of integrity programs, as well as the administrative accountability of legal persons for the practice of acts against national or foreign public administration.

The Company's internal controls structure follows the standards set by the Committee of Sponsoring Organizations of the Treadway Commission (Coso), an internationally recognized framework, and Copel's Integrity Program enables for the integrated management of its internal controls, while providing as well a reasonable guarantee of adequate authorizations and accounting transaction records, enabling the Company to elaborate and disclose financial reports in conformity with the applicable norms.

In addition to the Integrity Program and the Code of Conduct, the most relevant guiding instruments to prevent and fight corruption within the Company, Copel has established corporate policies that are periodically revised and aligned with American laws Foreign Corrupt Practices Act (FCPA), of 1977, and Sarbanes-Oxley Act, of 2002, and with Coso.

As regards Copel (Holding) and its wholly owned subsidiaries, 100% of Copel's operations were submitted to corruption risk evaluations in 2020, and no such case has been identified so far. GRI 205-1, 205-3

Communication channels

GRI 102-17, 102-43

CWith the purpose of receiving opinions, critical remarks, complaints, suggestions and consultations, Copel makes some communication channels available that contribute to fight frauds and corruption. Another positive characteristic of these channels is to expand our relationship with stakeholders. The Company stimulates these parties to record any situation indicating any violation of its ethical principles, policies, norms, laws and regulations, or any other improper conduct. The communication channels are disclosed through articles in its Intranet network and banners posted at the work centers, in the Intranet and in the Internet. In 2020, ads were aired in radio stations in the State of Paraná and in the training on the integrity topic administered to employees, Chief Management Officers and advisors, among other stakeholders.

As mechanisms to disseminate guidelines on ethical and legal behavior, Copel has also made available:

Reporting Channel

GRI 102-17, 103-3

With the purpose of improving and raising perception of guaranteed anonymity to whistleblowers, Copel has made a Reporting Channel available since June 2018, managed by a company contracted through a bidding process. This initiative is part of a set of measures adopted with the purpose of strengthening the Company's governance practices.

All complaints are treated in secrecy, by ensuring anonymity, confidentiality and protection to whistleblowers. Copel stimulates people to report frauds, corruption, noncompliance with laws, norms or guidelines of the Code of Conduct, and remaining illegal acts or irregularities involving audits and financial or accounting practices.

The process involving the receipt and investigation of reported events through the Reporting Channel is monitored by the Ethics Committee, which since January 2020 has become a collegiate body that assists the Board of Directors, composed of the Governance, Risk and Compliance Director, the Corporate Management Director, and the Legal and Institutional Relations Director, in addition to a member of the Board of Directors. This body, through its deliberations, may invite the Director from the involved area and Copel's (Holding) CEO to discuss the matter in question and assist the decision-making process.

	0800 643-5665
	https://www.copel.com/canaldedenuncias
	Available 24 hours a day, 7 days a week
	Open to the internal and external stakeholders

MANIFESTATIONS RECEIVED BY THE REPORTING CHANNEL IN 2020

GRI 102-34

Unfounded	2
Founded	2
Subtotal	4
Under analysis on December 31, 2020	9
Overall total	**13**

Note: the table above includes all the complaints reported in the previous years regarding the integrity topic, regardless of their relevance. In 2020, the methodology employed to investigate complaints was altered, by starting to consider just those reports deemed relevant by the Senior Management.
GRI 102-48

Copel Distribuição's Ombudsman's Office

GRI 102-17

	Suggestions, complaints and suggestions
	0800-647-0606
	ouvidoria@copel.com
	Available on working days, from 8 AM to 6 PM
	Rua Professor Brasílio Ovídio da Costa, 1703 Santa Quitéria | Curitiba (PR) – CEP 80310-130
	It welcomes personal reporting of occurrences
	Open to internal and external stakeholders

Copel Telecomunicações' Ombudsman's Office

	Suggestions, complaints and suggestions
	0800-649-3949
	ouvidoriatelecom@copel.com
	Available on working days, from 8 AM to 6 PM
	Rua José Izidoro Biazetto, 158, Bloco A, Salas 06 e 08, Mossunguê - Curitiba (PR)
	It welcomes personal reporting of occurrences
	Open to internal and external stakeholders

Ethics Committee

	An advisory body that assesses and issues guidance on the processes related to ethical conduct in the Company, with a maximum term of 90 days to provide a final answer
	https://www.copel.com/canaldedenuncias
	Available on demand
	Open to internal and external stakeholders

Moral Harassment Report Analysis Commission (CADAM)

	Commission created to assist and support any and every employee who has been a victim of moral harassment in the work environment. The provided information is confidential and both the whistleblower and the reported person are guaranteed to have their identities preserved.
	https://www.copel.com/canaldedenuncias
	Available on demand
	Open only to the internal public

Demands treated by the Ethics Committee in 2020

480 complaints

9 consultations and other demands

Covid-19 Pandemic

GRI 103-2, 103-3

Copel's Senior Management has adopted timely actions to fight the Covid-19 pandemic, to provide support and ensure clarity in its decision-making process, and to manage the crisis, in order to guarantee compliance with all the measures adopted to contain the dissemination of that disease in the Company and minimize its impacts and potential impacts on the administrative, operational, and economic, and financial areas. To do that, it has established a Contingency Commission, to act based on four pillars:

- people's safety;
- continuity of essential activities;
- monitoring of the guidelines and requirements set by the regulatory bodies; and
- preservation of adequate financial conditions to cope with the crisis

The objectives are: to keep the electric power, telecommunications, and piped gas infrastructure fully operational, through a strict safety protocol in order to preserve the health of professionals; to guarantee safe access to workplaces; to keep the necessary distancing between individuals in the work environments; to reinforce the sanitation routines and make individual protection equipment available to all.

Among the main initiatives in this regard, we may mention the adoption of remote work in the areas where this is possible, travel restrictions, holding meetings via videoconference, a daily follow-up on the health condition and wellbeing of all employees, and compliance with the contingency protocols.

The commission remains active in 2021, acting mainly in regard to labor health and safety issues associated to the pandemic.

Integrated Power Distribution Center, in Curitiba-PR

Risk management

GRI 102-11, 102-15, 102-29, 102-30, 103-1, 103-2, 103-3, 201-2

By pointing to threats and opportunities, and providing information to support the decision-making process, risk management is directly associated to Copel's sustainable growth. The Company's Risk Management Policy, in force since 2009, forecasts the integration of these management practices by defining the strategies and monitoring corporate performance, through the establishment of formal roles and responsibilities, the constitution and maintenance of an adequate infrastructure, the definition of a common methodology for the entire Company, and by stating its risk appetite. For this purpose, all legal, regulatory, socio-environmental and reputational aspects are taken into consideration, to subsidize the decision-making process and the execution of operational activities, after having previously defined the risk classification criteria, their occurrence probability, and any eventual generated impact, as well as the implementation of adequate responses.

The Risk Management Policy comprises practices to disclose and control incidents; to monitor the adequacy and efficacy of the responses given to existing risks; to ensure the accuracy and integrity of disclosures; to timely correct any deficiency; and to periodically communicate with the Statutory Audit Committee and the Board of Directors, the parties responsible for monitoring and inspecting risk management at Copel. The risk controls are also annually tested through an external audit.

The rules of the policy are applicable to all corporate areas, to the wholly owned subsidiaries, and to controlled companies, and are recommended to Copel's jointly controlled companies, affiliated companies, and other equity holdings. 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). It was revised for the last time in 2020 and was approved at an ordinary Board of Directors meeting held in November, after a favorable recommendation by the Collegiate Board and the Statutory Audit Committee. The Company's Senior Management is annually given training on the document, while employees are trained on the risk management methodology.

Some of the main threats to Copel and its wholly owned subsidiaries are described throughout the current report, as well as the adopted mitigation measures. Other information on this topic are available in Form 20-F and in the Company's website. Copel is aware that failing to adequately manage its risks might generate impacts of a financial nature, to its image and operations, and of a socio-environmental nature, which, consequently, might lead to financial losses, damage its reputation and hinder the normalization of its operations, or harm environmental resources and society at large.

The strategic risks associated to its operations are revised during the elaboration of its Strategic Planning, a work jointly performed by the Senior Management of Copel (Holding) and its subsidiaries through risk identification and analysis, the definition of a control and contingency plan, and the implementation of monitoring actions. Falling within the operational risk category, the socio-environmental risks are those related to the impacts of Copel's operations on society and on the environment, which might affect its reputation and generate sanctions from inspection bodies. They are also related to the effects of severe weather conditions, to the burst of dams, to the scarcity of natural resources, to the mobilization of local communities, or to the management of health crises, and might affect the performance of provided services and cause losses to Copel.

The opportunities offered by an adequate sustainability management are reflected in the new business initiatives the Company has been developing, such as the construction of the largest electrified monorail (an infrastructure built for electric vehicles) in Brazil, 730-kilometer long, connecting the Port of Paranaguá to the Iguaçu Falls, in Foz do Iguaçu; the acquisition of photovoltaic plants for distributed power generation; the development of research and development projects with universities aimed to improving distributed generation; and the prospection new power generation business opportunities, such as using biomass and biogas derived from agroindustry, corporate assets, and forest waste, and from the decomposition of organic matter from solid waste.

The Company's Risk Management Policy, in force since 2009, forecasts the integration of this management procedure into the definition of strategies, performance monitoring, the establishment of formal roles and responsibilities, adequate infrastructure maintenance, the definition of a common methodology for the entire Company, and its risk appetite statement.

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

TOPIC	RISKS	IMPACTS
Strategy	Risks associated to the Senior Management's decision-making process and to strategic planning.	Substantial loss to Copel's economic value.
Reputation	Negative publicity.	Losses derived from the deterioration of the Copel brand before the market, clients and regulatory bodies.
Market	Changes in market prices, such as, for example, in exchange rates and interest rates, and in stock prices.	Oscillation in fair value or in the future cash flows from financial instruments.
Liquidity	Insufficient resources, cash flow, or other financial assets.	Impossibility to settle obligations on the forecasted dates.
Credit	Failure by clients to fulfill their contractual obligations.	Difficulty to receive billed amounts from its clients or from a counterpart in a financial instrument.
Disclosure	Possibility of issuing incomplete, inexact or untimely financial, managerial, regulatory, tax, and statutory reports.	Penalization of Copel through fines or other sanctions.
Processes	Inefficacy and inefficiency in Copel's operations, including the financial and operational performance goals.	Losses resulting from failure, deficiency or inadequacy of internal processes, personnel and systems, or external events.
Information Technology (TI)	Vulnerabilities in access controls, failure to segregate functions, violation of policies, external attacks, disruptions in IT environments, improper alteration or disclosure of information.	Unauthorized access to the Company's data and information.
Socio-Environmental	Impacts of Copel's operations on society and the environment. It is also related to the effects of severe weather conditions, the scarcity of natural resources, or to the mobilization of local communities.	Impacts on the Company's reputation and operations due to decisions made by inspection bodies. It may also cause service provision disruptions or energy generation losses.
Projects	Risks related to power transmission, generation, and distribution, telecommunications, and research and development projects, among others.	It may lead to additional costs, delay in the delivery of a project, and sanctions by regulatory bodies.
Laws and norms	Nonconformity with the environmental, labor, tax and regulatory laws Copel is subject to, including its policies and internal norms.	Sanctions by regulatory bodies.
Fraud and corruption	Theft of physical assets, manipulation of information, financial resource deviations, conflicts of interest, influence peddling, bribery, kickbacks, colluding with suppliers and clients, among others.	Financial losses, fines, sanctions and penalties by inspection bodies, and deterioration of Copel's image.

Objectives of Copel's risk management procedures

GRI 103-2

In its risk appetite statement, Copel commits itself to strive, in the next years:

- to act according to the highest ethical and compliance standards;
- to guarantee that the adopted activities or practices respect corporate and environmental sustainability in its business enterprises;
- to guarantee that safety at work is strictly observed in all of Copel's operations;
- not to act in segments not associated to its main activity; and
- to invest in adequate business ventures as regards Copel's portfolio and capital allocation strategies.

The guidelines to fulfill the risk management objectives include:

- to consider the socio-environmental, corporate sustainability, and health and safety aspects, striving to anticipate, evaluate and reduce the short-, mid- and long term impacts of its operations on society at large;
- to identify new and emerging risks, so that the Board of Directors is able to implement timely responses;
- to direct the identified opportunities to the competent areas for analysis and implementation of the actions deemed necessary for their execution;
- to assist the Board of Directors to develop processes, provide responses to risks, and define corporate tolerance to risk in order to manage risks and problems; and
- to monitor the adequacy and efficacy of risk responses, the accuracy and integrity of corporate disclosures, and the timely correction of any deficiency.

Main risk factors identified by the Company

GRI 102-15

Sectors of the economy where we operate

- Large dependence on the economy of the State of Paraná;- Political conditions that influence the Brazilian economy;
- The effects of the coronavirus pandemic (Covid-19) on the Brazilian economy, which may affect our operations and results;
- Government policies and priorities that conflict with the interests of our investors; and
- Cyber attacks or security breaches.

Regulation of the sectors where we operate

- Renewal of power generation and transmission concessions;
- Maintenance of an energy distribution concession contract;
- Periodical tariff readjustments and reviews that might affect the company's operating revenue;
- Alterations in the regulations that might affect the company's financial performance; and
- Regulatory changes in the energy price formation methodology in the short-term market

Clients

- Migration of consumers from the distributor market to the free consumer market;
- Migration of free market consumers from the power generating company to alternative energy suppliers;
- Installation of cogeneration in plants for consumers free from the distributor; and
- Alteration in payment default levels and commercial losses.

Suppliers

- Noncompliance with contractual clauses; and
- Unavailability of materials and workforce within the adequate term that might affect our business.

Socio-environmental issues

- Failures in dams under our responsibility might cause severe damages to the affected communities, to our results, and to our reputation;-
- Severe climate adversities might affect our business;
- Uncertainties related to wind speed might affect the operations of our wind power stations;
- Hydrological conditions might affect our power generation operational results; and
- Failure to fulfill the corporate guidelines in regard to environmental, social, and governance aspects - ASG.
- These aspects are transversal to all of the Company's businesses, and neglecting them might lead to financial, operational and reputational losses.

Controlled and Affiliated Companies

- Our controlled and affiliated companies might not be successful, and we cannot ensure our investments in controlled and affiliated companies will produce the expected results. Our activities, financial conditions and operational results might be affected due to: (i) regulatory, economic, environmental, and legislation issues, among others; and (ii) corporate disputes in our equity holdings.

Nota: demais informações sobre os principais riscos que incidem sobre a Copel e as suas subsidiárias integrais, as formas de mitigação adotadas, bem como os fatores de risco, estão disponíveis nos itens 4 e 5 do Formulário de Referência 2021 e no Relatório 20F, em www.copel.com, na página de Relações com os Investidores.

Dam safety

GRI EU21

The National Dam Safety Policy (PNSB) was defined by Law nº 12,334, enacted on September 20, 2010, and altered on September 30, 2020. This legislation establishes standards, regulations, and monitoring procedures, among other guidelines, for dams used to accumulate water for any use, for the final or temporary disposal of residues, and for the accumulation of industrial waste.

In addition to that, the National Electric Energy Agency (Aneel) has regulated, within the scope of the electric power sector, Law 12,334 through Resolution nº 696, approved on December 15, 2015.

Dams are important structures for the Company's business, since they concentrate the majority of our power generation capacity. The structures assembled for hydroelectric plants count on well-consolidated constructive standards and safety criteria, and their conditions are verified in every phase – design, construction, and operation. However, as in any structural work, they pose a risk of failure associated to different factors, both internal and external. In order to mitigate these risks and guarantee the integrity of the dams under its responsibility, Copel operates in a preventive manner, according to criteria and procedures aligned with the best engineering practices and the legislation in force. Hydroelectric plants count on a Dam Safety Plan (PSB) and on an Emergency Action Plan (PAE), both in conformity with the required legal parameters. The Company also counts on a Dam Safety Engineering Sector, whose employees are responsible for executing maintenance procedures and continuously monitoring these structures.

The Operation and Maintenance areas control the "Quantity of PAE simulations at Plants" indicator, established in the Management Contract and whose goals have been 100% fulfilled in the last three years. In order to evaluate and validate the procedures forecasted in those plans, five tabletop type internal simulations were undertaken in the year 2020.

The Operation and Maintenance areas control indicator "Quantity of PAE simulations in Power Plants," established in the Management Contract and whose goals have been 100% fulfilled in the last three years.

The PAEs are disclosed and delivered to representatives of City Halls and Civil Defense coordination offices from the municipalities potentially affected in the case of dam rupture, as well as to state Civil Defense coordination offices, in addition to being the object of inspections undertaken by Aneel.

Hydroelectric Plant of Guaricana, in the city of Guaratuba – PR

Covid-19 Pandemic

GRI 103-2, 103-3

To face the health and economic crisis caused by the pandemic, Copel created a management commission to elaborate procedures and recommendations, and started to ask all employees to intensify their preventive measures and adopt the necessary cares to cope with a contamination risk situation. It also revised its administrative procedures, defined action plans for preventive measures; created special procedures and procedures for employees under the risk of contamination; and elaborated contingency plans.

Copel has also established a Contingency Committee, whose purpose is to monitor and mitigate the impacts and consequences of the crisis on the Company's main activities according to four pillars: people's safety, continuity of essential activities, to monitor the guidelines and requirements set by the regulatory bodies, and to preserve adequate financial conditions to cope with the crisis. The risks associated to the pandemic are periodically reported at the meetings held by the Collegiate Board, the Statutory Audit Committee, and the Board of Directors.

To mitigate cybersecurity risks, Copel has revised its internal controls, its Information Technology governance documents, and has implemented new information safety tools.

Sustainability management

Copel is a company committed to sustainable development. By ensuring responsible and competent operations, based on a balance between the economic, social and environmental aspects, the Company has obtained significant results, generating shared value for its stakeholders and increasingly gaining greater recognition from society.

Its orientation towards sustainability is confirmed by the Company's presence in the following portfolios:

- Corporate Sustainability Index (CSI), of B3, for the 15th time, having achieved its best result ever; and
- FTSE 4Good Index Se*ries.*[3]
- Copel has also been submitted to the following international evaluations:
- MSCI ESG Ratings: Note BBB; and
- Sustainalytcs: ESG Risk Rating: Medium Risk.

Wind Power Complex of Cutia, in the cities of Pedra Grande and São Bento do Norte – RN

3. Index that measures the performance of companies in the environmental, social and governance spheres. Prepared by the independent index production company FTSE, it is made up of The Financial Times and the London Stock Exchange.

Copel is committed to the main initiatives adopted in the world of sustainability (see pages 70 to 76) and to standard market practices, by including them in its management practices and strategies. Such practices are developed according to its periodically revised Sustainability Policy, whose guidelines go beyond its internal activities and are extended to promoting sustainable operations also among its suppliers and on behalf local communities. The document has been elaborated by professionals from the sustainability, environment, social responsibility, corporate integrity, innovation, financial, and management areas, counting on the support of professionals from its wholly owned subsidiaries. Its guidelines are based on the commitments assumed with sustainable development (see page xx), on its corporate governance principles, and on the values and principles of Copel's Code of Conduct.

Copel's responsible posture in regard to this topic is also confirmed by its participation in platforms that provide benchmarking studies, and through the measurement and evaluation of its performance:

- **Ethos Indicators on Sustainable and Responsible Business Models** – Copel utilizes these indicators in order to manage and measure its excellence level in relation to corporate social responsibility;
- **Ethos Indicators – Integrity, Prevention and Fight Against Corruption** – the signatory companies of the Brazilian Business Pact for Integrity and Against Corruption are evaluated every year according to a set of 70 issues associated to the commitments assumed upon their adhesion;
- **Management Excellence Model (MEG) set by the National Quality Foundation (FNQ)** – an organizational management reference model that subsidizes the "Best in Management" prize awarded by the National Quality Foundation (FNQ). It is composed of eight fundamentals, including Sustainable Development, and involving economic and financial, environmental and social topics. In 2020, Copel GET took part in the FNQ Evaluation.

To render account, orientate its engagement with stakeholders, and report on its performance, Copel has adopted:

- ***Global Reporting Initiative (GRI)*** – Copel has published sustainability reports based on the GRI Standards since 2005, aiming at providing transparent information on its management and performance in regard to most relevant topics for business sustainability, through consistent and comparable disclosures.
- **Integrated Report, issued by the International Integrated Reporting Council (IIRC)** – in 2015, the Company started to adapt its report to the Integrated Report's methodology.
- **Greenhouse Gas Protocol (GHG Protocol)** – since 2008, Copel has published its greenhouse gas emission inventory following the standards set by this global initiative. Since 2012, the inventory has been verified by a third party.
- **Carbon Disclosure Project (CDP)** – through this platform, its greenhouse gas emissions, management practices, and strategies to fight climate changes have been reported since 2010.

Details on Copel's sustainability practices and initiatives are available at *website*.

Power supply station for electric vehicles, in Curitiba–PR

Voluntary commitments

Throughout its history, Copel has assumed, supported and disseminated globally recognized voluntary commitments such as good corporate sustainability practices (listed in table). The Global Compact is one of the main initiatives launched by the UN to engage companies and organizations to adopt principles in areas such as Human Rights, Workers' Rights, Environment and Fight Against Corruption.

The Company is a member of the Global Compact Network Brazil, composed of companies, agencies from the system of United Nations agencies in Brazil, business entities, society civil organizations, and teaching institutions, among others. As a part of this collective and due to its level of commitment, Copel is a member of and financially contributes to the Global Compact Brazilian Committee (CBPG), responsible for the regulations applicable to the Thematic Groups (GTs), for the guidelines, for defining the budget, and for the integrity measures adopted by the Brazilian Network.

The Company is directly involved with the activities of the Action Work Groups to promote the SDG's, Energy & Climate, Human & Workers' Rights, and with the Engagement and Communication Commission (CEC). Copel's progress in adopting the ten principles of the Global Compact is reported in the current document (page 74).

Initiative | GRI 102-12	Volunteer / Mandatory	Adoption Date	Involved Stakeholders
Global Compact	Volunteer	2000	All
Gender and Race Pro-Equality Program	Volunteer	2009	All
Women Empowerment Principles – WEP	Volunteer	2010	All
Sustainable Management Education Principles | **PRME**	Volunteer	2014	All
2030 Agenda	Volunteer	2015	All
Brazilian Business Pact for Integrity and Against Corruption	Volunteer	2015	All
National Movement for the SDG's "We Can"	Volunteer	2016	All

20 years of Global Compact

The Global Compact reached 20 years in 2020. Copel has been a signatory since the treaty was launched in 2000. To celebrate this milestone, representatives from 156 countries took part through digital channels in the Leaders Summit of the United Nations Global Compact to debate how the business sector can support a more sustainable economic recovery after the new coronavirus pandemic. Tee cent counted on the participation, among others, of the General Secretary of the UN, António Guterres, the founder and Chairman of the Climate Reality Project, Al Gore, and the Prime Minister of Germany, Angela Merkel. The event also included UN'S High Commissioner for Human Rights, Michelle Bachelet, and the Vice-President of the Global Compact Council, Paul Polman.

In that same year, Copel ratified the importance of the Principles of the Global Compact, together with the Sustainable Development Goals (SDG), through the commitment A Statement from Business Leaders for Renewed Global Cooperation, a statement by business leaders to renew global cooperation as preconized by the Compact.

The Company is also a member of SDG Ambition, a global-reach program launched by the Global Compact that aims at supporting associated companies to include sustainability in their strategies, and define bold and ambitious corporate goals in order to achieve the SDG's.

The SDG Education Program is a tool used to sensitize and execute actions so Copel can help achieve these Goals, and especially those prioritized by the Brazilian Electric Power Sector.

Copel and the Sustainable Development Goals

The UN Global Compact has designated the period from 2020 to 2030 as the "Action Decade." Ten years is the deadline established for all United Nations member countries to fulfill the 169 objectives of the 17 Sustainable Development Goals, an initiative that has been called the 2030 Agenda. In September 2019, global leaders launched a movement to accelerate the achievement of those goals all over the world. To do that, the commitment of business organizations is deemed fundamental.

Copel, as a signatory of the Global Compact and of the Sustainable Development Goals, has implemented initiatives directly connected to the fulfillment of the SDG goals of considered a priority for the Brazilian Electric Power Sector (BEPS), according to the "Integration of the SDG's into the BEPS" study, coordinated by the Global Compact Network Brazil. As explained on page 10, its actions and initiatives associated to the SDG's are presented throughout the current report.

The companies are advised by the Global Compact to define ambitious and challenging goals for their priority SDG's. In Brazil, there are 23 participating companies, of different sizes and from different sectors.

Other actions undertaken by Copel and associated to the Principles of the Global Compact and the remaining SDG's are mentioned in the Annex – Incorporation of the Principles of the Global Compact and the SDG's, found on pages 214 a 220.

Objectives	Goals		Pages
7 AFFORDABLE AND CLEAN ENERGY	Ensuring reliable, sustainable, modern and affordable access to energy for all		
	7.1	Until 2030, ensure universal, reliable, and modern access, and at affordable prices, to power supply services	46
	7.2	Until 2030, keep a high share of renewable energies in the national energy matrix	164
	7.3	Until 2030, increase the energy efficiency improvement rate in the Brazilian economy	40
8 DECENT WORK AND ECONOMIC GROWTH	Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all		
	8.3	To promote policies to foster development, which support production activities, the generation of decent jobs, and entrepreneurship, creativity and innovation, and stimulate the formalization and growth of micro, small and mid-size companies, including through access to financial services	104, 114
9 INDUSTRY, INNOVATION, AND INFRASTRUCTURE	Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation		
	9.1	Develop quality, reliable, sustainable and robust infrastructure, including regional and cross-border infrastructure, to support economic development and human wellbeing, with focusing on equal access and at affordable prices for all	128
	9.4	Until 2030, modernize the infrastructure and refurbish industries to make them sustainable, with increased efficiency in the use of resources and a higher adoption of clean and environmentally adequate industrial technologies and processes; with all the countries acting according to their respective capacities	129
11 SUSTAINABLE CITIES AND COMMUNITIES	Making cities and human settlements inclusive, safe, resilient and sustainable		
	11.1	Until 2030, guarantee access to safe and adequate housing and at affordable prices to all, access to basic services, and urbanize slums	43, 47
	11.4	Strengthen the efforts to protect and safeguard the world's cultural and natural heritage	116
13 CLIMATE ACTION	Take urgent measures to combat climate change and its impacts		
	13.2	Integrate measures to fight climate change into national policies, strategies and planning	158

Susie Pontarolli Trophy

Copel Sustainability Prize - Susie Pontarolli Trophy

PRME 6

This is an award created in 2012 to recognize the sustainability initiatives promoted by suppliers and social institutions. This award's name acknowledges the contribution of employee Susie Pontarolli throughout her professional career at Copel.

Since 2014, a cash prize has been given to projects implemented by registered non-profit social institutions, and related to at least one of the Sustainable Development Goals (SDG), and whose main evaluation criteria are: quantity of SDG's associated to the project; number of served people; level of socio-economic development of the served target public; and demonstration the project's sustainability plan. Copel monitors the winning initiatives for one year, through visits and rendering of account reports and the presentation of results.

In 2019, the 4th edition was held and the first place in the Suppliers category went to the Olho d'Água/Waterhole Program, executed by company Ambientalis Engenharia. This initiative has as its purpose to promote the SDG's, involving the participation of school communities with environmental education actions and practices, to raise awareness among students and teachers, while promoting water quality in the rivers comprising the Barigui River basin, in Curitiba, as a transversal topic. As for the Social Institutions category, the first place went to the Life, Opportunity and Hope (Vida, Oportunidade e Esperança) project, promoted by the Benedictine Association of Divine Providence to offer opportunity of access to sports practices, leisure and cohabitation to children from 6 to 12 years of age, collaborating to social inclusion and ensuring they exercise their citizenship.

The 5th edition of the Copel Sustainability Prize, to be launched in 2020, has been postponed due to the pandemic.

Human rights

PRME 1, 2, 3, 5

Copel announced, in April 2020, its Human Rights Policy, which formalizes the guidelines to prevent, mitigate and remedy violations that might occur in the Company, in its production chain, or in local affected communities, by providing decent work environments, including the elimination of inequalities. Based on this Policy and on its own methodology to identify risks to human rights, outcomes are forecasted in the company's many areas of operations.

The policy follows the Universal Declaration of Human Rights, established in 1948 by the UN, comprising basic and common civil, political, economic and cultural rights to all human beings. The document also follows the international standard of the UN Guiding Principles on Business and Human Rights, of the Principles of the Global Compact, of the Declaration on Fundamental Principles and Rights at Labor of the International Labor Organization (ILO), and of the ISO 26,000/2010 certification: Social Responsibility.

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

- analysis, elaboration and refinement of Copel's policies and norms to prevent, inspect, and mitigate violations;
- production and disclosure of didactic materials, with information on Copel's reporting channels to be accessed, in case any violations is identified; and
- realization of courses, lectures and awareness-building actions, directed to the internal public, outsourced employees, the production chain, and local communities.

Check the main actions developed through the program:

- offer of Human Rights training elaborated by Copel in the Distance Learning (EAD) format, comprising contents that include the relation between human rights and the Brazilian Constitution, guidance to identify violations inside and outside the Company, and the available reporting channels. In 2020, 236 people received training (378 hours), which accounted for 3.63% of the workforce and 394 hours of training. GRI 412-2
- provision of a booklet and video on Human Rights at work, with a simple, objective, and accessible language. Its target public is the Company's outsourced employees, and therefore a commitment has been signed to play the video at all of the company's onboarding meetings. The materials are available at Copel's website and in its social media.
- start of the migration and refuge project, structured to facilitate access to information and services to Company's migrant workforce, especially to provide humanitarian reception and shelter. The publication of this material in 5 languages and the next stages of the project have been forecasted to 2021.

VALUE GENERATION

*Paraná Three-Phase Program**

HUMAN CAPITAL

*A Copel Electrician**

Human capital management

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

By employing the adequate professionals, developing and retaining talents, Copel becomes more efficient and productive, which contributes to leverage its business. Staff management has been included in the Company's Strategic Map, and broken down into objectives such as optimizing the workforce, developing high performance teams, structuring a meritocratic system and managing its consequences, and consolidating a culture of safety, health, and quality of life.

The strategies of this management initiative aim at creating value within the short-, mid- and long terms, in addition to honoring our commitment with transparency and to render accounts to stakeholders. The Company generates value throughout time by investing in the professional development and raising individual productivity, while focusing on business sustainability and increased competitiveness. At the same time, it recognizes and introduces meritocracy in the financial goals as a way to promote personal growth. Copel's staff management culture is based on meritocracy and inclusion, which contemplates initiatives to promote diversity, non-discrimination, and free association.

Staff management at Copel is based on meritocracy and inclusion

*Maintenance works in a power distribution line**

Copel has established a Permanent Diversity Committee, a group of people who plan, execute and monitors the actions dedicated to promoting equal rights and a safe, healthy and respectful corporate culture for everybody. In the *Great Place to Work* (GPTW) survey, issues associated to this topic are the most positively evaluated by employees.

Copel is recognized by GPTW as an excellent company to work, demonstrating that, at the Company, everybody is treated with equality and respect. This survey and other work environment consultations and opinion polls analyze factors such as motivation, satisfaction with wages and benefits, relationship with peers and managers, Senior Leadership performance and improvement needs, expressing employees' view about staff management.

As a way of maintaining engagement among its internal public, Copel offers attractive benefits, aligned with their expectations. The Company offers financial benefits above the market average, such as bonuses, vacations bonuses, advance payment for vacations, anticipation of the 13th wage, food vouchers, snack vouchers, education aid, childcare assistance, assistance to persons with disabilities, among others. It also offers non-financial benefits, which promote a balance between personal and professional life and directly affect employees' quality of life.

Labor relations at Copel follow the legal principles of the Consolidation of Labor Laws (CLT) legislation and the collective negotiations undertaken annually with 19 workers' unions representing our employees, and which lead to a Collective Labor Agreement (ACT), a set of labor resolutions established for a 12-month period. The Company also negotiates other labor agreements, such as those related to the Profit and Result Sharing Program (PRSP), transportation aid, Volunteer Dismissal Program (TIP), work rotation, and a bank of hours.

The Staff Management Policy (Copel Policy Norm – NPC 0401), as well as Copel's remaining Administrative Norms (NACs) related to this issues, are published in the corporate *Intranet*, available for consultation to all employees and remaining stakeholders – the policy can also be found at the Company's *website*. The NACs provide the general rules for topics such as attendance, training sessions, benefits, etc. There are also the NOCs (Copel's Organizational Norms), which describe the objectives and main attributions of the staff management areas.

*Masks to protect against Covid-19 are not made of flame retardant tissues, and that is why when working close to energized grids electricians cannot wear them.

Creating, keeping and strengthening trustworthy links in our daily activities is a strategic point for the Company, and therefore many actions have been structured throughout time, which comprise nine cultural practices:

1. **Hiring and onboarding:** in this practice the highlight is Pine (New Employee Onboarding Program), the Code of Conduct, and the new employee onboarding programs in our wholly owned subsidiaries.
2. **Inspiring:** it includes campaigns such as "Here our blood is orange," a news section disclosed in booklet *"Você, copeliano" ("You, Copel Employee")*, in addition to practices implemented by our subsidiaries, among which DIStaque, the engagement seal, and the motto of each company.
3. **Talking:** this is implemented through our communication channels, in addition to meetings at work, critical analysis meetings, events with managers and *feedback* meetings. The main communication channels are the corporate *Intranet*, a corporate social medium, *WhatsApp*, the *Manager Channel*, a corporate *e-mail*, and booklets *Copel Informs/Copel Informa* and *You & Copel/Você & Copel.*
4. **Listening:** Copel has established channels to listen to employees and specific channels for complaints, suggestions and to talk with the CEO. Employees are also listened to when they answer to satisfaction and work environment surveys.
5. **Thanking:** Copel employs the appraisal letter as a tool to thank employees for their differentiated work results. In the Distribution areas an award is also granted to "Grade 10 Employees" in some functions.
6. **Developing:** this item includes the qualification programs, the Our Energy/Nossa Energia initiative (see page 95), the talent pool, education aid, in addition to specific events to promote managers' professional development.
7. **Caring:** provision of financial and non-financial benefits.
8. **Celebrating:** at Copel, birthdays are always celebrated, including the Company's anniversaries. The prizes and achievements in our daily work are also celebrated.
9. **Sharing:** it contemplates the profit and result sharing programs, and the Copel Performance Prize (PPD).

The indicators used to evaluate staff management are defined in the strategic planning process based on the *Balanced Scorecard* methodology, and are contained in the Management Contract, established between the Boards and their respective areas.

Great Place to Work and internal surveys

GRI 102-43

The *Great Place to Work* ranking is organized by the *Great Place to Work Institute*, which provides consultancy services, produces contents, and analyzes employees' satisfaction with their work environments. Based on that data, this organization certifies those companies able to achieve a high score in many different aspects, such as organizational environment, remuneration, benefits, growth opportunities, infrastructure, transparent management and collaborators' autonomy. After applying the survey, a full diagnosis is obtained on the strengths and attention points. The results of that diagnosis are presented to each Collegiate Board, considering the main demographics, as well as the respective position in relation to a company's history. After that, meetings are held with managers to submit the results, explain their methodology, and provide guidelines on the actions that might be developed to improve the organizational environment.

Copel also undertakes organizational culture surveys, mappings that enable to diagnose the current stage and the necessary actions, enabling to identify the points to be improved in order to align corporate culture. This process has been conducted according to the Competitive Values Model methodology.

Other surveys are undertaken at the Company's business units, focusing on identifying the Innovation Maturity Index. The Company has strived to foster this process at all levels and to stimulate cultural change so that innovation is also a recognized feature of Copel. Thus, the measurement of staff management practices and processes is a means for the Company to have a picture of its potential and to identify the gaps to be filled.

The performance of *benchmarking* is another practice constantly utilized by Copel to subsidize a comparison between staff management practices. Informal and formal surveys are conducted with other companies about specific topics. An example is the Indicators Handbook elaborated by Saratoga – PWC, a wage survey furnished by company Tower Watson, based on companies with similar characteristics as Copel's to be used as a reference in the remuneration of its professionals. The comparison with similar companies is also used in negotiations with workers' unions. By analyzing the collected information it is possible to identify the Company's practices in-depth, and to support its decision-making process.

Human capital and diversity profile

GRI 102-7, 102-8

Total number of own employees as per labor contract and gender

Permanent contract[1]

1,513 | 5,154

Total
6,667[2]

Total number of employees as per type of job and gender

			Total
Full-time	1,505	5,147	**6,652**
Part time	8	7	**15**
Total as per gender	1,513	5,154	**6,667**

Total number of employees as per region

Notes:
1. Copel does not hire employees under a temporary contract.
2. The reduction in the total number of employees from 7,095, in 2019, to 6,667 in 2020 was due, mainly, to the dismissal of 315 employees who adhered to the Termination Incentive Program (TIP). Altogether, 431 employees left the Company in that year. No new hiring through public contest has been undertaken. Three employees have been reintegrated.

Total number of employees as per functional category and gender

GRI 405-1

			Total as per functional category
Operations	33	0	**33**
Mid Level Technical Professionals	1,497	110	**1,607**
Mid Level Professionals	2,705	1,066	**3,771**
Higher Level Professionals	919	337	**1,256**
Total as per gender	5,154	1,513	**6,667**

104 women in management functions, which account for a total of **22.61%** of the total number of managers.

60 women in first-time management functions, which account for a total of **23.62%** of the total number of first-time managers.

11 women in high management functions, which account for a total of **20.75%** of all high management positions.

43 women in management functions in revenue generating areas, which account for a total of **14.10%** of the total number of such managers.

