

2022

Social-Environmental
and **Economic-Financial**
Responsibility
Report



COPEL
Pura Energia

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INTRODUCTION

Message from the CEO

GRI 2-22

In our mission to improve distribution and deliver reliable energy to our customers and in awareness of the growing demand for energy and our more discerning consumers, we are investing heavily in business optimization and increasing our process automation through innovative technologies. We manage our costs efficiently and in line with our business strategy for disciplined fund allocation, we registered a highly positive financial result in 2022, with an EBITDA of BRL 938.8 million and an adjusted EBITDA of BRL 1,706.5 million.

Paraná's GDP grew above the national GDP, making it the fourth largest economy in Brazil in 2022, and this was also reflected in the demand for power distribution. As such, the new market grew 2.4% in the year, up from 1.9% in 2021.

We further increased our investments in 2022 to improve the quality of supply by investing more than BRL 1.8 billion in the period, the largest investment of Copel DIS to date.

One of the strengths in our strategic plan is to continue the Transformation Program, which has received investments of BRL 2 billion since 2020 to develop three major initiatives that will upgrade and expand the level of automation in our network, provide support for new services and products and generate cost gains in Operation and Maintenance (O&M).

The first of these is called *Paraná Trifásico*, which has currently delivered 10,500 km of reinforced and upgraded grid out of a total of 25,000 km to be delivered by 2025. The initiative is to renew the rural network by making supply more reliable and secure for agricultural output, an economic driver of the state. *Paraná Trifásico* crosses the state of Paraná and makes our distribution network more resilient and able to take on another key growth area expected to emerge in the next years: distributed generation (DG). Another pillar of the Transformation Program, the Smart Grid is the largest smart grid investment in Brazil. The first stage



of the delivery is on schedule for early 2023 and the second stage is under way.

The increase of remote sensing and the replacement of electromechanical and electronic meters for smart devices marks an unprecedented leap in the automation of the state power grid. The smart grid increases the ability to detect outages and reduces the unavailability of the distribution system, creating a new energy model that is able to meet the needs of users, as well as lowering costs.

The third pillar of the Transformation Program is Total Reliability, a project focused entirely on improving the reliability of energy supply to consumers. The aim is to upgrade the power grid operations through the large-scale deployment of new technologies to improve telecommunications with field teams and among automated equipment; boost the infrastructure by implementing new substations, circuits, and redundant systems; and deploy automatic systems for load transfer and reconfiguration of the medium voltage network known as Self Healing.

We are also aware of our challenges - in addition to the aftereffects of the pandemic, which we have not yet fully recovered from and the unstable macroeconomic scenario -, we continue investing to reduce asset depreciation, currently standing at 57%. This index underlines the importance of the

investments being made in the three major actions of the Transformation Program.

Another important challenge for the energy sector is the increasingly recurrent and severe weather events caused by climate change, which put pressure on our O&M costs and quality indicators. The year of 2022 was marked by atypical storms and the four biggest storms faced by Copel in its 68 years of existence were recorded in the last three years. We are, therefore, turning to construction to adapt to this new reality. Corporately, Copel is also committed to neutralizing its direct carbon emissions by 2030 and strengthening our position in renewable energy.

We look to the future aware of our role in renewable energy because we understand the need for synergy between the distribution grid and the electric matrix connection. We are also working on electric mobility projects, of which four - derived from **Chamada 22** (Call 22) of the R&D Program of the Brazilian Electricity Regulator (Aneel), were concluded in 2022 by the Research & Development area, with in-depth studies on the subject.

Above all, we also value our human capital - no business can last without highly engaged employees who take pride in what they do. We have, therefore, implemented the Cultural Transformation project to work on several aspects of people management to reach a balance between what we call affective and effective - it is necessary to be effective in performing tasks but how this will be done is the most important factor behind sustainable results. Our slogan is "all together" and this is what we need to be to achieve our main goal: be the best and most modern distributor in Brazil.

Maximiliano Andres Orfali
CEO of Copel Distribuição

Highlights 2022

Indicators



Governance

Includes Statutory Advisory Committees to the Board of Directors: Statutory Audit Committee (SAC); Statutory Sustainable Development Committee (SSDC), Investment and Innovation Committee (IIC) and Minority Shareholders' Committee (MSC).

The Board of Directors is composed mostly of independent members.

The number of Board members elected by non-controlling shareholders was increased to three.



Environmental

Copel 2030 Neutrality Plan approved by the Board of Directors: focuses on science-based targets (SBTi) with the purpose of neutralizing greenhouse gas (GHG) emissions for the assets that Copel has operational control over (according to the concept established in the GHG Protocol methodology) by 2030.

Climate Change Management: maintained Concept B, one of the main initiatives of the financial sector to reduce GHG emissions from companies.



Social

Listed on IGPTW B3
Average performance indicator of listings for GPTW-certified companies.

Actions and Programs
Joint Selective Collection; *Cultivar* (Cultivate Energy) Program;
Eletricidadania; *Boa Vizinhança* (Good Neighborhood) Program;
Diversity Committee; Human Rights;
EducaODS; *Iluminando Gerações* (Enlightening Generations);
Mais que Energia (More than Energy), among others



Financial

BRL 938.8 million
in EBITDA
BRL 13.9 billion
in net operating
income.



About the report

GRI 2-3

This publication
complies with GRI
standards

Copel Distribuição (Copel DIS) has drawn up this report to disclose its main results, as well as the social, environmental and economic impacts of its operations, as well as to meet the resolutions of the Accounting Manual for the Electricity Sector (*Manual de Contabilidade do Setor Elétrico - MCSE*) as set forth in Regulatory Resolution 605 of the Brazilian Electricity Regulator (Aneel) to render transparent accounts to the Regulator and all of our stakeholders.

This publication complies with Global Reporting Initiative (GRI) Standards. All the indicators herein are listed in the GRI Content Index (*pages 181 to 194*).

The report also observes the guidelines of the Balance Sheet of the Brazilian Social and Economic Analysis Institute (Ibase); the Brazilian Accounting Standard (NBC T15); the bylaws of the Abrasca Annual Report Award; the Communication on Progress in relation to the Global Compact commitments; and the International Financial Reporting Standards (IFRS), considered in the information from the financial statements.

This edition, published on April 18, 2023, refers to the period between January 1 and December 31, 2022. The most recent previous report was published in 2022 and refers to the year of 2021, totaling an annual publication cycle. Copel DIS' financial reporting period coincides with the sustainability reporting period.

For questions, suggestions or clarifications regarding the content of this report, please contact Copel DIS' Integrated Management Department at email: nucleo.sustentabilidadedis@copel.com.

The Copel website also includes the following reports:

- Management Report and Financial Statements
- 20F Report
- Integrated Report
- Reference Form

Material topics

GRI 2-29, 3-1

Copel considers material topics essential for its business, its activities and its stakeholders. They also underpin its Strategic Planning process.

The Company used as a benchmark for this report

the materiality matrix developed in 2020 and revised in 2021 and detailed in the Copel (Holding Company) 2020 Integrated Report. The methodology used considered:

- A survey of relevant topics for the sector based on sustainability performance assessments, as well as ESG standards and guidelines.
- A materiality analysis of national and international peers.
- Copel's corporate documents (Strategic Planning, Risk Matrix, etc.).
- Sensitive topics, according to a media study.
- Identification of positive and negative impacts of Company operations, according to intensity, probability and frequency.
- A survey with stakeholders to prioritize topics in each business segment.
- A modulation of results and the grouping of topics by scale and subject.
- Analysis of study results by the wholly-owned subsidiaries.

This materiality proposal was submitted for review to the Company's senior management and was approved by the Board of Directors. **GRI 2-14**

The list of the seven material topics defined in 2021 and reported herein is shown in the following table.

Material topics

Relevance

- DIRECT IMPACT
- INDIRECT IMPACT
- NO IMPACT

Material topics for Copel GRI 2-29, 3-2	GRI Standards material aspects	Inside limits	Outside limits
Corporate governance, risk management and cybersecurity	General standard indicators of risk management and corporate governance	Copel Operações Employees	Government Regulators Suppliers Customers Community
	Economic performance (201-2)		
	Anti-corruption (205-1 to 205-3)		
	Anticompetitive behavior (206-1)		
	Public policy (415-1)		
	Customer privacy (418-1)		
	Socio-economic compliance (419-1)		
Economic-financial performance	Economic-financial performance (201-1, 201-3, 201-4)	Copel Operações Employees	Government Regulators Suppliers Customers Community
Operational efficiency	Availability and reliability (EU6)	Copel Operações Employees	-
	Demand management (EU7)		-
	Research & development (EU8)		-
	Planned capacity against projected electricity demand over the long term (EU10)		Government Regulators
	System efficiency		- Suppliers - Customers
	Transmission and generation losses (EU12)		Community
	Power supply disruptions (EU28)		-
	Average duration of disruptions (EU29)		-
Transformation of energy sector	Corporate profile EU2	Copel Operações Employees	Government Regulators
	Availability and reliability EU6		Suppliers Customers
	Research & development EU8		Community
	System efficiency EU12		
Environmental management and actions against climate change	Materials (301-1, 301-2)	Copel Operações Employees	Government Regulators Suppliers Customers Community
	Energy (302-1 to 302-4)		
	Water and effluents (303-1 to 303-5)		
	Biodiversity (304-1 to 304-4)		
	GHG emissions (305-1 to 305-7)		
	Waste (306-1 to 306-5)		
	Environmental assessment of suppliers (308-1, 308-2)		
	Biodiversity (EU13)		

Relevance

- DIRECT IMPACT
- INDIRECT IMPACT
- NO IMPACT

People management and health and safety at work	Employment (401-1 to 401-3)	Copel Operações Employees	Government Regulators Suppliers Customers Community
	Labor relations (402-1)		
	Health and safety at work (403-1 to 403-10)		
	Training and education (404-1 to 404-3)		
	Diversity and equal opportunities (405-1, 405-2)		
	Non-discrimination (406-1)		
	Freedom of association and collective bargaining (407-1)		
	Availability of skilled workforce (EU14)		
	Percentage of employees eligible for retirement in the next 5 and 10 years (EU15)		
	Employment (EU16, EU18)		
Social Responsibility	Market share (202-1, 202-2)	Copel Operações Employees	Government Regulators Suppliers Customers Community
	Indirect economic impacts (203-1, 203-2)		
	Procurement practices (204-1)		
	Child labor (408-1)		
	Forced or slave-like labor (409-1)		
	Rights of indigenous people (411-1)		
	Human rights assessment (412-1, 412-3)		
	Local communities (413-1, 413-2)		
	Social assessment of suppliers (414-1, 414-2)		
	Local communities (sector – EU19, EU22)		
Contingency plans and disaster and emergency response (EU-21)			
Consumer health and safety (EU-25)			



Company profile

The Company

GRI 2-1, 2-6

Copel DIS manages
more
than 200,000 km of
power distribution
networks

Copel DIS, with head office in Curitiba (PR) and with operations concentrated in Brazil, manages more than 200,000 km of power distribution networks, which supply almost the entire state of Paraná. It also conducts studies, plans, projections, as well as implements, operates and maintains electric power distribution systems and proposes solutions for sustainable development and offers economic-financial and IT support. A part of its activities are to provide administrative services and the rental of associated equipment for companies with a common controller.

The company serves all sectors of the economy (primary, secondary and tertiary) encompassing customers in the residential, industrial, commercial, rural, public authority, public lighting and public service categories, as well as its own consumption.

The market share of Copel in the Brazilian market is 6.2%, while in the southern region, it accounts for 33.3%. The company estimates it holds a 97% share in Paraná. The company operates facilities at voltage levels of 34.5 kV, 69 kV and 138 kV, in accordance with Concession Agreement 46/1999, renewed on December 9, 2015 which extended the term to July 7, 2045.

Copel DIS' grid market - composed of the captive market (those are not entitled to choose their own energy supplier), the supply of concession operators and licensed operators within Paraná state, and all the free consumers that lie within its concession

Copel DIS in numbers

5,011,557 captive consumers, divided into the following categories:

4,127,292 residential	331,938 rural
68,618 industrial	53,745 others
429,962 commercial	



Present in **1,148** cities, in **396** municipalities in Paraná and in Porto União (SC)

area - registered a growth of 2.4% in electricity consumption in 2022 as compared with 2021. The billed grid market, which considers the compensated energy from Mini and Micro Distributed Generation (MMGD), increased by 0.8% in the annual total.

Copel DIS provides energy to consumers connected to its distribution grid that require high voltage (above 69 kV and below 230 kV), medium voltage (above 1 kV and lower than 69 kV) and low voltage (equal to or less than 1 kV).

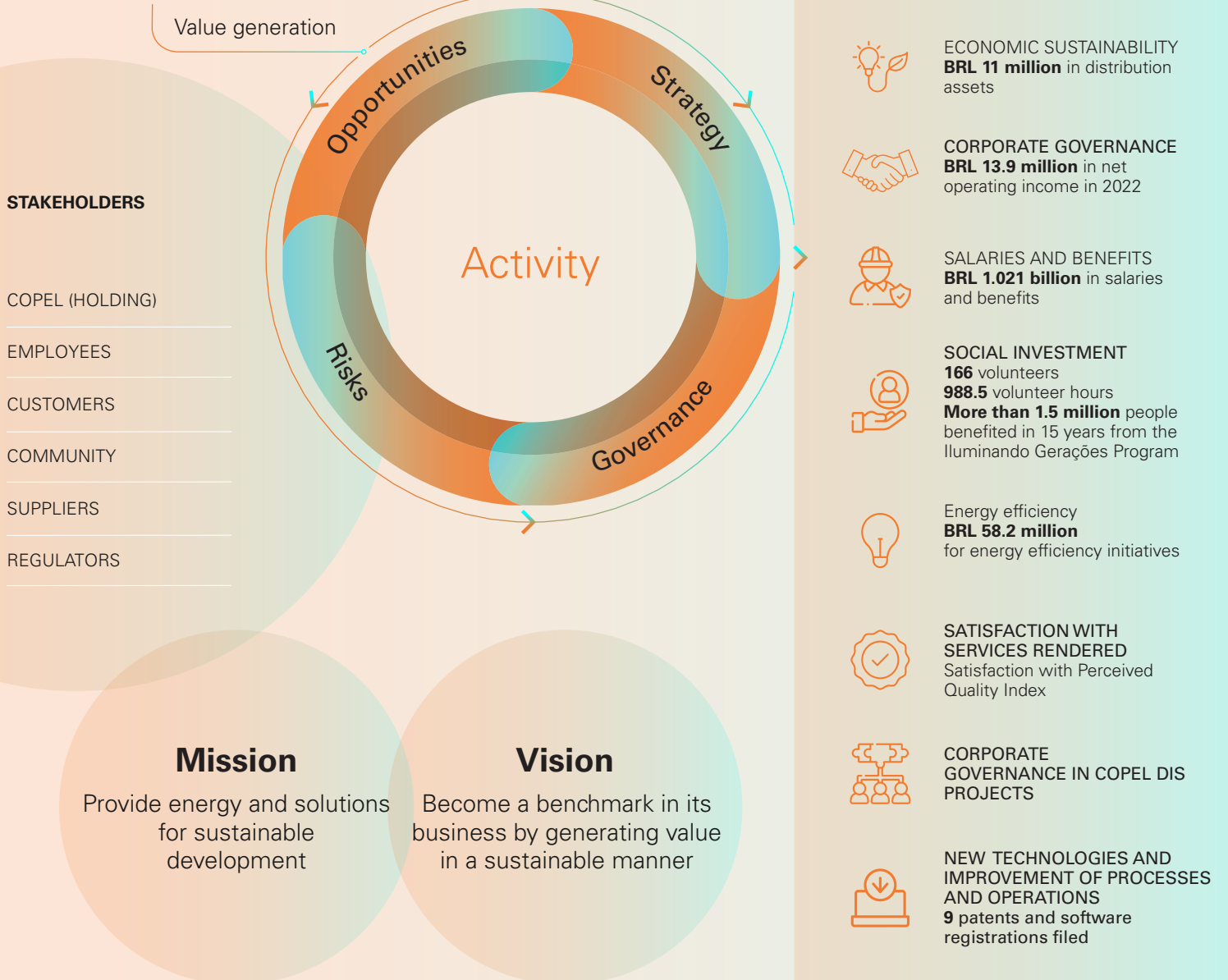
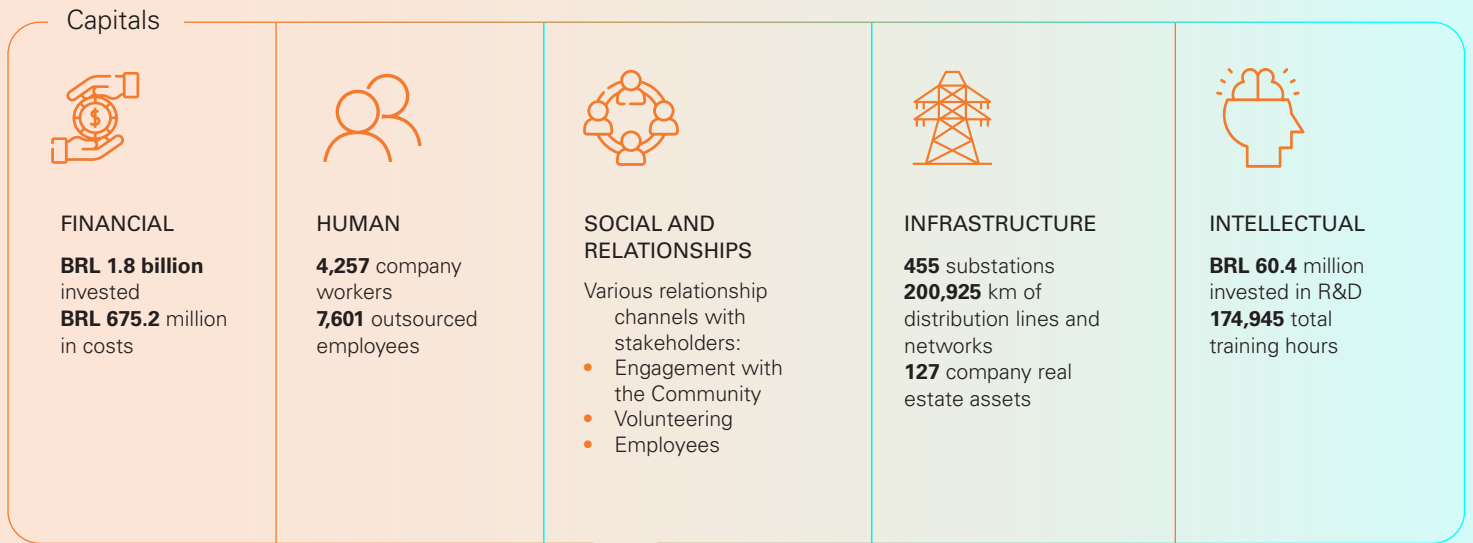
The regulation of the electricity distribution service, aiming at the equality of pricing and benefits, divides customers into voltage group A and B in accordance with Aneel Regulatory Resolution 1000/2021.