Total number of own employees Handicapped People at Copel	**171**

Outsourced employees | GRI 102-8

Total number of outsourced employees	**7,536**
Total of outsourced apprentices	**114**

Diversity disclosures among own employees

GRI 405-1

	Operations	Mid Level Professionals	Mid Level Technical Professionals	Higher Level Professionals
	33	2,705	1,497	919
	0	1,066	110	337
Total number of employees as per functional category	**33**	**3,771**	**1,607**	**1,256**
Up to 30 years	0	166	41	20
Between 30 and 50 years	2	2,577	1,223	889
Above 50 years	31	1,028	343	347
Total number of employees as per functional category	**33**	**3,771**	**1,607**	**1,256**
Black people and mixed-race people	6	526	248	98
Total number of own employees with disabilities at Copel	171			

Turnover | GRI 401-1

	Total number of hirings[1]	Hiring rate (%)	Total number of dismissals	Turnover rate (%)
	3	100%	373	2.65%
	0	0	58	0.41%
Total[2]	**3**		**431**	**3.06%**
Below 30 years	0	0	6	0.04%
Between 30 and 50 years	2	67%	50	0.37%
Above 50 years	1	33%	375	2.65%
South	3	100%	428	3.04%
Southeast	0	0	1	0.01%
West-Central	0	0	1	0.01%
Northeast	0	0	1	0.01%

Notes:
1. Considering hired (0) and reintegrated (3) employees.
2. In 2020, one employee was dismissed and reintegrated in that same year and, therefore, was counted both among dismissed and hired employees.
3. To calculate the hiring rate the formula as per gender, age group or region/total of hired employees has been used. And to calculate the turnover rate the formula ((dismissed + hired employees)/2)/number of personnel in 2019 (7,095 employees) has been used.

Diversity Program and Permanent Diversity Committee

PRME 3, 6

Encouragement and a good management of diversity provide higher productivity and engagement among employees, generate a better social, economic and financial performance, and positively influence stakeholders to adopt better practices in regard to this issue. In addition to that, they minimize the risks of a lack of plurality of ideas and limitation of the creative potential in the workforce, as well as the risk of noncompliance with Law nº 8,213/1991 (Quota Law).

Copel has established a Permanent Diversity Commission since 2015, with representatives from many areas of the Company, to which is linked the Diversity Program, whose purpose is to plan, execute and monitor actions and strategies to fight discrimination at work, as well as to promote diversity. Since the creation of both initiatives, special attention has been dedicated to issues around gender, race/color, sexual orientation, accessibility, age and religion. Since Copel only hires staff through public contests, there no is distinction in the selection processes, thus avoiding the risk of discrimination at that stage. That is why the Diversity Committee concentrates its efforts on Copel's remaining processes.

*Maintenance works in a power transmission tower**

*Masks to protect against Covid-19 are not made of flame retardant tissues, and that is why when working close to energized grids electricians cannot wear them.

The purpose of the actions is to promote a safe, healthy and respectful corporate culture for everybody, while influencing also the company's stakeholders. After all, by being a catalyzer for important topics, such as the abovementioned one, Copel believes it can have a positive impact that goes beyond the corporate sphere. For this purpose, Copel (Holding) and its subsidiaries allocate resources every year to execute the initiatives proposed by the Committee, which are revised every year. The processes managed by the Diversity Committee and Program, in addition to taking Copel's values and policies into consideration, take into account our dialogue with society, and our alignment with public policies and the 2030 Agenda. The promotion of Diversity is associated above all to Sustainable Development Goals 5, 8, 10, 16 and 17. Since it was established, the Committee has contributed to promote human rights, especially by targeting more equitable labor relations. Diversity, therefore, represents an opportunity for Copel to consolidate universal values in its business practices. As a result of the abovementioned initiatives, no case of discrimination was registered by Copel's Reporting Channel in 2020. GRI 406-1

This year, despite the difficulties posed by the coronavirus pandemic, the Company developed the following actions using virtual media:

- **training "Communication on Respect for Diversity,"** with Copel's entire Communication and Marketing team, in addition to representatives from the management areas of our Wholly Owned Subsidiaries;
- **training "Why do we need to talk about racism?"**, offered to Copel's own personnel, outsourced employees, supplier companies, and partner institutions. The event counted on opening remarks and the participation of the Risk and Compliance Director, in addition to other Senior Management representatives; and
- **lecture "Violence against women: prevention and action,"** open to the public and extensively disseminated to society. A Public Defender of the State of Paraná administered this lecture.

All the events were evaluated by the participants with scores superior to 90, in a scale from 0 to 100. In addition to that, the Committee periodically disseminated news and informative texts on the topics discussed with the Company's personnel and remaining stakeholders.

The processes managed by the Diversity Committee and Program, in addition to taking Copel's values and policies into consideration, take into account our dialogue with society, and our alignment with public policies and the 2030 Agenda.

Copel's Diversity Commitment

- Global Compact – UN
- Inclusion of Persons with Disabilities MP/PR
- Gender and Race Pro-Equity Program – Federal Government
- Women Empowerment Principles (WEPs) – UN
- SDG – We Can Paraná – SDG Brazil
- Pact for the Social Inclusion of Afro-Brazilian Workers in the Labor World – MPT/PR

Smart Copel, one of the most modern Costumer Service Centers in the country, in Curitiba (PR)

Diversity initiatives

- **recognition of social personal names** – standardization of the use of social personal names by the Company's employees according to the legislation in force;

- **breastfeeding room** – to enable mothers to have access to comfortable and adequate facilities to milk when they return from their maternity leaves, Copel offers seven breastfeeding rooms in its premises. These rooms is also an encouragement so they continue to breastfeed their babies, while promoting child health and wellbeing; and

- **persons with disabilities (PCDs)** – to comply with the obligations set by Law nº 8,213/1991 (Quota Law), Copel assigns in its calls for public contests a differentiated percentage of openings for persons with disabilities in occupations that ensure accessibility and safety. In 2020, the Company reached 2.6% of the mandatory quota for persons with disabilities (5% of the workforce).

External diversity initiatives

- **promotion of training sessions, lectures and events open** to its own personnel, outsourced employees, suppliers and local communities, with the purpose of informing the public and building awareness on issues related to diversity.

Remuneration and benefits

Careers at Copel and their respective remunerations are established in document Careers and Remuneration Structure, based on the market practices for every position, function, level of education and qualification. Benefits and variable remuneration in the short term are established in the Collective Labor Agreement, negotiated every year between workers' unions and Copel. The Human Resources area is responsible for managing that process, which aims at identifying the positions and functions deemed necessary to develop the Company's activities; it defines the required qualification to perform the activities related to every position and function; it establishes the maturity levels and complexity of positions and functions to fulfill the demand of work positions; it establishes rules for employees' functional (vertical) and salary (horizontal) moves; and informs on career growth and development opportunities.

The proportion between the total annual remuneration of the highest paid individual in the Company and the total average annual remuneration of all employees adds up to 13.62% (the total average annual remuneration of all employees has been calculated by adding the remunerations of all employees and dividing the sum by the total number of employees, except for the highest wages). As for the variation between the lowest wage and the minimum wage, it reaches 53.27%[1] for both men and women[2]. As regards the remuneration paid in 2020 if compared to 2019, there was a 3.89% increase for the highest paid employee, and of 5.05% for the remaining employees – a 129.79% ratio –, considering wages, seniority-based pay, collective agreements, additional pays due to exercised functions and the integration of legal food vouchers. For outsourced employees, the minimum remuneration and working hour standards, according to the legislation, are guaranteed by the Term of Awareness and Commitment, obligatorily signed by all suppliers.

GRI 102-38, 102-39, 202-1, 405-2

The package of benefits offered by Copel to its workforce exceeds those defined by the applicable legislation, and is compatible with those staff management benchmark companies offer to their personnel. This package is granted to all employees, regardless of their workload. Every year, Copel's Balance of Benefits (BBC) is published, a corporate statement on wages, seniority-based pays, bonuses, profit sharing schemes, social security plans, food vouchers, childcare assistance, performance prizes, and health plans, among others. The BBC statement is available to all employees at the SAP Portal. GRI 401-2

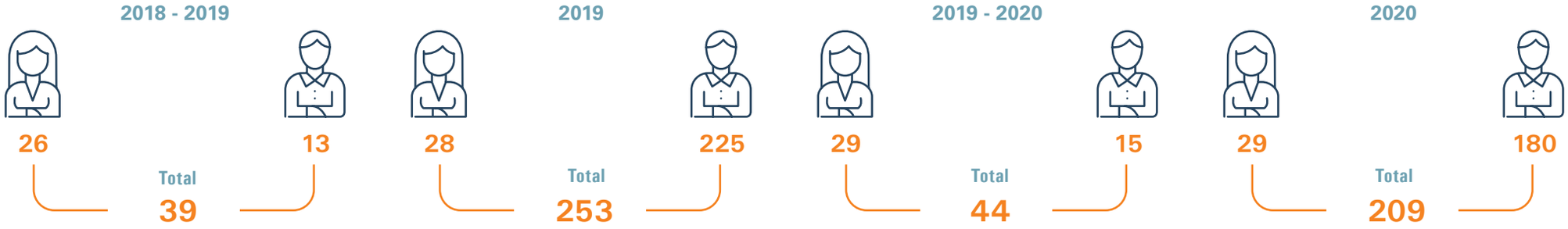
According to the latest BBC statement, the benefit granted to the highest number of people and that mobilized most resources in 2020 was PRSP - Profit and Result Sharing Program, which reached 100% of employees and amounted to R$ 146.8 million overall. The Benefits Policy is one of the Company's appeals. The package, including the benefits extended to family members, can be checked on page 197. Periodically, Copel sends newsletters on this topic to its employees, by *e-mail*.

1. National minimum wage on 12/31/2020: R$ 1,045.00. Copel does not use the minimum wage as the basis to define the wages paid to its employees.
2. The proportion between remunerations is calculated based on the wages paid to full-time employees.

Parental leave

GRI 401-3

All of Copel's employees have the right to parental leave. The benefit covers 6 months for women and 20 days for men. In addition to that, in the case of women, after they return from their leaves, their work hours is reduced to 6 hours for 60 days to enable them to breastfeed their babies.



Start of the leave	End of the leave	Maternity Immediate	Paternity Immediate	Maternity 12 months	Paternity 12 months
2018	2019	0	0	0	1
2019	2019	2	1	0	7[1]
2019	2020	0	0	1	2
2020	2020	0	0	2	3[2]
2020	2021	2022			

Nota:
1. Employees dismissed still in 2019, before reaching 12 months, which would happen in 2020.
2. Employees dismissed still in 2020, before reaching 12 months, which would happen in 2021

Complementary welfare and retirement plan

GRI 201-3, 404-2

Copel offers, through the Copel Foundation, a complementary welfare retirement plan, through which every employee has the possibility of building a financial reserve fund during his/her professional life. With every normal contribution, the sponsor (Copel) adds the same value, and employees have the option of making contributions to increase their future income without the sponsor's counterpart. The accumulated reserve is turned into a benefit at the time of retirement. Upon retirement, an employee starts to receive a lifelong monthly amount, which is calculated based on the accumulated total, that is, according to his/her retirement savings. All of Copel's employees are eligible for joint the retirement plans, by simply adhering to one of them, and by doing so they also become health plan beneficiaries.

In addition to that, the Copel Foundation promotes Live Easy/Viva Tranquilo, a financial and welfare education program for employees about the importance of a building a complementary retirement plan. It also stimulates employees to transfer their retirement savings from banks and insurance companies to the Foundation. On the institution's webpage, employees can simulate the value of their future benefit based on their current contribution and on eventual extra contributions. The Live Easy/Viva Tranquilo program helps employees in their transition phase into retirement, by dealing with issues such as finance management and the importance of leading an active life. In addition to that, Copel has offered, since 1979, the Retirement Preparation Program (PPA), with a series of lectures on welfare and financial education, consumption behavior and savings, entrepreneurship, quality of life, and health.

Power line maintenance team

The retirement issue is discussed annually in the lectures promoted by the Internal Prevention Accident Commission (Cipa).

Current or estimated percentage of workers who might retire within the next 5 to 10 years as per type of work | GRI EU15

Type of work	%
Transmission line and power connection workers	18.75
Electric power plant operators	24.18
Engineers	15.86
Maintenance mechanics	17.98
Others	25.42

Own full-time employees as per type of work and region who might retire within the next 5 to 10 years | GRI EU15

Regions	Type of work	%
South	Transmission line and power connection workers	18.68
	Electric power plant operators	24.18
	Engineers	15.86
	Maintenance mechanics	17.83
	Other	25.27
Southeast	Transmission line and power connection workers	0.08
West-Central	Maintenance mechanics	0.15
Northeast	Others	0.15

Professional development management

GRI 103-1, 103-2, 404-2, EU14, PRME 1, 2, 3

Professional development at Copel is oriented by the management of competencies, determined by identifying the training and qualification needs of its personnel. Every year, managers select training sessions and courses according to each individual professional, by analyzing the skills required by the area, or focusing on the fulfillment of corporate strategies. Together with the professional development actions, teams are stimulated to increase their productivity and oriented to help achieve the organizational objectives through the Profit and Result Sharing Program (PRSP) and the Copel Performance Prize (PPD).

Copel has dedicated its efforts to develop a culture of meritocracy and consequence management, with the purpose of having high-performance professionals in its staff. To achieve this objective, it has been improving performance professional management initiatives, having recently incorporated the practices already adopted in the variable remuneration program, through which it plans to align employees' and managers' performance with its strategic objectives. The variable remuneration scheme rewards performances above the average. The cash prize is conditioned to three criteria associated to financial goals and indicators, and to the complexity of their performance in the Company.

The Corporate Education Policy establishes the guidelines to promote professional qualification actions, which cover from basic training sessions up to postgraduate courses and research scholarships. Actions are organized into corporate programs, training and qualification sessions (to provide basic qualification in order to exercise a function), mandatory training (courses dedicated to specific activities), professional enhancement training, events (seminars, lectures, *workshops*, congresses, etc.), and research and development projects.

The Corporate University (UniCopel) manages all the training associated to the Integrity Program, sustainability, and leadership and preparation for the future, among others. UniCopel is in the final stages of an initiative to remodel its structure, through which the knowledge to be promoted and shared has been reorganized around professional development schools connected with the required strategic skills. Thus, all the knowledge produced within that scope will now refer to a strategic context, enabling UniCopel to:

- provides the necessary support to promote the Company's business prosperity;
- promote a synergy between means-areas and end-areas, thus optimizing the integration of processes;
- promote, disseminate and consolidate the values of the desired organizational culture;
- contribute to leverage excellence in the meritocratic management model;
- develop leadership aligned with the corporate strategy and the organizational culture to achieve the objectives established in the strategic map; and
- assist with the management of knowledge and structuring of learning/tracking solutions to develop competencies of employees at all levels.

UniCopel is a member of the Corporate Universities *Hub*, a volunteer initiative that aims at establishing a dialogue and the joint creation of solutions to common problems faced by training areas of companies in the States of Paraná and Santa Catarina, through the exchange of experiences and best practices, collaborative learning, and lectures by expert professionals on many topics related to corporate education. In 2020, four virtual meetings were held to discuss topics like distance learning, best teaching and learning practices in times of pandemic, and perspectives of corporate education in the next few years.

Leadership development has been emphasized in the last few years in the Company. Copel wants this group of people to be a protagonist in the management of its teams, in terms of motivation, development, recognition and communication. That is why it has been implementing intensive corporate programs, followed by actions to identify leadership profiles. Within the scope of its businesses, it has also been promoting workshops, free courses, and other initiatives that contribute to improve management.

Copel also offers courses to all employees with contents related to quality management, processes and projects, and about tools to support management. The Company offers a qualification program in foreign language to employees who use another language in their work activities. In 2020 38 people took part in such courses. Copel invests in *lato* and *stricto sensu* postgraduate courses for those professionals who need to enhance their knowledge in their area of operation – in 2020, 21 employees were attending such courses.

Since 2016, the Company has also established, through public call notices, partnerships with educational institutions to grant benefits to its employees, some of which are extended to family members. These partnerships contemplate basic, higher, and professional education, and qualification and upgrading courses.

Subsidiaries Copel GeT and Copel DIS have implemented their own staff development initiatives, available in the Socio-Environmental Responsibility and Economic and Financial Reports of both Companies.

Relocation Program

The search for new opportunities and challenges is transparently disseminated through the Relocation Program. Available opportunities are made available at the Employees' Portal and disclosed via e-mail, enabling those interested in changing functions, area or locality to apply to the available job openings. This practice enables the Company to value and empower its human capital, by offering equal opportunities for employees on the move.

Electric Power Plant Governador Bento Munhoz da Rocha Netto, in the city of Pinhão-PR

Performance evaluation

Copel has implemented a Performance Management Program, called Our Energy/ Nossa Energia, since 2013. The purpose is that, at every cycle, lessons and upgrades are promoted to provide greater adherence to the Company's culture and reality. The program covers all of Copel's employees considered suitable for it, with the exception of those on leave, contracted / reintegrated or dismissed professionals who have worked less than 180 days during an evaluation cycle.

The Our Energy program is composed of two axles: Organizational Skills, associated to the expected behaviors from each employee, and Results, related to the corporate goals. The program subsidizes the decision-making processes related to promotions, functional suitability, and participation in conferences, training, postgraduate programs, and foreign languages courses, among others.

The program includes the Calibration Committees, which aim at aligning evaluators' understanding and comprehension about the items under evaluation, in order to reduce subjectivity in the performance analysis process. Calibration is performed in two stages, a pre-evaluation one, focused on conveying the Our Energy program's guidelines and instructing managers on the process and on the adequate managerial posture, and a post-evaluation stage, when the staff management area assesses the results verified in a cycle and propose criteria to analyze managerial posture. Managers are selected in order to submit their assertions and a contextualization of the evaluations to the Committee, which then generates development actions targeting the involved leadership professionals.

As a rule, all employees hired for more than three months by the Company and who are not about to retire or to be dismissed, and who have worked for at least 60 days within a year, can take part in the Our Energy program's individual performance evaluations. In 2020, in spite of the difficulties imposed by the pandemic, 100% of employees eligible to receive the appraisal were evaluated. GRI 404-3

Investment in human capital

Total invested

2018	2019	2020
R$ 7.58 million	R$ 8.3 million	R$ 3.1 million

Note: the fall in the value of investments made in 2020 if compared to the previous years was due to the Covid-19 pandemic, which forced the Company to revise some costs.

Total and average hours of training as per functional category | GRI 404-1

	Operational	Mid Level Prof.	Mid Level Tech. Prof.	Higher Level Prof.	Total
Total number of employees	33	1,607	3.771	1.256	6,667
Hours of training	413.50	48,997.80	64,103.25	44,714.75	158,229.30
Average hours of training	12.53	30.49	17.00	35.60	23.73

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

	Total number of employees	Hours of training	Average hours of training
	5,154	124,367.48	24.13
	1,513	33,861.82	22.38
Total	**6,667**	**158,229.30**	**23.73**

Covid-19 Pandemic

GRI 103-2, 103-3

Assigning a considerable number of employees to work remotely immediately became a challenge for Copel. In order to facilitate such a move, surveys have been undertaken with groups of employees to elaborate the time scales for on-site and remote activities, focusing on reducing displacements. The work plans were therefore devised together with the workforce, and after that discussed with workers' unions.

The first group assigned to work at home included the risk groups, those who lived with people belonging to any risk group, and employees with children at school age. Those who needed to work at home counted on the Company's support to do so, which provided, whenever deemed necessary, a computer, mouse and keyboard. After that, all remaining employees involved with activities that can be remotely performed have been allowed to work at home, adding up to 70% of the personnel doing home office work at that time.

Since Copel provides essential services to local communities, some employees have continued to work on-site. For them, safety protocols have been elaborated with reliable laboratorial tests performed every ten days (operators), or whenever they show compatible symptoms (remaining employees). In addition to that, sanitization has been undertaken biweekly or every month in workspaces and vehicles. Copel has also constantly promoted the importance of social distancing and of the correct use of masks, in addition to issues deemed necessary to provide proper support to employees in such a delicate time.

Wages have been integrally maintained and timely paid, and the Profit and Result Sharing Program (PRSP) has been anticipated. Communication has been adapted to the digital format, in order to keep the majority of corporate practices, events and meetings. With the purpose of promoting the best remote work strategy, managers have taken part in workshops to identify the difficulties posed by remote work and the improvement opportunities, enabling them to adjust their practices to specific cases.

Employees under remote work were given materials about ergonomics, tips on how to balance personal and professional life, suggestions for stretching exercises, information on general health and safety cares, and incentives to work on their mental health.

Health and safety at work

GRI 103-1, 103-2, 103-3, 403-1, EU16, PRME 1, 2, 3

Health and safety at work are some of the topics included in Copel's Strategic Map and Strategic Benchmark, and are one of the Company's most important values. Based on this assumption, the purpose is to ensure a healthy work environment, in which workers and managers collaborate to continuously improve protection and promote safety, health, and wellbeing for all.

The guidelines adopted by Copel are found in its Labor Safety and Health Policy. It is managed by a multidisciplinary team composed of professionals from the engineering, labor medicine, and social assistance areas, which undertakes periodical and preventive exams, and monitors absenteeism indicators and accident frequency and severity rates, through its own and third-party personnel. The health and safety indicators are defined during the strategic planning process based on the *Balanced Scorecard* methodology, are then included in Management Contracts and broken down into Management Commitment indicators for Superintendence offices and departments. In 2020, two deaths associated to work were reported. As regards occupational diseases, ten cases were verified among the power distribution workforce (rotator cuff syndrome on the shoulder, and medial epicondylitis). Some business activities pose a risk of orthopedic problems in the upper limbers. GRI 403-10

Risk evaluation, the identification of possible hazards, and the application of the control hierarchy to eliminate or minimize them are performed every year according to the Environmental Risk Prevention Program (PPRA) in all of the Company's areas, whether at the administrative or fieldwork level. As regards external activities, employees with knowledge on safety norms and procedures undertake periodical inspections, following specific parameters. Workers themselves can report hazards or hazardous situations associated to work conditions through the Risk Hunt/Caça ao Risco process, through which an accident assessment group and Cipa's responsible Chairman adopt the measures deemed necessary to eliminate any risk or improve the standards and procedures for field activities.

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Whenever deemed necessary, the labor safety areas, together with Copel (Holding), modify the technical specifications for individual protection equipment (EPIs), replacing them for more efficient ones. According to the Regulatory Norm-10, a federal labor regulation, employees have the right to refuse to perform tasks that might cause diseases, injuries or accidents. All workers are protected against reprisals by the Labor Safety and Health Policy and the Code of Conduct. GRI 403-2, 403-7

EPIs are provided to employees according to the Company's technical specifications, defined according to the risks posed by each function. A record is kept on their use, and employees must sign a Term of Receipt and Responsibility for EPIs and Uniforms. This equipment is replaced whenever deemed necessary, due to wear, damage, or any other need. For contractors, the EPIs must follow the same technical specifications.

As regards health, employees are submitted not only to the exams established by law, but also to special evaluations whenever there is any suspicion of a disease caused or that might interfere with their work activities. Whenever any restriction is identified, actions are adopted together with local management offices to avoid any exposition to a certain risk (wither by eliminating the same, or by establishing other controls). Actions are also continuously coordinated with professionals from the labor safety and surveyed environmental risk analysis areas, and recorded in an electronic management system, in addition to complementary exams to monitor and control exposition and suitability or working conditions. Employees also have access to these services both when so convened, as in the case of absenteeism monitoring, or when external exams established by law are undertaken, and on demand when so requested before the management, or by submitting statements and other medical reports. GRI 403-3

Substation of Bituruna

*Maintenance works in a power distribution line**

In order to promote a health and safety culture, Copel has implemented a number of initiatives, as detailed below.

- **Medical Control and Occupational Health Program (PCMSO) - NAC 40406 - Medical Exams:** it establishes the rules for occupational examinations.
- **Labor Health and Safety Management – GSST:** its purpose is to define procedures and identify risks and preventive actions when executing operational tasks.
- **Preserving Life/Preservando a Vida Program (PPV):** it establishes field inspections of technical and safety procedures during the execution of activities by employees and contractors, according to the standards set by the GSST area.
- **Preliminary Risk Analysis (APR):** an application that records the previous evaluations of the risks involved with the execution of a certain task.
- **Copel Video Monitoring (VMC):** a process employed by power distribution operational teams using images captured by the cameras installed in fleet vehicles to improve the accident prevention mechanisms.
- **Serious Accident Analysis Meeting (RAAG):** upon the occurrence of a serious accident, a RAAG is held with the participation of all the *staff*, the safety area, Cipa, and the responsible area manager, with the purpose of identifying the causes and adopt measures to eliminate them.

*Masks to protect against Covid-19 are not made of flame retardant tissues, and that is why when working close to energized grids electricians cannot wear them.

- **Minor Accident Analysis Meeting (RAAL):** upon the occurrence of a minor accident, a RAAL is held with the participation of the labor safety area's technical body, to identify the causes of an accident and adopt measures to eliminate them.

- **Labor Health and Safety Onboarding:** meetings held with outsourced employees in which all the cares related to labor safety and health are discussed.

- **Safety Month:** meetings held with each Superintendence office, in which all stakeholders concentrate their efforts on adopting preventive actions.

- **A Joint Advisory Commission gathering Copel and the Workers' Union of Electricity, Gas, Water, Public Works and Service Companies of the State of Paraná (Sinel tepar):** the purpose is to improve workforce labor health and safety conditions.

- **Internal Accident Prevention Commissions (Cipas):** spread around Copel's premises with the attribution of identifying labor risks and elaborating a risk map and a plan that enable adopting preventive actions. During their participation at Cipas, employees discuss matters related to health and safety. If it is necessary to forward any situation for analysis, the requests derived from these discussions are communicated to the labor safety areas, which will adopt adequate measures. The Cipas promote every year the Internal Accident Prevention Weeks, when lectures on topics related to health and safety are presented, administered both by employees and by external contracted professionals. GRI 403-4, 403-5

- **IMC Program (Body Mass Index):** application of a manual that establishes the procedures to control and oversee the body mass and weight index among the workforce (own employees and third parties) that act as electricians, since some critical indexes must be observed to promote safety and health at work and prevent accidents.

- **Sectorial Safety Commissions:** groups of Cipas formed as per department and/or division whose attributions are to multiply the good safety practices and engage employees to adopt preventive actions.

- **Technical Meetings:** to promote a labor safety culture and improve the performance of electricians, Copel stimulates the participation of these employees in the Electricians' Rodeo/Rodeio dos Eletricistas, whose basic assumption is to follow the safety norms, act carefully, and develop differentiated skills.

- **Safety Trophy:** created with the purpose of stimulating and offering recognition for the accident prevention works developed by the areas involved with the Cipas.

Relevant health and labor safety information are made available to employees through corporate campaigns, during which posters are distributed pointing to safe behaviors, and videos are played and texts posted in the *Intranet*. The training, development and education programs aim at stimulating qualification, improvement, and development based on the activities of each function. Their format enables participants to acquire and apply technical and behavioral knowledge, and methodologies associated to health and safety issues in the electric power sector. These matters are ruled by national norms and laws, as well as the International Labor Organization's conventions ratified by the Brazilian Government. GRI 403-5

According to the regulatory norms, no own or third party employee may execute any activity that might pose any risk or is unhealthy, or that requires specific knowledge, without having received the necessary training. Contractors are submitted to qualification training already at the start of their activities, when health and safety risks and cares associated to their tasks are discussed. In addition to that, risk activities require mandatory training conclusion certificates, according to that disposed in the regulatory norms, in addition to the presentation of a valid Occupational Health Certificate (ASO). The mandatory training is administered by outside parties.

In 2020, new ways of disseminating knowledge on labor health and safety were explored, such as the inclusion of topic Safe Behavior in the NR-10 training; conveying information to all of Copel's employees on topics related to the felling of trees; the airing of videos on working standards and the publication of inserts "Golden Rules for the Felling of Trees", "Golden Rules for the Installation of Provisory Backstays," and "Functions of the Person in Charge," with illustrated instructions on how to safely perform those activities. Training has also been provided in the distance-learning format, and especially courses on ergonomics and NR-10. In addition to that, newsletters have been periodically distributed, in the *Intranet* and by *e-mail*, on how to prevent coronavirus infection, with differentiated contents for on-site and remote work stakeholders.

For third parties, the onboarding meetings have started to include the screening of a video on human rights at work, with information on how to identify violations and on the available reporting channels.

All the matters related to this issue are managed via de NEXO CS system, with the purpose of fulfilling the Brazilian legislation and the applicable norms (Regulatory Norms, eSocial, INSS/Social Security and the Consolidation of Labor Laws), which is regularly updated and can be adapted to future changes in the existing laws. The system only covers the Company's own employees, and it is integrated into the SAP platform to provide information about the company, maximum capacity, involved sectors, positions, functions, and a description of activities.

Employees covered by Copel's health and safety system | 403-8

Employees covered by the system	15,394
Employees covered by the system, subject to internal audit	3,571
Employees covered by the system, subject to audit or certification by third parties	2,814

Note: the health and safety system's coverage varies between Copel (Holding) and its wholly owned subsidiaries. The systems used by Copel CTE, Copel DIS, and Copel GeT cover both their own employees and their outsourced employees, while the system used by Copel (Holding) only covers its own employees.

Health and quality of life

GRI 403-6

Copel offers an arrangement with a health plan institution (a non-profit closed social security and complementary welfare entity), with co-participated monthly fees, which offers, through a vast accredited network in the State of Paraná, medical, odontological and pharmaceutical care, including an out-patient, hospital and obstetric health plan, and psychological and physiotherapy care.

In addition to periodical medical exams, the Company has included an additional stage of preventive exams associated to heart, gynecological, prostate, colorectal, and ophthalmological diseases, according to every employee's age and gender, providing specialized medical evaluation and complementary exams, without any cost.

It also offers an institutional program to fight drug addiction, with specific medical treatment to recover employees involved with the consumption of illegal drugs and alcoholic beverages, including hospital and out-patient, medical and psychological care. All expenses are fully borne by the Company, which also offers social service and health follow-up, by adapting activities and environmental risks to personal and collective safety.

Since 2019, the Even-Temperedly/Equilibradamente program has been offered, with the purpose of promoting treatment and monitoring eligible beneficiaries suffering from emotional disorders, such as anxiety and depression, among others. This treatment is gratis. Medical checks are available *online* by psychologists, and a hotline is made available for urgent medical checks with a specialized team, 24 hours a day. A team of expert professionals provides guidance to employees under risky situations. There is also an application to monitor the health conditions of those employees registered in the program.

Copel also offers every year and without any cost a vaccination program against influenza, within its own premises, as previously requested through the electronic system and with a decentralized vaccination calendar available at many of the Company's premises.

Together with the Cipas, information and awareness-building campaigns have been conducted to promote the Yellow September, Rose October, and Blue November initiatives, among others, with lectures and materials on how to prevent suicides, breast and prostate cancer, while stimulating stakeholders to use the accredited health plan network.

Health and safety indicators

GRI 103-3, 403-9

Throughout year 2020, injuries such as twists, excoriations, lacerations, punctures, bruises, crushing, distensions, dislocations, fractures, burns, electric shocks, electrocutions, and joint, sinew, or muscle inflammations, among others, were registered among employees. Among contractors, in addition to some of the abovementioned injuries, more serious damages were also verified, such as amputations and fatal accidents. Five deaths were reported among contracted employees (a 0.31 rate).

A number of measures have been adopted due to such occurrences, such as the establishment, for the telecommunications teams, of standard working procedures and stiffer safety on-site inspections, since their activities had been reduced due to the pandemic, and the of use of a standard ladder for works at heights below two meters. For the power generation activities, training has been given on how to drive vehicles in rural roads, and changes have been made in procedures – a verification of the conditions to access workplaces or service fronts has been included in the Preliminary Risk Analysis (see page 100), which must be performed by the person in charge of the crew and validated by the hired safety technician. The technician must also reinforce the daily safety dialogues about the cares to be adopted by the company's drivers when transporting work teams, by paying attention to access conditions and other vehicles, and to maximum passenger capacities.

Number and rate of injuries associated to work with severe consequences (excluding fatalities)	Employees	Contractors
Injuries	0	1
Frequency rate	0.00	0.08

Number and rate of reportable injuries associated to work	Employees	Contractors
Number	23	119
Frequency rate	2.19	7.35

Note: 1,000,000 of hours of work have been considered to calculate the above rates, according to NBR 14,280 – Labor Accident Registry - Procedure and Classification.

8 DECENT WORK AND ECONOMIC GROWTH

8.3 To promote policies to foster development, which support production activities, the generation of decent jobs, and entrepreneurship, creativity and innovation, and stimulate the formalization and growth of micro, small and mid-size companies, including through access to financial services

Baseline	28 deaths reported in 2019.
Indicator	Number of deaths due to labor accidents (own and third party employees).
Suggested goal	To zero the occurrence of deaths among own and third party collaborators due to work conditions in the electric power sector.

Copel's Performance

Copel did not report any death among its own employees in 2020. However, among the outsourced personnel, five deaths were reported, despite all the contractual requirements asking contracted companies to comply with the labor legislation and adopt the same health and safety cares preconized by the Company.

Covid-19 Pandemic

GRI 103-2, 103-3

Considering the current health crisis, health and safety have become even more relevant for Copel. It has been necessary to quickly develop actions to prevent infection by the new coronavirus and build a safe environment for workers. A management commission has been formed to establish preventive measures and corporate procedures to deal with this issue. The sanitation of the Company's premises has been intensified and 70% gel alcohol has been made available in many different locations. Employees in risk groups have been promptly put on leave: those above 60 years of age, those suffering excessive chronic diseases, respiratory diseases, immunocompromised patients, pregnant and breastfeeding women, and those under cancer treatment.

Copel has started to issue epidemiological bulletins with statistical data from the State of Paraná and from the Company. Employees with flu symptoms or who have been in contact with suspected or confirmed cases of coronavirus are put on leave to undertake tests for eight days. If the test is negative, an employee can return to work, but if it is positive, he/she must stay on leave for 14 days. The nursing team has started to record, monitor and follow all the cases of symptomatic employees, occupational contacts, and employees with a confirmed infection. These latter, as well as those with a suspected contagion, are being assisted by a labor physician through teleconsulting. Copel has made available tests for suspected cases, through serological examinations.

Electrician

SOCIAL AND RELATIONSHIP CAPITAL

Smart Copel, one of the most modern Costumer Service Centers in the country, in Curitiba (PR

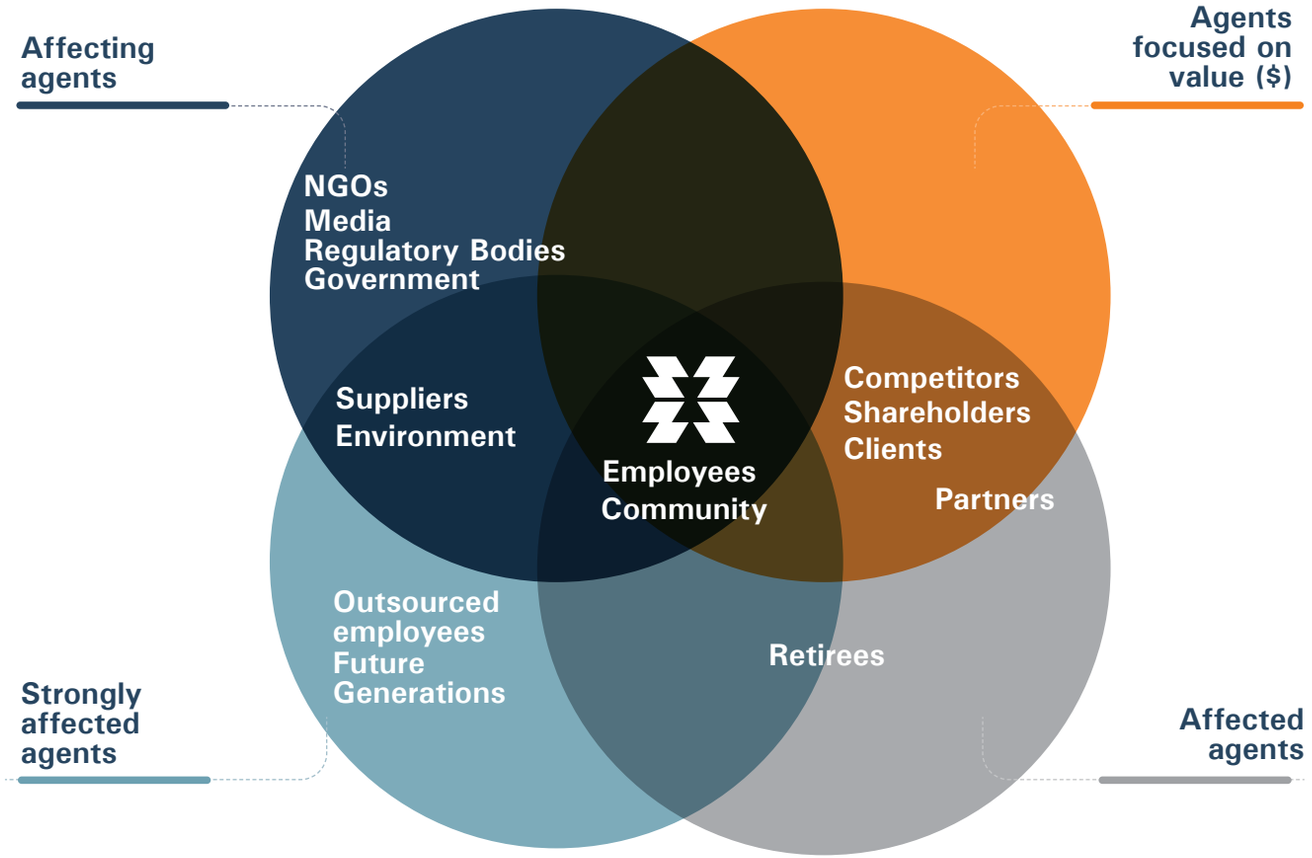
Relationship with stakeholders

GRI 102-40, 102-42

Copel has mapped its stakeholders based on the AA 1000 methodology. The criterion has taken the level of impact and influence (affected, strongly affected, and affecting agents, and agents focused on value) into consideration, generating a picture in which stakeholders are depicted in the shaded areas according to the level of their relationship with the organization. In addition to the environment, our priority stakeholders are shareholders, clients, communities, competitors, employees and suppliers. The Company makes many Dialogue Channels available to stakeholders, in addition to making an independent reporting channel available to all interested parties.

Stakeholders Map

All of which influence and/or are influenced by the Company



Stakeholder GRI 102-40	Approach towards engagement | GRI 102-43
Wholly Owned Subsidiaries	The subsidiaries sign before Copel (Holding) a commitment to contribute to maximizing the Company's value in a sustainable manner, which is expressed in the Management Contract between the parties. Copel's needs and expectations are defined in the Strategic Planning, at the meetings of the Collegiate Board (Redir), and at the meetings of the Board of Directors (CAD).
Employees	The Company offers many different communication channels to build a closer relationship with its employees, keep them informed, and identify their needs and expectations, such as the *Great Place to Work* (GPTW) survey and the Confidential Channels (Cadam, COE, Ombudsman's Office, and Reporting Channel – see pages 59 to 61). Professional development policies and processes are also made available to the workforce, in addition to standard market remuneration, which Copel promotes by focusing on transparency and equality in its corporate initiatives.
Regulatory bodies	In the energy sector, Copel has the legal obligation, before the regulatory bodies, to develop its actions in conformity with the applicable norms, regulations, and legislation. In the telecommunications sector, the Company must undertake its activities in conformity with the respective regulatory framework. Periodically, Copel holds specific meetings with the regulatory bodies, as well as public hearings and consultations, in addition to exchanging documents, *e-mails*, and making inspection and guidance visits.
Shareholders and investors	Shareholders and investors are responsible for providing Copel with a part of its financial resources, based on which the Company can exercise its activities with excellence and stability. As a counterpart, it must apply its best efforts to generate value and return to this public. The Investor Relations area is responsible for this special relationship, and counts on its own corporate operations policy.
Government	The Government of the State of Paraná is Copel's majority shareholder, from which position it directly influences the Company's strategy and business. Copel keeps a direct relationship with this stakeholder, through the participation of government representatives in the Board of Directors and in the Statutory Audit Committee.
Partners	Copel keeps business partnerships with a number of affiliated and controlled companies, and with Specific Purpose Companies. The Company supervises the development of their activities and performance, and keeps a close relationship with them, requiring the adoption of the same management practices in regard to issues such as health and safety, compliance with the labor and environmental legislations, and fulfillment of regulatory norms, among others.
Clients and consumers	Copel strives to fulfill the main expectations of this public: provide power supply and Internet services at low prices, issue bills without any error, and offer agile and quality customer services, as well as favorable contracting conditions. For this purpose, a number of *online* and on-site channels are available. Their reported manifestations, grievances and complaints are fundamental to map the opportunities to improve our services.
Communities	With every new enterprise, socio-economic studies are undertaken as a part of the licensing process, at periodicities that vary according to the complexity of a work. The obtained results subsidize socio-environmental programs, whose purpose is to mitigate and compensate for any possible negative impact, as well as to build awareness among surrounding communities.

Client satisfaction

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

Clients' perception in regard to Copel is monitored through surveys. Consultations to residential, industrial, rural and public power clients are systematically undertaken. For residential clients, two annual surveys are conducted – one coordinated by Abradee, in the first half of the year, and another by Aneel, in the second half of the year. Then a permanent client satisfaction commission analyzes the data generated by both surveys. The Company also controls the complaints submitted to Aneel and oversees the indicators that measure Copel's performance through the Management Commitment. The results of the surveys undertaken in the last few years are the following:

Survey

	2016	2017	2018	2019	2020
Abradee Satisfaction Survey - Residential Clients	88.80%	90.30%	83.20%	80.70%	84.40%
Abradee Satisfaction Survey - Clients from Group B Non-Residential	84.80%	NR	77.2%	NR	NR
Abradee Satisfaction Survey – Clients from Group A	85.90%	82.40%	83.30%	80.01%	80.90%
Aneel Satisfaction Survey with Clients - IASC	73.06%	80.69%	74.13%	75.01%	SR
Cier Satisfaction Survey with Clients	Oro	Oro	Bronze	Plata	Plata
Satisfaction Survey with Rural Clients	NR	NR	NR	76.54 %	NR
Satisfaction Survey with Public Power Clients	80.44%	NR	NR	89.30%	NR

The expected client satisfaction levels in the distribution area are established in the Management Contract signed between Copel DIS and Copel (Holding), in addition to being correlated to the operational efficiency and power supply quality indicators, as determined and inspected by Aneel (see pages 21 and 22). Actions are monitored every four months by the client satisfaction commission and generate action plans. Measures are also adopted to improve relationship with our clients, such as those implemented as a consequence of the Covid-19 pandemic (see page 24).

As for the telecommunications area, the client satisfaction indicator directly affects revenues, since satisfied clients tend to recommend services and products to other people, influencing their purchase decisions, and on the other side, unsatisfied clients tend to suspend services and migrate to other companies. Copel employs the same data collection methodology used by the National Telecommunications Agency (Anatel) to consult its clients every year, which enables us to compare our results to those achieved by other sector companies.

This subsidiary has departments dedicated to customer service and client relationship management, a structure through which the requests received through the 0800 hotline, and via *e-mail* and *Facebook Messenger*, are verified. Customer services are segmented as per type of client, with direct channels and escalation options available to strategic clients. Copel Telecom's Commercial Superintendence Office is responsible for managing the contract signed with service provider company *Contact Center*, which includes team dimensioning and segmentation according to the activity to be executed, the provision of training for professional enhancement and retraining, and monitoring of performance indicators.

The quantity of reported complaints as a proportion of the total client base, the quality of provided customer services, and response times, among other items, are all monitored. These indicators are associated to goals and are regularly monitored by the Collegiate Board.

Copel Geração e Transmissão's client relationship channel is responsible for managing every contract. Client satisfaction surveys are conducted in some segments. The energy sale goals are defined in the contracts with third parties, managed by Copel Comercialização, but their terms and conditions are mirrored in Copel GeT.

In 2020, Copel COM launched a *marketing* campaign to reposition its brand as "Free Market Copel" and to update its *website* with the purpose of increasing interaction with clients.

Power generation and transmission, and distribution service, consumer units | GRI EU3

	2020
Residential	3,944,556
Industrial	71,938
Institutional (public powers and services)	44,896
Commercial	413,599
Other classes (rural, own consumption, etc.)	362,842
Total number of consumer units	**4,837,831**

Note: it only contemplates the clients of power generation and transmission, and distribution services, adding up to 108 and 4.9 million, respectively.

Profile of Copel Comercialização's clients

Type	2017	2018	2019	2020
Bilateral sales (traders)	50	61	144	88
Industrial	110	236	292	653
Commercial	29	56	81	224
Total Number of Clients	**189**	**353**	**517**	**965**

Note: the criterion used to calculate the number of Copel Comercialização's clients is a General Taxpayers' Registry number not repeated within a year, since many of them conduct more than one operation and at different periods .

Aerial view of biodigesters in the city of Entre Rios do Oeste

Telecommunications consumer units | GRI EU3

Number of Circuits per Annum	
Circuits	
Retail	177,275
Corporate	29,658
Total	**206,933**
Number of Clients per Annum	
Clients	
Retail	170,742
Corporate	6,051
Total	**176,793**

Note: circuit is an installed unit of a telecommunications service. Thus, the same client may own many circuits.

Covid-19 Pandemic

GRI 103-2, 103-3

The adoption of remote work by a large part of the state population during the pandemic has led the Company to make new promotional conditions available to contract Internet services, such as the offer of new speeds at attractive prices and adjusted to the market, such as for example the fiber optic broadband products at speeds of 100 Mbps and 300 Mbps, while ensuring quality and stability to local consumers. Service interruptions due to payment default have also been temporarily suspended, with an active communication throughout the whole process, and after that to inform on the resumption of service interruptions. The teams responsible for direct customer services at the *Contact Center* have also been submitted to adaptations.

Residential power cuts in 2020

GRI EU27

The number of power cuts in 2020 was 54.17% lower than in year 2019, but it is important to mention that this comparison was affected by the hindrance, ordered by Aneel, to undertake this type of action between the months of April and July, due to the pandemic. The overall result in terms of payment default was slightly affected – the Corporate Default indicator reached 1.37% in 2020, if compared to 1.20% in 2019.

Residential power cuts due to payment default in 2020	
Less than 48 hours	283,242
From 48 hours to 1 week	22,755
From 1 week to 1 month	17,496
From 1 month to 1 year	24,323
More than 1 year	0

Power supply reconnections after payment in 2020, per time	
Less than 24 hours	269,406
From 24 hours to 48 hours	13,836
From 49 hours to 72 hours	10,309
From 73 hours to 96 hours	4,584
From 97 hours to one week	7,862
More than one week	41,819

*Maintenance works in a power line**

Accessibility

GRI EU24

The Accessibility issue is managed at Copel by the Diversity Committee, and is also focused on electric power consumers. Through this initiative, actions have already been implemented, such as the provision of electricity bills in Braille for blind clients. The Company's *website* offers adequate browsing features for people with visual and hearing impairment.

The results of the program are assessed through a Satisfaction Survey undertaken by the Brazilian Association of Electric Power Distribution Companies, which includes specific indicators, such as the provision of customer services without any discrimination, and if a company respects consumers' rights. In the survey's most recent edition, Copel obtained indexes of 88.2 and 86.5, respectively, in those indicators.

Suppliers

GRI 102-9

Copel's suppliers vary according to their business and include electric power generation and transmission companies, manufacturers of materials and heavy machines, and service providers, among others. In 2020, there were 2,653 suppliers servicing the Company as a whole, with expenses amounting to R$ 11.28 billion.

Acquisition and contracting processes are based on the Internal Regulations for Bids and Contracts, in force since July 01, 2018, and updated at a meeting of the Board of Directors held on October 14, 2020. They are also in conformity with the legislation that rules contracting models, whether through public bids and their many different modalities, through the exemption of bids as forecasted is some paragraphs, or their unenforceability, or due to lack of competition. These regulations also include Laws nº 10,520/2002, which establishes the auction bidding modality, Complementary Notice nº 123/2006, regarding the National Statute for Micro and Small Companies, and Federal Laws nº 13,303/2016 (State-Owned Enterprise Act) and nº 13,709/2018 (General Law on Personal Data Protection - LGPD). Internally, this matter is ruled by the corporate policies and norms NAC 030904 – Contract Management, updated on September 29, 2020; NPC 0201 – Supplies Policy; NAC 030406 – Suppliers' Evaluation; Copel's Code of Conduct; Suppliers' Manual; Solid Waste Management Handbook; and NPC 0322 – Policy on Privacy and Personal Data Protection, created on December 09, 2020 to internally guide the Company's adaptation to the General Law on Personal Data Protection.

*It is important to stress that tissue masks cannot be used close to energized grids.

Although this process is restricted by the legislation in force, and therefore the Company cannot adopt environmental or social criteria to select suppliers, these parameters are included in the contractual requirements in order to fulfill the labor, human rights, tax, and environmental legislations, applicable to any and every company. In the phase of qualification to take part in any bidding process, all suppliers are required to submit a "Social and Environmental Responsibility Statement," in which they assert not to hire minors below 18 years of age (except as apprentices starting from the age of 14); not to adopt any labor relation characterized as forced labor or equivalent to slavery; to 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 notice. The contractual demands comprise incorporating the Principles of the Global Compact; giving priority to contracting local suppliers and small and mid-size companies; to hire and qualify professionals with disabilities; and to suppress any practice associated to moral and sexual harassment at the workplace; among others.

To reinforce all these requirements, Copel forwards its Sustainability Policy to all suppliers. GRI 308-1, 414-1

When the environmental or social responsibility contractual clauses are violated, Copel applies sanctions according to their severity, which include a written warning, in the case of a low impact obligation and that does not lead to actual damages to Copel, to the environment or to third parties, and contractual fines. The most serious cases, which might have severe consequences or a significant impact on Copel or public interest, or due to the occurrence of a serious accident associated to the execution of the contractual object, with permanent injury or death, affecting Copel's employees, its contractors, or third parties as a consequence of proven guilty or willful misconduct by the contracted party, they lead to a temporary suspension from bids and an interdiction to enter into contracts with Copel, and its wholly owned subsidiaries and controlled companies, for a term of up to two years. Depending on the severity of such an event, the contract may be rescinded and the competent legal authorities may be informed on the infraction. GRI 308-2

Acquisition and contracting processes are based on the Internal Regulations for Bids and Contracts, in force since July 01, 2018, and updated at a meeting of the Board of Directors held on October 14, 2020.

There is not a formal evaluation of suppliers as regards environmental or social impacts, however Copel performs inspections at contracted parties' facilities and premises, or at their work sites, at any time to oversee the fulfillment of contractual clauses, including those related to the abovementioned topics. The Company also holds awareness-building meetings and provides informative materials on topics such as forced labor or equivalent to slavery. GRI 408-1, 409-1

8 DECENT WORK AND ECONOMIC GROWTH

8.3 To promote policies to foster development, which support production activities, the generation of decent jobs, and entrepreneurship, creativity and innovation, and stimulate the formalization and growth of micro, small and mid-size companies, including through access to financial services

Baseline	28 deaths reported in 2019.
Indicator	Percentage share of micro, small and mid-size companies in the business transactions held by power generation, distribution and transmission companies.
Suggested goal	To foster strategies/initiatives to contract micro, small and mid-size compa-nies, while expanding their participation in the value chain (implementation goal/objective).

Copel's Performance

Copel reserves quotas of up to 25% for the acquisition of materials from Micro Companies (ME), Small Companies (EPP), and Individual Microentrepreneurs (MEIs) in bids to acquire goods of a divisible nature, as defined by Complementary Law nº 123/06. This initiative provides Micro and Small Companies and Individual Microentrepreneurs with an opportunity to be contracted by the Company. There also are bids of up to R$ 80 thousand, which, due to their maximum value, end up being exclusive to Micro and Small Companies and Individual Microentrepreneurs. Another form of offering an incentive to these companies are the broad participation processes, when the benefits of law are ensured to give these companies the right to offer a price proposal inferior to the best classified company's proposal in a bid (in case they fall within a 5% interval in the auction modality, or 10% in the remaining modalities, considering the value of the best received proposal).

Wind Power Station of Palmas, in the State of Paraná

Communities

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

Local communities are one of Copel's main stakeholders, since they consume its products and are subject to the positive and negative impacts of its activities. Corporate relationship with them is a constant, whether in the power generation phase, as an organization that employs natural resources and modifies community dynamics when building a new enterprise; or in the power distribution phase, when it more directly provides services to the public and obtains returns from its financial investments through electricity bills. And we should add to all that the fact that Copel is controlled by the Government of the State of Paraná, a fact that ratifies its role as a social development driving force amongst local communities.

The main impact affecting this public comes from the construction of new enterprises, depending on the direct and indirect influence area of a work. In addition to environmental, there also are social impacts, such as for example the displacement of local populations; population increase and pressure on public services; higher onset of diseases; increased sexual exploitation; higher demand for workforce, which may concentrate populations without an adequate structure; cultural losses associated to indigenous groups and "quilombola" or traditional communities; damages to local historical and cultural heritage; and flooding of farming areas, among others.

That is why Copel monitors the "community and social investment" topic within the scope of sustainability and at the corporate level. The continuous communication of verified results enables the Company to establish operational strategies, identify opportunities, and propose improvements. The purpose is to mitigate the negative impacts generated by its operations and leverage their positive impacts, while building new alternatives together with local communities and the Public Power to solve socially relevant problems and promote responsible development.

The driving force behind these operations is the Sustainability Policy, which includes general guidelines on engagement with stakeholders that reflect the importance of dialogue and transparency, by taking their demands, priorities and expectations into consideration. Other internal norms and policies are related to these issues, such as NPCs 0104 - Integrated Corporate Risk Management Policy, 0309 - Sponsorship Policy, and 0320 - Human Rights, and NACs 030390 - Environmental Licensing and 030912 - Tax Incentives. Copel has also adhered to and supports external policies and initiatives dedicated to local communities, such as those listed on pages 72 and 76.

In every new enterprise, studies are undertaken on the socio-economic environment as a part of the licensing process, at intervals that vary according to the complexity of a work. The results are used to subsidize socio-environmental programs, which, in addition to having a mitigation and compensatory character, aim at building awareness amongst surrounding communities in regard to related topics.

Regional Museum of Iguaçu, in the city of Mangueirinha-PR

Copel's participation in the selection of sustainability index portfolios in the Stocks Exchanges of Sao Paulo and New York is a way of evaluating the Company's performance in this sense, as well as of rendering accounts in relation to its assumed socio-environmental commitments. Further information is available on page 51.

11 SUSTAINABLE CITIES AND COMMUNITIES

11.4 Strengthen the efforts to protect and safeguard the world's cultural and natural heritage	
Baseline	Not identified. It is necessary to undertake a survey with sector companies to define it.
Indicator	Quantity of socio-economic diagnosis undertaken in traditional communities belonging to enterprises' influence areas.
Suggested goal	Until 2025, undertake socio-economic diagnosis in the traditional communities affected by the electric power sector's operations to subsidize the implementation of volunteer projects.
Indicator	Projects dedicated to preserve material and immaterial historical heritage and that have become self-sufficient (do not exclusively depend on resources allocated by electric power sector companies).
Suggested goal	Until 2030, guarantee the maintenance of projects dedicated to preserve the material and immaterial historical heritage, ensuring higher efficiency when allocating resources and the effectiveness of implemented initiatives.

Copel's Performance

Copel has implemented projects to preserve material and immaterial historical heritage through its subsidiaries Copel GeT and Copel DIS. These initiatives can be found at the socio-environmental reports issued by these wholly owned subsidiaries, available at *website*.

Copel's employees are able to dedicate up to eight hours of work every two months to perform social actions

Community engagement initiatives

GRI 413-1, PRME 3, 5, 6

EletriCidadania

It is Copel's corporate voluntary work program. Employees may dedicate, spontaneously and as volunteers, up to eight hours of their working hours every two months to perform social actions. These operations are inspired by the Sustainable Development Goals and include topics such as human rights, education, inclusion, health, environment, citizenship, and sustainability. The main purpose is to allow employees to perform volunteer works in the local communities where they live and work, by applying their knowledge and skills on behalf of social wellbeing and the environment, while promoting citizenship and social responsibility, and contributing to foster sustainable development in a participative and transforming way.

In 2020, they were involved with 155 volunteer actions, which added up to 1,002 hours of voluntary work. In that same period, due to the new coronavirus pandemic, their voluntary works needed to be adapted to social distancing. Their actions included the production and donation of masks, the donation of fiscal note tax returns through the Paraná Fiscal Note/Nota Paraná Program, and the donation of clothes, food and personal hygiene products to socially vulnerable people.

With employees' participation in the Warming Paraná/Aquece Paraná Campaign, to collect winter coats and blankets for poor families in the State, 3,577 pieces were collected in August, which have benefited seven social institutions and hundreds of people.

Family Day

Every year Copel holds the Family Day, when it opens the doors of the Company to employees' families. In July 2020, due to the pandemic, this interaction went to the virtual space. A collection campaign was undertaken, through which Copel raised 685 food baskets, given to the Civil Defense of the State of Paraná to be distributed to socially vulnerable groups.

Cultivate Energy/Cultivar Energia Program

It is a corporate program that enables implementing community gardens under Copel's power transmission lines in partnership with local City Halls. Developed as an auxiliary strategy to combat irregular occupation in properties managed by the Company, it also has the purpose of promoting environmental improvement in urban spaces and fostering food security and income generation among socially vulnerable families.

This program is aligned with the municipal public food security policies and contributes to the Sustainable Development Goals, and more specifically to the SDG 2 – Zero Hunger and Sustainable Agriculture (goals 2,1 and 2,4); SDG 10 - Reducing inequality within countries and between them (goals 10,1 and 10,2), and SDG 17 – Strengthen implementation means and revitalize the global partnership to promote sustainable development (goal 17,17).

In addition to maintaining the already productive gardens in the cities of Maringá, Cascavel and Ponta Grossa (Community Garden of Vila Esperança, Community Garden of the Itaipu Park, Community Garden of Cidade Canção, Community Garden of Parque Verde, and Community Garden of Costa Rica), two new gardens were inaugurated in Curitiba in 2020, ratifying a new partnership for the program, and benefiting some of the most needy areas in that city.

The seven community gardens in operation have directly benefited around 271 families. Indirectly, other people are also benefited, since the surplus production, undertaken according to agroecological concepts and environmentally correct principles, is sold, thus promoting a healthier diet, conscious consumption, and local development through income generation.

Enlightening Generations/Iluminando Gerações Program

The Enlightening Generations/Iluminando Gerações Program provides to local communities in the municipalities located in Copel's concession areas informative and preventive guidelines on sustainability, conscious and safe use of electric power and natural resources, and correct waste disposal, through lectures, theater performances, and the distribution of booklets. In 2020, due to the pandemic and to the suspension of on-site classes at schools, virtual resources started to be utilized, such as the production of educational videos and the realization of lives, made available to schools, teachers and students. This program's actions were held all through the year. The program reached around 23,500 students, with 14,500 video views by students, 4,100 views by local community dwellers, and 800 viewers in the lives promoted by Copel, with an investment amounting to R$ 426 thousand.

Migração e Refúgio/Migration and Refugee Project

It aims at facilitating access to information on Copel's services for migrants and refugees. The first stage was concluded in 2020, with a definition of the priority contents together with the related corporate areas, their redaction in a language easy to comprehend, and translation into English, French, Spanish, and Haitian Creole (the most common languages amongst this public in the State of Paraná). The next stages – publication at the website, disclosure at Copel and in associated institutions, and a possible partnership with the EletriCidadania Program – have been forecasted to 2021.

Actions promoted by the Government of the State of Paraná

Social Electricity Tariff/Tarifa Social de Energia Elétrica (TSEE)

A program that offers discounts in electricity bills, up to the a consumption limit of 220 kWh, to those families registered in the Federal Government's Single Registry of Social Programs, provided they comply with the remaining criteria disposed in Aneel Resolution nº 414/2010. In 2020, the Social Tariff benefited in average 306 thousand consumer units, the equivalent to 8.4% of households serviced by Copel. The total discounted amount added up to R$ 103.9 million.

Luz Fraterna/Fraternal Light Program

It is a government program that pays the bills of those consumers registered in the Social Electricity Tariff project, provided their consumption does not exceed 120 kWh. In 2020, the total amount allocated by the Government of the State to this program reached around R$ 33.1 million, with an average of 155 thousand families served every month.

Grid integrated into urban forestation

Night Irrigation Tariff and Night Rural Tariff (Tarifa de Irrigação Noturna / Tarifa Rural Noturna)

The Night Rural Tariff program aims at stimulating agricultural productivity by offering a 60% to 70% discount on tariffs for the electric power employed in production in the period from 9:30 PM to 6 AM. In 2020, this program benefited 13,326 farmers, and total discounts on electricity bills amounted to around R$ 47 million.

As for the Night Irrigation Tariff program, it offers subsidies for the construction or reinforcement of grids that supply power to irrigation projects. In 2020, 3,888 farmers were benefited, with total discounts amounting to R$ 11.5 million.

Living Well in Paraná/Morar Bem Paraná Program

This program's purpose it to stimulate the construction and acquisition of new residential units, to refurbish, expand or renovate urban and rural properties, and to provide landholding regularization and urbanization works to families with a monthly income adding up to six (national) minimum wages, as well as to develop housing projects of social interest in the State of Paraná. Here, Copel is responsible for building electric power distribution grids and installing power supply connections in residential units, with reimbursements granted by the Government of the State, through the State Secretariat of Planning and Structural Projects (SEPL). In 2020, 1,980 residential units were served, with investments amounting to R$ 2.76 million.

Safe use of electricity

GRI EU25

The number of individuals involved with electric power accidents decreased from 43, in 2019, to 33 in 2020. The quantity of deaths fell from 12 to 9. Accidents are periodically mapped counting on community assistance, and after that a dedicated committee analyzes the reported events so the applicable measures can be adopted. The Management Contracts signed between Copel (Holding) and its wholly owned subsidiaries contain specific indicators on this issue.

Every year Copel promotes the Community Safety Month, in which the actions to provide guidance to local populations on the safe use of electricity are intensified through lectures given to public school students, recommendations made to civil and rural construction workers, visits to private construction works, including the delivery of informative materials to commercial premises and informal service providers, pamphleteering in public areas, and dissemination in radio and TV stations, and in social media.

Copel also promotes many recreational initiatives to educate the population on the safe use of energy, such as actions connected to the Enlightening Generations/Iluminando Gerações Program, targeting basic teaching students in municipal schools, companies, and non-government institutions. The program also deals with conscious use and environmental care.

When it takes part in government programs like Citizen of Paraná/Paraná Cidadão and Citizenship Joint Effort/Mutirão da Cidadania, the Company promotes the safe use of energy through educational games and using a vehicle called the Energy Efficiency VAN.

This issue is also discussed in the Awareness-Building Program/ Programa de Sensibilização, directed to construction workers, and in specific community relationship-building actions.

Works at PCH Bela Vista, in the city of Verê-PR

Management of the impacts of population displacement

GRI EU20, EU22

In the case of hydraulic power generation enterprises, Copel complies with the environmental legislation and employs the socio-economic population registry (see page 122). For power transmission enterprises, a joint work between the social, landholding, and engineering areas is undertaken, still in the outline definition phase, so as to avoid as much as possible that situations involving relocations might emerge. At the enterprise-planning phase, our communication hotline (0800) and *e-mail* are disclosed to the entire directly affected population, so they are able to clear any doubt about the process. After a project has been designed and the families liable to relocation have been identified, *in loco* discussions are held, and contact info on the landholding and social technician responsible for overseeing the process is made available to all interested parties. At this phase, enterprise managers hold a closer dialogue with the affected population.

In the case of involuntary displacement, Copel operates at two fronts:

- in those situations where the affected parties are property owners, it evaluates the area of the property to be expropriated, the real estate and remaining betterments, in addition to eventual production losses, according to the specific legislation. After the indemnification amounts have been surveyed, a negotiation process is started by always striving to reach an amicable settlement. After this latter process has ended, the agreed indemnification is paid. In specific cases, in which a family might face any kind of social vulnerability or require relocation support, Copel provides social assistance and follow-up.

- when dealing with landholders, sharecroppers and irregular occupiers, in which it is not possible to offer an indemnification due to legal issues, it evaluates their dwellings, betterments, and eventual production losses. In case their value does not allow for self-relocation, families receive a complementary aid through social compensation, to ensure they are able to move to a decent and safe location. All of this process is monitored by the Company's social area team, which also asks municipal public services to monitor these families during their adaptation processes.

Copel has been monitoring the implementation of PCH Bela Vista, of which it is the majority shareholder. In addition to that, the Company has also provided Bela Vista Geração de Energia S.A, the specific purpose company responsible for this PCH, with enterprise construction and implementation services, including in regard to landholding clearance and indemnifications. In the last three years, four families have been relocated, and in other cases accessory expenses have been paid. Total disbursements here have amounted to R$ 1.21 million.

With the conclusion of the Executive Project for TL 525-kV Blumenau – Curitiba Leste and of the landholding survey on the properties located along the right of passage area, in 2020, it was verified that interferences would affect 11 households, of which 3 are brick houses and 7 timber houses, including 15 betterments, among which 3 sheds, 4 henhouses, 3 timber yards, 2 pens, 1 deck, and 2 power supply points, mostly made of wood. For the households, a Social Registry of affected families has been elaborated, which will enable the enterprise to look for solutions for each individual case. The people and/or family units that will be affected by the removal of their betterments are also being identified and characterized. The schedule of damage settlements forecasts that the period elapsed between the payment of an indemnification and the actual demolition of betterments should always be sufficient to allow for their replacement in another site. Within the scope of this project and of the 500-kV ARA-TAU Transmission Line, 22 families were displaced between 2018 and 2020, with total costs amounting to R$ 2.59 million.

As regards the electric power distribution operations, they did not require any population displacement, however the Company had to pay property indemnifications upon the installation of new lines and substations. In 2020, R$ 22.48 million was allocated to settle such cases.

As regards the electric power distribution operations, they did not require any population displacement, however the Company had to pay property indemnifications upon the installation of new lines and substations.

Relationship with indigenous peoples

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

Copel has implemented Socio-Economic and Cultural Sustainability Programs in Indigenous Lands in two communities where it owns facilities: Apucaraninha, in the municipality of Tamarana (PR), where the hydroelectric plant of Apucaraninha has been built, and Barão de Antonina, in São Jerônimo da Serra (PR), an area intercepted by the 230-kV Figueira – Apucarana Transmission Line. These actions have been based on Conduct Adjustment Agreements (CAAs) signed between the Company, the respective indigenous communities, the National Indian Foundation (Funai), and the Federal Public Prosecutor's Office (MPF).

The execution of these activities has been enabled by the creation of specific funds to be held by indigenous landholders (TIs), with the purpose of sponsoring development projects in such areas. The innovative aspect of the adopted governance model is its hybrid management feature, since the funds are controlled by joint management committees, comprising Copel representatives and representatives of local indigenous peoples, under the supervision of Funai and the Federal Public Prosecutor's Office. The application of financial resources is defined through a dialogue with local communities and their representatives, by respecting their forms of organization and traditions.

In 2020, due to the measures to restrain the Covid-19 pandemic and in conformity with the provisions of Funai Ordinance nº 419/PRES, of March 17, which restricted access to indigenous lands, the on-site activities associated to this initiative were temporarily suspended.

Copel GeT, however, has taken part in the activities of the Work Group for Indigenous Peoples and Traditional Communities of the State of Paraná, established through State Decree 3534/2019, to articulate integrated actions to undertake studies, elaborate strategies, and submit proposals on issues related to local "quilombola" and traditional communities.

Financial obligations established by the CAAs

In regard to the Indigenous Land of Apucaraninha, Copel GeT has agreed to pay a R$ 14.00-million indemnification, of which R$ 2.80 million is being dedicated to the current generation of indigenous persons and distributed to their families. The remainder, R$ 11.20 million, has been deposited in a community fund to finance environmental sustainability, economic, and socio-cultural projects, constituting that portion of the indemnification to be used to safeguard the rights of children and the future generations of indigenous peoples, an amount placed under a financial application scheme.

As regards the Indigenous Land of Barão de Antonina, the Company has agreed to pay an R$ 1.84-million indemnification, of which R$ 800 thousand is being dedicated to the current generation of indigenous persons and distributed to their families. The remainder, R$ 1.04 million, has been deposited in a community fund to finance environmental, economic, and socio-cultural projects, constituting that portion of the indemnification to be used to safeguard the rights of children and the future generations of indigenous peoples, an amount placed under a financial application scheme. Copel GeT has also committed itself to provide the environmental recovery of permanent preservation areas in that Indigenous Land, and for this reason, according to Clause 10th of the CAA, it has contracted and undertaken an Environmental Diagnosis and Recovery Project for Permanent Preservation Areas in the Indigenous Land of Barão de Antonina, which studies were a part of that instrument as an obligation attributed to the company. The company's obligations also include supplying native flora seedlings, inputs and basic implements, and all the know-how deemed necessary, providing for their transportation to this Indigenous Land, and hiring of a forest technician to supervise the project.

Power Line of Uirapuru, between Londrina and Ivaiporã-PR

Covid-19 Pandemic

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

During the pandemic, in 2020, Copel acquired 200 thousand RT-PCR test kits and 1.2 million masks in the total amount of R$ 5 million Brazilian reais, which were distributed to hospitals, according to the demand mapped by the Health Secretariat of the State of Paraná (Sesa). These materials were donated to hospitalized patients, health professionals, or people who lived in the same household as those workers, people over 65, inmates or professionals of long stay institutions, among other groups considered more vulnerable to the new coronavirus. The criteria defined to guide the donations were the number of health professionals in a given municipality and the number of deaths and infected patients. Benefited persons added up to 5,637,834 inhabitants and 363,077 health professionals, which correspond to around 49% of the total estimated state population.

Two institutions were our partners in that action: the Molecular Biology Institute of the State of Paraná (Instituto de Biologia Molecular do Paraná/IBMP), responsible for distributing the tests, and for considerably extending test coverage and virus traceability in the State; and the Federal University of the State of Paraná's Foundation for Science, Technology and Culture (Fundação para o Desenvolvimento da Ciência, da Tecnologia, e da Cultura/Funpar), responsible for distributing the masks. Both the Company and those institutions signed an Agreement Contract to enable such contribution to society, thus strengthening their partnership to mobilize resources and formulate joint, fast, and significant responses in such a delicate and difficult time.

Copel also engaged all state society with the Solidary Electric Bill/Fatura Solidária Campaign, so that additional funds could be dedicated to fighting the pandemic. For each client that adopted the digital electricity bill, Copel donated an extra R$ 2. For each client that adopted automatic debt as the form of payment of their electricity bills, an extra R$ 3 were donated by Copel. Thus, the volume of donations was increased and social participation on behalf of an important cause was further stimulated.

The donations made by Copel to combat the coronavirus were a highlight in TV news program "Jornal Nacional" on May 25, 2020, in a series of reports dedicated to the companies that most contributed to cope with the pandemic. All regional offices were to some extent benefited by the donations, with a highly positive impact on all the State of Paraná.

The Company also organized voluntary activities through the Corporate Voluntary Work Program/Programa Corporativo de Voluntariado – EletriCidadania, and took part in debates about the pandemic and its impacts, thus helping all stakeholders to reflect and devise actions, and reorganized its routine so as to make remote work a reality for a large part of its employees, reducing their circulation, and thus indirectly benefiting all of them.

INTELLECTUAL CAPITAL

Innovation

Innovation, at Copel, is no longer a subject that pertains only to the Research and Development areas, but has become a joint effort at the whole Company. To reflect this organizational culture, an innovation sector has been created, and the topic has been included in Copel's Investment Policy, with the purpose of streamlining initiatives of interest to the Company. Thus, Copel has started to allocate a resource base for investments in innovation projects, in addition to the resources traditionally and already invested in its R&D program as regulated by Aneel.

As an outcome of this initiative, at the end of 2020 Copel made a public call with the purpose of hiring an expert consultancy company to implement the Open Innovation Program for *Startups* (Programa de Inovação Aberta com *Startups*), to be implemented in 2021. The purpose here is to take advantage of the synergies between business ecosystems and the flexibility of *startups* to implement innovations aligned with Copel's strategy, and with the potential of generating value to stakeholders. It is expected this initiative will accelerate the development of new products and services, so Copel can implement new businesses and explore new markets.

Open innovation is a model increasingly adopted by many companies in response to a world ever more characterized by global-reach business entities and open information sharing. Copel's proposal aims at boosting and accelerating such efforts.

Also at the end of 2020, Copel signed a technical cooperation agreement with the Brazilian Industrial Development Agency (Agência Brasileira de Desenvolvimento Industrial/ABDI) for the utilization of a technological *sandbox* – or "live laboratory" – of technologies for *smart cities*, called *Living* Lab. Smart cities, in general terms, are those that strategically utilize their resources, including energy, as catalyzers for economic development. The space maintained by ABDI, in partnership with the Technology Park of Itaipu (Parque Tecnológico Itaipu/PTI), is located in the city of Foz do Iguaçu, and will be used to implement actions dedicated to matters of public interest, allowing it to encourage the adoption of sustainable policies and to disseminate innovative business models to foster urban mobility and smart cities, thus stimulating all the related production chain.

Open innovation is a model increasingly adopted by many companies in response to a world ever more characterized by global-reach business entities and open information sharing.

Both urban mobility and smart cities are topics to which Copel will dedicate special attention in the next years. Both contribute to reducing carbon emissions and promoting access to power supply, in convergence with the Sustainable Development Goals prioritized by the Brazilian electric power sector and the Company (see page 74). In 2019, the company concluded the installation of recharge stations along a 730-kilometer electrified monorail track, the largest project of its kind in Brazil, connecting the Port of Paranaguá to the Iguaçu Falls. This project, conducted in partnership with company Itaipu Binacional, has already installed 12 electric stations along Highway BR-277, in the municipalities of Paranaguá, Curitiba, Palmeira, Fernandes Pinheiro, Irati, Prudentópolis, Candói, Laranjeiras do Sul, Ibema, Cascavel, Matelândia, and Foz do Iguaçu.

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 wellbeing, while focusing on equal access and at affordable prices for all

Baseline	913 public electric stations in 2019 (IEA).
Indicator	Quantity of installed public electric stations.
Suggested goal	Reach until 2030 at least 80 thousand public electric stations installed in the country.

Copel's Performance
Copel has installed 12 electric stations on Highway BR-277, in 12 municipalities along a 730-kilometer electrified monorail project, the largest in Brazil.

Tests with an electric truck

In July, Copel conducted tests with an electric truck to transport materials between Curitiba and other Metropolitan Region cities, the Coastal area, and the region of Campos Gerais. That vehicle, which does not emit polluting gases and is noise and vibration free, has a gross total weight of 7.5 tons. It has been imported, and is the only vehicle of its kind and size available in the Brazilian market. It has autonomy to run up to 200 kilometers, and the manufacturer believes its total cost per traveled kilometer is from four to five times lower if compared to other diesel powered vehicles.

Copel has already been employing two electric vehicles in its daily activities, and plans to expand their share in the corporate fleet.