The customers of Group A, requiring medium and high voltage, are those with greater technical and regulatory complexity and are the largest (large-scale companies). Group B customers, requiring low voltages, have less technical and regulatory complexity and are smaller in size (residential, rural consumers and public lighting). This separation is adopted by Copel DIS with the purpose of differentiating the Company from other companies in the electrical sector in their relationship with customers and the market and enables it to have specific strategies for each consumer group.

Copel DIS a joint stock company, a wholly-owned subsidiary of Companhia Paranaense de Energia (Copel), a company organized under the provisions of private law and part of the indirect administration of Paraná State, established by State Law 12355/1998, as authorized in Aneel Resolutions 558/2000 and 258/2001. The Company is governed by its bylaws, by Federal Laws 6404/1976 and 13303/2016 and other applicable legal provisions.

In line with its strategic planning, Copel DIS registered as a publicly-traded company in category "B" under code 2680-8 at the Brazilian Securities & Exchange Commission (CVM) on May 19, 2022, in accordance with CVM Resolution 80/22 (the rule that replaced CVM Instruction 480/09). The decision was not driven by the intention to issue shares but rather to reiterate the transparency of the Company's actions in alignment with current best governance practices. The change also allows for diversification of funding sources and optimization of the debt profile. All information about the fact is available on the Investor Relations [webpage](#).

Business model



Implementation of disruptive technologies

In striving to be the most modern distributor in Brazil, Copel DIS has as one of its strategic objectives to promote the culture of innovation, which is essential towards achieving operational efficiency and obtaining increasingly significant results.

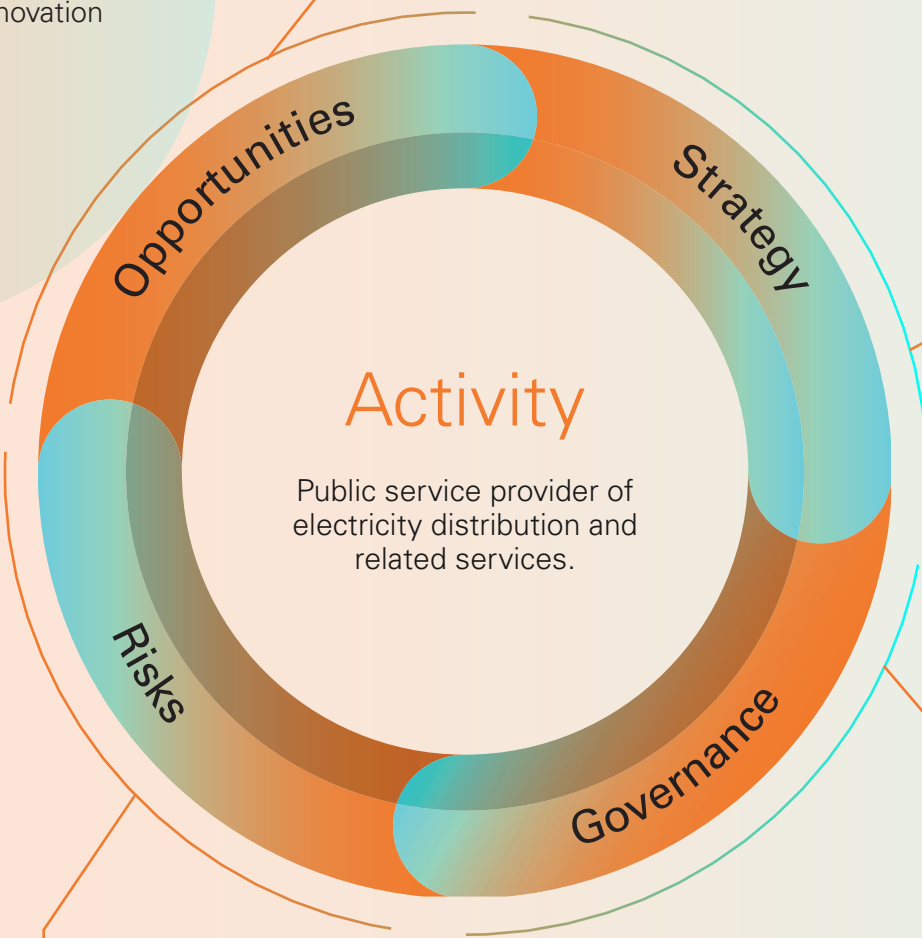
Diferential:

service quality, customer care and investments in innovation

Main strategic objectives

Copel DIS 2023-2027

- * Grow market value in a consistent and sustainable manner
- * Be a benchmark in customer satisfaction
- * Be among the companies with the best quality of energy supply in Brazil
- * Offer innovative, digital services and products
- * Broaden and disseminate best ESG practices
- * Seek excellence in operational projects
- * Invest in technology and assets
- * Encourage the development of suppliers
- * Foster innovation and prepare people for new challenges
- * Promote people-focused management
- * Anchor the culture of safety, health and quality of life
- * Strengthen digital and cybersecurity culture
- * Be among the best companies in DG and Smart Grid solutions
- * Consolidate the sectoral role and be admired by society and recognized for its management model



B3 Corporate Governance Level 2, be one of the 4 best in the electricity sector ranking.

Main business risks:

- * Loss of concession
- * Regulatory instability
- * Climate changes
- * Cybersecurity
- * Discontinuance of cultural transformation

The path to energy

Copel DIS is responsible for supplying almost the entire state of Paraná, serving customers in the residential, industrial, commercial, rural, government, lighting and public service categories as well as its own consumption

SEE MORE
See the full infographic at the Integrated Report of the Holding Company

GENERATION

Copel GeT, also a subsidiary of Copel, operates with cutting-edge technology in the areas of energy generation and transmission

21
hydropower plants

2
thermopower plants:
One is powered by natural gas and another by coal

34
wind farms

Geração produces the energy provided to the transport network (transmission and distribution) for consumers. The energy is generated from renewable sources (wind, solar, water) and non-renewable sources (natural gas, coal).

TRANSMISSION

This is where large volumes of energy are transported between the production and distribution points through high-voltage transmission lines.

ENERGY DISTRIBUTION

The distribution of electricity is done through the integration of generation, transmission and distribution to the end consumer (urban and rural areas).

Copel DIS has:
< 200,000 km
of power distribution networks
and serves:
5,020,521
consumers
1,148
places in
396
municipalities in Paraná and in Porto União (SC)

TRADING

The trade of electrical energy occurs in two markets: the Regulated Contract Environment, mostly for home use, and the Free Contract Market for large consumers, such as factories. At Copel, this stage is carried out by the Copel Free Market.

Main certifications and awards

Copel DIS was recognized by the market in 2022 for its sustainability initiatives



Certifications



Paraná Climate Seal - Gold



Gold Seal awarded by the Brazilian GHG Protocol Program



Abraman Asset Management Membership Seal 2022



Sesi SDG Seal 2022



Awards



ABRADEE

Quality Management Award – Abradee – 1st place

Best Energy Distributor in Southern Brazil Award – Abradee – 1st place



Abrasca Award – 1st place



Best Electricity Provider in Brazil – Valor 1000 – 1st place



National Volunteer Incentive Award 2022 – 1st place



Customer assessment ISQP Aneel 2nd place



Aneel Ombudsman Award for Large Concession Operators 2nd place



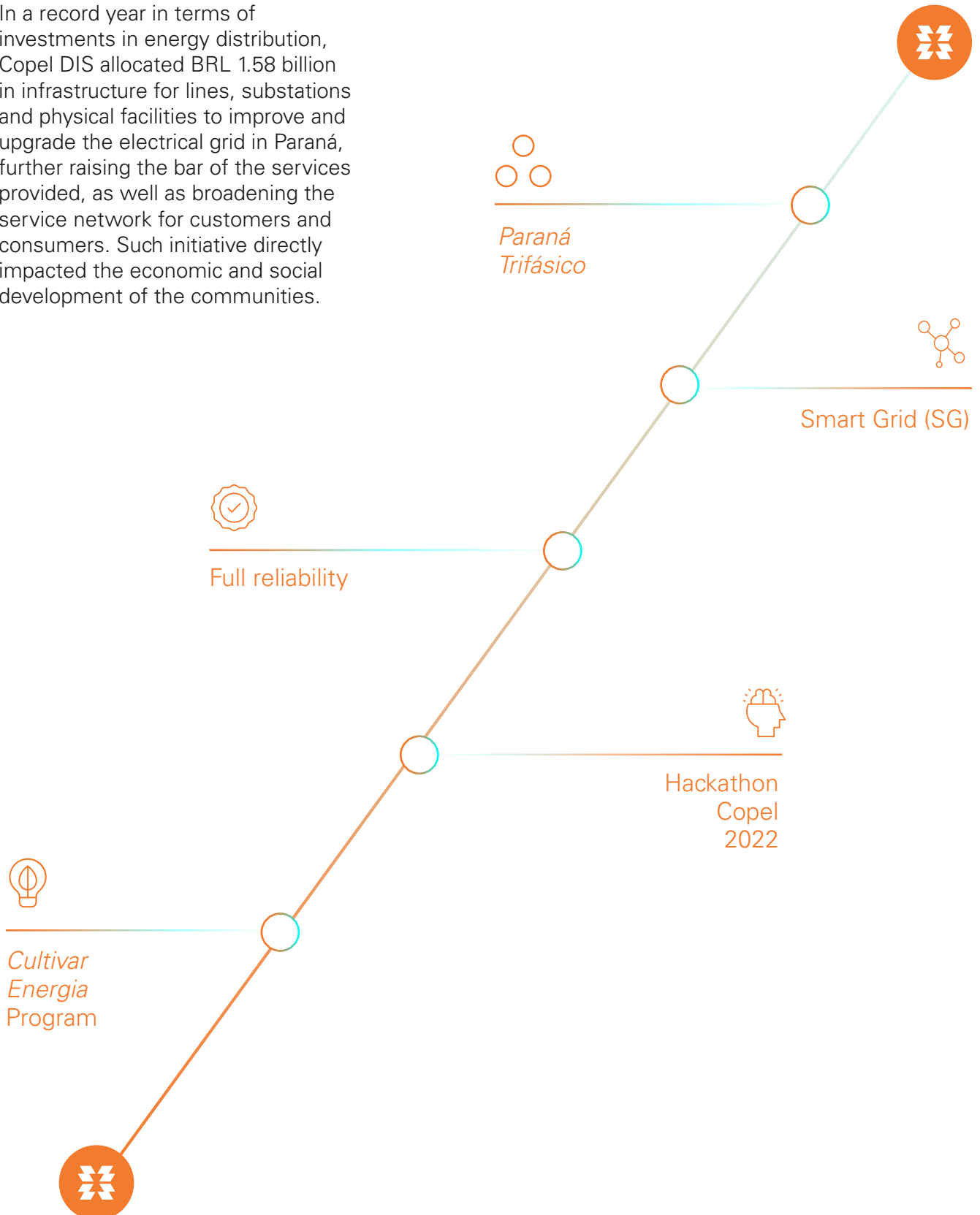
Cier Innovation Award 3rd place

See more

For more details about the achievements of 2022, go to Copel's [website](#)

Relevant actions in 2022

In a record year in terms of investments in energy distribution, Copel DIS allocated BRL 1.58 billion in infrastructure for lines, substations and physical facilities to improve and upgrade the electrical grid in Paraná, further raising the bar of the services provided, as well as broadening the service network for customers and consumers. Such initiative directly impacted the economic and social development of the communities.





Paraná Trifásico

EU19, EU24

Launched in 2019, this program registered the installation of 10,500 km three-phase grids throughout the state of Paraná. This represents 42% of the total 25,000 kilometers scheduled for completion by 2025. The investment in the period was BRL 1.2 billion - with a total investment forecast of BRL 2.7 billion by the end of the construction work (*see more in Customers and Consumers*).

Besides making the grids more robust, *Paraná Trifásico* increases the interconnection between them, ensuring that the service is swiftly reestablished in the event of a power failure. Copel DIS uses in this process automated equipment and cables with innovative technology that includes insulating protective covers and reinforced resistance levels.

This program has ensured the installation of **10,500 km of three-phase grids** throughout the state of Paraná

It also modifies the distribution grid layout by removing them from hard-to-access sites and placing them roadside, which greatly increases the quality of the supply and provides a major cut in costs for Operation & Maintenance (O&M).

This long-term project is an important initiative to ensure quality infrastructure for Paraná's agribusiness sector and energy security. It also provides a massive increase in the supply of energy to rural areas, positively impacting the comfort and quality of life of the rural population.





Smart Grids (SG) ○

GRI EU19

The process of digitizing Copel's distribution grids began in 2020 and is considered the largest Smart Electrical Grid program in Brazil, following the model used in countries like the United States and Japan. It dynamically integrates the actions of all users connected to it, whether they are consumers or system operators. One of its advantages is a reduction in the power outage time caused by bad weather and other factors external to the system. Therefore, when the network repair requires the intervention of technicians, the Integration Distribution Operation Hub pinpoints the exact location of the power failure.

Copel DIS will reach, in the three phases of the program, 1.6 million consumers with an investment of BRL 820 million. The first phase of implementation was kicked off in August 2020, with completion

scheduled for April 2023, and includes 462,000 consumers. In 2022 alone, the technology received an investment of BRL 146 million and replaced 244,000 meters in the 73 cities where the project was rolled out. Since the beginning, 73 municipalities have benefited from the upgrade, which represents 48% of the total.

The tender to choose the company that will be contracted for phase two has already been held and this stage will benefit an additional 511,000 consumers. In December 2025, at the end of the third phase, another 637,000 consumers will be served.

The plan for the program is to install of sensors and remote control devices, including digital meters in consumer units, to directly transmit data to the Integrated Distribution Operation Hub. In addition to adding to the security and energy efficiency of the system and facilities by detecting the areas of energy loss and theft, this smart grid will also integrate other services in the future, such as distributed microgeneration, energy storage technologies, street lighting, and charging points for electric cars.



Charging station



Full reliability

GRI EU19

This program aims to boost consumer trust in Copel's services based on four pillars: clear **communication**, **automation**, **substation** and **redundancy**.

By integrating these four aspects, it aims to reduce the duration of power disruptions, as well as the number of times they occur; increase assertiveness in the sending of maintenance teams when needed; increase operational safety by improving the communication system; and implementing automatic grid reconfiguration systems.