Research and Development

GRI EU8, PRME 4

In the Brazilian electric power sector, investments in R&D are also a regulatory requirement, established by Federal Law nº 9,991/2000 and overseen by the National Electric Energy Agency (Aneel) within the scope of the Technological Research and Development Program for the Electric Power Sector (Programa de Pesquisa e Desenvolvimento Tecnológico do Setor de Energia Elétrica/ProR&D). All sector companies must mandatorily allocate a part of their net operating revenues (ROL) to this area.

The ProR&D Program has proposed many different research lines, such as alternative electric power generation sources, management of basins and reservoirs, energy efficiency and service quality and reliability, among others. The Company has been developing projects along those lines, always associated to its business strategy, based on the demands verified in its daily operations, such as the need for new technologies or for the construction of low-cost power generation enterprises. Each project has its own schedule, and Aneel regulates their conclusion deadlines.

The R&D areas of our subsidiaries have provided support to manage these initiatives, including initial hires, the management of monthly payments, and the monthly verification of financial statements. These R&D programs and the execution of their budgets can be found at the Innovation Portal, a tool implemented to support project managers.

In 2020, six patent requests were filed before the National Industrial Property Institute (Instituto Nacional de Propriedade Industrial/INPI). Altogether, since its first patent, Copel already holds 32 active registrations at INPI. Copel has also filed two international patent requests in the United States and Europe, through the Paris Convention (CUP). It is important to stress that, in 2020, Copel obtained four patent grants and two *software* registration certificates.

In 2020, R$ 83.12 million were invested in R&D projects.

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

9.4 Until 2030, modernize the infrastructure and refurbish industries to make them sustainable, with increased efficiency in the use of resources and a higher adoption of clean and environmentally adequate industrial technologies and processes; with all the countries acting according to their respective capacities

Baseline	An average of 15.4 patents and licenses requested per annum (average in the 21-year program monitored by Aneel).
Indicator	Quantity of patents and licenses requested per annum / Total amount invested in R&D pro-jects per annum.
Suggested goal	Until 2030 to expand the quantity of patents and licenses requested for each million Brazili-an reais invested in R&D projects.

Copel's Performance

In 2020, six patent requests were filed before the National Industrial Property Institute (INPI), and Copel obtained four patent grants and two *software* registration certificates. The Company has also filed two international patent requests in the United States and Europe through the Paris Convention (CUP).

Investment in Research and Development Projects in 2020 (as per topic)

Energy storage	2,734,966.00
Energy Efficiency	2,034,225.73
Alternative electric power generation sources	8,802,238.55
Management of Basins and Reservoirs	947,687.03
Environment	7,094,331.50
Measurement, billing and fight against commercial losses	1,783,024.00
Operation of Electric Power Systems	11,335,544.81
Planning of Electric Power Systems	9,153,478.50
Supervision, Control and Protection of Electric Power Systems	10,224,057.54
Safety	3,893,698.17
Quality and Reliability in Electric Power Services	4,807,064.63
Others	19,606,243.45
RD&I Management	706,979.99
Total	**83,123,539.90**

Partnership with CIBiogás

Copel has signed a Term of Cooperation with the science and technology institute CIBiogás to develop operational strategies and business models using gas generated by agroindustry waste and from other activities as an energy source. This partnership is a part of the GEF Biogas Brazil Project (Projeto GEF Biogás Brasil), implemented by the United Nations Industrial Development Organization (Unido) with the purpose of reducing Greenhouse Gas (GHG) emissions and reliance on fossil fuels, and will be valid for three years.

The participation of the State of Paraná in the *Global Environment Facility* (GEF) – an international movement gathering 183 countries – has strengthened the State' prominence in actions to explore biogas as an energy source. The first plant in operation in the State and in Brazil has been the result of a joint work between Copel and CIBiogás in a Research and Development (R&D) project overseen by Aneel. This plant, located in the city of Entre Rios do Oeste, uses pig-farming residues and reached its first year of operations in August 2020. With a 480-KW capacity, the plant gathers 18 partnering farmers and has the potential to turn 215 tons of waste into clean energy every day. Copel, as the project's funding institution, has made investments amounting to R$ 17 million.

Main R&D projects in 2020

Strategic project PD-06491-0541/2019

By flowing down waterfalls and similar structures, as in the spillway configuration of certain hydroelectric plants, water may go through a phenomenon called gas oversaturation, in which atmospheric gases are incorporated into water under the pressure of the waterfall, and so it can momentarily have a volume of total dissolved gases (TDG) above its normal limit. Due to this event, bubbles are formed, which then start to emerge into the surface. Fish observed at this time also point to the formation of bubbles in their organisms, thus suffering gas embolism, which might lead to death. Mortality among these animals due to embolism has been observed in Brazil when spillways are operated in some enterprises.

In order to create spillways able to generate lower oversaturation levels, it is fundamental to understand how this phenomenon is generated by the operation of such facilities and due to their main characteristics. To do that, international researchers have used computer modeling as an analysis tool.

Within the scope of Copel's project, a computational methodology will be developed and calibrated based on field-recorded measurements and on a physical model. This solution will enable to estimate the production of total dissolved gases in water downstream from spillways using a stilling basin, and thus to minimize eventual damages caused to local ichthyofauna by this type of structure. It will also enable to identify potential risks associated to works still being designed, and to devise as well solutions to problems verified in already existing enterprises.

Mini Biogas-Fired Plant of Entre Rios do Oeste-PR

Strategic Project PD-06491-0363/2015

This is a project to identify the most efficient techniques for the deposition of overlays resistant to cavitation through thermal spraying in hydroelectric plant turbines. It will enable Copel to establish the technical specifications of experimental alloys, and their on-field applications and commercial production processes.

With the application through thermal spraying of the previously developed and patented alloys, it is expected, among other benefits, that there will be greater resistance to wear and tear by cavitation, through their adaptation to different wear and tear mechanisms, enabling their use in components with a significant presence of corrosive or abrasive mediums. This will provide reliability and useful life gains to repaired components, if compared to electric arc welding processes. It has been understood that the use of overlays deposited through thermal spraying as a protection to stainless steel rotors used in power plants might postpone corrective maintenance interventions using welding processes, thus reducing nucleation and the onset of cracks in areas under high mechanical tensions.

By owning the economic rights over the developed experimental alloys, as well as over the adequate methodology to perform on-field deposition, Copel might receive *royalties* from their production by a third party manufacturer.

Strategic Project PD-06491-0531/2019

This is a project developed in partnership with the Federal University of Paraná and Institute Gnarus, dedicated to the research of monitoring and control solutions, to map and characterize the computer systems for operations (PMU, SCADA and SEM) through data analytics and machine learning. Thus, it will be possible to reconcile different data sources, enabling automatic recognition of the prevailing topology in an area. After that, a smart methodology (*machine learning*) will be developed focused on controlling large electric power systems (*wide area control*).

It will be implemented using a computational tool with access to a data integration and analysis system to elaborate operational rules, allowing for a distributed control analysis. This project's execution includes the creation of a databank, the development of *software*, Master's and Doctorate qualification for professionals, the production of technical-scientific papers, and the realization of *workshops*.

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Smart Meter

PD 2866-0376/2013 - Smart Isolator

The useful life of the components utilized in compact overhead distribution grids, such as the pin type isolator, made of high-density polyethylene, is compromised due to the degradation caused by UV radiation. UV radiation leads to the break of polymeric chains in materials, thus changing their properties. Another issue is also how to maintain a high hydrophobicity condition on their surface, since on a surface that tends to become hydrophilic, the deposited water, together with other pollutants, forms a film with lower electric conductivity and favors the emergence of a phenomenon called electrical tracking, which may lead the isolator to suffer an electrical breakdown.

In a project concluded in 2007, a smart polymeric isolator prototype was developed, which demonstrated to be efficient to detect defects, however it was made of a material that suffered a high level of degradation under UV radiation. The current project's proposal is to develop surface treatment techniques for polymeric isolators with the following purposes: to reduce the degradation caused by UV radiation, to control and maintain hydrophobicity and improve resistance to electrical tracking in such isolators, including the smart isolator. Concurrently, a study has been undertaken with other mechanisms to indicate operating defects in a smart isolator, without suffering such intense degradation when exposed to UV radiation.

PD 2866-0420 - Broken Cable Detection

This project has involved the development of a system to detect and locate cable breakup in medium-voltage electric power distribution grids in urban or rural areas. Breakup is detected by verifying if the data communication link between sender and receiver devices is not activated during a given interval of time, provided the data communication devices are working correctly.

The communication system, called PLC, comprises two end-to-end communication devices, and each one of them is placed at a terminal end of the communication link. This system uses a data communication interface to inject into and extract signals from a serial communication interface, which enables to provide information to the substation on the occurrence of cable breakups,

codified according to the message exchange protocol of the SCADA *software* used by Copel. Through intermodulation and interferometry techniques it is also possible to indicate the broken cable's location.

There is no PLC technology available in the market to detect broken cables in medium-voltage grids, and therefore the development of such a signal injection/extraction circuit has been this project's disruptive innovation.

PD 2866-0468/2017 – Smart manager and Inverter

This is a project to develop a smart system to convert energy and manage photovoltaic mini generation (SIMF), enabling to analyze and simulate the impacts of inserting distributed generation (GD) into an electric grid. To do this, the solution involves a smart power manager and a smart inverter. The first one enables monitoring the distributed generation system through an energy distributor and provides for an optimized management of the GD connection into the grid. The inverter has been developed in modular format, with the capacity to receive the power dispatch command, thus regulating the active and reactive power flow and keep the grid operating within the desired power supply standards. Survival capacity after momentary voltage sags/elevations has also been investigated.

This project's main product is a system that enables a concessionaire to monitor, using the SCADA system, the main electrical quantities at users' access points, as well as to send commands for the connection, disconnection, limit the maximum generated active power, and/or request the mini generation unit to work with auxiliary services, such as reactive support in the grid. In addition to that, the smart manager also manages the many photovoltaic inverters of the mini generation plant without requiring the concessionaire to individually command each inverter.

Another devised product has been a smart inverter with a control system, which has been filed for intellectual protection before the National Industrial Property Institute (Inpi).

R&D (Research and Development) - Distributed Micro Generation Dispatch Control

Copel has been developing a system that will enable it to remotely control micro generation power. Called Control Box, this solution has been tested in two Company buildings, where photovoltaic panels have been installed. It establishes an interface between the distributed generation system and the electric power concessionaire. The power generating units are controlled using a local algorithm, with commands being sent from a dispatch center located in the concessionaire's premises.

Energy exchange with distributors through micro generators is already a reality in many countries, and has its own rules for power connection and delivery. Distributed power generation consuming units consume what they produce, but the surplus power is delivered to the grid and turned into credits: when their own generation is not sufficient, the power generated by the distributor is used and abated from the available credits.

Although in Brazil a norm in this regard has been enacted (NBR 16149:2013, by the Brazilian Association of Technical Norms (Associação Brasileira de Normas Técnicas/ABNT), it is still necessary to provide communication between these units and Copel to enable the Company to send external commands. The power generator is remunerated for allowing third parties to control its own equipment.

The control system developed by this project has worked perfectly and its patent request has already been filed before the National Institute of Industrial Property (Inpi).

Smart data management project for electric mobility

Copel has been developing a smart data management system to be used as an interface between energy distributors and recharge management platforms in the electric mobility segment. This project is being developed in partnership with Senai-PR (National Service for Industrial Training) and company Motiva Mobilidade S/A.

The idea here is to create an integration and communication module between the management environments of electric power distributors and electric vehicle recharge station operators. The purpose is to make sure this module allows activating management operations on the demand side (GLD) – a concept that means controlling electric power charges on the consumer's side, in order to more efficiently operate the system.

This project started to be developed in December 2019, with a forecasted duration of 24 months. Resources regulated by the National Electric Energy Agency (Aneel) have been used to fund this R&D program. This integration module follows a market trend, which has increasingly developed technologies for vehicle recharge management companies and consumer units, including the use of artificial intelligence algorithms and *big data*.

NATURAL CAPITAL

Hydroelectric Plant Governador Bento Munhoz da Rocha Netto, in the city of Pinhão (PR

Environmental management

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

Although it has a predominantly renewable matrix and its products do not generate any waste, Copel knows that in order to perform its operations it is necessary to use resources such as water, energy, and materials, and that their production processes generate waste and effluents. That is why the Company has undertaken studies and has endeavored to adopt measures to reduce or mitigate its impacts on the environment – which are discussed in detail on the pages below –, in order to become increasingly more sustainable.

Copel has strived to achieve ecoefficiency, preserve biodiversity, and reduce greenhouse gas emissions. In addition to that, the Company has conveyed its good environmental management principles to clients and suppliers.

These guidelines are a part of its Sustainability Policy, which serves as the basis to other norms, such as its Climate Change Policy and the NACs on Waste Management and Climate Change Management. The Company and its partners have complied with the licensing constraints to each type of enterprise, and the assumptions set in its Ecoefficiency Program, whose purpose is to support projects that promote a better use of natural resources, while building awareness amongst the Company's operational areas and implementing a strategy of excellence in terms of costs, processes, and quality assurance. The program also includes issues such as mobility and fuel, education, and communication.

In order to monitor the program's progress, an Ecoefficiency Commission has been created, whose remaining functions are to discuss actions to reduce water and energy consumption, waste generation, and greenhouse gas emissions, as well as to evaluate the related indicators, define goals, and study the viability of implementing new technologies and developing actions together with its value chain. In 2020, the Ecoefficiency Commission was restructured, with the purpose of having it work in an integrated manner as regards each topic: consumption of resources, waste generation, and greenhouse gas emissions.

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Another environmental management group is the Climate Change Commission, structured to propose actions to minimize emissions, adapt Copel to climate changes, and evaluate the involved financial risks.

A third party company audits the indicators associated to environmental management. Internally, the certification of the "provide socio-environmental support" process was approved in 2020. Copel has also answered to socio-environmental questionnaires, such as the one used to select portfolios for the Corporate Sustainability Index (CSI B3), for the *Dow Jones Sustainability Index* (DJSI), and the one pertaining to initiative *Carbon Disclosure Project* (CDP).

Ecoefficiency goals

Electric power	To reduce electric power consumption by 5% until the end of 2022 (base year 2017). This goal has been fractioned to 1.25% per annum between 2019 and 2022. Base value = 33,136.87 MWh	The goal for year 2020 was exceeded, having reached -16.91%. GRI 302-4
Fleet emissions	To reduce emissions by 2% (base year 2017). This goal has been fractioned to 0.5% per annum between 2019 and 2022. Base value = 13,172.00 tCO_2	This goal has not been achieved.

Wind Power Complex of Cutia, in the cities of Pedra Grande and São Bento do Norte-RN

Ecoefficiency

Energy and fuel consumption

GRI 302-1

In 2020, Copel consumed 17% less electric power in its administrative facilities than in 2019 – 64,957.80 GJ if compared to 78,175.00 GJ. Total consumption, of 401,027 GJ, was 5% higher if both periods are compared. The highlight here is the reduced consumption of energy supplied by non-renewable and renewable fuels, respectively at -22.97% and -31.57%.

Energy consumption from non-renewable fuels

Types of fuels	Consumption (GJ)		2019 x 2020 Variation
	2019	2020	%
Gasoline	3,001.09	1,278.71	-57.39
Diesel oil	127,032.50	98,926.87	-22.12
Airplane kerosene	58.41		-100.00
Total	**130,092.00**	**100,205.58**	**-22.97**

Total energy consumption from renewable fuels

Types of fuels	Consumption (GJ)		2019 x 2020 Variation
	2019	2020	%
Ethanol	37,387.36	19,051.17	-49.04
Biodiesel	13,666.23	15,884.18	16.23
Total	**51,053.59**	**34,935.35**	**-31.57**

	2019	2020	2019 x 2020 Variation (%)
Electric power consumption (GJ)	**201,244.45**	**265,886.34**	**46.36**

Note: It includes electric power consumption during operations (substations and power plants), of 123,069.13 GJ in 2019 and 200,928.53 GJ in 2020 | GRI 102-48.

	2019	2020	2019 x 2020 Variation (%)
Total energy consumption (GJ)	**382,390.04**	**401,027.26**	**4.87**

Note: Since 2019 Copel has started to report the energy consumption of its plants in the electric power item. This note does not include the operations not related to electric power generation.

Tower of a power transmission line

Copel's energy intensity | GRI 302-3

	2019	2020	2019 x 2020 Variation (%)
Consumed electric power (GJ)	78,175.32	64,957.80	
Total number of own employees	7,095	6,667	
Copel's energy intensity (consumed GJ of electric power/nº of own employees)	11.02	39.88	-11.57

Note: The number of employees in 2020 was lower if compared to 2019 due to the termination incentive program.

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

Actions	Type of energy	Obtained reductions
Adoption of remote work and virtual meetings	Electric power	13,359
	Energy from fuels	46,004
Total volume of reductions (GJ)		**59,363**

Water catch

GRI 303-1

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

To define the rules of operation for its enterprises, Copel strives to know the multiple uses of a river basin, in order to avoid affecting them. These rules are defined according to the characteristics of an asset (such as generation capacity, overflow, and operational levels of a reservoir) and of a river basin (backwater, natural flow variation rates, and maximum and minimum flows, among others). For this purpose, specific hydrological studies are undertaken, which include monitoring and field inspections previously to the installation of an enterprise, in order to survey main users and restriction flows.

These rules are registered before the National Electric System Operator (ONS) and may be incorporated into the water resource use grant, in case it is in the interest of the involved regulatory entities (National Water Agency and Water and Land Management Institute - Instituto Água e Terra/IAT, this latter an environmental body of the State of Paraná). Transparently, Copel has published data in real time on the hydraulic operation of each enterprise, in a specific website.

Copel also continuously and periodically monitors the quality of surface waters, an action started even before the implementation of an enterprise and maintained during its operation. This activity has been conducted since 2003 in all of its hydroelectric plants' reservoirs and rivers, in small hydroelectric plants, hydropower generation plants, and thermoelectric plants, in conformity with the constraints of the Operating Licenses and as defined in ANA-Aneel Resolution nº 03/2010. Three indicators have been evaluated: Water Quality Index (IQA), Trophic Status Index (IET), and Water Quality Index in Reservoirs (IQAR). The IQA and IET indexes are based on the methodologies applied by the Environmental Sanitation Technology Company of the State of Sao Paulo (Cetesb), while the IQAR index is calculated based on IAT'S methodology. The periodicity of sample collections and analyses varies according to the type and size of an enterprise.

Water quality monitoring in the rivers and reservoirs used by Copel, with historical data from over ten years, has been useful to society, and especially to the scientific community. With the Company's previous authorization, that data has already been utilized in more than 25 academic publications, including theses, dissertations, scientific papers, and book chapters.

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During its operational routines in reservoirs, the Company makes estimates regarding water availability. As regards energy planning, Copel analyzes circumstantial water availability scenarios (historical variation) for the purposes of programming, revenue calculation, and defining the related risks. In addition to that, the Company actively takes part in discussion forums, and especially in local river basin committees, in which regional water resources are discussed, to make sure water availability changes are always assessed and properly monitored and managed by Copel.

Flow into reservoirs is a means to guarantee water supply during lower availability periods. In 2020, the volume of stored water taken from the Iguaçu River kept the flow into the National Park of Iguaçu above the natural volume. The quantity of this resource to be utilized and the operational levels of reservoirs are defined in the Water Resource use grant, issued by the state (Water and Land Management Institute – IAT) or federal (National Water Agency) regulatory body, depending on the water body in question.

Since the water accumulated in the reservoirs just runs through the turbines (for cooling also), this use is considered non-consumptive. The resource is fully returned downstream from the power generating units, with its flow being monitored every 15 minutes. Thermopower generation, however, makes a consumptive use of water. In this case, the water is taken from a surface spring and partially and immediately released downstream from the power generation unit, with losses due to evaporation.

As regards water consumption in administrative premises, 202 megaliters were reported in 2020, if compared to 161 megaliters in 2019.

Water intake in 2020 (in megaliters)

GRI 303-3

Surface water[1]	113,167.91
Underground water[2]	21.73
Water from third parties[3]	117.46
Total water intake[4]	**113,307.09**

Note: All the water captured by Copel is considered fresh water, that is, it contains a quantity lower than 1,000 mg/L of dissolved solids. The total volume of water captured in 2020 corresponded to 113.31 million cubic meters. It is important to stress that the majority of the surface water caught by Copel to operate hydroelectric power generation turbines is for non-consumptive use.

Legislation

GRI 303-1

Law nº 9,433, of 1997, established the National Water Resources Policy, based on the following main assumptions: in situations of scarcity, water resources must as a priority be used for consumption by humans and animals; water resources management must always provide multiple use of waters; and water resources management must be decentralized and include the participation of the Public Power, users, and local communities. These fundamentals are taken into consideration at the time Copel elaborates its hydraulic operational rules, and also when they are revised.

The Company's corporate risk management methodology takes into consideration the possibility of changes in local regulations. Copel's active participation as a member of the State Council of Water Resources, and of the River Basin Committees and remaining forums has enabled it to monitor the discussions held on this issue. These entities are composed of government agency members, civil society, and water users.

In water stress situations (quality or quantity), the regulatory body intermediates eventual conflicts of interest. The potential conflicts are mapped by Copel itself, which proposes schemes to conciliate them. Report Scenario for Water Resources in Brazil, published by the National Water Agency in 2020, indicated that just 1.69% of the conflicts involving access to water in Brazil are verified in the Southern Region. According to report Water Resource Scenarios in the State of Paraná, the highest volume of the surface water intake is used for public supply, and due to the location of Copel's power generation enterprises, water uses do not lead to any conflict.

River Basin Committees

GRI 102-13, 303-1

The River Basin Committees are the forums in which the representatives of a community from a river basin discuss and deliberate in regard to the management of water resources, while sharing responsibilities with the Public Power. The representation of different interests linked to water uses is important to prevent conflicts and guarantee water availability to current and future generations. Within the scope of these entities the Water Resource Plans for each River Basin are elaborated, comprising the following information: water availability and demand conditions; repercussions of the remaining public policies on water use; future prospection of water uses; proposals to create areas subject to use restrictions, with the purpose of protecting water resources (groundwater recharge and spring areas, for example); and programs and projects to be implemented to provide a physical solution and implement regulating actions to ensure the scenario planned by the committee.

Copel also takes part in the Crisis Rooms for the Southern region and the region of Paranapanema organized by the National Water and Basic Sanitation Agency (Agência Nacional de Águas e Saneamento Básico/ANA). During these discussions, river basin users express their concerns and needs, and different ways to deal with them are evaluated.

Hydroelectric Plant of Apucaraninha, in the city of Tamarana-PR

Water disposal

GRI 303-2, 303-4

The power generation enterprises operated by Copel discharge sanitary effluents at an irrelevant nominal flow if compared to the receptor body's flow. Nonetheless, the Company monitors that data on a half-yearly basis, through samples collected according to the guidelines and procedures mentioned in the Sample Collection Manuals of each asset, and based on the guidelines of the *Standard Methods for the Examination of Water and Wastewater* – APHA 2012.

In sanitary systems equipped with a sinkhole, no monitoring is performed, since effluents are not discharged into a surface water body. These infrastructures allow for adequately seeping the treated effluent on the soil, according to Norm NBR 13969:1997 ("Septic Tanks - Complementary treatment units and final disposal of liquid effluents - Design, construction, and operation").

There are no specific parameters for disposal in the hydroelectric sector. The conditions and standards adopted by Copel are taken from Conama Resolution 430/2011.

Domestic effluents are discharged into the public sewage network. Copel discharged 111.35 megaliters of fresh water in 2020. GRI 303-4

Waste generation

GRI 306-1, 306-2

Copel has implemented the Solid Waste Management Subprogram, developed in conformity with the National Solid Waste Policy and the remaining legislations and norms in force. Its main objectives include complying with the legal requirements and constraints of the environmental licensing for enterprises, promoting correct solid waste management from operation to final disposal, and mitigating related environmental impacts. Waste transportation is guided by the Handbook on the Transportation of Hazardous Substances, and the labor safety area actively makes sure instructions and requirements are informed to contracted parties, such as asking them to submit an Emergency Action Plan.

The power generation, transmission, and distribution activities in themselves do not directly depend on the consumption of inputs, however equipment operation and maintenance activities generate secondary waste, which is properly segregated and sent to adequate storage until final disposal, thus avoiding any possible negative impact, such as contamination of water, soil, and underground waters.

The waste generated in the implementation of new enterprises is managed by a company hired to execute this task. Copel requires the presentation and approval of a Waste Management Plan for Civil Construction Works and, at the end of the work, a report confirming the plan has been presented, as well as a compilation of transportation manifests, disposal certificates, and environmental licenses.

The telecommunications activities mainly generate optical fiber and spent battery scrap. A bid-winning company recycles this scrap, generating byproducts such as glass fiber, polyethylene, and aramid. This process, recognized as a good practice by the Sesi SDG Seal, positively contributes to circular economy.

Batteries, on their turn, are stored together with the batteries used by other subsidiaries until they reach a sufficient volume to hold an auction – the winning company will be responsible for recycling them as much as possible.

In every Copel business unit, all waste disposal actions are performed according to the applicable legislation, while giving priority to reutilization and recycling, as established in the National Solid Waste Policy, and requiring contracted companies to prove they have the necessary technical qualification. According to State Decree nº 4,167/2009, waste disposal of recyclable administrative materials must be done through the Solidary Selective Collection/Coleta Seletiva Solidária program, managed in partnership with associations and cooperatives dedicated to recyclable materials, with the purpose of contributing to promote income generation and improve the working conditions of waste collectors.

Waste generated in 2020 as per composition | 306-3

Waste composition	Waste description	Total weight of the gen-erated waste (in tons)
Hazardous waste - Class I	Oils the use PCB; lead-acid batteries; equipment contaminated with PCB; insulating mineral oil with and without PCB; equipment bearing insulating mineral oil; materials contaminated with diluents, paint or oils; mixes; transformers; lamps containing mercury; cells; cartridges and tonners; asbestos; operating equipment insulated by mineral oil; portable cells and batteries; fluorescent, vapor, and mercury and sodium lamps; used insulating mineral oil; waste generated by diluents and paints; poles and crossheads made of treated wood.	3,885.41
Non-hazardous waste - Class II	Paper; cardboard; metal; plastic; glass; wood; metallic scrap; non-ferrous metal packaging; incandescent lamps; vegetable oil; tires; scraps; and remains of rcc; poles, crossheads, and artifacts made of concrete; equipment and tools; furniture and utensils; individual protection equipment; cables; tree pruning waste; electronic equipment; residual optical fiber scrap from telecommunications operations; food waste; and sanitary waste.	47,415.73
Total volume of waste		**51,301.14**

Waste diverted from disposal (t) | GRI 306-4

	At Copel	Outside Copel
Hazardous waste		
Recycling	0.00	2,948.81
Coprocessing	0.00	14.76
Total	**0.00**	**2,963.57**
Non-hazardous waste		
Recycling		46,337.73
Composting	14.49	
Total	**14.49**	**46,337.73**
Total volume of waste diverted from disposal		**49,315.79**

Waste destined to disposal | GRI 306-5

	At Copel	Outside Copel
Hazardous waste		
Incineration (without energy recovery)	0.00	78.78
Landfill	0.00	134.15
Total	**0.00**	**212.93**
Non-hazardous waste		
Landfill	0.00	13,171.39
Total volume of waste destined to disposal		**13,384.32**
Total volume of generated waste		**51,301.14**

Biodiversity

Power generation and transmission business practices

GRI 304-2

All of Copel's enterprises are submitted to environmental licensing procedures during which Environmental Impact Studies and their respective Environmental Impact Assessments (EIA/Rima) or Simplified Environmental Assessments (SEA) are elaborated, depending on their size. Such impacts are identified either as positive or negative, including their spatialization (affected areas), the phase of the work in which they occur, their frequency, if they are either direct or indirect, their temporality (immediate, mid- or long term), their durability (temporary or permanent), and their reversibility.

After that, studies are elaborated to indicate which environmental programs must be developed to avoid, minimize or compensate for their eventual effects. At this stage, documents as the Basic Environmental Plan (BEP) and the Detailed Report on Environmental Programs (DREP) are elaborated.

There are losses derived from vegetation suppression, which occur during the enterprise implementation works, such as transmission lines and power plants, including reduction in vegetation coverage, reduction in the population of protected and/or endangered species, fragmentation and/or alteration of connectivity between adjacent remainders of native vegetation, alteration in the remaining vegetation due to the edge effect, and increase in the risk of fire. In order to alleviate them, monitoring is undertaken to guarantee all procedures aligned with and required by the competent environmental body to execute vegetation cutting are being applied on field.

Planting of seedlings

Before and during vegetation suppression, flora species considered to be rare, endemic, or endangered are rescued. The collected specimen may be relocated inside the very Permanent Preservation Area (PPA) of the enterprise, when there is any, or to adjacent areas, or they may be used in studies, to establish a germplasm bank, or in other activities to enable preserving local species.

Another measure is the establishment of a Reservoir Protection Strip in new hydroelectric plants, which expands the native vegetation area in the region in which an enterprise is being implemented, turning recovered spaces into Environmental Protection Areas. Such areas are submitted to periodical inspections, to identify interfering factors and any eventual degradation.

During the implementation and operation of an enterprise, there may be a reduction of habitats and an increase in accidents involving terrestrial fauna and a higher risk of hunting and collision with local birds, an impediment to the reproduction of migratory species. To reduce these damages, Copel applies techniques to scare the fauna before vegetation cutting, and whenever animals are observed, activities are halted to rescue them. If necessary, these animals are treated until they can be released in safer areas.

The conditions of the fauna community are already monitored before the start of works and until an enterprise starts operations. If any modification is perceived in regard to an enterprise, actions are adopted to provide a solution or compensation. A positive and relevant impact of these activities is the contribution to science through data generation.

Aquatic communities may suffer some impacts when power plant reservoirs are formed, since there is an alteration in their composition and dynamics due to the change from lotic into lentic environments (see page 141).

Copel identifies eventual changes in such communities throughout the installation and operation stages, which enables it to build testimony collections in scientific institutions, promote surveys on existing species in a basin, analyze their biology (reproduction, feeding, and activities) and the dynamics of the fish community, including rare and/or endangered species, and devise preservation strategies. Those fish and aquatic invertebrates that might be caught in structures/nets during construction works are rescued, as well as those affected by the lowering of water levels or by machine stoppages to provide maintenance to turbines. In any and every case, the purpose is to immediately release them in the same water body, downstream from the enterprise. In case any animal dies, whenever possible, it is donated to scientific institutions.

The formation of reservoirs, among other construction works associated to an enterprise, changes local landscape and soil use, generating changes in water flows. Such modifications might lead to alterations in the physical, chemical and biological characteristics of a water body, in addition to favoring the development of macrophytes and microalgae, with the consequent alteration in water quality. Information on water monitoring can be found on pages 141 and 142. Reservoirs are submitted to inspection all over their adjacent areas and margins, to identify any possible environmental occurrence, such as unauthorized construction works, silting or erosion points, a PPA without native vegetation, predatory fishing, among other situations. When any nonconformity is observed, it is reported and forwarded to the responsible areas. As regards areas vulnerable to erosive processes, a number of preventive and corrective measures are adopted whenever deemed necessary.

Donation of wood taken from the PCH Bela Vista

GRI 203-2

The Small Hydroelectric Plant (PCH) of Bela Vista made a public call to donate the wood taken from the area to be flooded to form its reservoir.

The withdrawal of vegetation in the area destined to the worksite and to the reservoir has been concluded, and all the wood (firewood and logs) has been catalogued and stored to provide it with an adequate destination, according to the enterprise's environmental licensing requirements.

The reservoir to be formed will cover 266 hectares (ha), and out of that area approximately 177 ha belong to the natural bed of the Chopim River, that is, the area to be actually flooded to form the pond amounts to just 89 ha.

Before implementing the PCH, the existing Permanent Preservation Area (PPA) in the expropriated space was already partially degraded and included 123 ha of forest cover. After the reservoir has been formed and the 100-meter strip in the PPA has been restored (which is already being done), 290 hectares of native forest will be recovered and preserved.

Fish transposition system at UHE Colíder

The hydroelectric plant of Colíder, installed in the State of Mato Grosso, includes a Fish Transposition System (STP). In the shape of a ladder of the Vertical Slot type – the largest of its kind in Brazil, and around 693 meters long –, the STP has been designed to enable that a large variety of species of these animals are able to transpose it, thus allowing for gene flow between populations downstream and upstream from the dam. Up to now, 84 fish species (50 of which are migratory species) have been recorded in the system through daily follow-up in the ladder viewer, in addition to periodical scientific collection and monitoring of species using telemetry. Such practice has enabled to record fish moving up and down the ladder. There is a significant flow of animals: in periods with lower river flow, around 428 fish move along that structure every day. At the time of flooding, this average is ten times higher: around 4,280 fish use the STP every day. The STP has demonstrated to be highly efficient in attracting and enabling these animals to move along.

Fish transposition at UHE Colíder, MT

Practices of the power distribution business

GRI 304-2

When a new high-voltage electric power distribution enterprise needs to be implemented, environmental studies are undertaken to evaluate the main aspects of the local fauna and flora that might be affected, in addition to the eventual losses in local physical and socio-economic mediums.

In addition to the studies forecasted in the environmental licensing process, Copel elaborates a Previous Environmental Analysis, to evaluate the socio-environmental restrictions of different location alternatives, in order to subsidize the selection of lands to install energy substations (SEs). Also, in the phase when high- and medium-voltage distribution lines' (LDATs) outlines are defined, priority is given to their placement along spaces lacking arboreous vegetation and without any interference in legally protected areas. Low-interference construction techniques are employed, such as the raising of towers and cable launching using a drone, to preserve eventually overpassed forest patches. In medium-voltage distribution grids, the use of a compact grid reduces the need to prune trees. Initiatives are also implemented to restore forests and monitor and control erosive processes.

The environmental studies undertaken by Copel include a diagnosis on the local fauna, by using secondary data and data collected on field by biologists. At first, the existing fauna in the site is evaluated, by verifying if there are endemic species classified in the endangered or specific interest categories. It is also evaluated if the local ecosystem will be degraded by the enterprise, considering the wild fauna's habitat. Based on that information, environmental programs or measures are defined. In situations in which the enterprise requires the cutting of native vegetation, a Fauna Scaring and Rescue Program is conducted, whose scope also includes communication and awareness-building to the workers of a construction project, so they perform their activities in a preventive manner, avoiding accidents with the local fauna. In certain cases, a Fauna Monitoring Program may also be included, so that the impacts are correctly assessed.

Another measure is the implementation of signalers along segments of LDATs with the highest possibility of birds colliding with cables, such as for example at locations where lines overpass water bodies, meadows, riparian forests, and artificial ponds.

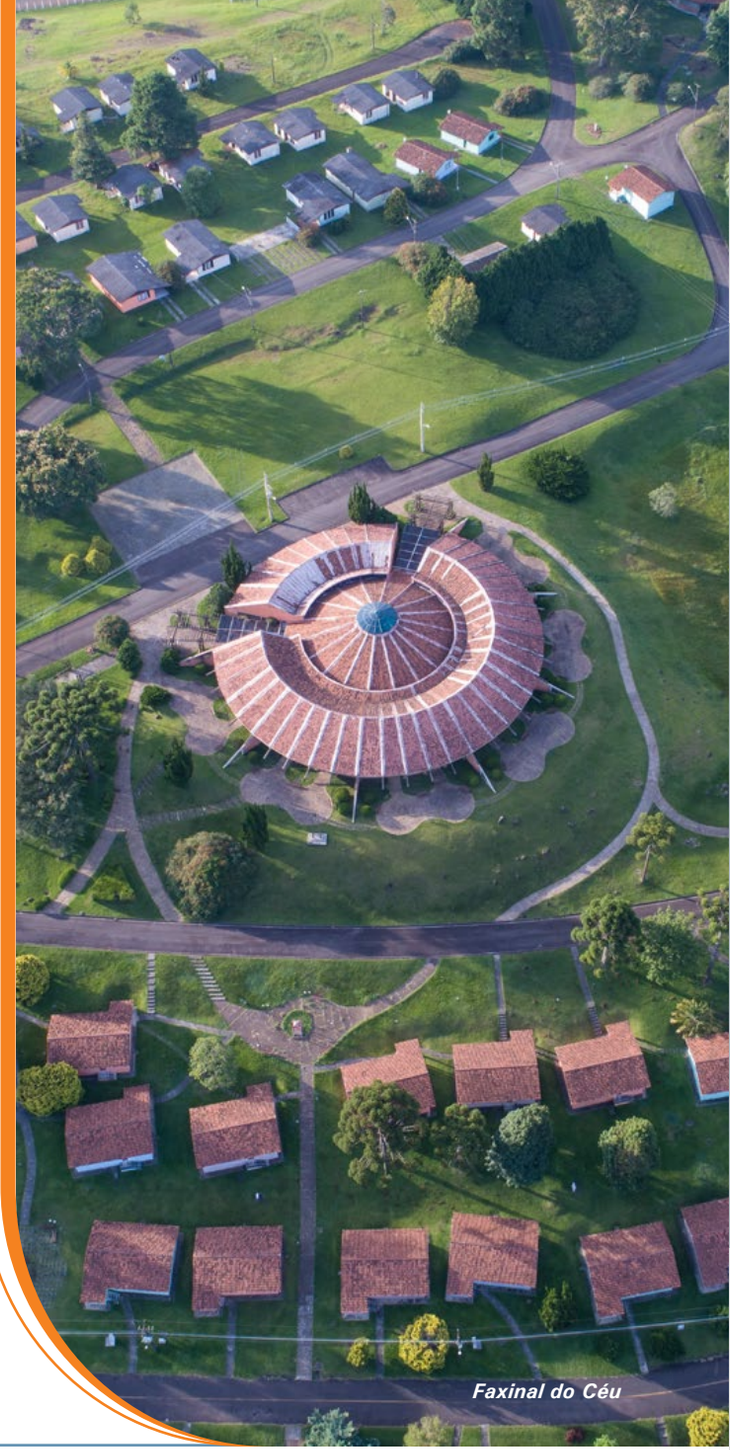
A relevant initiative has been the Birds and Bats Monitoring Program implemented in 2020 along 138-kV LDAT Marechal Cândido Rondon - Santa Helena, after the end of the four forecasted campaigns to monitor local bats, and the execution of the penultimate bird monitoring campaign. In the next few years, new fauna scaring and rescue actions should be implemented.

As for those enterprises that interfere with state preservation units, Copel, together with the environmental body, defines compensatory measures, such as control of invasive exotic species in state parks.

In the operational phase of an enterprise, two actions performed by the Company deserve attention:

- **Integrated Vegetation Management:** in place of mowing along distribution lines' passing strips, which cause habitat fragmentation, soil erosion, and favor the advent of invasive exotic species, an Integrated Vegetation Management (IVM) initiative has been implemented. IVM involves a set of practices that aim at establishing, within the long term, a plant community with growth characteristics that do not interfere with operational performance of electric power facilities, or that require minimum intervention, in addition to providing protection to the soil, and shelter and feeding to the local fauna, among other benefits. In 2020, a Research and Development (Aneel R&D) project was launched, "Integrated vegetation management when opening passing strips for high- and medium-voltage distribution lines," to understand how the use of IVM when opening passing strips might change vegetation recovery and influence the quantity of interventions and their cost and required maintenance. The environmental impacts and externalities of this methodology will also be evaluated if compared to the currently employed methodology. The pilot project is under execution in the high-voltage distribution lines running along the National Park of Saint-Hilaire/Lange (138-kV LDAT Posto Fiscal - Matinhos, Guaratuba - Matinhos and Posto Fiscal - Guaratuba), on the coast of the State, and it has already outstood by reducing the need to perform mowing and the environmental impacts caused by this activity. In case it is finally approved, this measure might be replicated in other preservation units.

- **Urban Forests/Florestas Urbanas Program:** since 2007, Copel has provided support to City Halls to plan the forestation of public roads, contributing to environmental improvement in cities and to reduce power supply disruptions caused by the collision of trees with electric systems. Among this program's actions, it is worth mentioning the production of seedlings in the Company's forest gardens that, in addition to benefiting the interested municipalities, enables it to comply with some environmental licensing constraints. Since this program has been implemented, more than 60 thousand seedlings have already been planted. In 2020 alone, 7,777 seedlings were furnished to 26 municipalities. Copel is a member of the Interinstitutional Working Committee to evaluate the Municipal Urban Reforestation Plans, coordinated by the Public Prosecutor's Office of the State of Paraná (MP-PR). In addition to that, it has been executing a vegetation georeferencing project to manage the pruning of urban trees.



Faxinal do Céu

Hydroelectric Plant of Colíder, in the State of Mato Grosso

Protected and restored habitats

GRI 304-3

Copel has established a number of ecological stations and preservation areas, among other spaces dedicated to environmental preservation and protection. The Ecological Stations of Rio dos Touros and Tia Chica, and the State Park of the Guarani River, are Preservation Units that belong to the Company, but are managed by the Water and Land Management Institute (IAT). As for the areas of Serra do Mar – located in the National Park (Parna) of Guaricana –, in the hydroelectric plant of Chaminé, in the hydroelectric plant of Guaricana, in Osso Danta, and in Colônia Santos Andrade, they are all monitored by Copel through Contract 4600014901/2018.

In 2020, the agreement signed in 2012 between Copel and IAT was still in force, through which the Company assigns outsourced service stations for the execution of exclusive works in IAT'S nurseries, where native forest seedlings are produced and used to restore Permanent Preservation Areas (PPAs), Legal Forest Reserves, Forest Restoration Areas, and Preservation Units all over the State of Paraná.

Copel has conducted the Forest Compensation Subprogram, in conformity with Art. 17 of the Atlantic Forest Law (Law 11,428/2006), especially targeted to enterprises located in the State of Paraná and which need to perform vegetation suppression. This initiative is also conducted by enterprises located in other biomes, but whose vegetation suppression activities affect PPAs, in conformity with Conama Resolution 369/2006. For these areas, the implications of Federal Law 12,651/2012, known as the New Forest Code, are also taken into consideration.

As regards recovery activities, technical projects are elaborated and then submitted to the competent Environmental Body's approval. Once approved, plantings are undertaken, as well as the necessary maintenance works. Periodical inspections are performed to analyze the level of development of the plants. When such areas have already been restored, that is, the vegetation has already reached full recovery, and do not require further substantial interventions, such as maintenance works or replanting, Copel transfers their administration, monitoring and management to environmental bodies.

Restored biodiversity

GRI EU13

The soils in the majority of the sites already restored or under restoration by Copel have been used in pastures, crops, or commercial reforestation projects, and therefore have been fully or partially altered. To recover them, techniques such as planting of native tree species, green fertilization, and nucleations, among others, are employed.

Throughout time, biodiversity in these places tends to increase, getting closer to the state verified previously to their degradation. With the recovery of local flora, the areas start to attract native fauna species, according to their level of development. The period necessary to achieve this objective varies according to the conditions found in each site. In 2020, 12 Copel enterprises conducted compensation projects, and four of them are located in new project areas.

As regards transmission lines like the 500-kV TL Araraquara II – Taubaté and the 500-kV TL Blumenau - Curitiba East, and the small hydroelectric power plant (PCH) of Bela Vista, a part of the forest compensation has been executed through the establishment of an environmental easement in perpetuity. As for the remaining areas, the forest restoration actions or to eradicate exotic species have been concluded and are being monitored until the indicators set in the applicable legislation have been fully complied with.

In order to compensate for the alterations generated by the reservoir of UHE Colíder, located in the State of Mato Grosso (MT), a Permanent Preservation Area (PPA) has been designated alongside this enterprise. More than 97 thousand meters of fences have been built on its flanks, enabling to isolate cattle and consequently to start the natural regeneration process. As a part of the Flora Rescue Subprogram, approximately 290 thousand seedlings of native tree species have been planted in 172 hectares, including direct sowing in around 50 hectares. In addition to that, restoration nuclei have been installed.

Periodical inspections are executed to analyze the level of development of the plants. When such areas have already been restored, that is, the vegetation has already reached full recovery, and do not require further substantial interventions, such as maintenance works or replanting, Copel transfers their administration, monitoring and management to environmental bodies.

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

Name of the area	Size	Geographic location	Preservation / conservation actions
Ecological Station of Rio dos Touros	1,231.06 hectares	Reserve of Iguaçu (PR)	The Ecological Station of Rio dos Touros has been classified as a Full Protection Area, and its purpose is to preserve nature and enable scientific research. It was created in 2001 for environmental compensation purposes in the hydroe-lectric plant Governador Ney Braga (State Decree 4,229/2001). It is located in the Mixed Ombrophilous Forest or Paraná Pine Forest, on the right margin of the plant's reservoir.
Forest Compensation Projects	285.00 hectares		Due to the need to execute vegetation suppression to implement the enterprises, Copel has conducted forest compensation programs to restore or protect an area equivalent or superior to the affected one, according to the environmental constraints. Different restoration techniques might be developed depending on the ecological characteristics of each site, always following the assumptions of the environmental legislation and those established by the licensing entities. Currently, the forest compensation actions are distributed in the following manner: ■ 120 hectares of compensatory reforestation; ■ 17 hectares with the eradication of exotic species; and ■ 148 hectares of environmental easement in perpetuity, and 82 hectares are still pending registration, but have already been approved by the environmental body. It is important to stress that compensatory actions are monitored until the area has been fully recovered, except for the environmental easement in which monitoring must be continuous during the enterprise's entire concession period. The above quantitative reference does not include areas in which the forest compensation actions have already been concluded.
PPAs in the State of Paraná	3,499.00 hectares		In conformity with the applicable legislation, Copel maintains the respective Permanent Preservation Areas (PPAs) around the artificial reservoirs of its hydroelectric plants (UHEs). In addition to the legal requirement (Law nº 12,651/2012), which regards the technical aspect, the preservation of these areas helps improve water quality and reduce the accumulation of sediments inside reservoirs, contributing to preserve the useful life of these facilities. All the areas of state PPAs are periodically monitored. Every year, a report is elaborated on the status of these areas. The actions conducted in 2020 have yet to be compiled and submitted until the first half of year 2021.
PPAs in the State of Mato Grosso	4,592.00 hectares		Out of the total PPA around UHE Colíder, 4,592 ha include forest cover that does not require any intervention. That is, 83.5% of the PPA around the reservoir is already fulfilling its environmental function. Out of the 880 hectares that have not been fully restored yet, 245 hectares already bear some natural regeneration, and do not require any intervention, just monitoring and the eventual steering of natural regeneration. As for the areas lacking any vegetation, due to current soil use, they will be submitted to interventions in the next few years. In 2020, a specific contract was signed in order to proceed with these activities.

Name of the area	Size	Geographic location	Preservation / conservation actions
Areas in Serra do Mar - PARNA Guaricana	6,003.83 hectares	Guaratuba (PR)	The areas located in Serra do Mar comprise many spaces that are destined to environmental preservation in the properties embraced by the National Park of Guaricana (Guaratuba - PR). Copel monitors these areas through contract nº 4600014901/2018. The properties located in Serra do Mar are the following: ■ Castelhanos - 1,210 ha ■ Cubatão Grande - 1,210 ha ■ Ribeirão do Salto - 1,836.78 ha ■ Salto Cubatão Grande - 166.25 ha ■ Canavieiras - 1,580.8 ha
Areas in Serra do Mar - UHE Chaminé	3,513.36 hectares	Tijucas do Sul (PR)	Properties acquired by Copel, but that are exclusively destined to environmental preservation. These areas are also monitored according to contract nº 4600014901/2018. These properties are the following: ■ Araçatuba - 730.74 ha ■ Porto Bonito - 1,900.12 ha ■ São João - 882.50 ha
Areas in Serra do Mar - UHE Guaricana	795.42 hectares	Diverse (PR)	Properties acquired by Copel, but which have not been and will not be utilized for operational purposes (are considered useless for that purpose), and are exclusively destined to environmental preservation. As part of them is located inside the National Park of Guaricana, in the municipalities of São José dos Pinhais, Morretes, and Guaratuba (PR). Copel also monitors these areas according to contract nº 4600014901/2018.
Areas in Serra do Mar - Diverse	70.05 hectares	São José dos Pinhais (PR)	Copel's Properties that currently are exclusively destined to environmental preservation: ■ Osso Danta - 67.25 ha ■ Colônia Santos Andrade - 2.8 ha Both areas are monitored by Copel according to contract nº 4600014901/2018.
Ecological Station of Tia Chica	423.05 hectares	Pinhão (PR)	The Ecological Station of Tia Chica will be classified as a Full Protection Area, with the purpose of preserving nature and enabling scientific research. This was declared a Public Interest area for the purposes of expropriation and has not been decreed as a Preservation Unit yet - this process is in progress. It will be used as environmental compensation for the UHE of Derivação do Rio Jordão. The area is located in the Mixed Ombrophilous Forest or Paraná Pine Forest, in the backwater of the plant's reservoir.
State Park of the Guarani River	2,322.00 hectares	Três Barras do Paraná (PR)	The State Park of the Guarani River (municipality of Três Barras do Paraná - PR) is classified as a Full Protection area and is used to preserve ecologically relevant natural ecosystems and for their scenic beauty. It started to be studied by Copel in 1997, due to the implementation of UHE Governador José Richa. Its creation was ordained in 2000, through State Decree 2322/2000. It is located in the Semiciduous Broadleaved Forest and in the Mixed Ombrophilous or Paraná Pine Forest, on the right margin of the plant's reservoir.

Hydroelectric Plant Governador Jayme Canet Júnior, in the cities of Telêmaco Borba and Ortigueira-PR

Number of species according to their threat level | GRI 304-4

Critically endangered	13
Endangered	53
Vulnerable	105
Almost endangered	62
Of little concern	239
Total	**472**

Climate changes

GRI 201-2

Through the climate change adaptation subcommittee and based on its norms pertaining to climate changes and corporate risk integrated management processes, Copel has been developing a methodology to identify the risks and opportunities associated to this issue. These risks are described on pages 225 and 226.

In general lines, climate changes have a direct impact on Copel's activities, since they might influence the operation of its assets, cause revenue loss due to the need to replace equipment and facilities, and generate fees due to greenhouse gas emissions. They might also harm the Company's image, influencing the profile of clients and suppliers that might wish to break away from the brand. Climate change poses therefore an operational and financial risk.

However, it also offers opportunities, such as the search for energy generated by alternative sources and at low carbon emission rates, including renewable energy trading in the free market, distributed generation, and the provision of services such as electric stations and electrified monorails.

Copel is aware of these opportunities and has included them in its activities to prospect new business and research and development initiatives.

The financial implications of the risks and opportunities associated to climate change are controlled and evaluated at learning meetings, after each temporal event, and when the involved areas (agencies, and operation and maintenance areas) discuss actions and identify improvement opportunities for corporate processes.

The Company's Climate Change Policy guides its mitigation operations, as approved by the Board of Directors. Its guidelines are based on the recommendations and methodologies set in the *GHG Protocol*, on the Principles of the Global Compact, on the National Climate Change Policy, on the State Climate Change Policy, and on the Sustainable Development Goals (SDG). That document has been in force since 2016.

As a part of its climate change management efforts, Copel periodically monitors its emission rates, while keeping track of government decisions on carbon pricing, evaluating the climate risks associated to new investments, and analyzing measures to adapt its business to the impacts of climate changes. Goals have been established to reduce Greenhouse Gas (GHG) emissions with previously defined deadlines, in line with the Principles of the Global Compact and SDG 13 (Action to Combat Climate Change), and divided into three work fronts:

- actions targeting its value chain;
- measures to mitigate and reduce direct and indirect emissions; and
- adaptations to reduce climate vulnerabilities.

Covid-19 Pandemic

GRI 103-2, 103-3

The adoption of remote work for a large part of the workforce has generated positive impacts from the environmental point of view. There has been a reduction in water, energy, paper, and fuel consumption, and in the waste generation associated to administrative work. Many meetings have been held *online*, which has avoided displacements, and consequently has had a bearing on greenhouse gas emissions.

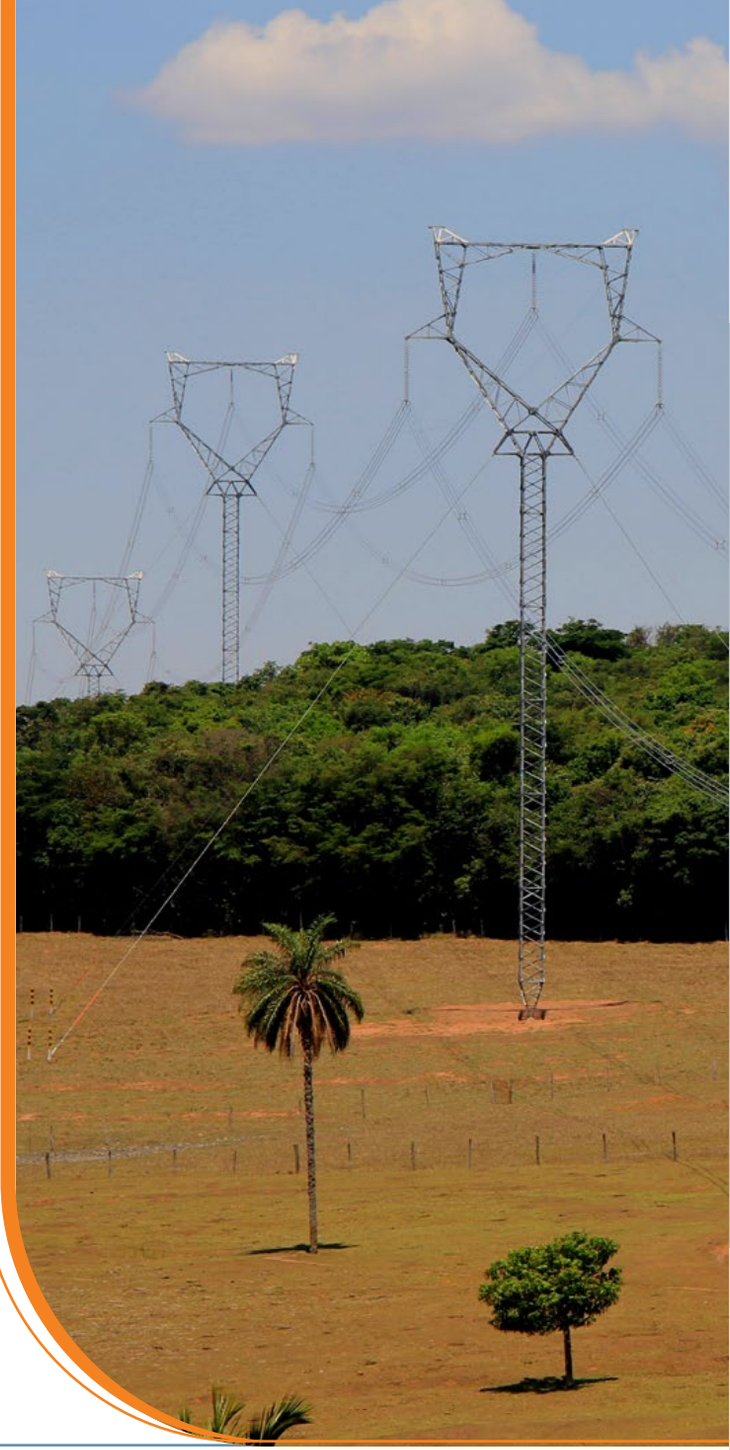
Corporate performance regarding the established goals is monitored through a report and an external verification of its GHG inventory, all of which are performed according to methodology ABNT NBR ISO 14064-4 – Greenhouse Gases part 3, to the current Integrated Report, to the Corporate Sustainability Index (B3) – by answering to the Climate Change Dimension questionnaire, and through its participation in the *Carbon Disclosure Project* (CDP), which enables comparing its performance to other national and international sector companies.

In 2020, the Company advanced two levels and was granted concept B in the Climate Change Management index of the *Carbon Disclosure Program* (CDP). Another progress has been that Copel's actions have started to compose the Carbon Efficient Index (ICO_2) portfolio of B3.

13 CLIMATE ACTION

13.2 Integrate climate change measures into national policies, strategies and planning	
Baseline	Five electric power sector companies that adhered to the *Science Based Targets Initiative* (SBTi) in 2020;
Indicator	Number of electric power sector companies (generation, transmission and distribution) with goals approved by SBTi.
Suggested goal	15 electric power sector companies (generation, transmission and distribution) with goals based on science and approved until 2023;
Baseline 2	14% of the electric power generated in Brazil in 2019 are now covered by a SBTi commitment;
Indicator 2	Percentage of energy generated in Brazil covered by goals based on science;
Suggested goal 2	40% of the energy generated in Brazil with goals based on science and approved until 2023;
Copel's Performance Copel has approved its Carbon Neutrality Plan, which will be discussed and implemented during 2021. Further information can be found here.	

Note: The *Science Based Targets Initiative* is a partnership between the *Carbon Disclosure Project*, the Global Compact, the *World Resources Institute (WRI)*, and the *World Wide Fund for Nature* (WWF), which aims at mobilizing companies so they adopt goals to reduce Greenhouse Gas (GHG) emissions based on science. In the specific case of the energy sector, a guide has been produced by the coalition to assist companies when setting these goals.



Greenhouse gas emissions

Copel's greenhouse gas emission inventory is elaborated according to the methodologies set by the Brazilian *GHG Protocol* program and the *Intergovernmental Panel on Climate Change* (IPCC).

The operational control criterion is used for such purpose. The inventory contemplates performance as per energy source and subsidiary, and through a correlation between key indicators, such as revenue, number of employees, and generated and distributed energy. The data is to be verified by a third party, a process that was still being implemented at the time the current report was published.

Copel's goals were approved in 2019, based on emission levels verified in year 2017. Internal monitoring is undertaken by the Climate Change Commission, which must propose actions according to the achieved results.

Greenhouse gas emissions in 2020 (in tCO_2e)

GRI 305-1, 305-2, 305-3

Greenhouse gases	Scope 1	Scope 2	Scope 3
CO_2	21,108.68	174,382.95	1,634.76
CH_4	23.75		12,194.05
N_2O	120.69		28.906
HCFC	542.437		-
SF_6	3,739.20		-
Total	**25,534.76**	**174,382.95**	**13,857.71**
Biogenic CO_2 emissions (t)	**9,437.451**	-	**194.129**

Notes:
1. The following emission sources were taken into consideration:
Scope 1: stationary combustion, mobile combustion, fugitive sources, and soil use changes.
Scope 2: electric power consumption and electric power losses.
Scope 3: transportation and distribution, displacement of employees, business trips, waste, and effluents.
2. Due to the modernization of the Thermoelectric Plant of Figueira, this thermal source did not generate any emission.
3. The emission factors proposed by the Brazilian *GHG Protocol* program were taken into consideration: CH_4 = 25 N_2O = 298 R -410 = 2,088 SF6 = 22,800

Comparison between emissions in 2020 and 2019 (in tCO_2e)

	Scope 1	Scope 2	Scope 3	Total
2019	13,779.31	231,903.39	18,202.89	263,885.59
2020	25,534.76	174,382.95	13,857.71	213,775.42
Variation (%)	**85.31**	**-24.80**	**-23.87**	**-18.99**

If compared to 2019, mobile combustion emissions mentioned in Scope 1 decreased due to the *home office* practices adopted by the Company. However, the total volume of emissions associated to that Scope was higher due to soil use changes caused by the expansion of transmission and distribution lines. As regards Scope 2, there was a reduction both in terms of electric power consumption and electric power losses. As for Scope 3, it was influenced by a fall in generated waste volume. | GRI 305-5

Intensity of emissions

Emission Scope 1/ employee

1.37 tCO_2/million R$

Emission Scope 1/ revenue

3.83 tCO_2/employee

Materials

GRI 301-1

In 2020 Copel's operations consumed 196.37 thousand tons of diverse materials, and 1.13 million meters of optical fibers. These materials are non-renewable, that is, they come from resources that cannot be renewed within a short period of time; however a part of them is recyclable.

Copel DIS

Group	Tons
Aluminum conductors	7.187.18
Copper conductors	172,17
Concrete crossheads	4,058.69
Polymeric crossheads	95.27
Operational equipment	471.94
Iron	1,215.83
Insulators	1,593.83
Meters	527.90
Concrete poles	127,503.90
Optical fiber poles	543.97
Current transformers	93.65
Grid transformers	3,533.36
Total	**146.997,66**

Copel GeT

Group	Tons
Aluminum	11,346.81
Copper	3,750.96
Iron and Steel	299.54
Insulating Oil	33,423.82
Lubricant Oil	554.66
Total	**49,375.80**

	Tons
Total Copel	**196,373.46**

Copel CTE	Metros
Optical fibers	1,134,753

INFRASTRUCTURE CAPITAL

Power generation assets

GRI 102-2

Copel operates 43 own plants and owns stakes in 11 other plants, which altogether include 23 hydroelectric plants, 29 wind power stations, and two thermoelectric plants, with a total installed capacity of 6,399.6 MW, and physical guarantee of 3,018.9 MW on average. It serves the electric power distribution sector, in the Regulated Contracting Environment, the commercial, industrial and trading energy sectors in the Free Contracting Environment, and the National Electric System Operator (ONS) and consuming units connected to the basic grid in the power transmission segment. In 2020, its net energy production amounted to 10,545.80 GWh, a lower volume if compared to 2019 (17,113.30 GWh).

No thermopower was generated in 2020 and 2019 in the thermoelectric plant (UTE) of Figueira due to its shutdown for modernization works in June 2018. The resumption of its operations has been forecasted to 2021. At the gas-fired power plant of Araucária (Uega), average annual net efficiency amounted to 44.01%, calculated based on the plant's current total net thermal efficiency of 201.29 m^3/MWh, and on a calorific power of 9,400 kcal/m^3 for natural gas. UEG Araucária Ltda. operates under an Independent Energy Producer (PIE) regulatory regime, as a result of the joint venture between Petrobras (with a 18.8% stake) and Copel GeT (with an 81.2% stake). Copel is responsible for operating and maintaining this unit within the agreed availability values; however owner UEG Araucária manages this indicator.

As regards wind power generation, it amounted to 2,118.92 GWh in 2020, if compared to 3.01 GWh and 3.21 GWh generated in the two previous years, respectively. This type of generation depends on the availability of wind turbines (affected by operation and maintenance works), and on the availability of the wind resource, which may vary in the region throughout time. The value reported in 2020 also includes the wind power plants located in the Northeastern region, which constitute a special purpose entity managed by Copel GeT.

Monthly generation in the plants is monitored based on the daily-programmed volume set by the ONS and by the planning team of each operation based on the reports issued every month by the Electric Energy Trading Chamber. A report is elaborated every month on generation in the last 12 months to monitor the amount of energy generated by Copel GeT.

Copel is currently building six new plants, which will add 124.9 MW of installed capacity and 66.0 MW on average as physical guarantee to its generation complex.

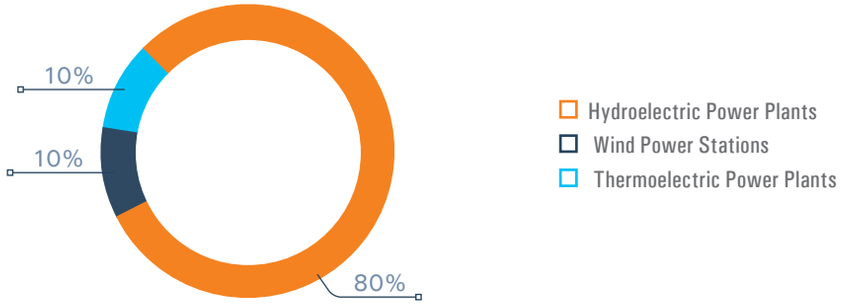
Copel operates 43 own plants and owns stakes in 11 other plants, which altogether include 23 hydroelectric plants, 29 wind power stations, and two thermoelectric plants, with a total installed capacity of 6,399.6 MW, and physical guarantee of 3,018.9 MW on average.

Composition of the generation complex

GRI EU10

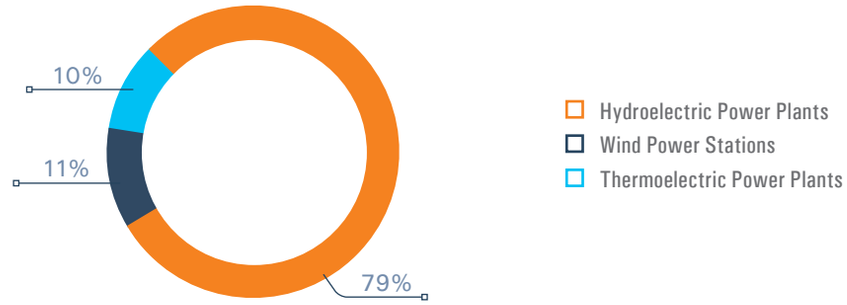
Power Generation Park

Physical Guarantee as per Source



Power Generation Park Physical Guarantee projected to 2021

as per Source



Installed capacity (in MW) | GRI EU1

	2018	2019	2020
Hydroelectric plants	4,934.4	5,340.6	5,340.6
Wind power stations	486.3	645.9	645.8
Thermoelectric plants	407.3	411.2	413.2
Total	**5,828.0**	**6,397.7**	**6,399.6**

Click here to know more about Copel's generation complex

Net energy generation (in GWh) | GRI EU2

	2018	2019	2020
Hydroelectric plants	18,009.20	17,750.02	11,232.5
Thermoelectric plants	1,312.03	1,915.02	994.6
Wind power stations	41.17	99.90	2,307.5
Total	**19,362.40**	**19,765.52**	**14,534.60**

7 AFFORDABLE AND CLEAN ENERGY

7.2 Until 2030, keep a high share of renewable energies in the national energy matrix

Baseline	46.1% share of renewable energies in the energy matrix by 2019.
Indicator	Percentage of renewable energy sources in the national energy matrix.
Suggested goal	Achieve 48% of renewable energies in the composition of the energy matrix until 2025.

Copel's Performance

Just 10% of Copel's generation complex correspond to thermoelectric power plants.

*Maintenance works in a power transmission grid**

*Masks to protect against Covid-19 are not made of flame retardant tissues, and that is why when working close to energized grids electricians cannot wear them.

Highlights of Copel's power generation projects

Modernization of the Hydroelectric Plant (UHE) Governador Bento Munhoz da Richa Netto

The modernization of this UHE, started in 2011, should be concluded in 2021. It contemplates a refurbishment of four 436-MW turbines and the replacement of speed and voltage regulators, enhancements that have already resulted in one higher yield turbine, which has increased the physical guarantee and reduced maintenance costs. The work and financial schedules are within their terms. Investments in modernization have added up to R$ 150 million.

Modernization of the Thermoelectric Plant (UTE) of Figueira

A modernization project started in 2015, aimed at increasing the efficiency of this UTE and reducing gas and particle emissions generated by coal burning. The first company contracted to provide services faced difficulties to perform its contractual activities, and has been replaced. The new supplier also faced financial and work planning problems, which have led to an excessive delay in works. This situation culminated in the outbreak of a contractual rescission process in December 2019, concluded in May 2020. Parallel to the contractual rescission process, the documentation for a new bidding round was prepared to conclude this project, and an auction was held in August 2020. After that, bidders' legal regularity and work capacity were evaluated, as well as their administrative resources. This process has led to the contracting of a consortium, which has started activities in January 2021.

PCH of Bela Vista

This hydroelectric power generation project forecasts the implementation of a small hydroelectric plant on the Chopim River, between the municipalities of Verê and São João, in the State of Paraná, with the capacity to produce 29.81 MW. This work, estimated at R$ 217 million, will benefit around 100 thousand consumers with electric power supply and should start generating energy already in the first half of 2021.

Wind Power Complex of Jandaíra

The works for the Wind Power Complex of Jandaíra were started in January 2021. Copel, in a consortium with subsidiary Cutia Empreendimentos Eólicos, has sold 14.4 MW on average of energy from this enterprise in an auction held in October 2019. The sold amount accounts for 30% of the physical guarantee, and the remainder has been traded through contracts in the free environment market. With an estimated investment amounting to R$ 411 million, the Wind Power Complex of Jandaíra, with a 90.1-MW installed capacity and a 47.6-MWm physical guarantee, is being built in the State of Rio Grande do Norte, a region where Copel already owns other wind power generation assets, which will provide operational synergies. Start of operations, in phased stages, has been forecasted to May 2022, with the works being concluded in July of that same year.

Wind power generation in the State of Rio Grande do Norte

Wind and Solar Power Complex of the State of Paraná

A complex under implementation, comprising six photovoltaic plants installed in the rural zone of the municipality of Bandeirantes, in the State of Paraná, with an aggregate power capacity of up to 5.36 MWp. This enterprise has been included in the distributed generation scheme, according to Aneel's Normative Resolution nº 482/2012 and its amendments. Three 3-MWp plants are serving a drugstore chain in the State of Paraná for remote self-consumption, and started operations on March 01, 2021. Three other plants will be implemented in that same year and will serve remote self-consumption or shared generation clients.

Conclusion of the basic design for the Plant of Salto Grande

Copel has concluded the new basic design for the Hydroelectric Plant of Salto Grande (49 MW), to be built on the Chopim River, between the cities of Coronel Vivida and Pato Branco, in the Southwestern region of the State of Paraná. The new outline has displaced the dam's axle by six kilometers upstream in relation to the original design. This change will allow reducing the area of the reservoir from 9.41 square kilometers to 7.14 square kilometers, avoiding the flooding of a region occupied by small farmers without lowering the plant's power generation potential.

The original design for this Plant belonged to company Foz do Chopim Energética and was acquired by Copel in May 2019. Since then, the Company has been responsible for updating the environmental, social, and engineering studies for the enterprise, and for requesting the previous environmental license before the Water and Land Management Institute (IAT). When the previous license is issued, Copel may hold an auction to sell the energy to be produced by this plant and, if the auction is successful, it will then start the implementation stage.

Power transmission assets

GRI 102-2

It is the infrastructure through which Copel provides electric power transportation and transformation services, it being responsible for the construction, operation and maintenance of substations, as well as for the energy transmission lines. Copel holds full ownership and takes part in operation concessions corresponding to 7,443-km transmission lines, with transformation power at the substations amounting around 20,674 MVA.

The power transmission concessions under operation currently generate an Annual Allowed Revenue (RAP) of R$ 1.146 billion, proportionally to Copel's share in the enterprises. Currently, Copel is building the Curitiba Leste-Blumenau transmission line, which will add 142 km to expand the cluster of its own assets and of the jointly managed power transmission lines and substations.

Aerial view of the Curitiba Leste-Blumenau power transmission line

Highlights of Copel's power transmission projects

Lot E - Aneel Auction nº 05/2015

Through public power transmission service concession contract nº 06/2016, Copel has been granted a concession to build, operate, and maintain many power transmission enterprises, including the 525-kV Curitiba Leste – Blumenau transmission line, which should start commercial operations in 2021. This enterprise accounts for a RAP of around R$ 38.5 million. In 2019, the Company had already started to operate the 230/138-kV – 300-MVA Substation of Medianeira, the Baixo Iguaçu-Realeza 230-kV Transmission Line, with a simple circuit and covering approximately 38 km, the Andirá Leste 230/138-kV – 300-MVA Substation, the Curitiba Centro (isolated at SF6) 230/138-kV – 300-MVA Substation, and the Curitiba Centro-Uberaba 230-kV Transmission Line, a 8-km underground line. Considering all these enterprises, the total RAP will amount to around R$ 119 million.

Implementation of a capacitor bank

Copel has implemented, at the 230-kV substation of Figueira, its 1st 138-kV – 15-Mvar capacitor bank, with investments amounting to R$ 4.8 million. This bank started commercial operations in September 2020, generating a RAP of approximately R$ 0.8 million.

In September of that same year, the Company started to commercially operate the 230-kV substation of Apucarana, with a 138-kV – 30-Mvar capacitor bank, with investments amounting to around R$ 5.5 million. The RAP here amounts to approximately R$ 0.9 million.

Substation

Reinforcements in substations

Copel is executing reinforcements in many substations:

- **230-kV substations of Realeza Sul**, São Mateus do Sul, Pato Branco, Ponta Grossa Sul, Londrina ESU, and Ibiporã, with investments amounting to around R$ 111 million. The RAP will be of approximately R$ 15 million as of the start of commercial operations, with deadlines forecasted by Aneel to the second half of 2021 and the first half of 2022;

- **230-kV substations of Cascavel**, Ponta Grossa Norte, Umbará, Maringá, and Uberaba, with investments amounting to around R$ 70 million. The RAP will be of approximately R$ 9.5 million as of the start of commercial operations, with deadlines forecasted by Aneel to the second half of 2021 and the first half of 2022;

- **230-kV substation of Guaíra**, with investments of around R$ 38.85 million. The RAP will be of approximately R$ 5.97 million as of the start of commercial operations, with a deadline forecasted by Aneel to April 2024.

- **230-kV substation of Sarandi**, with investments amounting to around R$ 21,0 million. The RAP will be of approximately R$ 3.4 million as of the start of commercial operations, with a deadline forecasted by Aneel to June 2023.

Copel's power distribution assets

GRI 102-2

Copel is responsible for energy distribution to around 4.8 million consumers spread around 1,113 localities in 394 municipalities in the State of Paraná and in the city of Porto União (in the State of Santa Catarina). The Company owns facilities operating at the 13.8-kV, 34.5-kV, 69-kV, and 138-kV voltage levels, manages approximately 202 thousand Km of distribution grids, and owns 378 automated substations, with an installed capacity of 11.3 thousand MVa. It holds a 6.2% share in the Brazilian market and a 33.3% market share in the Southern Region – in the State of Paraná, its market share has been estimated at 97.0%.

Copel started, in 2019, the highest investment in distribution systems in its history: R$ 2.6 billion in 42 new substations, more than 7 thousand kilometers of high- and medium-voltage distribution lines, and thousands of new circuit reclosers, switches, voltage regulators, and power transformers. Its conclusion has been forecasted to 2021.

In 2020, new substations were connected to reinforce the electric power distribution system, thus improving quality and increasing energy availability to consumers. The works for the new substations and extensions have added approximately 338.02 MVA to its distribution system, and the new high-voltage transmission lines concluded in the period have added 177.1 km of 138-kV transmission lines.

High-voltage transmission lines | GRI EU4

Regulatory regime	Locality (PR)	Voltage	Extension (in km)
LDAT Andirá Leste – Bandeirantes	Bandeirantes	138 kV	2.45
LDAT Andirá Leste – Secc (ADA-SPL)	Andirá	138 kV	0.80
LDAT Água Verde – Secc. (SQT-PRO)	Curitiba	69 kV	0.50
LDAT Jardim Tropical – Jardim Alvorada	Maringá	138 kV	5.60
LDAT Telêmaco Borba – Tibagi	Tibagi	138 kV	9.06

Highlights of Copel's power distribution projects

Some of the highlights of Copel's operations in the power distribution segment are reported on pages 45 to 46.

Investments in street lighting

The municipality of Wenceslau Braz recently concluded the refurbishment of all street lighting with LED lamps. The replacement of 2,428 lighting fixtures was made using resources from Copel's Energy Efficiency Program, regulated by the National Electric Energy Agency (Aneel).