In June 2022, Copel delivered three substations with the purpose of ramping up system reliability, reducing occurrences of power outages and fluctuations. The new units are located in Mandirituba in the eastern part of the state; in Salto do Itararé in the northern region; and in Sapopema in the mid-south region of Paraná. The work required around BRL 16 million in investments and will directly serve 13,600 households.

The three small substations are part of the Company's strategy to provide that service quality in smaller cities will reach the level offered in large urban centers, after the investments have been made in automation.

The completed structures operate at 34,500 volts, and each has 7 megavolt-amperes of installed power.



Hackathon Copel 2022

Hackathon Copel 2022, of which the motto is "Ideas that Move the Future", brought together 40 teams with students from across over Paraná. The event was attended by more than 200 students from 13 different cities.

Based in the Engineering Institute of Paraná in the capital of Curitiba in November, the competition was aimed at students from undergraduate and graduate courses of the universities of Paraná and was set up like a marathon of innovation.

The goal was to encourage the creation of ideas and actions among the participants in order to find solutions to improve the Company's processes.

The challenge proposed by Copel in the first edition was focused on the customer under the topic: How to leverage the benefits of the Smart Grid Program. Four tracks were suggested for the development of solutions, all linked to the recent expansion of Copel's smart grids.

The winning team was Fohat of the Technological University of Paraná Cornélio Procópio. The members of the team are Allan Simões Adegas, Caio Felipe Evangelista, Felipe Alves Cerquiare, Matheus de Bortoli Pastega and Pedro Enzo Lauryonvis Gomes. In second place came Scorpions from the Federal Institute of Paraná, in Paranavaí.

All the winning teams won a participation in the implementation of the proposed solution through Copel's Trainee Program.



Cultivar Energia Program

GRI EU19

The *Cultivar Energia* program works in combination with municipal public policies for urban agriculture and social inclusion and strengthens a set of actions to support the Sustainable Development Goals of the United Nations (UN).

The *Cultivar Energia* Program currently covers more than 40,000 m² of area for the planting of vegetables and legumes within the safety stretches of Copel DIS and Copel GeT lines in Paraná, according to technical criteria.

The initiative, which is expanding rapidly, has benefited more than 200 families and currently houses seven vegetable gardens created in partnership with the city governments of Curitiba, Londrina, Cascavel, Francisco Beltrão, Umuarama, and Maringá (the first place to home the pilot project, in 2013). Three new vegetable gardens are currently being implemented in Curitiba and Cascavel. [GRI 203-1](#)

The output is noteworthy since each garden produces an average of 3 to 3.5 tons of food a month, which adds up to 33 tons of organic vegetables, fruits, and legumes produced monthly that benefit thousands of people (*see more in this [link](#)*).

Each garden produces
33 tons a month of
organic vegetables and
fruit



Vila Esperança Community
Garden in Maringá

Strategic reference

Copel's operating assumptions are the guidelines set forth in its Strategic Reference, which drives its management and guides all the Company's internal and external actions and decisions.



MISSION

Provide energy and solutions for sustainable development.



VISION

Become a benchmark in the businesses in which it operates, generating value sustainably.

Principles and Values



RESPECTING PEOPLE

Be considerate of others



ETHICS

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



DEDICATION

Ability to be intensely and fully involved in the work for the achievement of the organization's goals.



TRANSPARENCY

Accountability of the Company's decisions and achievements to inform its positive or negative aspects to all stakeholders.



SAFETY AND HEALTH

Healthy work environment in which workers and managers collaborate to maintain a process of continuous improvement aimed at protecting and promoting the safety, health and well-being of all.



RESPONSIBILITY

Conduct the Company's life in a sustainable manner, upholding the rights of all stakeholders including future generations and abiding by the commitment to sustain all forms of life.



INNOVATION

Apply ideas in processes, products or services to improve something that is already there or to build something different and better.

The following actions are essential for the Strategic Planning:

- Communicate the strategy to increase the understanding, motivation and commitment of the management and employees of the company.
- Qualify the indicators and targets for the different hierarchical levels.
- Hold meetings for critical and strategic analysis to improve the strategy development and management process by qualifying criteria and methodologies.
- Deploy the strategy throughout the organization and publish the indicators and the management commitment goals of the SGE system areas to ensure that the entire company can monitor and manage the results.

Organization and management

Copel DIS identifies and defines the strategies that it will adopt and that will guide its business

Copel DIS generates socioeconomic, technological and sustainable development and operates in accordance with the public policies of Paraná state for the area of electricity distribution.

In order to assertively support its operations, Copel DIS identifies and defines the strategies it will follow to guide its business by choosing a course of growth that will define the company's direction based on strategic positioning and with the agreement of the Board of Directors.



Broken down into: indicators and targets



Contemplates: long-term targets

The chosen strategies aim to achieve long-term goals, broken down into indicators and targets that the entire organizational structure can use to create management commitments that define which activities should be prioritized to achieve the vision.

The performance of the strategic plan is monitored through the Business Management System (BMS) and tracked during Critical Analysis Meetings held periodically at all levels of the organization.

Connection to Vision 2030

The core of the long-term planning of the Copel holding company - Vision 2030 - is to become one of the largest integrated energy groups in Brazil and hold a relevant stake in the four segments of the industry (Generation, Transmission, Distribution and Trade).

In order to continue growing, the basis of the Company's value proposal is to focus on continuously improving the customer experience, a front particularly linked to Copel DIS.

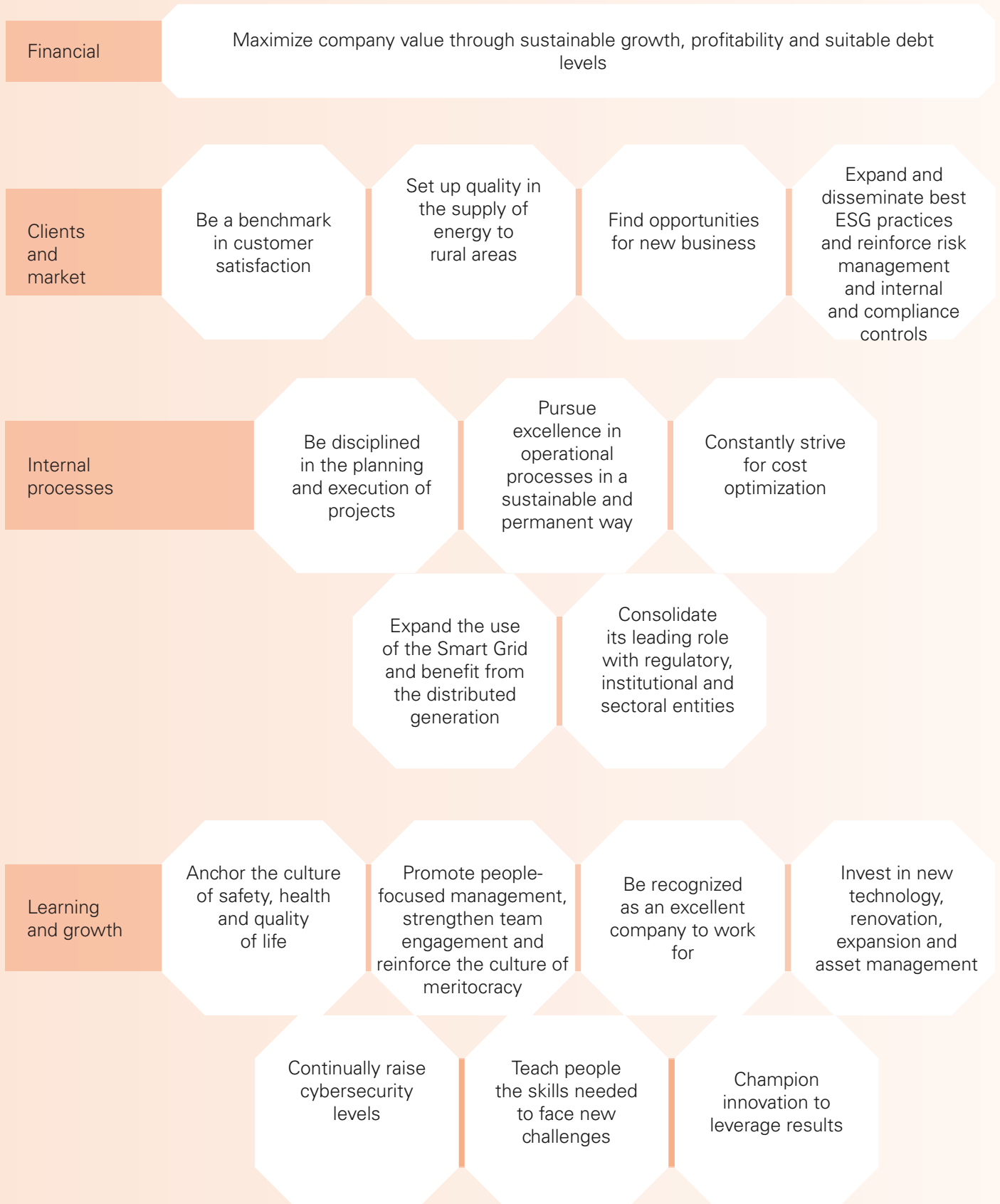
A few of the initiatives to attract, retain and build customer loyalty are to offer access through increasingly interactive digital platforms and cus-

tomized flexible products, provide services and solutions that add value for the customer, carbon credits, the sale of certified "clean" energy, and surplus renewable energy.

Copel holds 6.2% of the Brazilian distribution market, concentrated in the state of Paraná (where it holds a 97% share), and has more than 5 million consumer units. Expanding this share is one of Copel's top strategic drivers, which is also anchored on decarbonizing its current asset portfolio in the transmission segment, on integration with scale among the businesses and on discipline in capital allocation.

Strategic Guidelines for the Distribution Business

2022 a 2026





Business approach



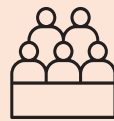
In recent years, the Public Electricity Distribution Service regulations have undergone an improvement process to ensure the quality of service and distribution, the universality of access, the sufficient supply of energy, and compliance with the principle of sliding-scale rates.

The electricity distributor concessions regulated by the Federal Government have been extended and are contingent upon compliance with minimum parameters of service quality, economic sustainability and governance.

In addition to managing the key issues related to concession performance, a series of initiatives were implemented in corporate management to ensure the steady improvement of business performance.

The economic-financial strategy for the 2019-2028 cycle comprises proactive action in financial management with an emphasis on lowering costs, asset renewal, investments in innovation and technology, and improving productivity and quality in the provision of services.

Corporate culture



In view of the challenge of maintaining excellence in quality in public services for the distribution of electricity, as well as the sustainability of the company, Copel DIS has been striving to engage the collaborators in order to promote high performance and the productivity of the teams.

In order to prepare the staff, the company identified the need to adapt its organizational culture, develop its leadership, encourage an environment suitable for innovation and maintain a favorable organizational climate. The company has, therefore, been working on its organizational culture management since 2017 and identifying the current and desired culture using the Cameron and Quinn methodology.





ALL TOGETHER

ETHICS
RESPECTING PEOPLE
DEDICATION
TRANSPARENCY
SAFETY & HEALTH
RESPONSABILITY
INNOVATION

THE **BEST** AND MOST **MODERN**
DISTRIBUTOR IN BRAZIL



Our ambition

Be the best company to work for in Brazil, with a highly engaged team that is proud of what it does, with refined, people-focused leadership, where people are happy, can express themselves without fear and can learn from their mistakes in an environment of mutual trust, transparency and that is psychologically safe.

Be a company that cares, values, respects and prepares its employees for the future through recognition, training and opportunities for development and growth.

Be a company that considers its suppliers as strategic partners, maintaining long-lasting relationships based on a solid foundation of trust, communication and learning.

Be a creative and innovative company that identifies, preserves and increases its intellectual capital within a collaborative environment based on simplicity in processes.

Be an agile and efficient company that takes shared decisions, communicates objectively and transparently, transforming data into information to create a competitive edge.

Be the safest company in the Brazilian electricity sector, where everyone operates with absolute respect for life.

Be the best and most modern distributor in Brazil, a leading figure in the transformations of the electrical sector, the use of new technologies, electric mobility and the management of distributed energy resources.

Be an ethical, sustainable, socially fair and environmentally responsible company, a benchmark in governance, with robust financial results and that maximizes its market value, ensuring its longevity.

Be a benchmark in customer satisfaction with a focus on their needs and concerns and ensuring a unique, nurturing relationship within an agile, flexible, simple and interactive environment.

Be a company that is admired by society and recognized for its management model, consolidating our leading position in the country.

Be a company with the best quality in electricity supply in Brazil, upholding comfort and quality of life for people and driving development in the state of Paraná.

Be a company that understands, respects and is committed to its responsibilities and duties and is dedicated to delivering all the love, effort and dedication of its team through its actions.

This is the **Copel Distribuição** we want!





Cultural Transformation Project

To ensure the Cultural Transformation needed, the Company in 2021 rolled out a project to implement a management methodology aimed at the human aspect, promoting the convergence between the goals of the collaborators and the company through the development of a leadership focused on effectiveness, along with people.

The start of the project in 2021 required the mapping of the current culture to assess the maturity level of the management of leadership and its connection with employees under the Management Philosophy methodology. The analysis made it clear that there was a need to put in place actions, that were established in a Cultural Roadmap that will be used to fully achieve the goals contained in the 2022/2026 strategic plan.

After the project actions were implemented, the move to change the culture of Copel DIS started to take shape and be perceived by the employees. It was based on participative actions, such as the creation of Nossa Ambição (Our Ambition), and involved leaders and employees with the purpose of strengthening the bond between the people and the corporate mission.

The engagement of the people is also apparent in the new strategic map of the company: "All Together" which led to "The biggest and most modern distributor in Brazil."

Aims to intensify the feeling of belonging of the employees



Review and Translation of Values

With the purpose of aligning the actions of the leaders with those of the employees and if taking into consideration that the corporate values are the pillars of Culture, Copel DIS' values were revised and translated along with the employees, in 2022 under the Cultural Transformation project, into desired and undesired behavior.

The Book of Values was born from this work and is composed of the translation of seven Copel values, the desired and undesired behavior, the Nossa Ambição and the Strategic Map. The Book was released for all employees during the Week of Values held from April 13 to 20 of 2022.

+DIS_Aí

The +DIS_Aí program, launched in 2013, fosters an enabling environment and ongoing process improvement. It encourages the creative and innovative potential of the staff by motivating employees to submit ideas and projects relevant to the Company's strategic context. It encourages employees to take on a greater role by allowing company and outsourced workers to contribute with ideas and innovative proposals for processes, regardless of their function, area of activity, city of assignment or specialty.

More than just a platform for recording ideas, +DIS_aí is a complete ideation program that monitors all phases of the innovation process, including the assessment and alignment of the idea to the strategic objectives, the improvement of the proposal, the implementation stage, and the recognition of the proponents of the implemented ideas. The current idea registration platform of the +DIS_aí Program, developed in late 2017, already has more than 4,000 ideas registered, with 1,610 ideas registered in 2022 alone, approximately 1,500 ideas analyzed by the committees and 82 implemented.

Humanizing Leadership

The event Humanizing Leadership, held on June 21 and 22, 2022, aimed at potentiating the competencies of an inspiring leadership, able to balance the effective and affective, through an environment of reliability and engagement.

The event led to transformative experiences for all the management of Copel DIS through reflections, self-knowledge and practices that encourage genuine interest and enchantment and are designed to bring about a holistic view for the human being.

Guilds

Guilds are cross-sectional groups within the company, formed by people with a common interest, who wish to study, discuss and learn about a topic. Currently, we have four Guilds: People, Coaching, Data, and Projects.

The Guilds maintain a community on Yammer, in which they make frequent posts about topics of general interest.