After being approved in a public call, that equipment was installed by the City Hall as a counterpart to the project, following the technical specifications set by the consultancy provided by the Federal University of Paraná Foundation (Funpar). Investments in purchased materials amounted to R$ 1.7 million. In addition to guaranteeing higher quality lighting in roads and squares at night, the replacement of lamps and lighting fixtures will enable the municipality to reduce electric power consumption by around 753 MWh (megawatt-hour) per annum, the equivalent to the annual average power consumption of 370 households.

The municipality of Carlópolis has also had a project approved in a public call held by Copel and should soon refurbish its street lighting system. The public call made resources amounting to R$100 million available to execute the approved projects in local industries, commercial areas, residential condos, rural properties, or public service and Public Power institutions.

Investments in the cities of Londrina, Ibiporã and Cambé

The electric system that supplies power to Londrina and neighboring cities of Ibiporã and Cambé is receiving investments to ensure quality supply and at the necessary quantity, in order to support their projected economic growth in the next few years. Altogether, R$ 65 million will be invested in those municipalities' distribution systems.

Investments have been made since 2019 and should continue until 2021, in which period a total of 483 automated devices will be installed in the distribution grids of those three municipalities. In rural areas, single-phase circuit reclosers avoid shutdowns due to momentary grid wiring complications, such as contact with tree branches. As for the urban regions, automated switches act to reconnect the affected circuits and help identify the source of short-circuits.

Simultaneously to that, Copel DIS reinforced the existing ones and built new distribution grids, by focusing mainly on serving new industrial premises in the city of Cambé and on supporting the displacement of the rural circuit that serves districts in the Southern region of the city of Londrina and a part of the city of Tamarana. These works were concluded in 2019.

In another work front, Copel DIS has been reinforcing and expanding its high-voltage system, to ensure there is enough energy to support consumption increase. By the end of 2021, R$ 52 million will have been invested in new transmission lines and in improvement and expansion works in seven urban and three rural substations. These works include the installation of new transformers in substations, and regulator and capacitor banks, in addition to connections to serve the circuits that supply power to those three municipalities.

Investments in the city of Maringá

Copel will invest R$ 10 million in the electric systems of Maringá and its neighboring cities in the next few years. This enterprise should double the quantity of energy transformed and made available to fulfill the existing demand in the West-Central region of that city.

Investments have been made since 2019 and should continue until 2021, in which period a total of 483 automated devices will be installed in the distribution grids of those three municipalities.

This project will be followed by other important investments in the local high-voltage system, amounting to R$ 56 million, including the construction of three new 138 thousand-volt substations, which will comprise the basic energy distribution circuit in that city and its neighboring municipalities, thus establishing an interconnected system that will provide greater operational flexibility. In practice, the region will then have access to higher power supply capacity, with a greater number of supply options.

At the same time, the Company has invested in the extension and modernization of its mid- and low-voltage electric grids. In the circuits to be fed by the three new substations built in the city of Maringá alone, approximately R$ 1.9 million will be invested in 2021.

This region has also received important investments in the grid automation area. The installation of automatic switches in the cities of Maringá, Paiçandu and Sarandi has involved investments estimated at R$ 3.8 million to be made until 2021. Until the end of the current year, 100 single-phase circuit reclosers will have been installed to serve the rural zone, including 20 automated switches.

Solarimetric stations

Copel and the Federal Technological University of Paraná (UTFPR) inaugurated, in March, regional units in the cities of Campo Mourão and Cornélio Procópio of their network of Solar Power Research Stations. This network comprises solarimetric stations and evaluation modules installed in UTFPR'S *campuses*, located in Curitiba and in five other cities.

In the city of Campo Mourão, the new facilities are in conformity with the resource use and accuracy standards set by the national environmental data organization system established by the National Institute for Space Research (Instituto Nacional de Pesquisas Espaciais/Inpe), while in the city of Cornélio Procópio the standards set by the Energy Research Company (Empresa de Pesquisa Energética/EPE) have been followed.

These projects were selected through a public call held by Aneel and have been funded using resources from the Research and Development Program implemented by Copel together with that regulatory body.

The other regional units are located in the cities of Ponta Grossa, Medianeira, and Pato Branco.

Solar power station

Modernization of the energy measuring system

Copel invested around R$ 15 million to modernize the energy measuring system in the city of Foz do Iguaçu. Until the end of last year, 37 thousand smart digital meters were installed to enable automatic consumption reading.

This initiative will ensure greater efficiency and reliability when reading energy consumption. The replacement of reading equipment was performed mainly in the Northern area of that city.

Micro-grids

Copel DIS made a public call in November to contract energy produced by self-generators. Aneel authorized this call notice, unprecedented in Brazil, based on a request made by the Company to implement this five-year pilot project. It is expected that up to 50 MW on average of energy will be contracted under this modality, or the equivalent to 438 thousand MWh/year, or 1.9% of its annual load.

The purpose of this call has been to attract independent small- and mid-size producers, including mini power generators, to further explore the State's energy potential and their capacity to operate in an interconnected manner. In order to sell generated power to Copel, self-generators will have to build a micro-grid – an independent electric system, which will act as an "energy island," thus integrating their power generation, storage, and consumption capacities into the distribution grid.

The self-generators integrating the micro-grids will be able sell generated energy to Copel DIS, and thus supply a group of nearby consumers. They must also be included in one of the 32 macro-regions listed in the State. The Company will be responsible for controlling and ensuring safety in their operations. This public call will be open to receive proposals until February 16, 2021.

Grid automation

Copel recently concluded the implementation of a grid automation project that has been the most complex ever in its concession area. With investments of over R$ 1 million, the automatic reconfiguration system installed in Guaraqueçaba, on the coastal region of the State, included an innovative technical arrangement that should benefit 3,850 households, many of them shrimpers that depend on electric power to refrigerate their products. With this initiative, 248 automated systems have already been installed in electric grids all over the State of Paraná.

This technology is called *self-healing*, a term that in English means a grid's capacity to identify and insulate the source of a shutdown, restoring supply to the remaining consumers without requiring any human interaction. Copel started to implement these systems in 2017, after the execution of a successful pilot project in the Southwestern region of the State, which pointed to a 70% reduction in the number of shutdowns in the tested circuit.

Copel Distribuição's planning has forecasted investments of around R$ 2.9 billion between 2020 and 2025 to modernize and expand its grids. This Company already remotely operates all of its 374 substations, and has installed more than 3 thousand automated points in its electric grids – single-phase and three-phase switches that can be remotely operated and avoid grid shutdowns due to transitory causes.

Investments in the city of Curitiba and its metropolitan region

The electric power grids in the cities of Curitiba, Piraquara, Quatro Barras, and São José dos Pinhais has received a number of investments from Copel to expand and reinforce their mid- and high-voltage systems. R$ 250 million have been invested to build and expand substations and to implement new power feeders and automatic circuit reclosers.

The works started in 2019 and should last until 2021. In the State capital, it is worth mentioning three already concluded 69-kV sheltered substations: SE Água Verde, SE Hauer, and SE Sítio Cercado, with total investments amounting to R$ 57.5 million. Investments to reinforce the system and expand power feeders in Curitiba have added up to R$ 19 million, and the capital's underground grid is also receiving investments of over R$ 70 million.

After Curitiba, São José dos Pinhais is the municipality that has seen the highest number of works to expand its electric power grid, with total investments amounting to R$ 31.7 million. The substations of Afonso Pena, Campo do Assobio, and Guatupê are being expanded, in addition to the construction of the Roseira substation. In the city of Piraquara, R$ 462 thousand is being invested to install single-phase circuit reclosers. The city of Quatro Barras is also receiving single-phase circuit reclosers, with investments amounting to R$ 154 thousand. The substation of Quatro Barras will receive capacitor banks and new circuit breakers and reclosers, with investments amounting to R$ 4.9 million.

Copel's first solar plant

Copel is building its first solar plant in the municipality of Bandeirantes, in the Northern region of Paraná, with a total installed capacity of 5.36 MWp (megawatt peak, photovoltaic power unit). Its first stage started operations still in 2020.

The solar parks in Bandeirantes will operate under a mini distributed generation regime, in which the generated energy will be used to compensate for electric power consumption, generating a discount in consumers' electricity bills. This compensation model is described in Aneel Resolution 482/2012.

According to the model offered by Copel, consumers do not need to make any initial investment. The Company implements and operates the distributed power generation units, and clients sign a contract to lease the plant, thus receiving a discount on their electricity bills.

Two modalities are available: shared generation and remote self-consumption. In the shared generation modality, it is possible to consider two or more consumer units united in a consortium or cooperative, to use a portion of the energy generated by the plant and reduce their electricity bills. As for the remote self-consumption modality, the same party must own the consumer units, that is, they must be associated to same General Taxpayers' Registry number. In both cases, it is necessary that consumer units are located in Copel's concession area.

The Bandeirantes project is being implemented in partnership with company Sistechne Participações.

Wire energy market

GRI 102-6

In 2020, the wire energy market, which comprises all those consumers with access to a power distributor's grid, reported a 1,8% negative variation. The effects of the Covid-19 pandemic influenced this result last year.

Wire energy market (Tusd)	Number of consumers			Distributed energy (GWh)		
	Dec/20	Dec/19	%	Dec/20	Dec/19	%
Captive Market	4,835,852	4,713,240	2.6 %	19,180	19,784	-3.1 %
Concessionaires and Permissionaires	2	2	0 %	76	164	-53.8 %
Free Consumers	1,871	1,389	34.7%	10,025	10,002	0.2 %
Wire Energy Concessionaires	5	5	0 %	798	684	16.7 %
Wire Energy Market	4,837,730	4,714,636	2.6 %	30,079	30,634	-1.8 %

Captive market

GRI 102-6

The quantity of captive consumers billed by Copel in 2020 was 2.6% higher than in 2019 – the equivalent to 122,6 thousand new consumers –, totalizing 4.8 million consumers in the system.

Sold energy (GWh)

	2018	2019	2020	% 19/20
Residential	7,238	7,499	7,910	5.5
Industrial	2,935	2,648	2,314	(12.6)
Commercial	4,653	4,730	4,172	(11.8)
Rural	2,288	2,361	2,451	3.8
Other	2,480	2,546	2,333	(8.4)
Total	**19,594**	**19,784**	**19,180**	**(3.1)**

Transmission line

Energy trading

GRI 102-2, 102-6

In 2020 Copel Comercialização changed its invented name to Copel Mercado Livre. It is through this wholly owned subsidiary that Copel operates in the electric power purchase and sale market and provides services in the Free Energy Market, such as management, migration consultancy, modeling for power generators and consumers, and demand management services, among others. Having acted in this segment for four years, this Company counts on a portfolio with 965 serviced clients, in 22 Brazilian states. When it reached the approximate volume of 1.4 GW on average of energy traded in the Electric Energy Trading Chamber (CCEE), Copel jumped to the fourth position in the *ranking* of electric power sale traders, in 2020.

Telecommunications

GRI 102-2, 102-6

Copel Telecom is responsible for providing telecommunications services in the State of Paraná. Since 1998, the Company has been authorized to explore these services and to offer the highest available technology to companies, public powers, and in the retail market to residential clients in 85 cities. Through its robust optical fiber network with a 34.2 thousand-km *backbone*, it carries data at ultra-speeds and manages an optical ring that reliably serves 399 municipalities in the State of Paraná and provides services to small-, mid- and large companies with a portfolio of data transport, voice, and datacenter products.

FINANCIAL CAPITAL

Financial capital

Management of financial capital

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

When defining its strategy, Copel establishes its objectives, as well as the means to be employed and the path to be treaded in order to make them a reality. Copel's economic and financial performance is directly associated to their achievement. The strategy reflects the Company's financial health and the level of success achieved with the invested capital. It therefore enables its stakeholders to evaluate the use of resources and the factors that have influenced them. As for its Senior Management, corporate performance guides their decision-making process on the improvements deemed necessary to increase and maintain higher efficiency levels. The results obtained in every cycle orientate fund raising or application, affect the Company's capacity to maintain and expand its businesses, demonstrate the need to maintain or revise corporate strategies to make manageable costs more efficient, and influence the decisions taken by investors and shareholders.

Copel's economic and financial management, considering the statutory rights of the Collegiate Financial and of the Investor Relations Board, is guided by a set of policies and internal norms and financial market laws and regulations.

The results are managed based on a constant monitoring of economic and financial indicators, among which the most important are:

- costs;
- profit before interest, depreciation and amortization (Lajida/Ebitda);
- net profit;
- net debt / Ebitda; and
- cash balance.

Such management is performed using technological resources, such as SAP/ERP, *Office*, and through the Strategic Management System (SGE). Reports elaborated by external analysts are also used. Their data is compared to past and expected performances, and to *benchmarking* indicators. The analyses are submitted to and discussed with the Board of Directors and, if necessary, action plans are defined.

Recent examples have been the implementation of a new Dividend Policy and of an Investment Policy, as well as Copel's Value Maximization Project (in progress).

The Company discloses its results on a quarterly basis. As a joint-stock company and listed in Stock Exchange, Copel is obliged by the regulations in force to ensure an open, clear, and accessible communication to its internal and external stakeholders, especially as regards issues of interest to the capital market. Such communication is based on the principles of transparency, information symmetry, and equal treatment, in conformity with the

As a joint-stock company and listed in Stock Exchange, Copel is obliged by the regulations in force to ensure an open, clear, and accessible communication to its internal and external stakeholders, especially as regards issues of interest to the capital market.

Brazilian and North American legislations, as well as with the specific regulations set by the Brazilian (Comissão de Valores Mobiliários/CVM) and American *Securities and Exchange Commissions* (SEC). It applies to the Investor Relations area to coordinate corporate communication with the capital market, through teleconferences, public meetings, *road shows*, and national and international events with trade associations and local Stock Exchanges. The Company's Investor Relations website is constantly updated.

The risks associated to corporate economic and financial performance are those related to credit and liquidity, consumers' payment default, failure to fulfill the economic and financial efficiency criteria established in the Concession Contract, reduced business profitability, lower profitability in investment projects (new businesses), and economic instability. By managing these performance indicators, the Company aims at mitigating risks and leveraging their positive aspects, based on the Management Excellence Model (MEG) set by the National Quality Foundation (Fundação Nacional da Qualidade/FNQ). Financial goals are based on the Annual Corporate Budget, elaborated by its wholly owned subsidiaries and by Copel (Holding), and approved by the Board of Directors (BOD). In addition to that, the financial goals are included in the Management Contract signed between the companies owned by Copel. These goals are monitored on a monthly basis during the Critical Analysis Meetings or equivalent ones. And they are controlled through the Strategic Management System (SGE).

Most valuable company in the Southern Region

Newspaper *Valor Econômico* disclosed, in October 2020, a *ranking* of the 1000 largest companies in Brazil in 2019, highlighting the strength of the State of Paraná in the Southern Region. Copel, the largest company in the State, holds the highest net equity in the Southern Region, and the 18th highest in Brazil, amounting to R$ 20.3 billion.

These figures were reflected in the business investments made in 2019, which amounted to R$ 1.9 billion. The Company inaugurated three new power generation assets and launched the largest electric grid refurbishment program in Brazil.

Yearbook Valor 1000 employs net revenue and current accounting measurement criteria as parameters to evaluate performance, such as value generation, the Ebitda margin, and debt management. The data used to elaborate the ranking of companies is preferentially assessed based on consolidated balance sheets in order to reflect companies' alignment with the international accounting norms.

Rise in corporate *rating* to AA+(bra)

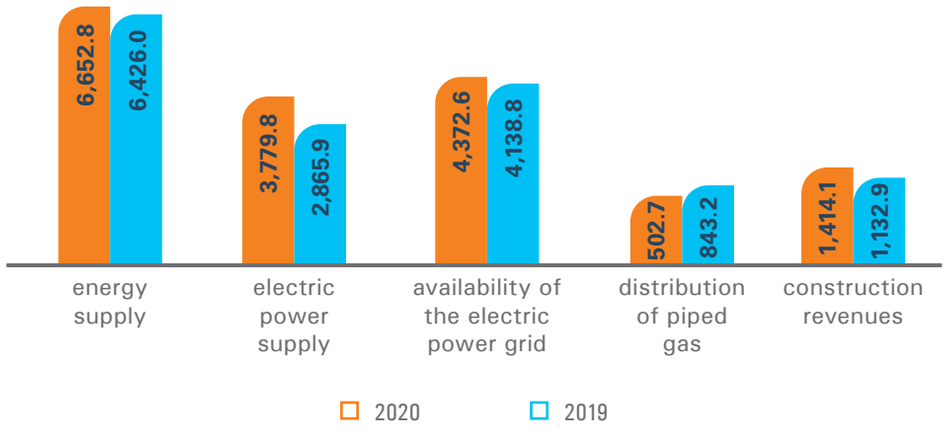
Fitch Ratings, one of the main independent credit risk rating agencies in the world, has raised Copel's reliability rating for investors. The National Long-Term Rating reported by that agency has become AA+(bra), instead of AA(bra), the rating assigned in 2019. The Corporate Rating Perspective has also been raised from Stable to Positive, which indicates the possibility of an eventual rise in the future. According to Fitch, this evolution has reflected the increasing gains achieved by Copel and its subsidiaries in terms of efficiency and predictability in their results.

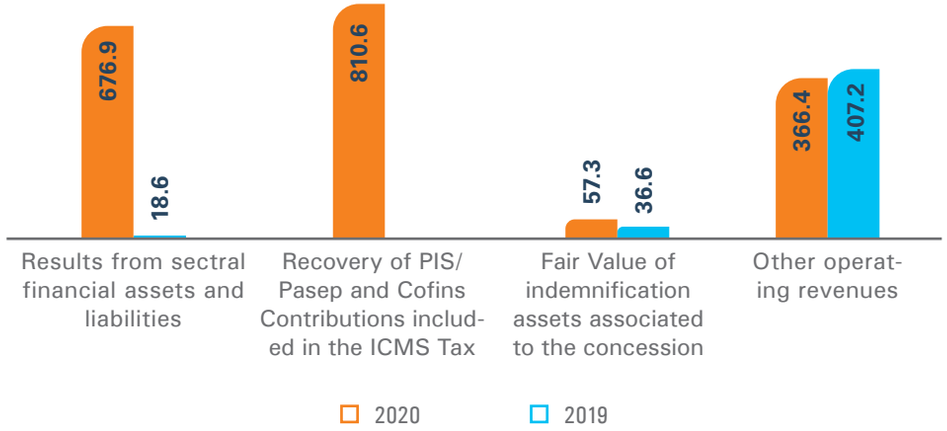
This has been Copel's highest credit rating in the last ten years, which reflects the solidity of the Company amidst an economic scenario deeply affected by the Covid-19 pandemic, a time during which an important part of credit ratings evaluated by Fitch has been classified under a negative perspective.

Net Operating Revenue

GRI 102-7

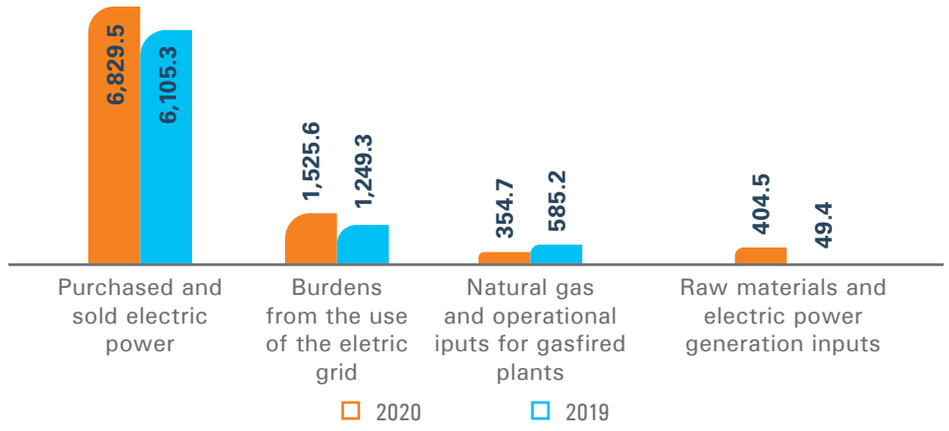
In 2020, the Net Operating Revenue was accrued by R$ 2,764.0 million, accounting for a 17.4% increase if compared to 2019.



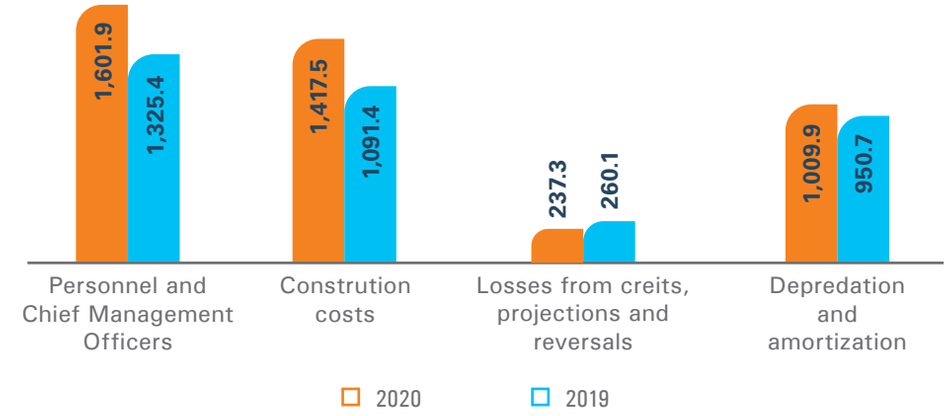


Operational costs and expenses

Non-manageable



Manageable



Ebitda

In R$ million	Consolidated	
	2020	2019
Net profit	3,909.8	2,062.9
Net profit from discontinued operations	(75.6)	108.4
Deferred Corporate Income Tax and CSLL (Social Contribution on Net Income)	25.0	259.1
Corporate Income Tax and CSLL (Social Contribution on Net Income)	1,260.4	416.7
Net financial expenses (revenues)	(866.3)	455.4
Corporate Income Tax and CSLL (Social Contribution on Net Income)	**4,253.3**	**3,302.4**
Depreciation and Amortization	1,009.9	950.7
Lajir/Ebit	**5,263.2**	**4,253.1**
Net Operating Revenue - ROL	18,633.2	15,869.2
Ebitda Margin% (Ebitda ÷ ROL)	**28.2%**	**26.8%**

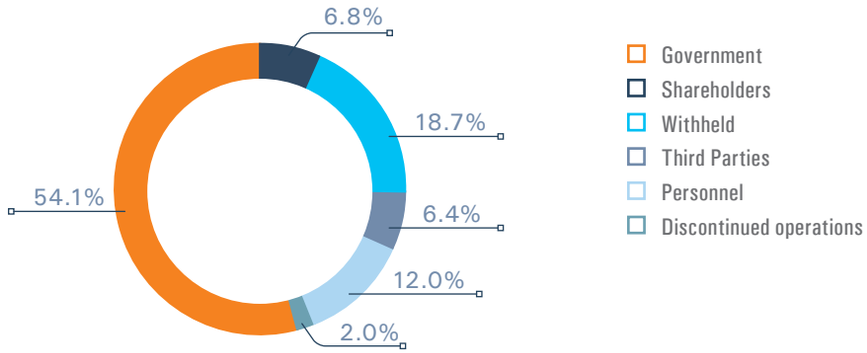
Financial results

The financial results reported a R$ 1,321.6 million accrual, mainly due to the recognition of tax credits from the PIS/Cofins social contributions in 2020, to a revenue increase from the financial update of the CRC contract, and to lower financial expenses with monetary and exchange rate variations and debt service charges in the period.

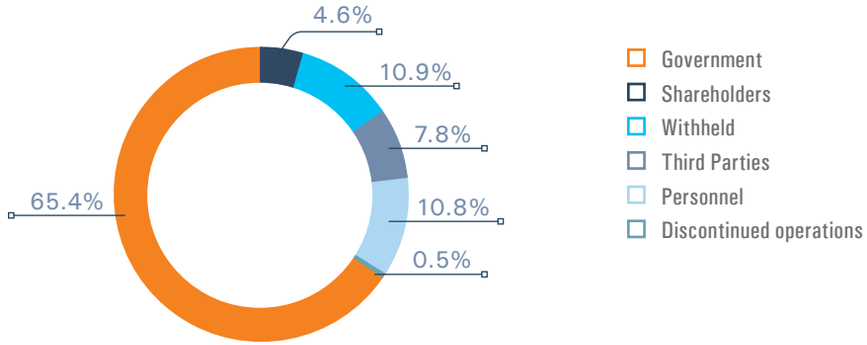
Added value

GRI 201-1

2020

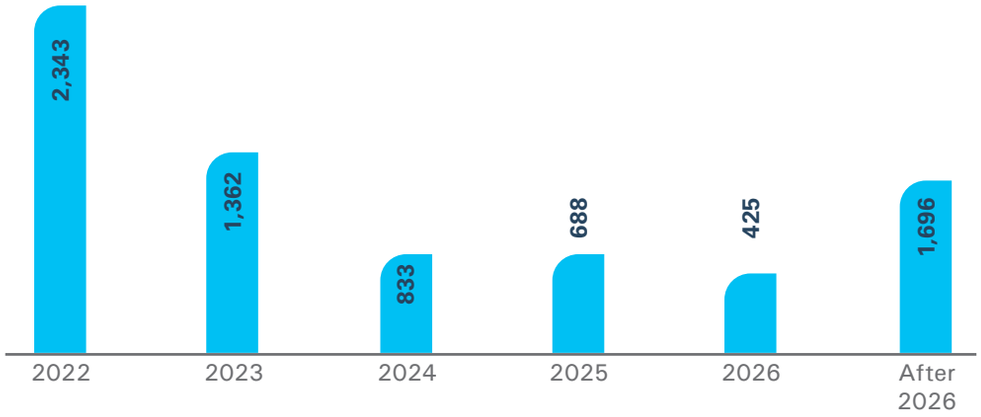


2019



Indebtedness

Payments made in the year totalized R$ 1,895.4 million, with R$ 1,291.4 million for the principal and R$ 604.3 million in debt service charges. The schedule of long-term debt due dates, including loans, funding operations, and debentures, is as follows:



Net profit

In 2020, the consolidated net profit, considering the results from discontinued operations, amounted to R$ 3,909.7 million, 89.5% higher than the result verified in the previous exercise, of R$ 2,062.8 million.

Covid-19 Pandemic

GRI 103-2

The pandemic has transversally affected the Company, including its economic and financial management. Due to the global economic slowdown as a consequence of the social distancing and mandatory isolation measures, energy demand has decreased. The aggravation of the crisis due to the halt or decline of economic activities has also had an impact on payment default indicators.

In such a context, the first measure adopted by Copel has been to protect its cash flow, an essential input to ensure proper business operations. The focus has been on maintaining cash flow, reducing costs, and eliminating unnecessary expenses. Copel has also applied its best efforts to maintain liquidity in the energy market and price levels in the short term, by negotiating with the granting authority the implementation of guidelines to preserve the economic and financial sustainability of the entire electric power generation, transmission, trading, and distribution chain.

GRI CONTENT INDEX

CIC Substation

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	Disclosure		Observations	Page in the report	Omission
GRI 101: FOUNDATION 2016					
GRI 102: GENERAL DISCLOSURES 2016					
GRI 102: General Disclosures 2016	**Organizational Profile**				
	GRI 102-1	Name of the organization		Cover	
	GRI 102-2	Activities, brands, products, and services		26, 162, 163, 167, 168, 169, 175	
	GRI 102-3	Location of headquarters	Rua Coronel Dulcídio, 800, Neighborhood of Batel, Curitiba (PR)		
	GRI 102-4	Location of operations		27	
	GRI 102-5	Ownership and legal form		26	
	GRI 102-6	Markets served		26, 27, 174, 175	
	GRI 102-7	Scale of the organization		26, 83, 179	
	GRI 102-8	Information on employees and other workers)		83, 84	
	GRI 102-9	Supply chain		112	
	GRI 102-10	Significant changes to the organization and its supply chain		26	

GRI Standards	Disclosure		Observations	Page in the report	Omission
GRI 102: General Disclosures 2016	GRI 102-11	Precautionary Principle or approach		63	
	GRI 102-12	External initiatives		72	
	GRI 102-13	Membership of associations	Copel CTE is a member of the Advisory Board of the Brazilian Association of Competitive Telecommunications Service Providers (Associação Brasileira de Prestadoras de Serviço de Telecomunicações Competitivas). The company pays a monthly fee to maintain its affiliation. This is a strategic membership for the company's business, since it enables it to make contact with other operators and eventually with new business partners. Copel COM is affiliated to the Electric Energy Trading Chamber – CCEE, which facilitates electric power trading in Brazil. The company receives from that entity reports and information on the segment, and eventually takes part in teleconferences.	23, 143	
	Strategy				
	GRI 102-14	Statement from senior decision-maker		16 to 18	
	GRI 102-15	Key impacts, risks, and opportunities		63, 65, 67	
	Ethics and Integrity				
	GRI 102-16	Values, principles, standards, and norms of behavior	Whenever the Code of Conduct is updated, Copel sends a copy of this document to each apprentice, trainee, employee, Director, Advisor, and contractor. Item 3.3 of NAC 030300 Code of Conduct (corporate norm) claims it is necessary that those stakeholders "manifest their awareness and commitment to comply with it when conducting their activities and fulfilling their responsibilities, through a formal Commitment Agreement" or via an Electronic Approval of Documents (EAD). A copy of the Code of Conduct is also delivered to Copel's suppliers (when it is not mentioned in a specific contractual clause), which sign a formal Code of Conduct Commitment Agreement. The Code of Conduct and information on the Integrity Program are available in the Portuguese (Brazil) and English languages. The Governance, Risk and Compliance Board is the executive area responsible for overseeing Copel's values, principles and norms of conduct, as disposed in its Bylaws.	50, 56, 58	

GRI Standards	Disclosure		Observations	Page in the report	Omission
GRI 102: General Disclosures 2016	GRI 102-17	Mechanisms for advice and concerns about ethics	The Compliance Coordination Office manages Copel's (Holding) Reporting Channel. The Ethical Guidelines Committee is the collegiate board responsible for supervising Copel's and its Wholly Owned Subsidiaries' ethical and moral standing and for making sure they comply with the highest standards. The Moral Harassment Report Analysis Commission is the body responsible for analyzing moral harassment reports at Copel and its Wholly Owned Subsidiaries. Copel has established two Ombudsman's Offices, one in Copel Distribuição, and another one in Copel Telecomunicações.	59, 60	
	Governance				
	GRI 102-18	Governance structure		53	
	GRI 102-19	Delegating authority	As established in Art. 28th of Copel's Bylaws (Holding), it applies to the BOD to establish the general guidelines for the Company, including the definition of objectives and priorities to comply with public policies compatible with its operational areas and corporate object, in order to promote sustainable development, in addition to approving and monitoring its general policies. The Statutory Committee on Sustainable Development has as its purpose to advise the BOD when proposing guidelines, policies and discussing the main issues associated to staff management and *Environmental, Social and Governance* (ESG), while the Investments and Innovation Committee has as its purpose to evaluate and issue recommendations to the Company's investment plans. The competency to deliberate about economic, environmental, and social matters is defined by the Company's Bylaws and detailed in the Internal Regulations of the Collegiate Board. The competencies of the subordinated areas of each Executive Board are established in the corporate Organizational Norms – NOC and in document Competency Levels – NCO.		

GRI Standards	Disclosure		Observations	Page in the report	Omission
GRI 102: General Disclosures 2016	GRI 102-20	Executive-level responsibility for economic, environmental, and social topics	According to Copel's Bylaws, the CEO and the Collegiate Board are responsible for the economic, social, environmental, climate change, and corporate governance matters. See articles 34 (items I, III and IV) and 42 (item I) of that document. The first one reports to the Collegiate Board and to the Board of Directors (BOD), and the second one to the BOD. Also bear related attributions, according to the Internal Regulations of the Collegiate Board, the Legal and Institutional Relations Director (article 5th), the Financial and Investor Relations Director (article 4th), and the Governance, Risk and Compliance Director (article 7th). All of them report to the CEO, to the Collegiate Board, and to the BOD. The abovementioned documents are available at the Company's website.	221	
	GRI 102-21	Consulting stakeholders on economic, environmental, and social topics	The Chief Management Officers (directors and members of the Board) evaluate the process to define the Materiality Matrix that guides the elaboration of Copel's Integrated Report. This process involves an inquiry of stakeholders on economic, environmental, and social issues. Further information is available on page 5.	5	
	GRI 102-22	Composition of the highest governance body and its committees		53, 223 and 224	
	GRI 102-23	Chair of the highest governance body	The positions of Chairman of the Board of Directors and CEO or main officer in the Company cannot be held by the same person, as established in § 6th of Art. 17th of Copel's Bylaws.		
	GRI 102-24	Nominating and selecting the highest governance body		54	
	GRI 102-25	Conflicts of interest		57	

GRI Standards	Disclosure		Observations	Page in the report	Omission
GRI 102: General Disclosures 2016	GRI 102-26	Role of highest governance body in setting purpose, values, and strategy	The attributions of the Board of Directors to develop, approve and update the objectives, mission statement, vision, and values, and define strategies, policies and goals associated to economic, environmental, and social matters for the organization are forecasted in Art. 28th of Copel's Bylaws and in Art. 10th of its Internal Regulations.		
	GRI 102-27	Collective knowledge of highest governance body		55	
	GRI 102-28	Evaluating the highest governance body's performance		55	
	GRI 102-29	Identifying and managing economic, environmental, and social impacts		5, 63	
	GRI 102-30	Effectiveness of risk management processes		63	
	GRI 102-31	Review of economic, environmental, and social topics	Copel has adopted an annual calendar of meetings and ordinary assemblies of its 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 in the Internal Regulations of the governance bodies. Some matters have a predefined agenda, in conformity the applicable legislation, especially the regulatory issues and those associated to the Securities and Exchange Commission's Instructions, which determine mandatory monitoring and rendering of accounts, such as: approval of the Annual Letter on Public Policies and Corporate Governance, Reference Form, Governance Report, Sustainability Report (Integrated Report), remaining corporate reports, and risk and impact monitoring reports. The governance bodies also hold extraordinary meetings.		
	GRI 102-32	Highest governance body's role in sustainability reporting	The role of the Board of Directors in elaborating the sustainability reports is described in article 13th of Copel's Bylaws, paragraph XXIV, according to which that body must approve the document. The BOD also annually approves the Materiality Matrix, which is based on the contents of that report.	4 and 5	

GRI Standards	Disclosure		Observations	Page in the report	Omission
GRI 102: General Disclosures 2016	GRI 102-33	Communicating critical concerns	The Statutory Audit Committee has, among its attributions, to propose to Copel's (Holding) Board of Directors the promotion of actions aimed at: ■ internally disclosing the procedures for the receipt and treatment of information about relevant errors or frauds related to the accounting and audit practices, and about internal controls, as well as noncompliance with legal and regulatory provisions and internal norms, while forecasting specific procedures to protect informers, such as their anonymity and confidentiality of the reported information; ■ monitoring, on an annual basis, the quality and integrity of the internal control mechanisms, of the financial statements, and of the disclosed information and measurements; ■ evaluating and monitoring, on a quarterly basis or as per occurrence, together with the Board of Directors and the Internal Audit area, the suitability of transactions with related parties in conformity with the pertinent policies; ■ evaluating and monitoring, on an annual basis, corporate exposition to risk. The Statutory Audit Committee must, individually or together with the independent audit company hired by the Company, formally communicate to the administrative bodies, within the maximum term of three working days after its identification, the existence of or any evidence on: noncompliance with legal and regulatory norms that might pose a risk to the continuity of the Company's business; frauds at any amount perpetrated by the Board of Directors and/or its members; relevant frauds perpetrated by own employees or third parties; and errors that might lead to relevant inaccuracies in the accounting and financial statements.		
	GRI 102-34	Nature and total number of critical concerns		60	
	GRI 102-35	Remuneration policies		54	
	GRI 102-36	Process for determining remuneration		54	

GRI Standards	Disclosure		Observations	Page in the report	Omission
GRI 102: General Disclosures 2016	GRI 102-37	Stakeholders' involvement in remuneration	The only stakeholder involved with the process to determine remuneration is the Government of the State of Paraná, through the State Companies Control Council (Conselho de Controle das Empresas Estaduais/CCEE).		
	GRI 102-38	Annual total compensation ratio		89	
	GRI 102-39	Percentage increase in annual total compensation ratio		89	
	Engagement With Stakeholders				
	GRI 102-40	List of stakeholder groups		107, 108	
	GRI 102-41	Collective bargaining agreements	100% of Copel's own employees (6,667) are covered by collective negotiation agreements.		
	GRI 102-42	Identifying and selecting stakeholders	The identification of the stakeholders to engage with is based on their level of influence on Copel's activities, businesses, and decision-making processes, as well as on the Company's level of impact over them.	107	
	GRI 102-43	to stakeholder engagement		22, 59, 82, 108	
	GRI 102-44	Key topics and concerns raised		4, 7 a 9	
	Reporting Practices				
	GRI 102-45	Entities included in the consolidated financial statements	A list of the entities included in Copel's Consolidated Financial Statements can be found at: https://ri.copel.com/dados-financeiros/central-de-resultados/		
	GRI 102-46	Defining report content and topic Boundaries		5, 7 to 9	
	GRI 102-47	List of material topics		7 to 9	
	GRI 102-48	Restatements of information	Total electric power consumption in 2019 has been revised to include operational consumption (in substations and power plants)	60, 139	
	GRI 102-49	Changes in reporting		5	
	GRI 102-50	Reporting period		4	
	GRI 102-51	Date of most recent report	Copel's previous report was published on June 18, 2020, and pertained to year 2019.		
	GRI 102-52	Report cycle	Reports are issued on an annual basis.		

GRI Standards	Disclosure		Observations	Page in the report	Omission
GRI 102: General Disclosures 2016	GRI 102-53	Contact point for questions regarding the report		4	
	GRI 102-54	Claims of reporting in accordance with the GRI Standards		4	
	GRI 102-55	GRI content index		183 to 208	
	GRI 102-56	External assurance	External verification has been conducted by the independent external audit company Deloitte Touche Tohmatsu, hired to make sure data and information are in conformity with the GRI norms, and also to audit the Company's Consolidated Financial Statements. The scope of this process is detailed in the Audit Report, annexed to this document on pages 209 to 212. The document has been previously approved by Copel's Board of Directors.	209 to 212	
Electric Sector`s Disclosures	Organizational Profile				
	EU1	Installed capacity, broken down by primary energy source and by regulatory regime		163	
	EU4	Length of above and underground transmission and distribution lines by regulatory regime		169	
Material Topics					
Covid-19 Pandemic					
GRI 103: Management Approach	GRI 103-1	Explanation of the material topic and its Boundary		6	
	GRI 103-2	The management approach and its components		24, 48, 62, 69, 97, 105, 111, 125, 157, 181	
	GRI 103-3	Evaluation of the management approach		24, 48, 62, 69, 97, 105, 111, 125, 157, 181	
Corporate Governance					
GRI 103: Management Approach	GRI 103-1	Explanation of the material topic and its Boundary		51, 53, 54	
	GRI 103-2	The management approach and its components		51, 53, 54	
	GRI 103-3	Evaluation of the management approach		51, 55, 60	

GRI Standards	Disclosure		Observations	Page in the report	Omission
GRI 205: Anticorruption Practices 2016	GRI 205-1	Operations assessed for risks related to corruption	Main corruption risks identified in 2020: ■ Misconduct by employees; ■ Colluding with clients; ■ Violation of laws; ■ Improper use of assets and resources; ■ Diversion of financial resources; ■ Violation of internal norms, policies and procedures; ■ Theft of physical assets; ■ Conflicts of interest; ■ Leakage or improper use of information; ■ Irregularity in contracts or bids; ■ Favoritism; ■ Documental frauds; ■ Irregularity when rendering travel accounts; ■ Misconduct by suppliers; ■ Provision of illegal information; ■ Colluding with suppliers; ■ Frauds in accounting statements; ■ Frauds with securities; ■ Information theft, loss, or tempering; ■ Briberies and kickbacks; ■ Use of agents for influence peddling; ■ Use of privileged information; ■ Undue payments for customs clearance and to issue licenses; ■ Receipt of gifts and entertainment above the allowed values; ■ Overbilling schemes; ■ Manipulation of proposals and illegal pricing; ■ Diversion of resources through promotional expenses to attend events; ■ Diversion of resources through charitable donations; ■ Diversion of resources through sponsorships; ■ Diversion of resources through social programs and political donations; and ■ Improper payments.	59	
	GRI 205-2	Communication and training on about anti-corruption policies and procedures		58	
	GRI 205-3	Confirmed incidents of corruption and actions taken		59	

GRI Standards	Disclosure		Observations	Page in the report	Omission
GRI 206: Anticompetitive Behavior	GRI 206-1	Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	In 2020, Copel was not subject to any lawsuit due to the abovementioned reasons.		
GRI 415: PUBLIC POLICIES 2016	GRI 415-1	Political contributions	Since it is a mixed capital company, Copel is legally hindered from making this kind of contribution. Art. 31st, paragraph III, of Law nº 9,096, of September 19, 1995, forbids political parties to directly or indirectly receive, under any form or pretext, any contribution or pecuniary aid or equivalent to cash, including through publicity of any kind, from public entities and legal persons of any nature, except for the endowments mentioned in Art. 38th of that Law and those associated to the Special Campaign Grant Fund.		
Operational Efficiency					
GRI 103: Management Approach 2016	GRI 103-1	Explanation of the material topic and its Boundary		37 to 39	
	GRI 103-2	The management approach and its components		37 to 39	
	GRI 103-3	Evaluation of the management approach		37 to 39, 60	
Electric Sector's Disclosures	**Organizational Profile**				
	EU2	Net energy output broken down by primary energy source and by regulatory regime	Monthly generation in the power plants is monitored based on the daily-programmed volume set by the National System Operator and on the reports disclosed every month by the Electric Energy Trading Chamber (CCEE). A report is elaborated every month on generation in the last 12 months to monitor the amount of energy generated by the Company.	41, 164	
	Availability and Reliability				
	EU6	Management approach to ensure short and long-term electricity availability and reliability		40, 42	

GRI Standards	Disclosure		Observations	Page in the report	Omission
	Demand Management				
Electric Sector's Disclosures	EU7	Demand-side management programs including residential, commercial, institutional and industrial programs	Energy efficiency project in partnership with the Federal University of Paraná, contemplating: ■ implementation of a monitoring and measurement system/ energy balance; ■ implementation of an energy management system; ■ creation of an Internal Energy Conservation Commission (CICE) or an equivalent one. R&D Project 2866 0508 - "Open middleware and energy management system for the home of the future", focusing on the research and development of a HEMS system (Home Energy Management System) that provides interoperability between devices made by many different manufacturers through the adoption of standardized elements and an innovative middleware design. ■ "R&D Project 2866 0516 - Module to integrate an electric power distributor into energy management platforms on the demand side in the electric mobility segment" – focused on the development of a communication and integration module for an electric power distributor with energy management platforms on the demand side (GLD), for the electric mobility segment. The module enables a GLD platform to manage mobile loads operated in the system, based also on electric grid measurements, dynamic tariffs, and to do it in a predictive manner according to historical data, and to the data and information received from the energy distributor. It includes a *dashboard,* enabling the power distributor to request GLD operations in its infrastructure. The module enables loads to be stimulated and activated to operate during lower demand times to offer differentiated tariffs, that is, it allows operating outside peak times and/or at the time with the highest availability of renewable and clean power generation capacity. Application of a Communication and Integration Module DSO-DSM (*Distribution System Operator - Demand Side Management*), with the DSO being the power distributor and DSM acting as an energy management platform and for electric vehicle recharging, which will enable integrating those companies into power distributors on the grid side so that distributors can operate GLD according to full-time and real-time information on the operations in the infrastructure. This will facilitate supervision and control of electric power distribution especially by managing mobile loads.	44	

GRI Standards	Disclosure		Observations	Page in the report	Omission
Electric Sector's Disclosure	**Availability and Reliability**				
	EU8	Research and development activity and expenditure aimed at providing reliable electricity and promoting sustainable development			
	EU10	Planned capacity against projected electricity demand over the long term, broken down by energy source and regulatory regime		47, 163	
	System Efficiency				
	EU11	Average generation efficiency of thermal plants by energy source and by regulatory regime		41	Lack of management by COPEL of this disclosure at this business unit.
	EU12	Transmission and distribution losses as a percentage of total energy		43	
	Access				
	EU28	Power outage frequency	Further information on the measures adopted by Copel DIS to reduce the frequency of power supply disruptions is available in the company's sustainability report.	43	
	EU29	Average power outage duration	Further information on the measures adopted by Copel DIS to reduce the duration of power supply disruptions is available in this subsidiary's socio-environmental report.	43	
	EU30	Average plant availability factor by energy source and by regulatory regime		41	
Labor Health and Safety					
GRI 103: Management Approach 2016	GRI 103-1	Explanation of the material topic and its Boundary		98 to 102	
	GRI 103-2	The management approach and its components		98 to 102	
	GRI 103-3	Evaluation of the management approach		60, 98 to 102, 104	
GRI 403: Labor Health and Safety 2018	GRI 403-1	Occupational health and safety management system		98 to 102	
	GRI 403-2	Hazard identification, risk assessment, and incident investigation		99	

GRI Standards	Disclosure		Observations	Page in the report	Omission
GRI 403: Labor Health and Safety 2018	GRI 403-3	Occupational health services		99	
	GRI 403-4	Worker participation, consultation, and communication on occupational health and safety		101	
	GRI 403-5	Worker training on occupational health and safety		101, 102	
	GRI 403-6	Promotion of worker health		103	
	GRI 403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships		99	
	GRI 403-8	Workers covered by an occupational health and safety management system		102	
	GRI 403-9	Work-related injuries		104	
	GRI 403-10	Work-related ill health		98	
Electric sector's Disclosures	Employment				
	EU16	Policies and requirements regarding health and safety of employees and employees of contractors and subcontractors		98	
	EU18	Percentage of contractor and subcontractor employees that have undergone relevant health and safety training	Copel provides safety training when onboarding contractors, however it has no control over the number of onboarding activities. It also offers retraining on regulatory norms 10 and 35 and a course on GSST. Legal and specific training is also offered on the activity to be executed.		
Economic and Financial Performance					
GRI 103: Management Approach 2016	GRI 103-1	Explanation of the material topic and its Boundary		177 to 178	
	GRI 103-2	The management approach and its components		177 to 178	
	GRI 103-3	Evaluation of the management approach		60, 177 to 178	

GRI Standards	Disclosure		Observations	Page in the report	Omission
GRI 201: Economic Performance	GRI 201-1	Direct economic value generated and distributed		180	
	GRI 201-3	Defined benefit plan obligations and other retirement plans	All of Copel's employees are eligible for the retirement plans and their adhesion is voluntary. Normal contribution: Divided into two ranges: the first one is limited to 10 Welfare Units (WU) - each one in the total amount of R$ 412.33 -, with discounts varying from 2% to 4%. The values of the Actual Contribution Salary (ACS) that exceed the first range have a 12% discount over the difference.	91	
	GRI 201-4	Financial assistance received from government		227	
Staff Management					
GRI 103: Management Approach 2016	GRI 103-1	Explanation of the material topic and its Boundary		79 to 81, 93 and 94	
	GRI 103-2	The management approach and its components		79 to 81, 93 and 94	
	GRI 103-3	Evaluation of the management approach		60, 79 to 81	
GRI 401: Employment 2016	GRI 401-1	New employee hires and employee turnover		85	
	GRI 401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	The package of benefits offered by Copel is composed of: Meal/Food Voucher, Snack Voucher, Childcare Aid, Extended Maternity Leave, Extended Paternity Leave, Profit and Result Sharing Program – PRSP, Anticipation of the 13th Wage, Education Aid, Vacation Advance, Vacation Bonus, Payment of an extra one-third holiday bonus, in addition to the legally required one-third holiday bonus, Flexible Working Hours, Aid to Persons with disabilities, Aid to employees who have a dependent with a disability, Professional Requalification and Retraining Program, Traffic Safety Prize, Sick Pay Complementation, Life Insurance, Chemical Dependency Program, and Vaccinations. Benefits to promote quality of life – Internal Games, Sesi's Games, Pre-Retirement Program, Family Day, Energy and Health Space, Copel's Coral, Raffle of tickets to shows and theater plays, Time during working hours to perform voluntary work. Benefits offered through the Copel Foundation – Private Pension, Savings Plan, Medical, Hospital, Odontological and Pharmaceutical Assistance Plan, and Loans at lower interest rates than those offered in the market.	89	

GRI Standards	Disclosure		Observations	Page in the report	Omission
Staff Management					
GRI 401: Employment	GRI 401-3	Parental leave		90	
GRI 402: Management Of Labor Relations 2016	GRI 402-1	Minimum notice periods regarding operational changes	There are no established terms at Copel to communicate operational changes. This issue is not forecasted either in the collective agreement. However, the Company keeps a close relationship with employees' representatives and usually previously informs them when significant operational changes might occur in the organization.		
GRI 404: Training and Education 2016	GRI 404-1	Average hours of training per year per employee		96	
	GRI 404-2	Programs for upgrading employee skills and transition assistance programs	For further details on the training and qualification actions executed by Copel DIS and Copel GeT, check the sustainability reports issued by these subsidiaries available at copel.com.	91, 93	
	GRI 404-3	Percentage of employees receiving regular performance and career development reviews		95	
GRI 405: Diversity and Equal Opportunities 2016	GRI 405-1	Diversity of governance bodies and employees		84, 232	
	GRI 405-2	Ratio of basic salary and remuneration of women to men		89	
GRI 406: Non-Discrimination 2016	GRI 406-1	Incidents of discrimination and corrective actions taken		87	

GRI Standards	Disclosure		Observations	Page in the report	Omission
Staff Management					
GRI 407: Freedom Of Association And Collective Negotiation 2016	GRI 407-1	Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	The risks of violation involve janitor, cleaning, mowing, and conservation contracts. Copel (Holding), upon holding bids for the acquisition and contracting of services under exclusive workforce dedication, requires suppliers to inform in a proposal letter, among other items: the Collective Labor Agreement, cost composition and price formation pertaining to the contracted professionals, by indicating their workers' unions, collective agreements, and normative sentences or laws that rule the categories that will provide the services, and their respective base dates and validities. In case it fails to comply with that disposed in contract, a supplier may suffer the following sanctions: ■ written warning due to noncompliance with a low-impact obligation when executing a contract, which does not lead to actual damages to Copel, to the environment, or to third parties; ■ contractual fines; ■ temporary suspension from bids and impediment to enter into contracts with Copel and its wholly owned subsidiaries and controlled companies for a term of up to two years, due to noncompliance with contractual obligations that might generate severe consequences to or a significant impact on Copel or public interest; ■ temporary suspension from bids and impediment to enter into contracts with Copel and its wholly owned subsidiaries and controlled companies, for a term of up to two years, due to the occurrence of a serious accident associated to the execution of the object of the contract, with permanent injury or death, affecting Copel's own employees, its contractors, or third parties, due to proven guilty or willful misconduct of the contracted party. The contract may be suspended, with an impediment for up to two years to take part in new bids held by the Company. According to the severity of an occurrence, the contract with such a supplier may be rescinded and the competent legal authorities informed about the infraction.		

GRI Standards	Disclosure		Observations	Page in the report	Omission
Electric Sector's Disclosures	**Employment**				
	EU14	Programs and processes to ensure the availability of a skilled workforce	Copel (Holding) does not promote actions such as trainee or technical apprenticeship programs, partnerships with universities or research centers, or any other such initiative aimed at ensuring the availability of specialized workforce besides the staff development initiatives mentioned on page 83 to 84. Check the socio-environmental reports issued by Copel GeT and of Copel DIS for further information on the initiatives implemented by these subsidiaries.	93	
	EU15	Percentage Of Employees Eligible To Retire In The Next 5 And 10 Years Broken Down By Job Category And By Region		92	
Environmental Management					
Gri 103: Management Approach 2016	GRI 103-1	Explanation of the material topic and its Boundary		137 and 138	
	GRI 103-2	The management approach and its components		137 and 138	
	GRI 103-3	Evaluation of the management approach		60, 137 and 138	
GRI 301: Materials 2016	GRI 301-1	Materials used by weight or volume		160	
GRI 302: Energy 2016	GRI 302-1	Energy consumption within the organization	Energia elétrica vendida: 2019 - 55,189.1 mil GJ 2020 - 65,413.5 mil GJ	139	
	GRI 302-2	Energy consumption outside of the organization			Copel does not manage the disclosure of such information.
	GRI 302-3	Energy intensity		140	
	GRI 302-4	Reduction of energy consumption		138, 140	
	GRI 302-5	Reductions in energy requirements of products and services	No reduction of energy consumption requirements was reported in 2020.		

GRI Standards	Disclosure		Observations	Page in the report	Omission
Environmental Management					
GRI 303: Water And Effluents 2018	GRI 303-1	Interactions with water as a shared resource		141 to 143	
	GRI 303-2	Management of water discharge-related impacts		144	
	GRI 303-3	Water withdrawal		142	
	GRI 303-4	Water discharge	All the water discharged by Copel is considered fresh water, that is, it contains a quantity lower than 1,000 mg/L of dissolved solids. No discharge is made into areas facing water stress. 17.38 ml were treated in a filter sump system, of which 14.54 ml were sent to drainage systems, and the remainder 2.84 ml were launched into a surface water body.	144	
	GRI 303-5	Water consumption	Water consumption calculated as the total volume caught less the total disposed volume does not apply to Copel, since the majority of its water intake is destined to non-consumptive use. As regards water intake from third parties, Copel adopts as a standard to consider that 20% of the total volume will be consumed, and 80% discarded. Thus, out of 117.46 megaliters caught from third parties in 2020, 23.49 megaliters were consumed.		

GRI Standards	Disclosure		Observations	Page in the report	Omission
Environmental Management					
GRI 304: Biodiversity 2016	GRI 304-1	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas		228 to 231	
	GRI 304-2	Significant impacts of activities, products and services on biodiversity		146 to 149, 150 and 151	
	GRI 304-3	Habitats protected or restored		152, 154 to 155	
	GRI 304-4	IUCN Red List species and national conservation list species with habitats in areas affected by operations	Copel DIS used as data on local flora the results mentioned in its enterprises' inventory forest reports. The survey considered 100% of the forest inventories elaborated for high-voltage power distribution lines (seven) and substations (two), and a 40.2% sample of the forest inventories elaborated for medium-voltage power distribution grids (out of a total of 174 studies). To survey data on local fauna, it considered the data contained in 22 simplified environmental assessments (SEA) elaborated in 2020, for 16 high-voltage power distribution lines and 6 substations, in addition to two SEA's for high-voltage power distribution lines from consuming units. Just those species actually recorded during field campaigns and that had been included in any category of endangered species were included. Therefore, species with potential occurrence, that is, those that are recorded through secondary data taken from other studies, were not taken into consideration. Data from interviews were not considered either. The red list of the International Union for the Conservation of Nature (IUCN) and the most recent national and state lists elaborated by the Chico Mendes Institute for Biodiversity Conservation (Instituto Chico Mendes de Conservação da Biodiversidade/ICMBio) and the Water and Land Management Institute (IAT) were utilized. In the case of species included in different categories in those lists, the category with the highest threat was considered. Copel GeT considered those same lists in its survey. The remaining subsidiaries do not have any impact on local fauna and flora species.	156	

GRI Standards	Disclosure		Observations	Page in the report	Omission
Environmental Management					
GRI 305: Emissions 2016	GRI 305-1	Direct (Scope 1) GHG emissions		159	
	GRI 305-2	Energy indirect (Scope 2) GHG emissions		159	
	GRI 305-3	Other indirect (Scope 3) GHG emissions		159	
	GRI 305-4	GHG emissions intensity		159	
	GRI 305-5	Reduction of GHG emissions		159	
	GRI 305-6	Emissions of ozone-depleting substances (ODS)	A Copel não produz, importa ou exporta SDO.		
	GRI 305-7	Nitrogen oxides (NOX), sulfur oxides (SOX), and other significant air emissions	Due to its modernization, the Thermoelectric Plant of Figueira is out of operation, and therefore no atmospheric emission was verified in year 2020. The remaining subsidiaries and Copel (Holding) do not perform any atmospheric emission generating operational activity.		
GRI 306: Waste 2020	GRI 306-1	Waste generation and signifi-cant impacts associated to waste		144 and 145	
	GRI 306-2	Manage-ment of significant impacts associated to waste		144 and 145	
	GRI 306-3	Generated Waste		145	
	GRI 306-4	Waste not sent to final disposal		146	
	GRI 306-5	Waste not sent to final disposal		146	
GRI 308: Environmental Evaluation Of Suppliers 2016	GRI 308-1	New suppliers that were screened using environmental criteria		113	
	GRI 308-2	Negative environmental impacts in the supply chain and actions taken	Copel GeT has evaluated its critical suppliers as regards the environmental impacts of greenhouse gas emissions in 2019. Further information on this action can be found in the company's Socio-Environmental and Economic and Financial Report.	113	

GRI Standards	Disclosure		Observations	Page in the report	Omission
Environmental Management					
Electric Sector's Disclosures	**Biodiversity**				
	EU13	Biodiversity of offset habitats compared to the biodiversity of the affected areas		153	
Risk Management					
GRI 103: Management Approach 2016	GRI 103-1	Explanation of the material topic and its Boundary		63 to 64	
	GRI 103-2	The management approach and its components		63 to 64	
	GRI 103-3	Evaluation of the management approach		60, 63 to 64, 66	
GRI 201: Economic Performance 2016	GRI 201-2	Financial implications and other risks and opportunities due to climate change	Copel does control the financial implications of climate changes, since such a process would depend on information from many different areas, and in many of them this kind of data has not been managed yet.	63, 156, 225 e 226	
Gri 418: Client Privacy 2016	GRI 418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	No confirmed complaint associated to privacy breach or client data loss was identified in Copel, in 2020.		
Regulatory Environment					
Gri 103: Management Approach 2016	GRI 103-1	Explanation of the material topic and its Boundary		21 to 22	
	GRI 103-2	The management approach and its components		21 to 22, 24	
	GRI 103-3	Evaluation of the management approach		21 to 22, 60	
GRI 307: Environmental Compliance 2016	GRI 307-1	Non-compliance with environmental laws and regulations	Copel paid, in 2020, an environmental fine in the total amount of R$ 14.7 thousand due to unauthorized vegetation suppression.		

GRI Standards	Disclosure		Observations	Page in the report	Omission
GRI 419: Social Compliance 2016	GRI 419-1	Non-compliance with laws and regulations in the social and economic area	Copel was not subject, in 2020, to any fine or sanction due to nonconformity with laws and regulations in the social and economic areas.		
Client Satisfaction					
GRI 103: Management Approach 2016	GRI 103-1	Explanation of the material topic and its Boundary		109 to 110	
	GRI 103-2	The management approach and its components		109 to 111	
	GRI 103-3	Evaluation of the management approach		60, 109 to 111	
Electric Sector's Disclosures	**Organizational Profile**				
	EU3	Number of residential, industrial, institutional and commercial customer accounts		110 and 111	
	Access				
	EU23	Programs, including those in partnership with government, to improve or maintain access to electricity and customer support services		45 to 46	
	EU26	Percentage of population unserved in licensed distribution or service areas	According to Ordinance 2344 and Annex I issued by Aneel on July 17, 2012, Copel concluded the Universalization Plan in urban and rural areas respectively in 2006 and 2010.	46	
	EU27	Number of residential disconnections for non-payment, broken down by duration of disconnection and by regulatory regime		111	
	Provision Of Information				
	EU24	Practices to address language, cultural, low literacy and disability related barriers to access and safely use electricity and customer support services		112	

GRI Standards	Disclosure		Observations	Page in the report	Omission
Local Communities And Social Investments					
GRI 103: Management Approach 2016	GRI 103-1	Explanation of the material topic and its Boundary		115 to 116	
	GRI 103-2	The management approach and its components		115 to 116	
	GRI 103-3	Evaluation of the management approach		60, 115 to 116	
Local Communities And Social Investments					
GRI 202: Market Presence 2016	GRI 202-1	Ratios of standard entry level wage by gender compared to local minimum wage	Copel does not have a detailed control over the wages paid to outsourced employees, since this information is pulverized between the many different contract management areas and its wholly owned subsidiaries.	89	
	GRI 202-2	Proportion of senior management hired from the local community	Copel hires its employees through public contests, and therefore there is no such differentiation when contracting staff.		
GRI 203: Indirect Economic Impacts 2016	GRI 203-1	Infrastructure investments and services supported	Copel's infrastructure investments are made through its subsidiaries. Further details are available in the socio-environmental reports issued by Copel GeT and Copel DIS.	115	
	GRI 203-2	Significant indirect economic impacts		44, 125, 148	
GRI 204: Market Practices 2016	GRI 204-1	Proportion of spending on local suppliers	Copel does not have a specific policy or practice to contract local suppliers, however the majority of them are concentrated in the State of Paraná, where the Company's headquarters are located. Copel GeT: 73%; Copel DIS: 18%; Copel COM: 58%; Copel CTE: 53%; and Copel (Holding): 53%.		
GRI 408: Child Labor 2016	GRI 408-1	Operations and suppliers at significant risk for incidents of child labor	The provided services that may pose the risk of hiring child labor, in Copel's case, are those involving janitor, cleaning, and conservation services.	113	
GRI 409: Forced Labor Or Equivalent To Slavery 2016	GRI 409-1	Operations and suppliers at significant risk for incidents of forced or compulsory labor	The provided services that may pose the risk of hiring forced labor or equivalent to slavery, in Copel's case, are those involving janitor, cleaning, and conservation services, and those requiring temporary lodging of workers, especially in rural areas.	113	
GRI 411: Rights Of Indigenous Peoples 2016	GRI 411-1	Incidents of violations involving rights of indigenous peoples	The provided services that may pose the risk of violating the rights of indigenous peoples are those involving janitor, cleaning, and conservation services, and those requiring temporary lodging of workers, especially in rural areas.	123	

GRI Standards	Disclosure		Observations	Page in the report	Omission
GRI 412: Human Rights Evaluation 2016	GRI 412-1	Operations that have been subject to human rights reviews or impact assessments	Copel does not undertake formal analyses on human rights. The Company complies with the supplier contracting management processes and procedures described on page 112 and 113. As regards its own operations, the management of human rights issues is described on page 76.		
	GRI 412-2	Employee training on human rights policies or procedures		76	
Local Communities And Social Investments					
GRI 413: Local Communities 2016	GRI 413-1	Operations with local community engagement, impact assessments, and development programs	Details on the programs implemented by Copel DIS and Copel GeT can be found in the sustainability reports issued by these subsidiaries.	117 to 120, 123	
	GRI 413-2	Operations with significant actual and potential negative impacts on local communities	Negative impacts are seen within the scope of Copel GeT and Copel DIS operations. The main negative impacts generated by Copel GeT's operations are: pressure on urban infrastructure and public services resulting from population increase and urban development during construction works; interferences with economic activities associated to the use of natural resources and/or to the polygon of properties affected by enterprises; compulsory displacement of local populations and changes in their ways of life due to changes in economic production conditions, and in local relationships and social organization; risks of economic and population downturn in the municipalities after the end of the works; and disturbance of populations neighboring the facilities due to the higher circulation of people and vehicles, and noise emission common to the employed equipment. As for Copel DIS' main impacts, they are: waste and dust generation; increase in noise and vibration levels; visual impact/ changes in the natural landscape due to vegetation suppression; limitation of soil use and occupation; and interference with the daily routines of surrounding communities. The most significant socio-environmental impacts of power distribution grids (low-voltage and 13.8- and 34.5-kV grids) are accidents with third parties, management of vegetation under power grids, and interference on the urban landscape. Further details can be found in the socio-environmental reports issued by those subsidiaries available at copel.com.		

GRI Standards	Disclosure		Observations	Page in the report	Omission
GRI 414: Social Evaluation Of Suppliers 2016	GRI 414-1	New suppliers that were screened using social criteria		113	
	GRI 414-2	Negative social impacts in the supply chain and actions taken	Copel does not manage the quantity of suppliers identified as having negative social impacts.		
Local Communities And Social Investments					
Electric Sector's Disclosures	**Local Communities**				
	EU19	Stakeholder participation in the decision making process related to energy planning and infrastructure development	According to the environmental legislation in force and to the criteria set by the environmental licensing entities, when environmental studies are undertaken consultations must be made to the dwellers from the areas directly affected by an enterprise, which helps analyze the socio-environmental viability of the works. During the implementation phase, relationship-building programs with local communities are implemented to clear doubts about an enterprise, and on the possible impacts during the construction works, among other issues. Communication channels are made available to local communities in order to collect information and to provide eventual guidance on the impacts that might require mitigation measures. The parties involved with these activities are the licensing entities, such as the Environment Institute of the State of Paraná (Instituto Ambiental do Paraná/IAP), local Environment Secretariats, City Halls, the Public Prosecutor's Office, the Brazilian Institute of Environment and Renewable Natural Resources (Instituto Brasileiro de Meio Ambiente e Recursos Naturais Renováveis/Ibama), the Chico Mendes Institute for Biodiversity Conservation (ICMBio), and independent bodies (IPHAN/National Historic and Artistic Heritage Institute, FUNAI, Water Institute, local Agriculture and Supply Secretariats, and Education Secretariats, among others. The participating civil society organizations are: Consumers' Councils, Farmers' Unions, the Federation of APAEs (Association of Parents and Friends of Exceptional Children), and Dwellers' Associations. Copel also takes part in many discussion forums and associations linked to the sector, especially the Brazilian Association of Electric Power Distributors (Associação Brasileira de Distribuidoras de Energia Elétrica/Abradee), with the purpose of helping develop the electric power distribution sector in Brazil.	47	

GRI Standards	Disclosure		Observations	Page in the report	Omission
Local Communities And Social Investments					
Electric Sector's Disclosures	**Local Communities**				
	EU20	Approach to managing the impacts of displacement		121	
	EU22	Number of people physically or economically displaced and compensation, broken down by type of project		121	
	Contingency And Disaster And Emergency Response Plans				
	EU21	Contingency planning measures, disaster/ emergency management plan and training programs, and recovery/restoration plans		68	
	Client Health And Safety				
	EU25	Number of injuries and fatalities to the public involving company assets, including legal judgments, settlements and pending legal cases of diseases	In 2020, four lawsuits related to health and safety issues were resolved. Copel still faces 92 pending lawsuits related to those issues.	120	

Assurance

Companhia Paranaense de Energia – Copel

Independent Auditor's Limited
Assurance Report on GRI
Standards Disclosures Included in the
2020 Integrated Reporting

Deloitte Touche Tohmatsu Auditores Independentes

(Convenience Translation into English from the Original Previously Issued in Portuguese)

INDEPENDENT AUDITOR'S LIMITED ASSURANCE REPORT ON GRI STANDARDS DISCLOSURES INCLUDED IN THE 2020 INTEGRATED REPORTING

To the Management and Shareholders of
Companhia Paranaense de Energia - Copel
Curitiba - PR

Introduction

We have been engaged by the Management of Companhia Paranaense de Energia - Copel ("Company") to submit our limited assurance report on the compilation of the information related to the GRI Standards disclosures included in the Company's 2020 Integrated Reporting for the year ended December 31, 2020.

Management's responsibilities

The Company's Management is responsible for the preparation and fair presentation of the information on GRI disclosures included in the 2020 Integrated Reporting, in accordance with the criteria defined by the Global Reporting Initiative (GRI), Standard version, and for such internal control as Management determines is necessary to enable the preparation of this information that is free from material misstatement, whether due to fraud or error.

Auditor's responsibility

Our responsibility is to express a conclusion on the information on GRI disclosures, included in the 2020 Integrated Reporting, based on our limited assurance engagement conducted in accordance with Technical Communication (TC) No. 07/12, approved 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, issued by the International Federation of Accountants (IFAC), applicable to non-historical information. Those standards require that we comply with ethical requirements, including independence requirements, and that the work be performed to obtain limited assurance that the information on GRI disclosures, included in the 2020 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 information on GRI disclosures, included in the 2020 Integrated Reporting, 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 on GRI disclosures, included in the 2020 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 and presentation of the information on GRI disclosures, included in the 2020 Integrated Reporting, and other circumstances of the engagement and our consideration of the areas in which material misstatements might exist.

The procedures comprised:

a) Planning the work, considering the materiality, the volume of quantitative and qualitative information and the operating and internal controls systems that were used to prepare the information on GRI disclosures, included in the 2020 Integrated Reporting.

b) Understanding the calculation methodology and the procedures adopted for the compilation of disclosures through interviews 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 disclosures in the information related to GRI disclosures, included in the 2020 Integrated Reporting.

d) Comparing the financial disclosures with the financial statements and/or accounting records.

The limited assurance engagement also included the compliance with the guidelines and criteria of the GRI reporting framework, Standards version, applied in the preparation of the information related to GRI disclosures, included in the 2020 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 applied in a limited assurance engagement are substantially less in scope than those applied in an assurance engagement for the purpose of issuing an opinion on the information related to GRI disclosures, included in the 2020 Integrated Reporting. Consequently, we were unable to obtain assurance that we have become aware of all matters that might be identified in an assurance engagement the objective of which is to issue an opinion. Had we performed an engagement with the objective of issuing an opinion, other matters and misstatements that might exist in the information on GRI disclosures, included in the 2020 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 disclosures subject to the assurance procedures above are those related to the significant matters obtained in the materiality study of Company, conducted in 2020.

Other matters

Assurance scope

The criterion for defining the assurance scope consisted of selecting disclosures directly related to material aspects informed by the Company during the work planning stage, further excluding data and information about projects and initiatives included in the Appendix to the Company's 2020 Integrated Reporting. The disclosures subject to this assurance engagement are as follows:

General Disclosures: 102-7, 102-8, 102-09, 102-16, 102-17, 102-21, 102-24, 102-25, 102-26, 102-32, 102-34, 102-38 e 102-39.

Economic Performance Disclosures: 201-1, 201-2 e 201-3, 201-4.

Market Presence Disclosures: 202-1.

Indirect Economic Impacts Disclosures: 203-1 e 203-2.

Procurement Practices Disclosures: 204-1.

Anti-corruption Disclosures: 205-1, 205-2 e 205-3.

Anti-competitive Behavior Disclosures: 206-1.

Materials Disclosures: 301-1.

Energy Disclosures: 302-1, 302-3 and 302-4.

Water and Effluents Disclosures: 303-1 and 303-5.

Biodiversity Disclosures: 304-2.

Effluents and Waste Disclosures: 306-3 and 306-5.

Environmental Compliance Disclosures: 307-1.

Employment Disclosures: 401-1.

Occupational Health and Safety Disclosures: 403-1, 403-9 and 403-10.

Training and Education Disclosures: 404-1 and 404-3.

Diversity and Equal Opportunity Disclosures: 405-1 and 405-2.

Non-discrimination Disclosures: 406-1.

Freedom of Association and Collective Bargaining Disclosures: 407-1.

Child Labor Disclosures: 408-1.

Forced or Compulsory Labor Disclosures: 409-1.

Human Rights Assessment Disclosures: 412-1 and 412-2.

Local Communities Disclosures: 413-1 and 413-2.

Supplier Social Assessment Disclosures: 414-1.

Public Policy Disclosures: 415-1.

Customer Privacy Disclosures: 418-1.

Socioeconomic Compliance Disclosures: 419-1.

Sector Program Disclosures: G4-EU2, G4-EU03, G4-EU07, G4-EU08, G4-EU10, G4-EU14, G4-EU18, G4-EU19, G4-EU22, G4-EU25, G4-EU26, G4-EU27, G4-EU28, G4-EU29 and G4-EU30.

Guidelines and specifications

In accordance with the GRI guidelines, Standard version, the Company represents hereby that it "agrees" with the "Core/Essential" specifications in its Integrated Reporting for the year ended December 31, 2020, which reports the essential performance disclosures and the power sector supplement disclosures.

Conclusion

Based on the procedures performed, which are described herein, nothing has come to our attention that causes to believe that the information related to the GRI disclosures, included in the in the 2020 Integrated Reporting, was not compiled, in all material respects, in accordance with the Global Reporting Initiative (GRI) guidelines, Standard version.

The accompanying GRI Standards Disclosures has been translated into English for the convenience of readers outside Brazil.

Curitiba, May 19, 2021

Deloitte Touche Tohmatsu

DELOITTE TOUCHE TOHMATSU
Auditores Independentes
CRC nº 2 SP 011609/0-8 "F" PR

Fernando de S. Leite

Fernando de Souza Leite
Engagement Partner
CRC nº 1 PR 050422/O-3

ANNEXES

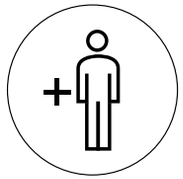
Service provision in a rural area

Incorporation of Global Compact Principles and SDG

The Company ratifies its commitment to the United Nations Global Compact and the Sustainable Development Goals (SDGs), in accordance to its purpose of rising in the market in a sustainable way, prioritizing the principles that guide the Company's mission, vision and values.

In this regard, the company presents, as an Annex to this publication, the Progress Communication (COP), where the initiatives developed to implement the Compact principles and SDGs in its operations are specified. Throughout this Integrated Report, the results of these initiatives and the progress of commitments assumed and started in 2019 can be seen. Such information can be found in GRI disclosures reports made by Copel.

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.

Eliminate poverty in all its forms, everywhere.

Eliminate hunger, achieve food safety, improve nutrition and promote sustainable agriculture.

Ensure healthy life and promote the well-being for all, in all ages.

Ensure inclusive and equitable education, with quality, and promote learning opportunities in life for all.

Achieve gender equity and empower all women and girls.

Ensure water availability and sustainable management and sanitation to all.

Ensure reliable, sustainable, modern access to energy, at an affordable price to all.

Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work to all.

Build resilient infrastructures, promote inclusive and sustainable industrialization and foment innovation.

Reduce inequality within countries and among them.

Make cities and human settlements inclusive, resilient and sustainable.

Ensure sustainable production and consumption standards.

Take urgent measures to fight climate change and their impacts.

Conserve and promote the sustainable use of oceans, seas, and marine resources for sustainable development.

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.

Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, responsible and inclusive institutions at all levels.

Strengthen the means of implementation and revitalize the global partnership for sustainable development.

SUSTAINABLE DEVELOPMENT GOALS

Due to the impacts of the Covid-19 pandemic, some programs and actions have been suspended until it is sufficiently safe to resume their activities.