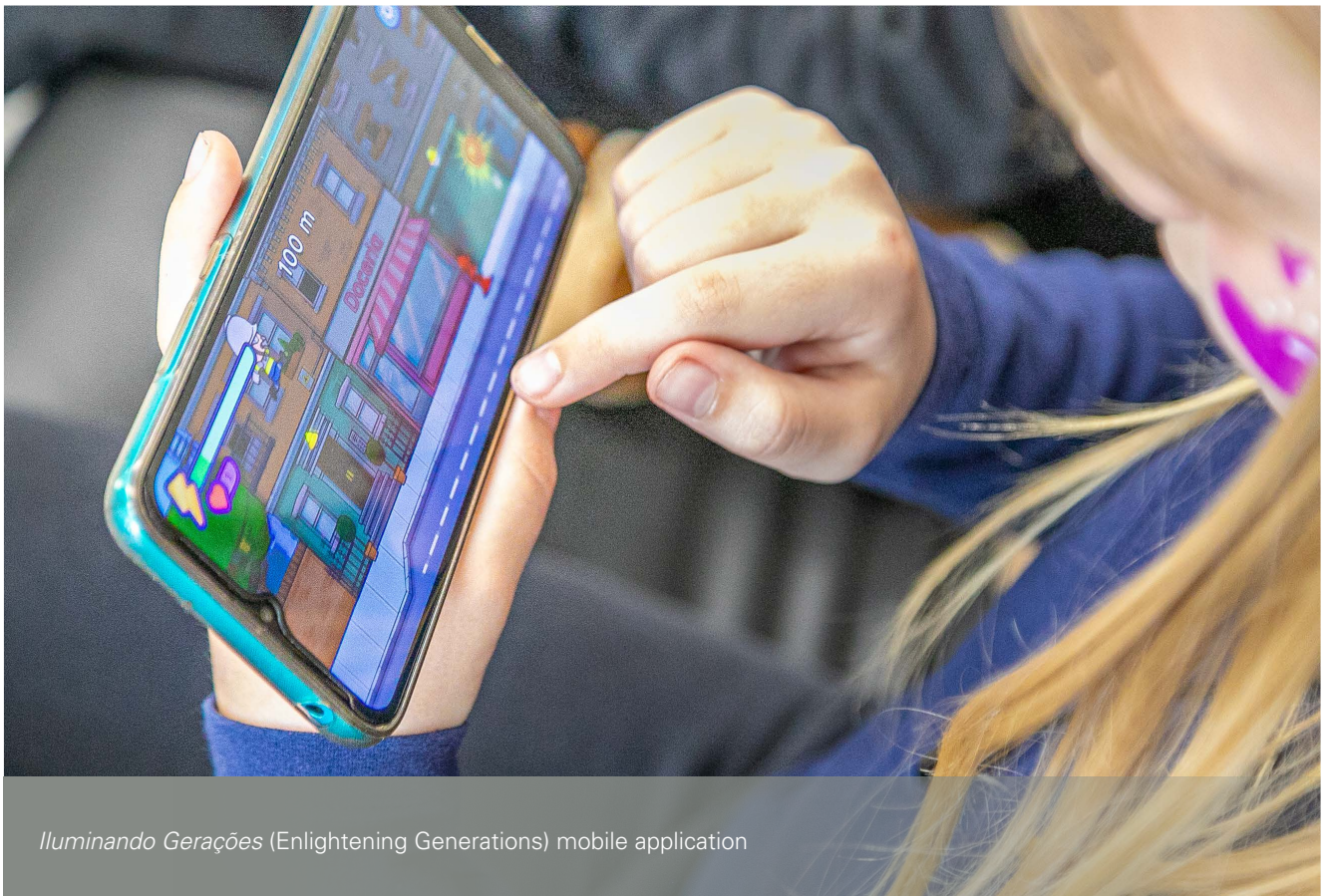
Work Groups and Commissions (WGs)

Important tools
to promote a
systemic and
innovative
outlook

Copel DIS recognizes the importance of sharing knowledge, new experiences and multidisciplinary activities based on the diversity of the employees that make up the groups to garner different points of view that can help in the search of efficient solutions for the many challenges and situations faced by the company.

Through this strategic vision, the work groups and commissions at Copel DIS are important tools in creating a systemic and innovative outlook, investing in the ongoing improvement of internal processes based on the best corporate market practices.

This corporate work, constituted with a specific purpose and with a predefined or permanent duration, finds quick answers for problems and is obtained through cooperation and organizational learning. It also provides the employee with integration, individual development and learning, as well as enhances corporate vision and networking.



Iluminando Gerações (Enlightening Generations) mobile application

Engagement with stakeholders

GRI 2-12, 2-29

Copel's Sustainability Policy establishes general guidelines for engagement with stakeholders and underscores the importance of communication and transparency based on their requirements, priorities and expectations.

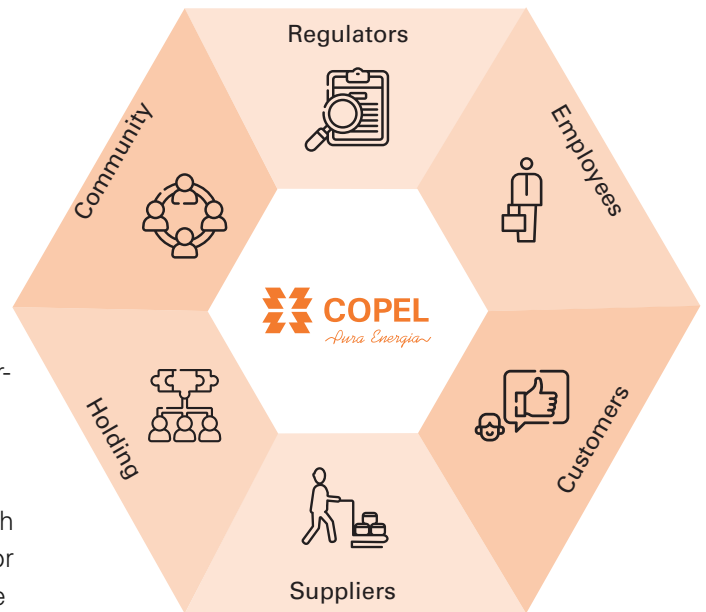
Copel has defined specific methodology for prioritizing stakeholders since 2016 for everyone involved in the Company's business and/or operations, shareholders, customers, suppliers, workers, public authorities, community and environment.

The structure is based on the AA1000 Standard for Social Responsibility, as are the assumptions set forth in Copel's Sustainability Policy, which are essential for the development and sustainability of business in the energy distribution sector.

To better conduct its actions, the Company revised its stakeholder mapping in 2021, which remained unchanged in 2022. The commitment with stakeholders was compiled and published in the Management Instruction Manual (MIG 02.02) available on the Copel DIS intranet. The document points out the following stakeholders and priorities for the Company: regulators, employees, customers, suppliers, Holding Company and the community (see illustration).

For every stakeholder, the methodology took into consideration:

- Research of their needs and expectations
- Form of translation into requirements
- Method of translation into performance indicators
- Value generation (strategic objectives supported by indicators)
- Distribution channel monitoring



This process individually analyzed each of the stakeholders in stages, such as establishing criteria for prioritization and scoring levels according to the Likert Scale; calculating the total score for each stakeholder and analyzing the importance of each stakeholder in terms of Copel DIS. All the results were evaluated in the meetings of the work groups and commissions.

Through its Sustainability Policy, Copel establishes general guidelines for engagement with its stakeholders

Approach to engagement GRI 2-29

Stakeholder	Activity
Customers and consumers	<ul style="list-style-type: none"> Satisfaction Survey with Residential, Rural, Industrial and Group A Customers Participation in fairs and events in the municipalities served Participation of volunteers encouraged by Copel Workshops Public hearings Presentation of important topics at meetings of Copel's Consumer Board Relationship Channels and Social Media
Suppliers	<ul style="list-style-type: none"> Direct channel via email Website dedicated to suppliers Workshops Employee award event Suppliers' Trophy Suppliers' Newsletter Research with registered suppliers Periodic meetings with contractors and/or trade entities Initial Integration Meeting with new hires
Community	<ul style="list-style-type: none"> Development of social programs and involvement with the surrounding community Neighborhood Impact Study Community meetings Visit to surrounding institutions (<i>Boa Vizinhança</i> Program) Simplified Environmental Report - SER Abradee Research Contact with community leaders Lectures and actions in public state schools
Workforce (company and outsourced)	<ul style="list-style-type: none"> Training / Qualifications Reporting Channel Intranet / CI Communities (the Company's social network, which allows employees to communicate and share information) Survey - Great Place to Work (GPTW) Confidential Channels (Cadam, COE, Confidential Communication Channel, Ombudsman) <i>Gerente em Ação</i> (Manager in Action) Program Collective Bargaining Agreement meetings
Holding	<ul style="list-style-type: none"> Strategic Planning (Management Contract) Full Board and Board of Directors meetings
Regulatory, inspection and standardizing agencies and entities	<ul style="list-style-type: none"> Specific meetings Public hearings and inquiries Correspondence and email Inspection and guidance visits by the watchdog and/or oversight entity

Stakeholder involvement

GRI EU19

Stakeholder involvement occurs in many ways, of which the main parties involved are:

- Copel Holding Company - Copel DIS is committed, along with the Holding Company, to help maximize the company's value in a sustainable way. The needs and expectations of this stakeholder are identified in the Strategic Planning, at full board meetings, and at meetings of the Board of Directors.
- Employees - Copel DIS has established several channels through which it can listen to the needs and expectation of its employees.
- Customers - Copel conducts a satisfaction survey with residential customers that covers the entire concession area every year. The survey assesses attributes related to customer satisfaction regarding the supply of energy, customer service, social responsibility, and the company's image. The Consumer Council plays an essential role as the mediator between customers and Copel, bringing to light the needs of those represented and being an important link for the dissemination and evaluation of the company's actions.
- Suppliers - With the purpose of listening to its suppliers, Copel DIS conducts a survey at the time of registration or renewal, holds periodic meetings and integration meetings with the contracted parties, and offers safety workshops. It also offers several relationship channels, such as emails, telephone service, correspondence, and a specific space for suppliers on Copel's website.
- Regulators and inspection agencies - The alignment occurs by means of subsidies, public hearings and public tenders, instruments that seek to collect, ratify or fine-tune proposals for changes or the creation of new regulatory standards (rules, instructions, regulations, etc.).

Copel operates in partnership with federal, state and municipal governments, regulatory and inspection agencies - such as Aneel, IPHAN and IAT -, associations - such as Abradee -, committees and representative councils in the various spheres - such as the Environment and Consumer Councils to support public policies in the electricity sector -, as well as in labor unions, rural producers' unions and industry federations.

Stakeholder involvement occurs through the implementation of infrastructure projects when the community is involved in the environmental licensing process or when the affected parties are affected by the social and environmental programs defined during the licensing process.

The coordination and implementation areas of the projects are structured to inform and detail all the resources involved and ensure the involvement of

stakeholders, including the vulnerable ones, in accordance with the environmental laws, the need for public hearings in the licensing processes, the informative technical meetings, and to obtain the consent of municipalities and interested parties.

This analysis allows for a decision to be made about the socio-environmental feasibility of the business, as well as the availability of environmental resources and the legal consents for the projects.

The laws and regulations of the electricity sector have been improved and adapted to the needs of the country. Copel plans to anticipate the changes in order to update specs and procedures without hindering the quality and feasibility of the projects and services provided. New players are being considered in the projects throughout the processes as the company's organization evolves.

Cases/Projects GRI EU19

Names	Designation	Results
<p>P&D 508 – House of the Future</p>	<p>This project focuses on the research and development of a Home Energy Management System (HEMS), which enables consumers/prosumers* to have real-time control of their energy use/generation, as well as the addition of new devices in a transparent manner.</p>	<p>Investments in 2022 to implement the R&D project: BRL 1,609,948.21</p>
<p>Copel Mobile App</p>	<p>With the progress made in the installation of smart meters for consumers in the city of Ipiranga (PR), a new functionality was introduced in the pilot mode in the Company's app that enables the hourly load curve of the consumer unit to be tracked, making it easier to adopt energy management measures.</p>	<p>At no associated financial value. This app function was offered to around 5,000 consumer units in Ipiranga (PR)</p>

*Consumer who produces.



Smart Copel CI DIS - Customer Path - Information

Communication channels

Maintaining a direct line with all its stakeholders is part of Copel DIS' management strategy. To this end, specific communication channels are available for every area so they can communicate with the company.

Relationship channels

Audience	Channels
Customers	<ul style="list-style-type: none"> Website: www.copel.com Online Agency Collection agents Copel Mobile App Onsite assistance Toll-free number: 0800 51 00 116 Chat Consumer Board Contact us Social media (Facebook and Twitter) Distribution Ombudsman Real Estate Portal Whatsapp: +55 41 3013-8973
Suppliers	<ul style="list-style-type: none"> Website: www.copel.com Contract management agents Technical areas for approval and/or evaluation of products and services Confidential Communication Channel: 0800 643 566 Email: cadastro@copel.com compras@copel.com / contasapagar@copel.com / contato.fornecedordis@copel.com Supplier Integration Meetings Periodic meetings with the Union of Engineering Service Providers of Paraná (Sineltepar)
Community	<ul style="list-style-type: none"> Website: www.copel.com Online agency Face-to-face assistance (Agencies/PAs) Contact Us Channel Consumer Board Ombudsman Visit to institutions in the surrounding communities Contact with community leaders
Employees	<ul style="list-style-type: none"> Confidential Communication Channel Committee for the Analysis of Bullying Claims (Cadam) Corporate email Chat with the CEO Program Ombudsman +DIS _ AÍ Program <i>Gerente em Ação</i> (Manager in Action) Program Safety sectors linked to Internal Accident Prevention Committees (CIPAs)
Regulators	<ul style="list-style-type: none"> Aneel registration E-protocol Ombudsman Email

Communication with customers and consumers

Copel DIS kept all the services needed to meet its customers' demands active in 2022, strengthening the existing channels and implementing new online interaction formats.

Face-to-face contact has been fully reestablished with customers, a process that was interrupted and/or adapted over a long period due to the governmental requirement to implement social distancing as a result of the COVID-19 pandemic.

All the changes that took place in the communication between company and customer - as a result of the health crisis but also the increase in demand - have been consolidated, such as online services and the creation of new services.

With the introduction of new online services, such as the totally remodeled WhatsApp service, new services in the Copel app, and automations for various digital formats, 2022 closed with 85.35% of services provided through digital channels.

As such, in the more than 6 million times that our customers needed human help to solve their many different issues, they were able to rely on prompt service either from the store or the call center.

The improvement of online channels has proven to be successful in speeding up service delivery, problem solving, and also creating a better customer experience, one of the company's most effective ways to gain and retain customers.

Between 2019 and 2022, the percentage of requests made via in-person channels dropped from 14% to 11%, while the volume of requests made through the company's mobile app increased from an average of 23%, to 30% of the total received daily by Copel.

Besides the free app for Android and iOS systems, the company offers a virtual branch and a WhatsApp number that receives the most common requests,



Smart Copel CI DIS - Customer Path - Information

such as consulting debts, a second copy of the electricity bill, reconnection, and sending meter readings.

The Call Center (0800 51 00 116) for Group B clients (residential, rural consumers and public lighting) continued its active function and registered a large volume of calls. It received 9,044,050 monthly calls in 2022 (representing 18% of the Company's total calls), of which 5,058,447 were handled by the electronic customer care system.

The company also offered 400 service stations for in-person support during 2022. Of the total, 288 are contracted units of the "Copel com Você" (Copel and You) program, created in 2015 in partnership with local commercial establishments to provide this type of assistance in small cities.

It also maintains five mobile stations that travel through neighborhoods in large cities and participates in fairs, events, and lectures in schools and companies to provide services and disseminate information about the efficient and safe use of electricity.

Commercial and Corporate marketing

The Copel DIS' communication plan follows the Corporate Governance Communication Policy (NPC 0310), which establishes the corporate communication guidelines for the Holding Company, its wholly-owned subsidiaries and controlled companies, in line with their corporate procedures.

It aims at effectively disseminating information in an accessible and understandable way to all audiences

interested in the importance of the Company's mission and values, as well as the relevance of its services in the development of the state of Paraná.

The marketing project is created annually in accordance with the corporate strategies defined for the period, considering each of the business' stakeholders: customers, suppliers, employees, communities, watchdogs and public authorities.

Communication actions

Audience	Characteristics
Community	Actions aimed at preserving the environment, the safe and responsible use of electricity, the development of innovation and social actions in favor of education, culture, sports and health.
Customers	Actions that cover different aspects, including the safe and efficient use of electricity, the rights and duties of the customers, the breakdown of the tariff and the service channels available.
Employees	Actions aimed at Copel's values that create a steady and constant connection, either through administrative communication in people management programs or through internal channels, such as the intranet, internal social networks, emails and chats.
Suppliers	Actions that follow the rules established in the Supplier Manual and rely on the contract manager as the company's representative in the communication between parties. The manual has a page dedicated to processes related to this audience on Copel's website and a periodic e-bulletin.
Regulators	Communication is carried out by the market and regulation area and complies with the specific standards of the sector.
Public Power	Permanent communication with city governments, consumer protection agencies and state administration agencies. These actions have a specific section on Copel's website and a guidebook for municipal administration. Copel works in partnership with city government in tree-planting programs, the maintenance of lanes under high voltage lines and consumer guidance actions.