Projects / Programs / Management Systems / Participations And Policies	Principles and Goals		Date Start / End
	Global Compact	SDG	
Policies and management systems			
Embracing voluntary commitments in the effort to promote sustainability, ethical conduct and best practices of corporate governance: **Global Compact; Business Pact for Integrity and against Corruption and Principles for Sustainable Executive Education (PRME).**	1 a 10	16, 17	Various / Undetermined
Supply Chain Sustainability Management: aims to contribute to the development of suppliers, establishing parameters linked to sustainability, proposing actions that promote and strengthen good practices along the supply chain.	1 a 10	8, 16	2008 / Undetermined
Our Energy Program: includes the acquisition of new career opportunities, remuneration and personal development to performance.	6	8	2013 / Undetermined
Generation by renewable sources: compliance with the strategic and sustainability guidelines established for the generation business.	7, 8, 9	7, 9, 17	Undetermined
Ethical Guidance Board: Appreciates and issues guidance on processes related to ethical conduct in the Company.	1 a 10	8, 16	2003 / Undetermined
Moral Harassment Reporting Commission: aims to analyze reports of moral harassment in the Company, placing Copel as a pioneer company in the country in the implantation of a preventive process to guarantee human and sound practices in people management.	1 a 10	8, 16	2009 / Undetermined
Integrity Program and Compliance Portal: a set of internal mechanisms and procedures for integrity, auditing and incentive to reporting of irregularities, and effective application of codes of ethics and conduct, policies and guidelines to detect and correct deviations, fraud, irregularities and illicit acts committed against the public administration, national or foreign.	10	16	2015 / Undetermined
Copel's Transparency Portal: has the purpose of making information available in compliance with federal and state legislation.	10	16	2014 / Undetermined
Diversity Program: aims to raise awareness and mobilize the staff aiming at the promotion of equal rights, opportunities and recognition for all, as well as promoting and supporting internal actions in accordance with public policies and movements focused on diversity.	1, 2, 6	4, 5, 8, 10, 16	2014 / Undetermined
Internal Socio-environmental Commissions - CISAS: act as multipliers of sustainability concepts, enabling the identification of problematic situations in the socioenvironmental aspect, strengthening the relationship with stakeholders.	1, 2, 7, 8, 9	12, 13	2012 / Undetermined
Copel Corporate University - UniCopel: implementation of Educational Planning and management of Leadership Development Programs, Graduate Courses (lato and strict sensu) and Languages.		4, 8	2007 / Undetermined

Projects / Programs / Management Systems / Participations And Policies	Principles and Goals		Date Start / End
	Global Compact	SDG	
Corporate Climate Change Management Program: aims to discuss and deliberate actions related to the study of the effects of climate change, monitor actions resulting from the implantation of Copel's Climate Change Policy and voluntary commitments assumed.	1, 2, 7, 8, 9	11, 12, 13, 17	2011 / Undetermined
INOV+ GeT Program: a program to promote innovation; started in 2015 to disseminate and acknowledge innovative initiatives. In 2019, the initiative was restructured and started to use a permanent platform for the reception of innovative proposals that will generate value and bring management improvements.	1, 8, 9	9	2015 / Undetermined
Support for public policies and management improvement			
Participation in the **Brazilian Committee of the Global Compact and the National Movement SDG Nós Podemos Paraná (SDG Movement We can Paraná)**.	1 a 10	16, 17	2016 / Undetermined
GT CLIMA – Working group that discusses climate change (including mitigation and adaptation) in Curitiba.	7, 8, 9	9, 11, 12, 13	
Rede Sustenta Paraná – Paraná network for the advance of sustainability in public management.	1 a 10	16, 17	
Participation in organizations that discuss and promote energy efficiency: Brazilian Association of Electric Energy Concessionaires, Energy Planning Company, Brazilian Association of Electricity Generating Companies, Brazilian Association of Electricity Distributors, Brazilian Association of Large Energy Transmission Companies, Brazilian Committee of Large Dams, Regional Council of Engineering, Architecture and Agronomy of PR, FUNCOGE, Brazilian Association for Clean Energy Generation, Electricity Trading Chamber, State Council of Water Resources, Brazilian Association of Photo-voltaic Solar Energy, Brazilian Committee of Electricity, Electronic, Illumination and Telecommunications.	7, 8, 9	6, 7, 15	Various / Undetermined
Participation in associations that discuss and promote environmental improvements: Paraná State Basins Committees, Regional Council of Engineering, Architecture and Agronomy of the State of Paraná, PR Waste and Citizenship Forum, Environmental Committees of PR Public Prosecution Service.	7, 8, 9	6, 15, 17	Various / Undetermined
Voluntary participation in Paraná Competitive Movement and in examining boards of awards: National of Quality, MPE Brasil and Paraná Quality in Management.	1 a 10	12, 17	2000 / Undetermined
Social and environmental programs, project and initiatives			
Program for collection of donations to welfare entities and social service institutions, not for profit and of collective interest, through the invoicing of energy.	1, 2	1, 10, 17	1999 / Undetermined
Annual donation, through tax incentives, to the Fund for the Rights of Children and Adolescents, **FIA, Rouanet Law, the Elderly Law, Sports Promotion Law, PROFICE, PAIC, PRONON and PRONAS.**	1, 2, 5	1, 4, 16	2006 / Undetermined

Projects / Programs / Management Systems / Participations And Policies	Principles and Goals		Date Start / End
	Global Compact	SDG	
Corporate Volunteer Program - Electricitizenship: enables employees to use up to four hours per month for the execution of voluntary work.	1, 2, 4, 5, 7, 8	10, 16, 17	2001 / Undetermined
Copel's Choir: promotes the integration of employees, quality of life at work, development of culture and music education, as well as appreciation of Copel's brand in the community.	6		2010 / Undetermined
Support room for breastfeeding and reduction of working hours: a comfortable and cozy place where the mother can withdraw and store milk to timely offer to her child.	1, 2, 6	3, 5	2016 / Undetermined
Cultivar Energia (Cultivate Energy) Program: the objective is to implement community gardens in the safety bands of Copel's electrical grids, in partnership with municipal governments and residents' associations.	1, 7, 8, 9	2, 10, 11, 12, 17	2009 / Undetermined
Corporate Accessibility Program: aims to make the Company adaptable in issues of accessibility and inclusion of disabled persons (PwDs).	1, 2, 6	8, 10, 11, 16	2007 / Undetermined
Eco-efficiency Program: concentrates the several eco-efficiency initiatives developed at Copel in a single program operating as a hub, interconnecting them, strengthening them, empowering them, and enabling new ways of doing business.	7, 8, 9	6, 8, 9, 12, 13	2014 / Undetermined
EducaODS Program: aims to train and develop Copel professionals, formal and informal leaders on issues related to sustainability.	1 to 10	4, 12	1998 / Undetermined
Susie Pontarolli Sustainability Award: aims to recognize and support initiatives that aim to contribute to the promotion of sustainable development and improvement of quality of life.	1 to 10	10, 12, 17	2012 / Undetermined
Luz Fraterna (Fraternal Light) Program: Government of Paraná Program that performs the payment of bills of consumers enrolled in the Social Tariff of Electric Energy, provided that the consumption does not exceed 120 kWh.	1, 2, 10	1, 7, 10, 11, 17	2003 / Undetermined
Morar Bem (Live Well) Paraná Program: in partnership with the Housing Company of Paraná - Cohapar - housing program for families with monthly income up to six national minimum wages.	1, 2, 10	1, 7, 10, 11, 17	2003 / Undetermined
Night Rural Tariff Program: incentive to increase agricultural production, for poultry farmers and swine farmers, by means of tariff discount for consumer units classified as rural, served in low voltage.	1, 2, 8	7, 11, 17	2007 / Undetermined
Night Irrigation Program: stimulation of the use of irrigation to increase agricultural and poultry production, as well as improvement of quality of life in rural areas, tariffs and equipment subsidized to rural consumers.	7, 8, 9	2, 7, 8, 11, 12, 17	2003 / Undetermined
Energy Efficiency Program: focused on the efficient use of electricity in residential, industrial, commercial and public facilities, located in the concession area of Copel.	7, 8, 9	7, 9, 11, 12	2000 / Undetermined

Projects / Programs / Management Systems / Participations And Policies	Principles and Goals		Date Start / End
	Global Compact	SDG	
Paraná Cidadão (Paraná Citizen) Program: promoted by the Special Secretariat for Community Relations, to offer free services that promote citizenship and social inclusion. Copel participates in providing internet infrastructure, enabling connectivity with systems for service rendering. It also partici-pates by rendering services and guidance on the safe and efficient use of electricity.	1, 2, 4, 5, 6, 10	1, 7, 9, 10, 17	2003 / Undetermined
Paraná Digital (Digital Paraná) Program: digital inclusion in public schools by the connection of state schools to the Internet, in partnership with the State Government and Education Department, with priority to low HDI localities.	1, 2, 6, 10	1, 4, 9, 10	2003 / Undetermined
Paraná Conectado (Paraná Connected) Program: the initiative provides access to optical fiber internet at popular prices and 1 Mbps speed, according to the Broad-band State Plan, despite not being commercialized since 2017, the customer base is maintained.	1, 2, 4,	1, 9, 10	2010 / Undetermined
Electricity Social Tariff: established by Law 10,438 / 2002, it offers discounts on electric power consumption, up to a limit of 220 kWh, to families enrolled in the Single Registry of Social Programs of the Federal Government, provided that the other criteria set forth in Aneel Resolution 414/2010 are observed.	1, 2	1, 7, 10, 11	2002 / Undetermined
Mais que Energia (More than Energy) Project: implantation, expansion and consolidation of social investment projects and programs for the community.	1, 2	1, 7, 10, 11, 16, 17	2014 / Undetermined
Smart grid project: installation of 2,000 telemetry points in the urban area of Curitiba and 1,000 points in the rural area of Colombo and Bocaiúva do Sul, the reading is done hourly making it possible to detect errors, lack of energy and obtention of reading for billing without displacements.	7, 8, 9	7, 9, 11, 12, 13, 17	2015 / Undetermined
Telemetry: enables automated collection of data in real-time (on time), optimizing the process given precision in the collection, treatment and availability of data, also for clients, via the Internet.	8, 9	7, 9, 13	2010 / Undetermined
Iluminando Gerações (Illuminating Generations) Project: lectures for students of the 4th year of Elementary School in public schools, with an informative and preventive nature regarding the conscious and safe use of electric energy, use of natural resources (energy and water) and correct disposal of waste.	1, 2	4, 11, 12	1970 / Undetermined
+Clic Rural Program: improvement of the quality of electricity supply in the rural area, focusing on agricultural activities integrated with production processes sensitive to interruptions.	1, 2, 7, 8, 9	7, 11, 12	2015 / Undetermined
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 / Undetermined
PrevenCÃO (Animal Prevention): public awareness about the importance of caring for pets to prevent accidents with meter readers.	1, 7, 8	12	2015 / Undetermined

Projects / Programs / Management Systems / Participations And Policies	Principles and Goals		Date Start / End
	Global Compact	SDG	
Florestas Urbanas (Urban Forest) Program: works with municipalities to plan the afforestation of public roads, contributing to the environmental improvement of cities and reducing interruptions in energy supply caused by a conflict between vegetation and electric systems	7, 8, 9	11, 15, 17	2008 / Undetermined
Florestas Ciliares (Riparian Forest) Program: aims to recover natural environments surrounding the reservoirs of plants and other areas of interest of the Company.	7, 8, 9	6, 15	2006 / Undetermined
Ichthyofauna Monitoring and Resettlement Program: its objective is to monitor and repopulate the Company's reservoirs and rivers where Copel's ventures exercise some influence.	7, 8, 9	6, 15	1993 / Undetermined
Experimental Station of Ichthyology Studies: study and reproduce species suitable for repopulation of rivers and reservoirs in Paraná.	7, 8, 9	6, 15	1992 / Undetermined
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 / Undetermined
Recovery of degraded areas: monitoring and recovery of degraded areas.	7, 8, 9	15	1999 / Undetermined
Forest farms: for production of appropriate seedlings to be used in the Company's other programs.	7, 8, 9	15	1973 / Undetermined
Botanical Garden: with exotic ornamental plant species, for conservation and research of vegetal species collections and also sheltering of exotic ornamental plants.	7, 8, 9	15	2010 / Undetermined
Iguaçu Regional Museum: presents the social, cultural and environmental characteristics of populations that have occupied Iguaçu River banks. It maintains a collection from the programs of Archaeological Salvage and Cultural Memory and Scientific Utilization of Flora and Fauna in the implantation of the HPP Governador Ney Braga.	7, 8, 9	4, 11	2000 / Undetermined
Internet sem Bullying (Internet without Bullying) Program - the project aims to raise awareness of children and young people in the 7th, 8th and 9th grades of elementary schools in Paraná, to the problem of cyberbullying, through awareness lec-tures. 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. It won SDG 2019 Global Compact Brasil Award in Large Company Category, Peace axis.	1, 2	4	Undetermined
Optical fiber recycling: Seeks a sustainable approach to the treatment of waste typical of telecommunications operations. Optical fiber scrap produced by Copel Telecom is fully destined to recycling, the main method for waste destination according to Law No. 12,305/10 – National Solid Waste Policy (PNRS). Byproducts are generated that are valorized and will be re-introduced in the production chain, fomenting the Circular Economy. This initiative was acknowledged as "Good Practice" in Sesi SDG 2018 Award.	7, 8, 9	9, 12, 13, 17	2016/Undetermined
Zero Carbon: Neutralization of greenhouse gas emissions by acquiring carbon credits in the modality REDD+ - Reduction of emissions from deforestation and forest degradation avoided and sustainable management of forests. Copel Telecom was Zero Carbon for the second consecutive year. This initiative received an "Honorable Mention" in Sesi SDG 2019 Award.	7, 8, 9	13, 15, 17	2018/ Undetermined

GRI Annexes

GRI 102-20

Areas / Executive functions	Responsibility	Bodies that monitor performance
Collegiate Board	Responsible for economic, social, environmental, climate change, and corporate governance issues, as established in Art. 46th of Copel's Bylaws, according to which in addition to the attributions defined by law and in its Internal Regulations, it applies to the Collegiate Board: to deliberate on the Company's business in a sustainable manner, considering the economic, social, environmental, climate change, and corporate governance factors, as well as the related risks and opportunities.	Board of Directors, Sustainable Development Committee, and Investments and Innovation Committee
CEO of the Holding	Responsible for economic, social, environmental, climate change, and corporate governance issues, as established in Art. 34th of Copel's Bylaws, according to which: ■ It applies to the CEO: I. to direct and coordinate the Company; III. to direct and coordinate matters related to corporate planning and performance; IV. look after the achievement of the Company's goals, established according to the general guidelines set by the General Assembly and the Board of Directors.	Collegiate Board, Board of Directors, Sustainable Development Committee, and Investment and Innovation Committee
Corporate Management Director	Responsible for social issues within the scope of the staff management and corporate education areas, as established in Art. 3rd of the Internal Regulations of the Collegiate Board: ■ It applies to the Corporate Management Director of Companhia Paranaense de Energia – Copel (Holding) to: I. define policies, guidelines and norms, in addition to coordinating the application, in the Company and in its Wholly Owned Subsidiaries, of the actions associated to: a. staff management and corporate education; b. service and supply logistics, corporate security; c. Information Technology; and d. process management and organizational development. II. coordinate and promote the relationship between the Company, its wholly owned subsidiaries, and the Copel Foundation; III. manage the relationship between the Company, its wholly owned subsidiaries, and workers' unions;	CEO, Collegiate Board, Board of Directors, and Sustainable Development Committee

Areas / Executive functions	Responsibility	Bodies that monitor performance
Financial and Investor Relations Director	Responsible for economic issues, as established in Art. 4th of the Internal Regulations of the Collegiate Board, according to which: ■ It applies to the Financial and Investor Relations Director of Companhia Paranaense de Energia – Copel (Holding) to: I. coordinate the matters related to management and economic, financial, tax, accounting, budget, cost, and property security planning, and the financial applications and investments in the financial market made by the Company and its wholly owned subsidiaries.	CEO, Collegiate Board, Board of Directors, and Investment and Innovation Committee
Governance, Risk and Compliance Director	Responsible for social, environmental, climate change, and corporate governance issues, as established in Art. 7th of the Internal Regulations of the Collegiate Board, according to which: ■ It applies to the Governance, Risk and Compliance Director of Companhia Paranaense de Energia – Copel (Holding) to: I. establish policies and guidelines, as well as to coordinate their application within the Company and its wholly (directly and indirectly) owned subsidiaries, and as may be the case, in its companies controlled and remaining equity holdings, associated to: a. corporate sustainability, considering matters related to socioenvironmental, climate change, and social responsibility aspects; b. corporate governance; c. corporate risk management; d. internal controls; and e. compliance.	CEO, Collegiate Board, Board of Directors, and Investment and Innovation Committee

GRI 102-22

Corporate governance body	Quantity of members as per gender	Quantity of members as per age group	Attributions
General Shareholders Assembly	The quantity of members complies with Art. 9th of Copel's Bylaws, in conformity with to the applicable legislation	It is not possible to control age group in the General Shareholders Assembly due to its characteristics. See page 53	Members deliberate on all mat-ters related to the Company's corporate object. Its competencies and attributions are established in Art. 14th of Copel's Bylaws.
Appointment and Evaluation Committee (AEC)	**From 3 to 5 members, elected and dismissed by the General Assembly** 4 men 1 woman	Between 30 and 50 years: **1** / **20%** Above 50 years: **4** / **80%**	The attributions and operation of the AEC follow the legislation in force, Art. 54th of Copel's Bylaws, and Art. 10th of the Internal Regulations of the AEC, as well as the responsibilities and duties of its members as described in Art. 13th.
Supervisory Board (SB)	**5 full members and an equal number of substitutes** 4 men 1 woman	Between 30 and 50 years: **3** / **33%** Above 50 years: **6** / **67%**	Its attributions, operation, and procedures are detailed in Art. 68th, § 3rd, of the Bylaws, and in Art. 10th of the Internal Regula-tions of the SB, as well as the responsibilities and duties of its members as described in Art. 14th.
Board of Directors (BOD)	**9 members, including 7 inde-pendent advisors, 1 executive advisor, and 1 non-executive advisor elected by the employees** 6 men 3 women	Between 30 and 50 years: **2** / **22%** Above 50 years: **7** / **78%**	The attributions and operation of the BOD follow the legislation in force, Art. 28th of Copel's Bylaws, and Art. 10th of the Internal Regulations of the BOD.

Corporate governance body	Quantity of members as per gender	Quantity of members as per age group	Attributions
Statutory Audit Committee (SAC)	**5 members taken from the BOD, all of them independent advisors** 3 men 2 women	Above 50 years: **5** / **100%**	The attributions and operation of the SAC follow the legislation in force, Art. 51st of Copel's Bylaws, and Art. 12th of the Internal Reg-ulations of the SAC. The responsibilities and duties of its mem-bers are described in Art. 21st.
Ethics Committee	**5 members** 3 men 2 women		The duties and prerogatives of the members of this Committee are detailed in Art.12th, and the Committee's attributions and operation are described in Art. 9th of its Internal Regulations.
Investments Committee	Under implementation		The duties and prerogatives of the members of this Committee will be detailed in its Internal Regulations.
Development Committee	Under implementation		The duties and prerogatives of the members of this Committee will be detailed in its Internal Regulations.
Minority Shareholders Committee	Under implementation		The duties and prerogatives of the members of this Committee will be detailed in its Internal Regulations.

Notes:
1. Bylaws and Regulations: https://ri.copel.com/governanca-corporativa/estatutos-regimentos-politicas-e-comites/
2. Ethics Committee: https://www.copel.com/hpcweb/institucional/comite-de-etica/
3. There is no *stakeholder* representation in Copel's corporate governance bodies according to Federal Laws nº 6,404/1976 and 13,303/2016 and remaining applicable legal provisions.

Ilha do Mel, in the Paranaguá Bay - PR

GRI 201-2

Risks and opportunities due to climate change

Risks of a physical nature:

- **Extreme weather events:** studies have indicated that in the next few years there will be an increase in maximum temperatures in the Northern region of the State of Paraná, affecting the operation and maintenance of power transmission facilities in that region, which might lead to fines due to supply disruptions.

- **Tropical cyclones:** studies have indicated that in the next few years there will be an increase in the number and intensity of whirlwinds in the Northern and Western regions of the State of Paraná, leading to the likely fall of towers, and consequently affecting the operation and maintenance of power transmission facilities in those regions.

Risks of a regulatory nature:

- **Emission charges:** the Brazilian Government has been studying an emission rate charge model. There is a concern on how this will be done, since the business models in the Brazilian electric power sector point to increased investments in thermoelectric plants in the next few years. The expansion of thermoelectric plants fired by fossil fuels might generate financial impacts.

Carbon Market Mechanisms, *Cap and Trade*: despite the fact that the Brazilian electric system generates a level low of emissions, since it is one of the most organized sectors and due to its capillarity, Copel counts on a reasonable possibility that it will be one of the sectors chosen to introduce this kind of mechanism. This initiative might lead to cost increases for the Company.

Risks of another nature:

- **Reputation:** risk analyses regarding climate parameters have shown that in the next few years it is possible that consumers will face power supply disruptions if the system is not modernized, or actions are not taken to adapt the system. The frequent occurrence of such a situation might generate dissatisfaction among consumers. In addition to that, compliance with the power supply availability and quality indicators is conditioned to the fulfillment of the concession contract.

Opportunities of a physical nature:

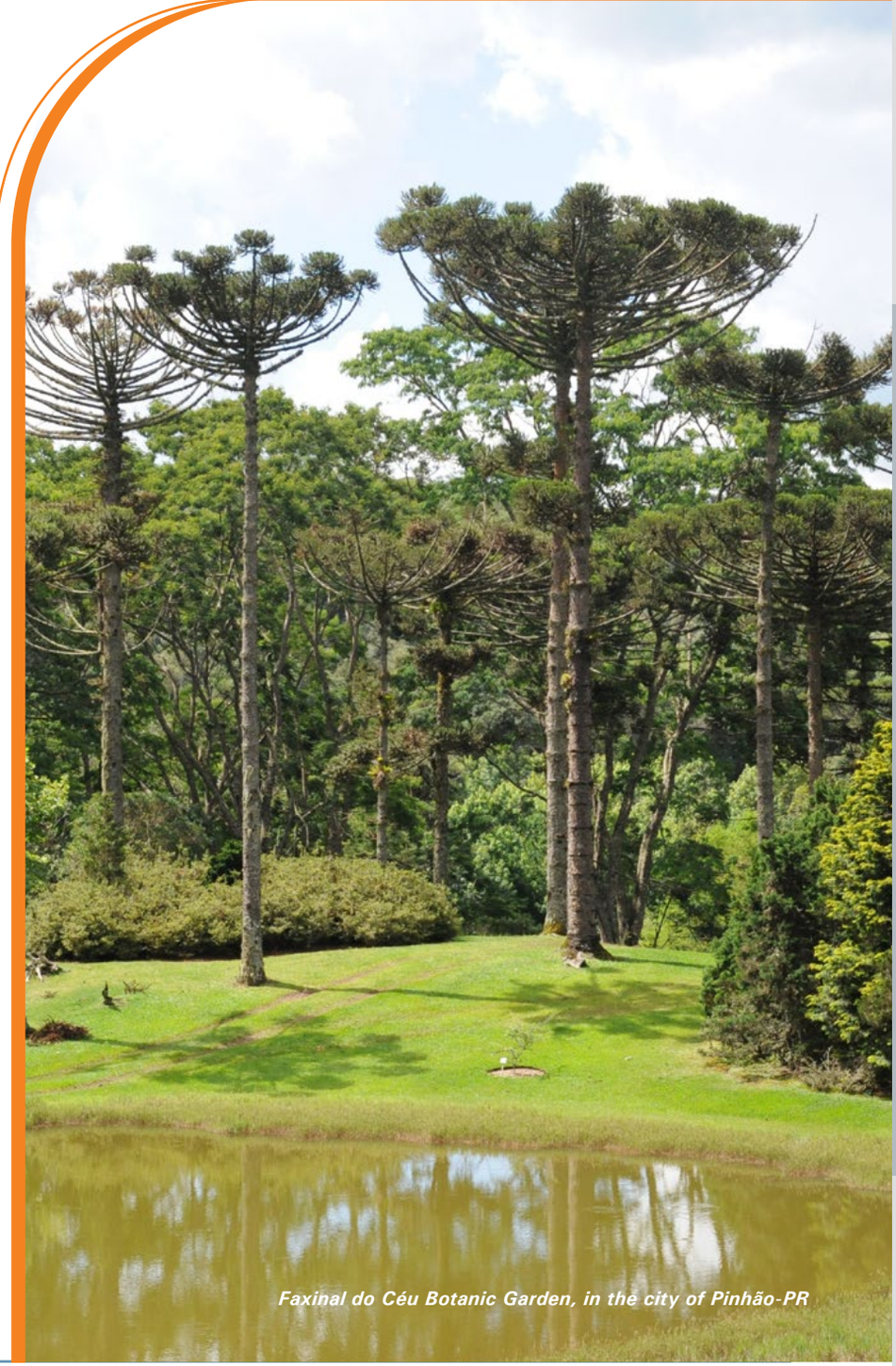
- **Extreme weather events:** it is expected that in the next few years extreme weather events associated to temperature variations may become more intense, leading to increased energy consumption, mainly in the Southern region of Brazil, generating a higher demand for Copel's services.

Impacts associated to risks and opportunities due to climate changes

Risks of a physical nature:

- **Extreme weather events:** Module 8 of the Electric Power Distribution Procedures for the National Electric Power System (Prodist), set by Aneel, establishes the application of sanctions or fines to concessionaires due to violations of power distribution quality requirements.

- **Tropical cyclones:** the quality of operations and maintenance works in power transmission lines is evaluated according to Normative Resolution N° 729/2016, and might lead to sanctions and fines due to violations of the technical requirements.



Faxinal do Céu Botanic Garden, in the city of Pinhão-PR

GRI 201-4

Tax incentives						2020
Incentive	**Government**	**Copel (Holding)**	**Copel GeT**	**Copel DIS**	**Copel CTE**	**Total as per incentive**
Rouanet/Cultural Endowment Law and Audiovisual Law	Federal	-	4,225,531.67	4,220,510.13	-	8,446,041.80
Childhood and Adolescence Fund	Federal	-	1,056,383.00	1,055,136.00	-	2,111,519.00
Incentive to Sports	Federal	-	1,056,383.00	1,055,136.00	-	2,111,519.00
PRONAS – Nat. Health Care Prog. for Handicapped People	Federal	-	1,052,375.09	373,313.96	-	1,425,689.05
National Fund for the Elderly	Federal	-	1,056,383.00	1,055,136.00	-	2,111,519.00
PROFICE	State	-	-	1,603,742.00	-	1,603,742.00
PROESPORTE	State	-	-	6,095,397.00	-	6,095,397.00
Municipal Foundation for Culture	Municipal	-	-	-	-	-
Total as per company		**-**	**8,447,055.76**	**15,458,371.09**	**-**	**23,905,426.85**

GRI 304-1

Own, leased, or managed operational units inside protected areas

Name of the area	Size	Location	Type of operation	Value for biodiversity
Ecological Station of Rio Dos Touros State Park of Vila Velha State Park of Guartela State Park of Pau-Oco State Park of Pico Marumbi State Park of the Guarani River State Park Serra da Baitaca State Park Vale do Codo National Park of Guaricana National Park of Campos Gerais Wild Life Sanctuary of the Tibagi River Wild Life Sanctuary of Mono Castro	12.34	Campo Largo, Carambeí, Castro, Guaratuba, Jaguariaíva, Morretes, Piraquara, Ponta Grossa, Quatro Barras, Reserve of Iguaçu, São José dos Pinhais, Tibagi, and Três Barras do Paraná (PR)	Electric Power Generation and Transmission	Preservation Units intended to maintain ecosystems free of alterations caused by human interference, allowing only for the indirect use of their natural resources. Use limitation in these spaces varies according to their category: ■ **Ecological Station:** its purpose is to preserve nature and enable scientific research; ■ **Park:** it is under public ownership and domain, and the private areas included within its limits will be expropriated, as disposed by law; and ■ **Wild Life Sanctuary:** its purpose is to protect natural environments, where conditions for the existence or reproduction of local flora and resident or migratory fauna are ensured.
Environmental Protection Area of Corumbataí, Botucatu and Tejupa, Perimeter of Corumbataí Environmental Protection Area of Campinas Environmental Protection Area of Iguaçu Environmental Protection Area of Irai Environmental Protection Area of Passauna Environmental Protection Area of Pequeno Environmental Protection Area of the Paraíba do Sul River Environmental Protection Area of Rio Verde Environmental State Protection Area of the Devonian Cliff	70.05	Amparo, Analândia, Atibaia, Bragança Paulista, Campinas, Corumbataí, Igaratá, Itirapina, Jaguariúna, Morungaba, Pedreira, Piracaia, Rio Claro, São Carlos and São José dos Campos (SP), and Almirante Tamandaré, Antonina, Araucária, Balsa Nova, Campina Grande do Sul, Campo Largo, Campo Magro, Carambeí, Castro, Colombo, Curitiba, Guaratuba, Jaguariaíva, Morretes, Palmeira, Pinhais, Piraquara, Ponta Grossa, São José dos Pinhais, Tibagi, Tijucas do Sul, and União da Vitória (PR)	Power Generation and Transmission	These are Preservation Units (PUs) in which resource exploitation is allowed, however in a way as to ensure the survival of renewable environmental resources and ecological processes, by preserving biodiversity and the remaining ecological assets in a socially fair and economically viable manner. Use limitation in these spaces varies according to a PU'S category: ■ **Environmental Protection Area:** it is usually an extended area, with a certain level of human occupation, endowed with abiotic, biotic, esthetic, or cultural features considered especially important for the quality of life and wellbeing of local human population. Its basic purpose is to protect biological diversity, regulate the land occupation process, and ensure the sustainable use of natural resources. ■ **Private Natural Heritage Reserve:** it is a private area, legally assigned for perpetuity to preserve biological diversity.

Name of the area	Size	Location	Type of operation	Value for biodiversity
Environmental State Protection Area of Serra da Esperança Environmental State Protection Area of Guaratuba Environmental State Protection Area of Piraquara Environmental Protection Area of Piracicaba Juqueri Mirim Area 1 Environmental Protection Area of Piracicaba Juqueri Mirim Area 2 Environmental Protection Area o the Cantareira System Private Natural Heritage Reserve of Morro da Mina Private Natural Heritage Reserve of Perna do Pirata	70.05	Amparo, Analândia, Atibaia, Bragança Paulista, Campinas, Corumbataí, Igaratá, Itirapina, Jaguariúna, Morungaba, Pedreira, Piracaia, Rio Claro, São Carlos and São José dos Campos (SP), and Almirante Tamandaré, Antonina, Araucária, Balsa Nova, Campina Grande do Sul, Campo Largo, Campo Magro, Carambeí, Castro, Colombo, Curitiba, Guaratuba, Jaguariaíva, Morretes, Palmeira, Pinhais, Piraquara, Ponta Grossa, São José dos Pinhais, Tibagi, Tijucas do Sul, and União da Vitória (PR)	Power Generation and Transmission	These are Preservation Units (PUs) in which resource exploitation is allowed, however in a way as to ensure the survival of renewable environmental resources and ecological processes, by preserving biodiversity and the remaining ecological assets in a socially fair and economically viable manner. Use limitation in these spaces varies according to a PU'S category: ■ **Environmental Protection Area:** it is usually an extended area, with a certain level of human occupation, endowed with abiotic, biotic, esthetic, or cultural features considered especially important for the quality of life and wellbeing of local human population. Its basic purpose is to protect biological diversity, regulate the land occupation process, and ensure the sustainable use of natural resources. ■ **Private Natural Heritage Reserve:** it is a private area, legally assigned for perpetuity to preserve biological diversity.
Full Protection Preservation Units	0.93	State of Paraná	High-voltage power distribution lines (LDAT)	This category includes national and state parks, wild life sanctuaries, biological reserves, and ecological stations intended to protect terrestrial ecosystems.
Full Protection Preservation Units	5.00	State of Paraná	34,5-kV (RDs) electric power distribution grids	This category includes national and state parks, wild life sanctuaries, biological reserves, and ecological stations intended to protect terrestrial ecosystems.
RAMSAR Site - Full Protection Area of Guaratuba	1.50	Guaratuba, Mandirituba, Tijucas do Sul, Matinhos, Pontal de Paraná, São José dos Pinhais, and Morretes (PR)	SE Vossoroca, SE Chaminé, SE Salto do Meio, High-Voltage Distribution Lines (LDAT), Power distribution grids (RDs)	The Ramsar Site of Guaratuba has a high value for biodiversity, considering its great wild life diversity and rich landscape, comprising mountains, highlands, rivers, wa-terfalls, plateaus, and mangroves. This is the natural dis-tribution area of the marsh antwren (or Paraná antwren; *Formicivora acutirostris*), an endangered species.
RAMSAR ESEC Guaraqueçaba	0.01	Guaraqueçaba (PR)	34.5-kV electric power distribution grids	A Full Protection Preservation Unit, of public domain, comprising mangroves, sandbanks, and coastal islands. It is the natural occurrence area of the redtailed amazon parrot (Amazona brasiliensis).

Own, leased, or managed operational units near protected areas

Name of the area	Size	Location	Type of operation	Value for biodiversity
Ecological Station of Assis State Park of Penhasco Verde State Park of Pico Paraná National Park of Saint-Hilaire/Lange National Park of Iguaçu National Park of Campos Gerais Natural Municipal Park Augusto Ruschi Wild Life Sanctuary of the Tibagi River	124.54	Antonina (PR) Assis (SP) Campina Grande do Sul (PR) Céu Azul (PR) Paranaguá (PR) Ponta Grossa (PR) Santa Tereza do Oeste (PR) São Jerônimo da Serra (PR) São José dos Campos (SP)	Power generation and transmission	Preservation Units intended to maintain ecosystems free of alterations caused by human interference, allowing only for the indirect use of their natural resources. Use limitation in these spaces varies according to their category: ■ **Ecological Station:** its purpose is to preserve nature and enable scientific research; ■ **Park:** it is under public ownership and domain, and the private areas included within its limits will be expropriated, as disposed by law; and Wild Life Sanctuary: its purpose is to protect natural environments, where conditions for the existence or reproduction of local flora and resident or migratory fauna are ensured.
Environmental Protection Area of Iguaçu Environmental Protection Area of Irai Environmental Protection Area of Passauna Environmental Protection Area of Pequeno Environmental Protection Area of Rio Verde Environmental State Protection Area of the Devonian Cliff Environmental State Protection Area of Serra da Esperança Environmental State Protection Area of Guaratuba Environmental State Protection Area of Piraquara Environmental State Protection Area Guaraqueçaba Area of Relevant Ecological Interest of Matão de Cosmópolis State Forest of Assis Private Natural Heritage Reserve of Granja Perobal Private Natural Heritage Reserve of Mata do Barão Private Natural Heritage Reserve Narciso Luiz Vanini I	160.54	Almirante Tamandaré (PR) Antonina (PR) Araucária (PR) Artur Nogueira (SP) Assis (SP) Campina Grande do Sul (PR) Campo Largo (PR) Colombo (PR) Cosmópolis (SP) Cruz Machado (PR) Curitiba (PR) Londrina (PR) Medianeira (PR) Morretes (PR) Paranaguá (PR) Piraquara (PR) Ponta Grossa (PR) São Jorge D'Oeste São José dos Pinhais (PR) União da Vitória (PR)	Power Generation and Transmission	These are Preservation Units (PUs) in which resource exploitation is allowed, however in a way as to ensure the survival of renewable environmental resources and ecological processes, by preserving biodiversity and the remaining ecological assets in a socially fair and economically viable manner. Use limitation in these spaces varies according to a PU'S category: ■ **Environmental Protection Area:** it is usually an extended area, with a certain level of human occupation, endowed with abiotic, biotic, esthetic, or cultural features considered especially important for the quality of life and wellbeing of local human population. Its basic purpose is to protect biological diversity, regulate the land occupation process, and ensure the sustainable use of natural resources. ■ **Private Natural Heritage Reserve:** it is a private area, legally assigned for perpetuity to preserve biological diversity.

Areas of high biodiversity value

Name of the area	Size	Location	Type of operation	Value for biodiversity
MA063 MA062 MA065 MA068 AMZ-816 MA051	801.55	Almirante Tamandaré (PR) Antonina (PR) Araucária (PR) Balsa Nova (PR) Bituruna (PR) Bocaiúva do Sul (PR) Campina Grande do Sul (PR) Campo Largo (PR) Campo Magro (PR) Castro (PR) Colíder (MT) Colombo (PR) Cruz Machado (PR) Cruzeiro do Iguaçu (PR) Curitiba (PR) Itaúba (MT) Morretes (PR) New Canaã do Norte (MT) Nova Santa Helena (MT) Palmeira (PR) Pinhais (PR) Piraquara (PR) Porto União (SC) Porto Vitória (PR) Quedas do Iguaçu (PR) Rio Bonito do Iguaçu (PR) Rio Branco do Sul (PR) São João (PR) São Jorge D'Oeste (PR) São José dos Pinhais (PR) Saudade do Iguaçu (PR) Sulina (PR) Três Barras do Paraná (PR) União da Vitória (PR)	Power Generation and Transmission	These are areas classified as "Extremely Relevant" due to their biological importance to preserve biodiversity, and in which Copel GeT's enterprises are located or pass through.

GRI 405-1

% of employees as per functional category and gender	Men	Women	Total as per functional category
Operations	100	0	0.49
Mid Level Technical Professionals	93	7	24.10
Mid Level Professionals	72	28	56.56
Higher Level Professionals	73	27	18.84
Total as per gender	**77**	**23**	**100.00**

Diversity disclosures among own employees (%)	Operations	Mid Level Professionals	Mid Level Technical Professionals	Higher Level Professionals	Total
Up to 30 years	0.00	4.40	2.55	1.59	**3.40**
Between 30 and 50 years	6.06	68.34	76.10	70.78	70.36
Above 50 years	93.94	27.26	21.34	27.63	26.23
Total % of employees as per functional category	2.63	300.24	127.95	100.00	100.00
% of blacks and mulattos (in relation to the total number of employees)	0.18	0.14	0.15	0.08	13.17
Total % of Handicapped own employees at Copel (in relation to the total number of employees)					**2.56**

Credits

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Photo Credits of the Pictures Opening Each Chapter
Copel's Photo Collection

Redaction and editorial consultancy
Visão Sustentável

Graphic design, diagramation, and business model illustrations
Visão Sustentável

Selection, Collection and Analysis of Disclosures
Visão Sustentável

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