Communication actions

Copel DIS permanently maintains publicity campaigns for customers and the community about the safe and efficient use of electricity and the content also includes information about citizenship and care for the environment.

Through its own press relations, it discloses relevant information to communication channels and responds to requests made by journalists from Paraná, Brazil and abroad.

Radio stations, the company website and YouTube videos were the most used modes of communication used by the company in 2022. Copel DIS also maintains a corporate profile on LinkedIn, Twitter, Facebook and Instagram.

Copel has an agreement with the Association of Broadcasters of Paraná (AERP), made up of 300 affiliates, that includes the broadcast of daily information. Each station broadcasts 11 30-second corporate mes-

sages a day, except on Sundays, which totals about one million messages aired per year, mainly regarding the safe and efficient use of electricity. Such topics represent 60% to 70% of the space provided by the agreement.

These channels also broadcast information on access to services, in addition to consumer rights.

The year of 2022 marked many important partnerships between Copel DIS and universities and social and educational institutions for the creation of workshops, training, support actions, and guidance for the different stakeholders.

Numerous actions were also implemented in the communities, such as workshops and training sessions held both for company employees (own workforce and outsourced workers) and for the external audience (communities, social and educational institutions), covering topics such as human rights, diversity, environment, child labor, health, and Sustainable Development Goals (SDGs).

Some specific actions and programs were part of the company's communication strategies:

- **Safe Energy:** a campaign to disseminate information about how to prevent electric shocks with actions for professionals in civil construction, painting and building maintenance, workers in rural areas, and the population in general. Specific guidebooks for each of these stakeholders is available on Copel's website.
- **Iluminando Gerações Program (Enlightening Generations):** A program created in partnership with education professionals and Municipal Education Departments. It develops educational actions for the safe and responsible use of electricity through lectures in schools, events, and generates content to prevent accidental shocks and waste in energy consumption, besides encouraging habits aligned with the SDGs. Copel manages the students served in the Program through the Diversity Committee's Annual Report and specific indicators. The target audience of the program are 4th and 5th graders in Elementary school but the program is in the process of being expanded to Middle School students through a partnership with the State Education Department of Paraná and the Municipal Education Department of Curitiba. More than 1.5 million students have already taken part in the project in 15 years of operation.
- **Games for Android:** Copel has developed virtual games, such as *Se Liga* and *Click Esperto*. In the former, the player creates an avatar and wanders through the Unplugged City in search of dangerous situations that can only be solved with the power of knowledge. He relies on the help of electrician Lucio for the safe use of energy. In *Click Smart*, the player must turn off light bulbs during the day to save energy, while dodging obstacles.
- **Distance Learning in Energy Efficiency:** held in the first quarter of 2022, this course offered content covering basic principles of energy consumption management, generation sources, and tariff structure in Brazil. The goal was to encourage the students to adopt responsible consumption habits, as well as teach them about energy efficiency in day-to-day life. At the end, the participants are given a certificate.

External initiatives

Copel DIS strategically endorses and participates in external actions that champion sustainability. The Company is linked to entities that operate under this premise or protect the sector.

The company has also produced two podcasts available to internal and external audiences: GDCast, focused on innovation and distributed generation, and the second season of *Energia da Sustentabilidade* (Sustainability Energy), which explored each of the SDGs prioritized by the Brazilian electricity sector. All the content is available on the most popular audio providers in Brazil, as well as on Copel's website.

Membership in associations **GRI 2-28**

The Company's representation associations of the energy sector and the performance of Copel's regulatory area, along with its technical areas leads the company to actively participate in the regulatory and legislative process of the sector's bills, exercising its political influence to uphold its interests and those of society as a whole, with an emphasis on the Brazilian Association of Energy Distributors (Abradee).



DIS suppliers Award

See more

See the complete list in
Copel's Integrated Report
2022.

External initiatives

Initiative	Membership date	Stakeholders involved	Participation of Copel DIS
Global Compact Commitment	2000	Community and employees Government Shareholders Suppliers	As a member since the first year, in 2000, Copel underlines its commitment in the areas of Human Rights, Labor, Environment and Anti-Corruption, through good practices and the continuous creation of new actions.
Business Pact for Integrity	2000	Community Employees Government Shareholders Customers Suppliers	Copel values integrity and loyalty when working with co-workers, partners, customers, society and other stakeholders and is guided by a commitment to its activities. It expects every one of the stakeholders to set their actions based on the values and principles of the company and the law, with truth as the guiding principle in the performance of their duties and upholding, as a professional and moral commitment, the goals, guidelines and legitimate interests of the Company.
Global Greenhouse Protocol (GHG)	2012	Community Shareholders Customers Suppliers	The Company participates in training workshops about the production protocol of greenhouse gas (GHG) emissions inventory, internalizing the knowledge for the production of its own material, in addition to contributing to the collective construction of new calculation methods and tools. This activity is also strategic because the program provides instruments and international quality standards that encourage the corporate culture of preparing and publishing these inventories.
Business Contribution to Foster Education	2012	Community Government	Copel offers opportunities for professional growth to its workers in order to increase productivity, commitment and motivation and offers guidance and information to its stakeholders to enhance critical education and transparency.
Call to Action Statement for Governments	2014	Community Government	Copel adhered to the statement in 2014, reaffirming its commitment to transparency and the fight against corruption and showing its support for the Post-2015 Development Agenda movement in an effort to uphold sustainability, ethical conduct and best corporate governance practices.
National Movement for Sustainable Development Goals - <i>Nós Podemos (We Can) Paraná</i>	2016	Community Employees	Copel DIS participates in roundtables and in Local Work Centers to promote and coordinate actions in favor of the SDGs in the municipalities of Paraná. Participation is strategic because the movement fosters a network of leaders, institutions and companies committed to the economic and sustainable development of the State.

Prioritizing Sustainable Development Goals (SDGs)

The Sustainable Development Goals (SDGs) are part of the 2030 Agenda - Transforming our World that includes 17 goals to be achieved between 2015 and 2030. The action plan to eradicate poverty, protect the planet, and ensure that people achieve peace and prosperity was signed in September 2015 by representatives of the 193 member countries of the United Nations in a meeting held in New York.

The Agenda sets out bold and transformative measures to champion sustainable development and, for this purpose, has broken down the 17 SDGs into 169 goals with the aim of eradicating poverty and promoting a decent life for all, while respecting the limits of

the planet.

Copel DIS considers the 2030 Agenda in the Business Strategy and in Strategic Planning. In the company's view, the SDGs are a great opportunity to strengthen its positioning in relation to sustainable development in line with its value generation strategy.

The Company has prioritized in its business the most relevant SDGs for companies in the electricity sector based on the document Integration of SDGs in the Brazilian Electrical Sector (SEB), drawn up in 2018, which are:



SDG 4
Quality Education



SDG 7
Affordable and
clean energy



SDG 8
Decent work
and Economic
Growth



SDG 9
Industry,
Innovation and
Infrastructure



SDG 11
Sustainable
Cities and
Communities



SDG 13
Climate Action

See more

The Company's performance in achieving these goals is shown in this report.

Operational and productivity performance

Operational efficiency

The concession agreements signed by Copel DIS and Aneel set out clear rules for maintaining operational efficiency with precepts on tariffs, regularity, continuity, safety, modernity and quality of services and of the service offered to consumers.

In order to achieve the targets listed, as well as reach the technical, market, productivity, and profitability results, the Company relies on efficient cost and revenue management and on investments for the management of resources, assets, workforce, and other variants needed for good performance in quality energy supply in compliance with the concession agreement.

As such, Copel DIS strives to improve its operational efficiency with short, medium and long-term strategic planning, contemplating efficient maintenance, reliable distribution networks and the optimization of resources. Good performance in the quality and continuity of supply and in the economic-financial criteria reflects indirectly in higher remuneration for the concession operator and directly in the service provided to its consumers and customers. It also helps to achieve one of the main goals of the regulator: sliding-scale rates.

Therefore, investing in maintenance and expansion of the distribution system is vital to the success of its business. Studies are carried out on the growth forecast of the consumer market, the potential of existing and future generation, and the characteristics of the equipment that make up the electrical system, variables that can be tested in different virtual scenarios of

operation. The scenarios are used to define the work needed, the construction of new distribution substations, high voltage or medium voltage distribution lines or installation of regulation and switching equipment.

The studies conducted by Copel are largely based on Aneel's Electricity Distribution Procedures (Prodist), along with other players in the sector, and those which regulate the technical activities for operation and performance of the distribution systems. Copel occasionally participates in studies coordinated by sectoral entities, such as the Energy Research Office (*Empresa de Pesquisa Energética* - EPE) and the Brazilian Power Grid Operator (*Operador Nacional do Sistema Elétrico* - ONS). Operational efficiency and the quality of energy distribution are evaluated using the indicators System Average Interruption Duration Index (SAIDI) and System Average Interruption Frequency Index (SAIFI).



7.9%
reduction for
SAIDI



5.3%
reduction for
SAIFI

In order to identify the current positioning of Copel DIS in regard to its peers, comparisons are made with other agents in the sector. The operational excellence is also evaluated based on certification processes - Copel has an Integrated Management System with ISO 9001 certification in the Providing Energy Distribution Infrastructure process.

During 2022, the implementation of actions to overhaul the power distribution system included more than 1,800 automated machines and the implementation of 304 self-healing systems (automatic recovery), resulting in a drop in SAIDI and SAIFI of respectively around 7.9% and 5.3%, in the circuits that underwent this overhaul. The budget for maintenance of the live line (energized) and the dead line (de-energized) totaled BRL 94.1 million and, for pruning and cutting, was BRL stood at 33.4 million.

Other ongoing projects include, for example, the implementation of the Workforce Management system (WFM), a management tool for the workforce in field.

The losses in the power distribution sector can be divided into:

- Losses in the basic grid - these occur outside the distribution system of the concession operator and are mostly technical in origin.
- Distribution losses - these can be technical or non-technical.

In 2022, the global losses represented 8.9% of all the energy injected into the Copel DIS system, of which 5.7% for technical losses, 1.9% for non-technical losses and 1.4% for losses in the basic grid. The total percentage is below that registered in 2020, 2021 and marginally above that recorded in 2019.

The losses are calculated monthly by the Market and Power Purchase area and subsidize other departments, such as Fighting Non-Technical Losses and Medium Voltage Planning, which accompany the indicator through the company's Strategic Management System.

PERCENTAGE OF TRANSMISSION AND DISTRIBUTION LOSS IN REGARD TO TOTAL ENERGY GRI EU12

Transmission losses

Technical losses	1.40%
Non-technical losses	0.00%

Distribution losses

Technical losses	5.70%
Non-technical losses	1.90%

Note: the percentages referred to in the previous table equal the ratio of Losses in Distribution and in the Basic Grid over the energy injected into the Distributor's system. These figures are preliminary, so they may differ from the actual result for the year.

Network growth **GRI EU4**

The expansion of the network and the resulting progress of the indicator occurs in line with the forecasts made by the Planning and Projects and Construction areas, to serve new consumers, increase demand, maintain existing networks, and improve the quality of the energy supply.

LENGTH OF OVERHEAD AND UNDERGROUND TRANSMISSION AND DISTRIBUTION LINES, BY REGULATORY SYSTEM **GRI EU4**

Voltage category (kV)	Length of transmission lines
138	6,653.69
69	767.32
less than 69	200,708.06
Total	208,129.07
Location of lines (km)	
Overhead	207,817.04
Underground	312.03
Total	208,129.07

Note: this indicator is not managed by the Geoprocessing and Network Management Division (VGGR).

Demand Management **GRI EU7**

Copel DIS manages demand by monitoring the following resources applied to the various programs that assist the Company's demand management:

- Incentives, through public invitations-to-tender for the energy efficiency program in the implementation of energy management systems.
- R&D projects aimed at energy management.
- App that provides important data, such as the hourly load curve for customers with an installed smart energy meter, enabling consumers to manage and identify actions - available to roughly 5,000 CUs in the city of Ipiranga (PR).
- Installation of smart meters in Copel's concession area so consumers can monitor and view data for energy management actions (in 2022, around 430,000 smart meters were installed in the Copel DIS concession area).
- The investments made in initiatives to manage demands shows the evolution of the programs over the past three years:
 - 2020** - BRL 3,040,108.81 was invested in Project PEE UFPR (initiatives to implement energy management) and in R&D 2966-0508 and R&D 2966-0516 (project implementation);
 - 2021** - BRL 5,105,137.88 was invested in R&D 508, R&D 516, EaD Energy Efficiency, Responsible Use Campaign;
 - 2022** - BRL 1,609,948.21 was invested in R&D 508, House of the Future, and the Home Energy Management System (HEMS). The project enables consumers/prosumers to have real-time control of energy usage/generation by HEMS and adds new devices in a transparent manner.

Expansion planning

The Distribution Development Plan (DDP) informs the regulator (Aneel) of the construction work program planned by the Company over a period of 10 years. The investment information presented in the DDP is separated into three basic types:

- **Expansion:** work associated with an increase in load driven by a surge in demand from existing consumers or the connection of new consumers.
- **Improvement:** work exclusively related to improving the quality and reliability of the distribution system.
- **Renovation:** work required to replace electrical assets that have reached the end of their useful lives. This category also include work done to replace damaged (burnt or damaged) assets.

Indicators to assess the performance of the electrical system (especially those aimed at power disruptions), among others, are used as benchmarks to measure the effectiveness of investment plans for expansion and improvement.



Ingá Substation Completion Work, in
Maringá

DISTRIBUTION NETWORK

	2022	2021	2020
Total extension of the distribution grid (km)	208,129.07	204,957.95	202,085.00
138kV	6,653.69	6,513.54	6,457.00
69kV	767.32	756.62	755.00
Less than 69kV	200,708.06	197,687.79	194,873.00

ENVIRONMENTAL PERFORMANCE INDICATORS (GWH)

	2022
DIS Load (a)	20,831
Inj MMDG (b)	1,356
DIS Border Load (c)	22,187
Market (d)	19,486
DIS Losses = (a)+(b)-(d)	2,701
Basic Grid Losses = (e)	480

(a) - Source CCEE Load Measurements (CCEE Spreadsheet)
 (b) - Source SAMP / Aneel - Injected Energy (MMDG Spreadsheet)
 (c) - Sum (a) + (b)
 (d) - Source Statistical Revenue Report (Statistical Revenue Worksheet)
 (e) - MED003 Report - CCEE Generation and Consumption Measurement.

Supply quality

GRI EU6

The planning of distribution networks is analyzed in expansion studies, basically involving two sub-processes per voltage class: Medium Voltage Distribution System, which uses data on customer consumption and demand, market growth, and substation measurements; and the High Voltage Distribution System, which uses medium voltage data, plus information provided by entities from the electrical power sector, such as the Brazilian Electricity Operator (ONS) and the Energy Research Office (EPE).

Several studies are conducted and carried out with these entities. The networks are simulated, taking into

consideration the plant growth of a given region, and systemic works are planned to meet the energy demand of consumers. The operation of distribution networks works to ensure the reliability and availability of electrical power in the short term, using computerized and professional systems to guarantee the availability of the electrical system, coordinate reconnections and optimize the maintenance and service teams.

Aneel requires distributors to maintain a continuity standard. To this end, it sets limits for the collective continuity indicators, System Average Interruption Duration Index (SAIDI) and System Average Interruption

Frequency Index (SAIFI).

The management of the SAIDI indicator consists of constantly adopting policies for the availability of teams, provision of interconnections between the circuits, aiming at a swift recovery, in addition to the benefits gained indirectly through actions aimed at the SAIFI indicator, given that if there are no disconnections, there is no duration. The SAIFI management is

hinged on adopting preventive policies aimed at avoiding the disconnection of large blocks of load.

The management of these two main electricity energy reliability indicators are also part of the Executive Board's portfolio of targets.

EVOLUTION OF INDICATORS

	2022	2021	2020	Aneel's target set for 2023
SAIFI (interruptions)¹	5.29	4.76	5.55	6.80
SAIDI (duration)²	7.98	7.20	7.81	9.19

1. Number of interruptions for each consumer, on average.

2. Interval of time (hours), on average, that each consumer was without electricity.



Energy market

The number of captive consumers billed by Copel in 2022 was 1.7% higher than in December 2021 - equivalent to 85,000 new consumers - totaling 5,011,555 consumers in the system.

Grid Market (TUSD)	Number of consumers			Energy sold (GWh)		
	Dec/22	Dec/21	%	Dec/22	Dec/21	%
Captive Market	5,011,557	4,926,610	1.7%	19,461	19,398	0.3%
Concession operators and Licensed operators	2	2	-	91	86	5.8%
Free consumers	2,629	2,318	13.4%	12,245	11,531	6.2%
Concession operators of grid market	5	5	-	834	846	-1.5%
Grid Market	5,014,191	4,928,933	1.7%	32,539	31,775	2.4%
Addition of billed consumer units to invoices (captive)	84,947	-	-	-	-	-
Addition of billed consumer units to invoices (free)	311	-	-	-	-	-

Rates

Annual Tariff Adjustment (ATA)

In the periodic tariff review, Aneel redefines the costs that make up the so-called Portion B - operating costs, investment return and regulatory reintegration quota. The investments that are part of the Regulatory Remuneration Base are also assessed and inspected considering the changes in the cost and market structure of the concession operators based on the tariff levels in similar companies, the incentives for efficiency and sliding-scale rates.

The tariff review process also includes updating the costs that make up Portion A, i.e., costs related to the acquisition of energy, the use of transmission systems, sector fees and irrecoverable revenue. The annual tariff review of each distributor is established for the date on which the federal concession was

originated—June 24, in the case of Copel.

In Copel DIS's annual tariff adjustment process in 2022, the tariffs were adjusted, on average, by 4.90%, which represents an average tariff effect to be perceived by consumers/users/supplied agents of the Distributor. For some tariff subgroups, such as the Low Income Residential, however, there was even a tariff reduction. For residential customers, which represent 82% of the Company's base, the adjustment was 1.58%. For commerce and services served at low voltage, the adjustment was 2.07%, while for public lighting it was 1.95%. Tariffs for customers served on high voltage were adjusted at an average of 9.32%.

Value chain

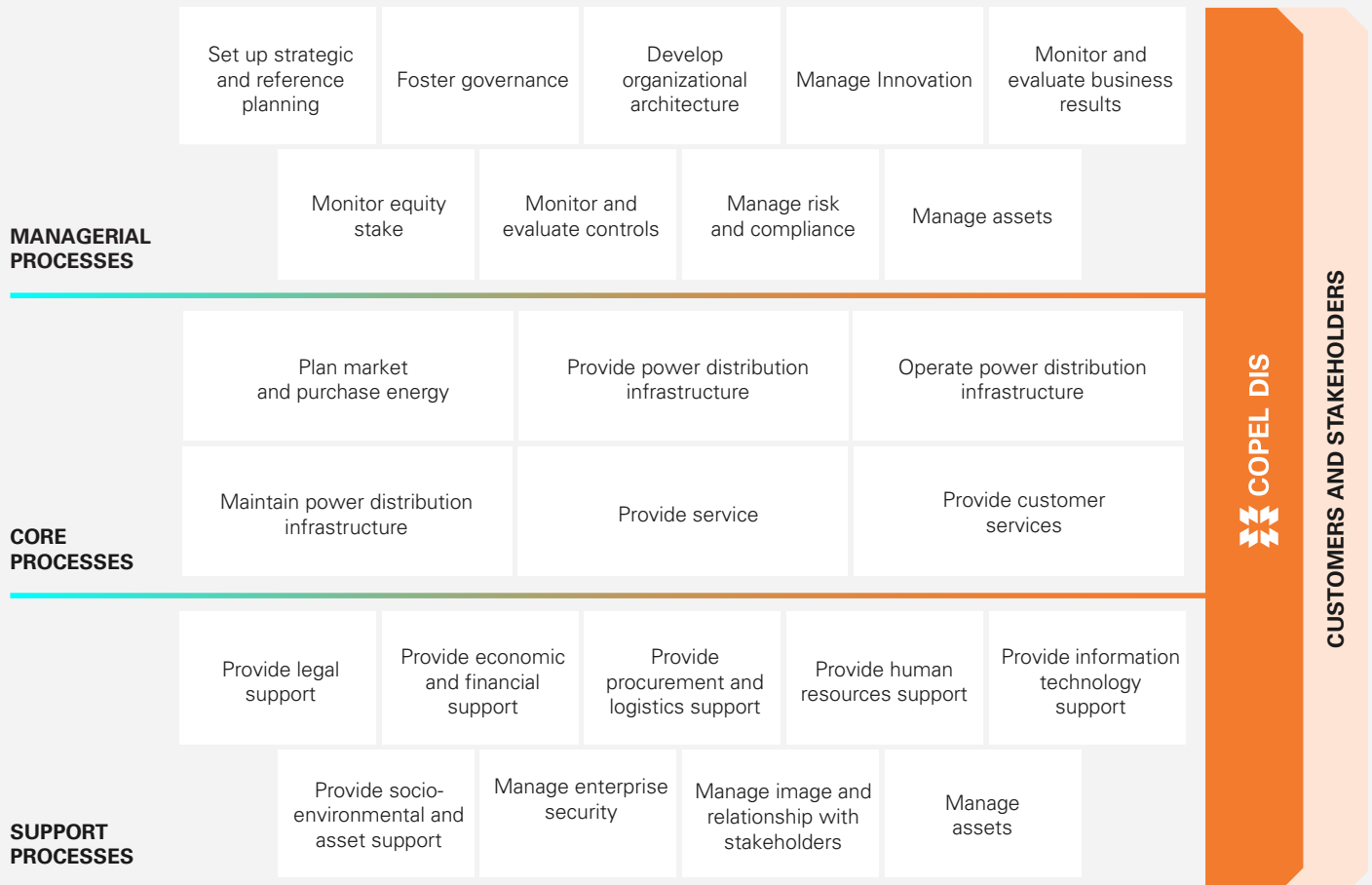
In the breakdown of the corporate structure, Copel DIS covers strategic areas aiming to ensure suitability in the implementation of processes and in the planning of activities.

The company structures its value chain in such a way as to deliver the best service to its clients, ensuring the standardization and certification of its procedures to ensure the proper functioning of its processes and, in this way, generate value for society.

The Copel DIS chain is set up as follows:

- **Core business processes:** represent business processes that directly deliver value to customers.
- **Support processes:** support the main business processes and do not generate direct value to customers.
- **Management processes:** prepare the strategic planning and develop the organizational architecture.
- **Control processes:** monitor and evaluate business results and internal controls.

Copel DIS value chain



Transformation of the energy distribution sector

The dynamism required of the electricity sector has never been so great and Copel DIS has been preparing for the challenges and opportunities that will arise from this transformation. With the advent of more and more efficient technologies, the need to adapt to environmental issues and the changes in consumer behavior, new business opportunities are arising that need to be carefully worked out. With this in mind, Copel DIS is working towards taking on a leading role and forging its own path, as well as consolidating its brand.

One of the great transformations in the sector lies in the area of process digitization, which adds speed and quality to the services. This is the case with the implementation of the Advanced Distribution Management System (ADMS). This system upgrades the substations' remote operations, facilitates the operators' work and ensures that in the event of a shutdown, the power is reestablished swiftly. The adoption of this system places Copel DIS at the forefront of the automation of distribution network management systems as one of the first three Brazilian companies to use this technology.

The so-called Smart Grid (SG) have a high degree of automation and aggregate technology, expanding the Distributor's operational capacity and adding efficiency and benefits for the consumer.

In line with the trend to add value to the service offered, the energy sector has also invested in



Electric car - delivery on Ilha do Mel

technological resources, such as AI, to offer customer-oriented experiences to gain more customers and loyalty. The action is seen as a first step towards dealing with the customer in the near future, when the customer will be given the freedom to choose its own energy supplier - the forecast is for this right of choice to become available to all in 2026.

Other changes resulting from technology, such as the introduction of electric cars, are also requiring the industry to invest. One of the priorities of Copel DIS in its own innovation process is the development of new electromobility solutions. It is working to implement Future Stations to supply electric vehicles in an environment integrated with a renewable source and an energy storage system so it can offer more than just service, comfort and safety to the user (*read more in the Research & Development Program*).

Within the context of the growing concern with climate change, Copel is engaged with the best practices in sustainability, and monitors its carbon emissions through inventories that follow by the methodology

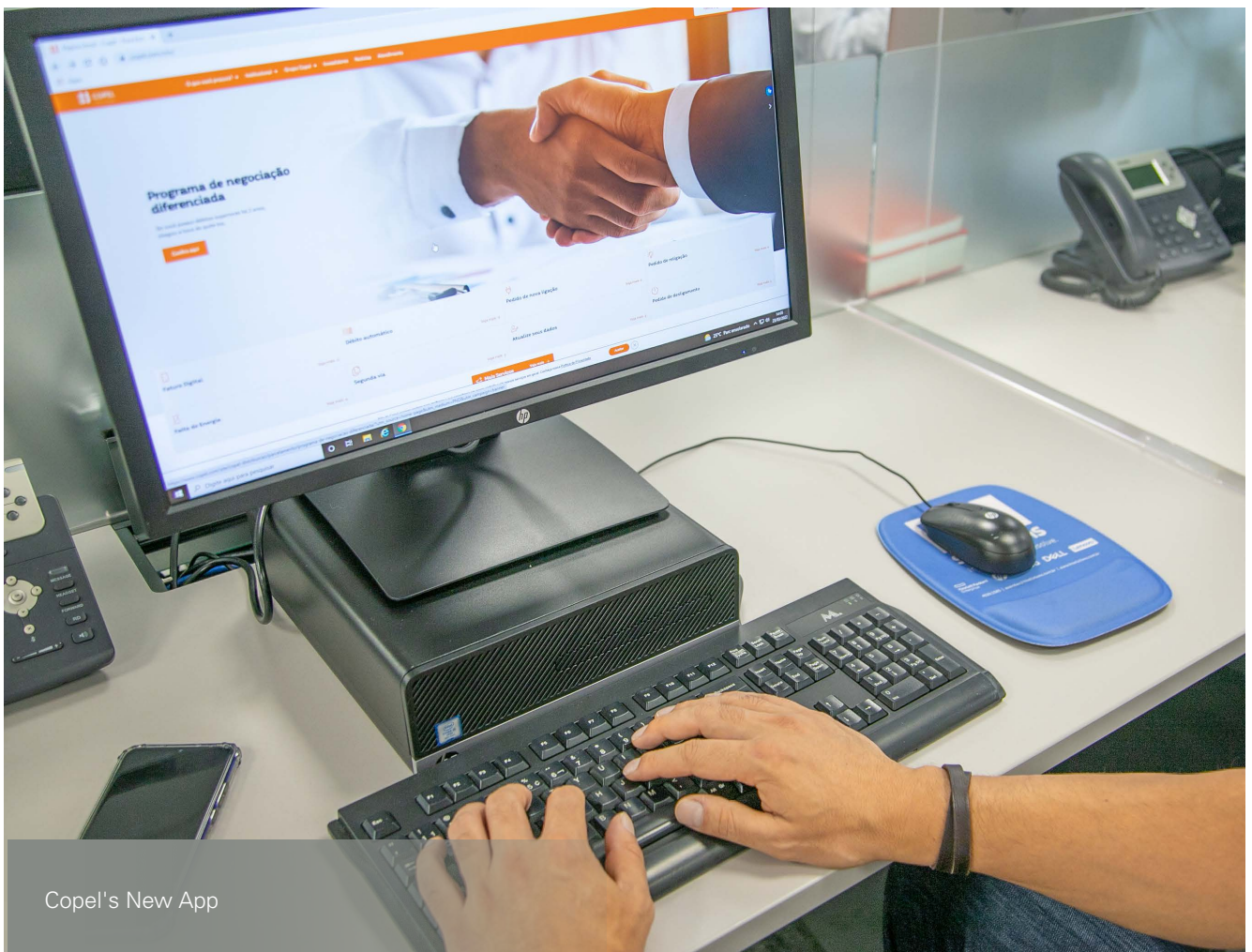
of the Brazilian GHG Protocol Program. The Company drew up its Carbon Neutral Plan in 2021 and it is aimed at reducing Greenhouse Gas (GHG) Emissions and offsetting Scope 1 residual emissions by 2030 for the assets under the Company's operational control (read more in Climate Change Management).

All these listed actions, and others underway, are included in the Company's Strategic Planning. Updated periodically due to the dynamism of the energy market, it maps out the main trends in the sector, generating short, medium, and long-term corporate goals.

For Copel DIS, the development of new solutions for electromobility is one of the top priorities in its innovation process



Smart Grids
include a high level of automation and added technology



Copel's New App



Corporate governance practices

Copel's structure incorporates the governance of the **wholly-owned subsidiaries**

Copel's governance structure is formed by the General Shareholders' Meeting and its Nomination and Assessment Committee and the Fiscal Council, followed by the Board of Directors of the Holding Company, its advisory committees and the Full Board. This system also incorporates the governance of wholly-owned subsidiaries, as established in the sharing agreement.

The Board is a strategic deliberation board, composed of nine board members appointed initially by the controlling shareholder (State of Paraná) with the exception of three spots for minority shareholders and one for an employee representative. In the current member breakdown of the Board, 77.8% are independent, which is higher than the minimum 30% set forth in the Company's Bylaws. **GRI 2-9**

Elected at the general shareholders' meeting, the board members serve a two-year term, with up to three consecutive re-elections allowed.

The Chairman of the Board is also the CEO of Companhia Paranaense de Energia (Copel), Copel DIS's sole shareholder. According to Article 15 of the Company's bylaws, the Board of Directors will be composed of four members, elected and dismissed by the General Shareholders', and it must include two Directors of Copel, one of which is the CEO. **GRI 2-11, 2-12**

It is the CEO's responsibility to resolve issues of conflict of interest or competence between the Boards, as specified by article 31(XI) of Copel DIS's bylaws. **GRI 2-11, 2-12**

The policy on Transactions with Related Parties and Conflicts of Interest defines how situations in which there may be conflicts of interest are prevented and mitigated, and is applied to all the companies in the Copel Group. **GRI 2-11, 2-12**

The assignment process for the members of the governance bodies meets the minimum requirements required by the applicable law (Law 6404/1976, Law 13303/2016 and regulatory deliberations of the Council for Control of State Companies (*Conselho de Con-*

trole das Empresas Estaduais - CCEE). the requirements are also established in Copel's Bylaws and is guided by the Nomination Policy and the procedures governed by internal administrative rule. **GRI 2-10**

The referral of names is made by the controlling shareholder (State of Paraná), the candidate then goes through a verification of the requirements and prohibitions by the Governance, Risk and Compliance Board, the Nomination and Assessment Committee verifies the compliance with the nominations of statutory body members in accordance with the Nomination Policy and the Internal Rule for Nomination of Statutory Body Members, other internal rules and the applicable law. After compliance has been established with the standards and criteria, the governance procedural form is initiated to elect the member nominated by the relevant full board. **GRI 2-10**

Copel DIS completed in May 2022 its registration as a publicly traded company on B of B3, the São Paulo stock exchange. The listing is part of the Company's strategic plan and is not aimed at the issuance of shares. These are measures that underpin transparency and governance practices, as well as the opportunity to diversify funding sources and optimize the debt profile.

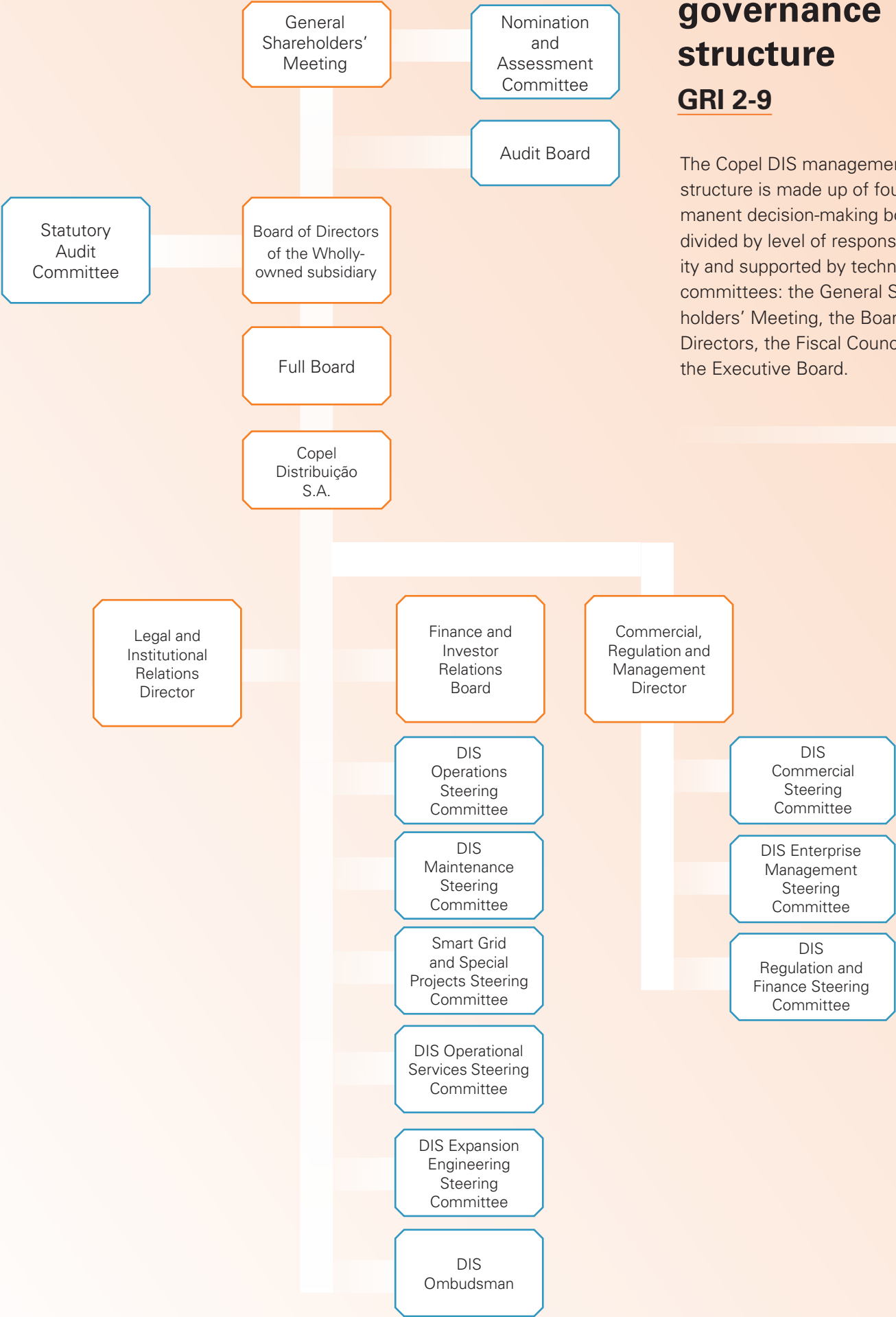
See more

For more information
on governance, see
Copel's Integrated
Report
52 2022

Copel DIS governance structure

GRI 2-9

The Copel DIS management structure is made up of four permanent decision-making bodies, divided by level of responsibility and supported by technical committees: the General Shareholders' Meeting, the Board of Directors, the Fiscal Council and the Executive Board.



Governance, Risk and Compliance Board

For the exercise
of its attributions,
its **independent
performance** is assured

This is a body composed of the Corporate Sustainability and Governance Coordination and the Corporate Integrity Coordination (Risk Management, Internal Controls and Compliance). It is responsible for defining and coordinating corporate governance policies and guidelines, corporate sustainability, corporate risk management, internal controls and compliance, supporting the Company in maintaining products and services aligned with the laws and regulations in force.

In addition, it must periodically report any activities and any occurrence that may be construed as an administrative, civil or criminal offense to the Audit Committee and the Board of Directors.

As such, the Governance, Risk and Compliance Board meets periodically with the full boards to report: every six months with the Board of Directors, every quarter with the Fiscal Council and, if needed, with the Statutory Audit Committee every two months.



Integrity Practices

GRI 2-23, 2-24, PRME 1, 2

Copel's Integrity Program is aligned with the Anti-Corruption Law (12846/2013) and the Accountability Law for State-Run Companies (13303/2016). With a scope that encompasses all employees, managers and fiscal council members, the Integrity Program is structured to prevent, detect and remedy potential harmful acts such as conflicts of interest, fraud in bidding processes and payments, among other points. **GRI 2-15**

In order to continue ensuring the application of best practices, the Company is working towards acquiring the ISO 37301 certification process and has revised a series of practices and standards, expanded the interaction between the controls and risk management processes, and put in place other improvements throughout 2022. The certification should be completed by 2023. The ISO 37301 standard on compliance systems was released in 2021 and supports organizations in the development of a positive and effective compliance culture, employee behavior and attitude.



IEP Measurement Technical Meeting

Code of Conduct

GRI 2-24

Created in 2003, the Code of Conduct was revised and updated in 2022, with the inclusion of new topics and a more user-friendly structure and layout. The document guides the conduct of all those who perform activities on behalf of Copel and its equity holdings and includes references to expected conduct concerning contemporary matters, such as social networking, protection of personal data, working from home, and cybersecurity. It also offers guidance on issues related to transparency, participation in auctions, health and safety, social and environmental responsibility, and respect for human rights, as well as others. As a result of the document's launch, 100% of company employees will undergo training on the code of conduct by 2023.

The review process received the support of a specialized consulting firm and the benchmarking of companies that, like Copel, have the Pro-Ethics seal, awarded by the Office of the Brazilian Government Accountability Office and by the Ethos Institute for Business and Social Responsibility.

The Code of Conduct establishes parameters of conduct for employees, members of the Board of Directors, Councils and Committees, interns, suppliers, service providers and contractors. In the case of contracting and purchasing, companies formally commit to the Code.

The Code of Conduct was revised and updated in 2022 and new topics were introduced.

Conflicts of interest

GRI 2-15

Copel has defined the guidelines for the handling of conflicts of interest, which are described in the by-laws and internal rules of statutory bodies, according to applicable law, specific policy and the best corporate governance practices of the Brazilian Corporate Governance Institute (IBGC).

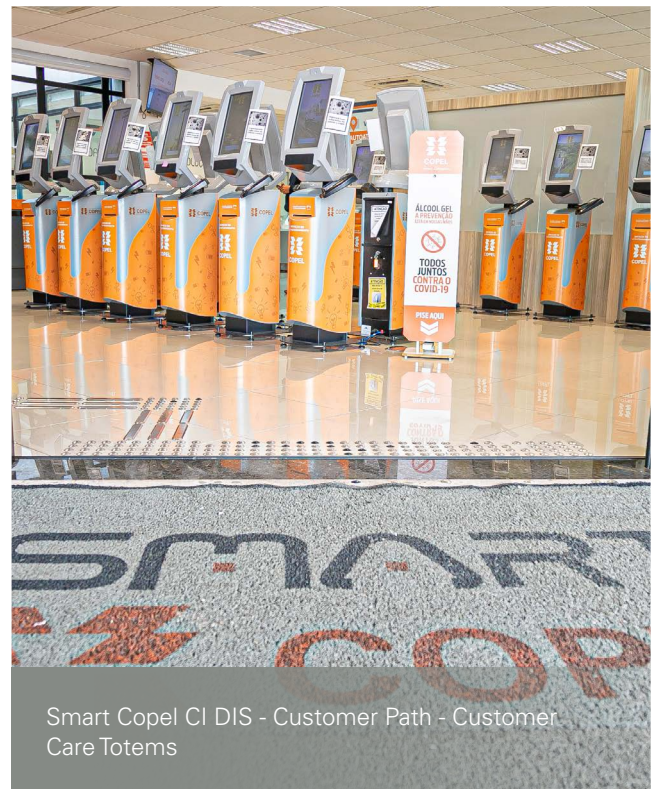
As such, the Company establishes and clearly defines the jobs, roles, and responsibilities of its governing agents, in accordance with the Articles of Incorporation, the respective Bylaws, and the Competence Levels Manual. To this end, it is organized in a governance structure formed by entities, as described previously in the Governance Structure.

The bylaws of the Boards of Copel Holding Company and the wholly-owned subsidiaries detail the proce-

The guidelines for handling conflicts of interest are described in the articles of incorporation and in the bylaws.

dures for the resolution of potential conflicts of interest, particularly in article 23(IV). When a conflict or particular interest related to one of the administrators is identified in a subject that requires a resolution, it is the duty of the administrator to promptly address the matter. If the administrator does not speak up, any person present who has knowledge of the fact may do so. After identifying the conflict of interest or particular interest, the administrator involved must be removed from the discussions and deliberations by temporarily withdrawing from the Meeting. Conflicts of interest are recorded in the minutes of the Board of Directors' meetings available on Copel's website.

Additionally, the Board of Directors approved and maintains the Related-Party Transaction and Conflict of Interest Policy, which defines guidelines to ensure that transactions between related parties are carried out in the Company's best interest and in compliance with the principles of independence, competitiveness, compliance, transparency, equity, and commutativity; and managing situations of potential conflict of interests in transactions that involve related parties.



Smart Copel CI DIS - Customer Path - Customer Care Totems

Anti-corruption

GRI 205-1

The Integrity Program and the Code of Conduct guide the management in the prevention and fight against corruption within the Company, which also includes: an Integrated Corporate Risk Management Policy, a Related Party Transactions Policy, the Integrity Policy, the Reporting Channel Policy and the Administrative Rule for Prevention and Treatment of Fraud and Corruption.

The policies apply to Copel (Holding Company), its wholly-owned subsidiaries and its controlled companies. The standard is followed by all companies of the group with the exception of the controlled companies, for which it is a recommendation. These materials are in line with the US Foreign Corrupt Practices Act (FCPA) of 1977 and the Sarbanes-Oxley Act of 2002 and Coso.

The policies were revised in 2022 and the standard is reviewed every three years with the most recent having been carried out in 2022. Operational processes are assessed annually for risks related to error or fraud that may interfere with the results of the financial statements.

The internal controls are tested by internal auditors and an independent auditor, and the results are reported to management. The tests are finalized with an assessment of the severity and magnitude of the deficiencies at the time of filing the Form 20-Form with the Securities & Exchange Commission (SEC) in April of every year.

Within the same frequency, the Risk Management and Compliance areas draw up the Fraud and Corruption Risk Report with the purpose of detecting any risks and their relationship with the Company's business processes. The remedial actions for the weaknesses found and the impacted target audience are included in this document.

The last version of the document was prepared in 2022 and the results obtained will guide the work done in 2023.

In 2022, the major risks detected were divided into three categories:

- **Motivation** - collusion with customers, suppliers, other employees, conflict of interest; bribery and kickbacks; collusion among suppliers for bid rigging and price fixing; sabotage; self benefit and requests from a superior.
- **Enabler** - misuse of assets and funds; violation of internal standards, policies, and procedures; theft of physical assets; leaks, agency or misuse of information; document fraud; supplier misconduct; theft, loss, or attacks on information; and overbilling schemes.
- **Consequence** - violation of laws and regulations; embezzlement or loss of funds; and fraud in financial statements.

Considering Copel Holding Company and its wholly owned subsidiaries, 100% of operations were assessed for risks related to corruption, taking into account that Copel adopts the best anti-corruption practices, having joined the Call for Action for Governments to Fight Corruption in 2014 and, the following year, the Business Pact for Integrity and Against Corruption. The Company has also shown its support for the UN 2030 Agenda movement in the effort to promote sustainability, ethical conduct and best corporate governance practices, as well as basing its principles on the Charter of Social Responsibility Principles, on the UN against Corruption and in the guidelines of the Organization for Economic Co-operation and Development (OECD).

Furthermore, it is a signatory to the United Nations Global Compact, whose principles encompass the fight against corruption in all its forms, including extortion and bribery.

No corruption-related lawsuits were filed against the organization or its employees in 2022. **GRI 205-3**

Integrity training

GRI 2-24

The disclosure and dissemination of the Integrity Program and other compliance initiatives are periodically carried out by the Governance, Risk and Compliance Board. Copel maintains the Integrity Portal for the internal audience and the new [Sustainability Portal](#) for the external audience.

With the return of in-office working in early 2022, specific training on various related topics was stepped up. One such training was on internal controls for people from key areas involved in these processes and another that focuses on respect for human rights and diversity. A communication tool, dubbed Compliance Alert, is sent monthly to all employees via email - one issue in 2022 was dedicated to questions about discrimination. Training on anti-corruption and harassment practices also underwent revision in 2022 and will be offered in early 2023 to employees. Due to the revision of the Code of Conduct, an updated course is still planned that will be

mandatory for 100% of the employees in 2023.

Annually, the members of the senior management and governance bodies undergo training on economic, social, and environmental topics, including Internal Control and Risk Management; Integrity; Anti-corruption; Communication with the Market and Transparency and Accountability; the role of the Board of Directors and Fiscal Council and its compliance with the Anti-corruption Law (Law 12846/2013).

Integrity policies and practices are also topics discussed with suppliers. Copel held an online meeting in 2022 to talk about anti-corruption measures, code of conduct, and other actions. In addition, it will provide training for this audience on the updated Code of Conduct in 2023.



Cascavel Team

See more

The Integrity section on Copel's [website](#) is available to all audiences

INFORMING AND TRAINING ABOUT ANTI-CORRUPTION POLICIES AND PROCEDURES (2022)

GRI 205-2

MEMBERS OF THE GOVERNANCE BODY WHO WERE INFORMED AND TRAINED IN ANTI-CORRUPTION POLICIES AND PROCEDURES, BY REGION

Region	Members of the governing body	Informed	Trained
	Number	2	2
South	Percentage of governing body members (%)	100%	100%

EMPLOYEES WHO RECEIVED INFORMATION AND TRAINING ABOUT ANTI-CORRUPTION POLICIES AND PROCEDURES, BY REGION

Region	Job category	Employees informed	Percentage of employees informed (%)	Employees trained	Percentage of employees trained (%)
	Operational	3	100%	3	100%
	Secondary-level technical professional	897	100%	812	90.52
South	Secondary-level professional	2,584	100%	2,352	91.02
	University-level professional	328	100%	290	88.41
	Board of Directors	2	100%	2	100%

TOTAL NUMBER AND PERCENTAGE OF BUSINESS PARTNERS WHO HAVE BEEN INFORMED OF THE ORGANIZATIONS ANTI-CORRUPTION POLICIES AND PROCEDURES

Region	Total Partners	Total Partners informed	Percentage of partners (%)
South	2,348	1,332	56.73

Reporting Channels

GRI 2-25, 2-26

Copel encourages its stakeholders to record any situation that signals a violation of ethical principles, policies, rules, laws and regulations or other improper conduct and keep specific records for these purposes, with guaranteed confidentiality.

The Reporting Channel is managed by the Governance, Risk and Compliance Board and it receives reports about: harassment and discrimination, corruption, destruction or damage to company assets, misconduct, favoritism, fraud or theft of goods and/or money, discrepancies in financial statements and/or management reports, environment, non-compliance with internal policies and/or procedures, misuse of Copel's resources, leaked or misused information, infringement of laws, violations of Law 12846/2013 (Anti-Corruption Law) and other unlawful actions.

Copel disseminates its communication channels through electronic media, intranet, internet, posters posted at company sites, and training sessions on integrity for employees, administrators, board members and business partners. Information about all channels is included in the Code of Conduct, in addition to the mention of the Code of Conduct's term of awareness.

In 2022, the channel received 330 reports, a lower number than the previous year. Of the total complaints received, 28.89% were assessed and considered unfounded by the Ethics Committee and 13.70% as founded. The Ethics Guidance Committee, made up of three directors and a board of

directors' member, evaluates the reports making sure to keep the ethical and moral standing of Copel and its wholly-owned subsidiaries at the highest level. One of the topics with the highest number of complaints in the Whistleblowing Channel were: conduct, non-compliance with internal policies and procedures and consultations/queries.

In order to keep moving forward and ensure the adoption of best practices, Copel plans to conduct an effectiveness test on the internal controls associated with the Whistleblowing Channel in 2023. The channel is corporate, unified for the Copel Holding Company and its wholly-owned subsidiaries, suppliers, clients and consumers, as well as others.

For reports of fraud and theft on the power grid, Copel has a dedicated contact available. Bullying cases are analyzed by the Commission for the Analysis of Bullying Complaints (Cadam), which is also responsible for instructing employees on how to prevent bullying in line with social responsibility and the best corporate governance practices.

The Ombudsman's Office, in addition to being a channel to receive complaints, is another conduit for the receipt of claims and communications related to the provision of electricity distribution services and is open to both internal and external stakeholders. It is ISO 9001-certified and is recognized as one of the best ombudsmen in the sector by the sector's watchdog, Aneel.

Whistleblowing channels

GRI 2-26

Site <https://www.copel.com/canaldedenuncias/>

Tel. 0800 643 5665

Ombudsman

Email: ouvidoria@copel.com

Tel.: 0800 647 0606

Ethics Committee

This committee is responsible for ensuring the disclosure and effective application of the precepts and guidelines of the Code of Conduct.

It operates as a governing arm of the Board of Directors and its purpose is to ensure the Company is permanently guided by ethical principles that are aligned with its values, with the principles of the Global Compact and Corporate Governance.

In addition, the Committee is in charge of ensuring the disclosure and effective application of the precepts and guidelines of the Code of Conduct by employees, directors and contractors of Copel and its subsidiaries.

Its main job is to monitor the process of receiving and verifying reports received through the Reporting Channel, periodically reviewing and issuing guidelines on the code of Conduct and also collaborating in the review of internal policies and rules related to the topic.

The original structure is made up of the Governance, Risk and Compliance Officer, the Corporate Management Officer and the Legal and Institutional Relations Directors, in addition to a member of the Board of Directors. The entity, by its own deliberation, may invite the director of the area involved in the matter in question and the CEO of the Copel Holding Company to assist in decision-making.

The current Ethics Committee format was approved by the Board of Directors in December 2019, however, since June 2005, there is a structure responsible for the matter in the Company organization chart.



The purpose of the Statutory Audit Committee is to protect the interests of the shareholders

Statutory Audit Committee

GRI 2-16

Advisory body to the Company's Board of Directors composed mostly of independent directors, chosen from among the members of the Board of Directors and in compliance with the applicable law. This entity aims to protect the interests of shareholders and other stakeholders by overseeing the quality of the financial statements and internal controls, and the organization's compliance, integrity and risk management.

The Statutory Audit Committee must, individually or jointly with the independent audit company hired by the Company, formally inform the management bodies, within a maximum period of three business days from its identification, the existence or any evidence of: non-compliance with legal rules and regulations that may jeopardize the continuity of the Company's business; fraud of any value perpetrated by the Administration; material fraud perpetrated by employees or outsourced workers; and errors that result in material inaccuracies in the accounting and financial statements.

Audits



Internal audit

This team audits and offers consulting, with independence and objectivity, to add value and help the company reach its corporate goals using a systemic and disciplined approach. This helps to enhance the effectiveness of processes, risk management, internal controls, and corporate governance, underpinning the decision-making process at the various hierarchical levels of the company.

Article 30(VIII) of the Bylaws defines as one of the competencies of the Board of Directors the approval of the annual internal audit work plan with the support of the Statutory Audit Committee. A few of the Internal Audit's main attributions are:

- Develop and execute the Company's Annual Audit Plan, encompassing the Copel corporation, its business units and holdings
- Perform the audit work required by the Board of Directors, the Statutory Audit Committee, and the Company's Executive Officers

Copel's Internal Audit was awarded the International Quality Assessment Certification in 2019 granted by the Brazilian Institute of Internal Auditors (IIA Brazil), which is the Brazilian arm of the Global Institute of Internal Auditors (IIA Global). This international certification attests to the use of global best practices and compliance with international standards for the professional practice of internal auditing.



External audit

Copel and its wholly-owned subsidiaries hire independent auditors to provide audits and issue a report on the financial statements, as defined by CVM Instruction 381.

The requirements of the Sarbanes-Oxley Act (which aims to protect investors and other stakeholders from accounting errors and fraudulent practices), providing

for the main process controls that may cause failures or errors in the financial statements above the materiality level, are evaluated by the Management and by the hired independent auditors. This ensures that the published financial statements effectively reflect the Company's financial position.



Income for the year

Loss for the year was impacted mainly by the revision of the contingent liability risk of the ICMS tax lawsuit

Copel DIS registered a net loss of BRL 229.8 million in 2022, against BRL 857.9 million in net income in the previous year, down 126.8%. The main impact was caused by the revision of the contingent liability risk of the ICMS tax lawsuit in the calculation base of the PIS/Cofins contributions, amounting to BRL 1,851.3 million, of which BRL 810.6 million in the income from operations and BRL 1,040.7 million in the financial result related to monetary variation (NE no. 11.5.2).

Annual income statement	2022	2021	2020	2022 X 2021		2021 X 2020	
				Variation (BRL)	Variation %	Variation (BRL)	Variation %
(=) Adjusted Net Operating Income ¹	11,401,277	12,752,491	10,126,760	(1,351,214)	(10.6)	2,625,731	25.9
(-) Non-manageable costs - Portion A	(8,293,327)	(9,640,950)	(7,227,186)	(1,347,623)	(14.0)	(2,413,764)	33.4
(=) Distribution Revenue	3,107,950	3,111,541	2,899,574	(3,591)	(0.1)	211,967	7.3
(+) Fair Value Indemnification Assets Concession	79,169	108,733	45,187	(29,564)	(27.2)	63,546	140.6
(+) Other Revenues	374,832	274,279	226,461	100,533	36.7	47,818	21.1
(=) Total Income	3,561,951	3,494,553	3,171,222	6 7,398	1.9	323,331	10.2
(-) Manageable Costs - Portion B	(2,266,890)	(2,327,541)	(2,293,307)	(60,651)	(2.6)	(34,234)	1.5
Staff, Material, Services of Third Parties and Other	(1,812,583)	(1,920,909)	(1,918,456)	(108,326)	(5.6)	(2,453)	0.1
Amortization	(454,307)	(406,632)	(374,851)	47,675	11.7	(31,781)	8.5
(=) Result from Activities	1,295,061	1,167,012	877,915	128,049	11.0	289,097	32.9
ICMS action based on PIS/Cofins contributions	(810,563)	-	810,563	(810,563)	100.0	(810,563)	100.0
Provision for allocation of PIS and Cofins credits	(810.563)	-	-	-	-	-	-
(=) Income before Financial Inc.	484,498	1,167,012	1,688,478	(682,514)	(58.5)	(521,466)	30.9
(+/-) Financial result	(129,048)	66,469	1,043,981	(1,236,210)	(1,859.8)	(977,512)	93.6
Financial Revenue/Expense	1,169,741	66,469	99,432	1,236,210	(1,859.8)	(32,963)	33.2
ICMS action based on PIS/Cofins contributions	(1,040,694)	-	944,549	(1,040,694)	100.0	(944,549)	100.0
Provision for allocation of PIS and Cofins credits	(1,040,694)	-	-	-	-	-	-
(=) Result before corp. income tax and CSLL contribution	(685,243)	1,233,481	2.732.45	(1,918,724)	(155.6)	(1,498,978)	(54.9)
(+/-) Corp. income tax and CSLL contribution	455,465	(375,597)	(281,540)	831,062	(221.3)	(94,057)	33.4
(=) Net Profit (Loss) for the Period	(229,778)	857,884	1,854,181	(628,106)	(126.8)	(996,297)	(53.7)

1. Does not consider Revenue and Construction Expenses.

Net Operating Income

The company calculated a Net Operating Income (NOI) variation of BRL 933.1 million, down 6.3%. This variation was caused mainly by: a drop in the result of the sectoral financial assets and liabilities and in the supply revenue; the performance of the grid market, which in the year's total registered a growth of 0.8%; and the tariff adjustment of 4.90% in 2022, compared to 9.89% in 2021.

Income Variation (BRL thousand)	2022	2021	2020	2022 X 2021		2021 X 2020	
				Variation (BRL)	Variation %	Variation (BRL)	Variation %
GROSS OPERATING INCOME	22,433,355	24,549,922	18,604,348	(2,116,567)	(8.6%)	5,945,574	32.0%
Electricity Supply	7,964,604	9,424,155	7,106,234	(1,459,751)	-15.5%	2,317,921	32.6%
Availability of electrical grid	9,057,630	9,045,028	8,069,470	12,602	0.1%	975,558	12.1%
Donations and grants	738,329	671,752	691,709	66,577	9.9%	(19,957)	-2.9%
Supplies	280,808	791,501	540,610	(510,693)	-64.5%	250,891	46.4%
Construction revenue	2,048,022	1,700,889	1,154,488	347,133	20.4%	546,401	47.3%
Fair value of the indemnifiable asset of the concession:	79,169	108,733	45,187	(29,564)	-27.2%	63,546	140.6%
Financial sectoral assets and liabilities	1,847,863	2,502,324	746,052	(654,461)	-26.2%	1,756,272	235.4%
Other operating income	416,930	305,540	250,598	111,390	36.5%	54,942	21.9%
(-) DEDUCTIONS	(8,530,055)	(9,713,528)	(7,051,452)	(1,183,473)	-12.2%	(2,662,076)	37.8%
Taxes	(5,008,346)	(6,355,108)	(5,326,146)	1,346,762	-21.2%	(1,028,962)	19.3%
Charges	(3,521,709)	(3,358,420)	(1,725,306)	(163,289)	4.9%	(1,633,114)	94.7%
NET OPERATING INCOME	13,903,300	14,836,392	11,552,896	(933,092)	-6.3%	3,283,496	28.4%

Variation in Costs and Expenses (BRL thousand)	2022	2021	2020	2022 X 2021		2021 X 2020	
				Variation (BRL)	Variation %	Variation (BRL)	Variation %
Total Non- Manageable Costs (Portion A)	(8,293,327)	(9,640,950)	(7,227,186)	(1,347,623)	-14.0%	(2,413,764)	33.4%
Electricity Purchased for Resale	(5,980,124)	(7,277,499)	(5,856,372)	(1,297,375)	-17.8%	(1,421,127)	24.3%
Power Grid Usage Charges	(2,313,203)	(2,363,451)	(1,370,814)	(50,248)	-2.1	(992,637)	72.4%
Total Manageable Costs (Portion B)	(2,266,890)	(2,327,541)	(1,482,744)	(60,651)	-2.6	(844,797)	57.0%
Staff, Material, Services of Third Parties and Other	(1,812,583)	(1,920,909)	(1,107,893)	(108,326)	-5.6	(813,016)	73.4%
Personnel	(768,614)	(1,061,112)	(1,140,459)	(292,498)	-27.6%	79,347	-7.0%
Material	(71,302)	(51,722)	(58,196)	19,580	37.9	6,474	-11.1%
Outsourced services	(505,407)	(450,752)	(405,854)	54,655	12.1%	(44,898)	-11.1%
Provisions and Estimated Losses	(281,895)	(216,996)	(179,096)	64,899	29.9%	(92,763)	51.8%
Other Operating Costs and Expenses	(185,365)	(140,327)	(675,712)	45,038	32.1%	(761,176)	112.6%
Amortization	(454,307)	(406,632)	(374,851)	47,675	11.7%	(31,781)	8.5%
OPERATING COSTS AND EXPENSES*	(10,560,217)	(11,968,491)	(8,709,930)	(1,408,274)	-11.8%	(3,258,561)	37.4%

*Without construction cost

The accrued costs of Portion A in 2022 dropped 14.0% or were down BRL 1,347.6 million as compared with 2021 due to the stabilization of the hydroelectric crisis that caused a drop in energy prices and the payment of charges, offset by the receipt of funds from Coner, MCSD and reimbursements.

Variation in Costs and Expenses (BRL thousand)	2022	2021	2020	2022 X 2021		2021 X 2020	
				Variation (BRL)	Variation %	Variation (BRL)	Variation %
Electricity Purchased for Resale	(5,980,124)	(7,277,499)	(5,856,372)	(1,297,375)	-17.8%	1,421,127	24.3%
Purchase of energy in the regulated environment – CCEAR	(3,585,876)	(3,917,257)	(3,149,846)	(331,381)	-8.5%	767,411	24.4%
Electricity Trading Chamber – CCEE	(315,866)	(1,463,404)	(1,030,501)	(1,147,538)	-78.4%	432,903	42.0%
Itaipu Binational Dam	(1,460,955)	(1,787,691)	(1,766,058)	(306,736)	-17.4%	21,633	1.2%
Bilateral contracts	(0)	-	-	0	0.0%	-	0.0%
Proinfa	(418,077)	(263,689)	(216,934)	154,388	58.5%	46,755	21.6%
Micro and mini generators	(675,829)	(360,371)	(151,218)	315,458	87.5%	209,153	138.3%
(-) PIS/Pasep and Cofins	(476,479)	(514,913)	(458,185)	(38,434)	7.5%	(56,728)	12.4%
Power Grid Usage Charges	(2,313,203)	(2,363,451)	(1,370,814)	(50,248)	-2.1%	992,638	72.4%
System usage charges	(1,757,225)	(1,468,111)	(1,198,928)	289,114	19.7%	269,183	22.5%
System services charges - ESS	(340,254)	(981,710)	(139,622)	(641,345)	-65.3%	842,088	603.1%
(-) Financial Surplus / CONER	(0)	(93,547)	(93,547)	93,547	100.0%	-	0.0%
Itaipu transport charges	(151,240)	(163,797)	(161,108)	(12,557)	-7.7%	2,689	1.7%
Reserve Energy Charge – EER	(297,058)	(76,328)	(102,768)	220,730	289.2%	(26,440)	-25.7%
(-) PIS/Pasep and Cofins	(232,574)	(232,947)	(138,065)	(373)	-0.2%	(94,882)	68.7%
Total Non-Manageable Costs (Portion A)	(8,293,327)	(9,640,950)	(7,227,186)	(1,347,623)	-14.0%	2,413,764	33.4%

*No construction revenue

a. Energy purchased for resale

A drop in the costs of energy purchased for resale of BRL 1,297.4 million (-17.8%) was registered in the annual comparison mainly due to: a) a reduction in the short-term energy in the CCEE of BRL 1.147.5 million (-78.4%); b) a drop totaling BRL 326.7 million (-18.3%) in cost of contracted energy from Itaipu, impacted by the lower amount contracted and a significant drop in the average MWh price; c) offset by the increase of BRL 315.5 million (+87.5%) in the amount of energy from the distributed generation system; and d) an increase of BRL 154.4 million (+58.5%), regarding Proinfa.

b. Power grid usage charges

The drop of BRL 50.2 million (-2.1%) in the period was due mostly to: a) a decrease of BRL 691.5 million (-67.0%) in the System Services Charges (ESS); b) an BRL 220.7 million increase (+289.2%) in the Reserve Energy Charge (EER); c) an increase of BRL 289.1 million (+19.7%) in the Basic Grid Fee; and d) a variation in the receipt of resources from Coner totaling BRL 143.6 million.

Variation in Costs and Expenses (BRL thousand)	2022	2021	2020	2022 X 2021		2021 X 2020	
				Variation (BRL)	Variation %	Variation (BRL)	Variation %
Staff, Material, Services of Third Parties and Other	(1,812,583)	(1,920,909)	(1,107,893)	(108,326)	-5.6%	(756,062)	-40.6%
Staff and Directors	(599,121)	(905,338)	(994,037)	(306,217)	-33.8%	171,265	20.8%
Social Security and Assistance Plans	(169,493)	(155,774)	(146,422)	13,719	8.8%	(9,362)	-6.0%
Material	(71,302)	(51,722)	(58,196)	19,580	37.9%	(6,223)	-9.7%
Outsourced services	(505,407)	(450,752)	(405,854)	54,655	12.1%	8,464	2.1%
Provisions for Disputes	(162,413)	(89,663)	(55,117)	72,750	81.1%	(109,588)	-66.5%
Estimated Losses	(119,482)	(127,333)	(123,979)	(7,851)	-6.2%	(13,701)	-10.0%
Other Operating Costs and Expenses	(185,365)	(140,327)	675,712	45,038	32.1%	(796,917)	-657.5%
Amortization	(454,307)	(406,632)	(374,851)	47,675	11.7%	31,254	9.1%
Total Manageable Costs (Portion B)*	(2,266,890)	(2,327,540)	(1,482,744)	(60,650)	-2.6%	(724,808)	-32.8%

*No revenue and construction costs

a. Staff costs

The staff costs declined 33.8%, amounting to BRL 306.2 million, impacted largely by: a) a decrease in the provision for performance and profit sharing; b) an increase in costs related to the post-employment assistance plan due to the annual update; and c) a shrink in the number of employees from 4,430 on December 31, 2021 to 4,257 on December 31, 2022.



	2022	2021	2022 X 2021		2021 X 2020	
			Variation BRL (thousand)	Variation %	Variation BRL (thousand)	Variation %
Personnel and Social Security and Assistance Plans (-) IDP	772,813	998,099	(225,286)	-22.6%	88,937	-8.2%
IDP	(4,199)	63,013	(67,212)	-106.7%	(9,590)	18.0%
Personnel and Social Security and Total Assistance Plans	768,614	1,061,112	(292,498)	-27.6%	79,347	-7.0%

b. Outsourced Workers Service Costs

Costs with outsourced workers services increased 12.1%, totaling BRL 54.7 million, mostly due to increasing costs for: a) maintenance of the electrical system; b) customer services linked to interruption of supply, reconnections and inspections, arising from adjustments and an increase in outsourced labor; and c) call center services, a consequence of outsourcing.

c. Estimated losses

Estimated losses resulted in an increase of 29.9%, reaching BRL 64.9 million due to: (a) an 81.1% increase in provisions for litigations (BRL 72.7 million), mainly as a result of an increase in civil lawsuits of BRL 25.6 million (+52.5%), and in labor lawsuits of BRL 41.2 million (+91.3%), offset by a drop of BRL 17.5 million in regulatory lawsuits (-575.4%); and (b) a 6.2% reduction in estimated losses (BRL 7.8 million) caused primarily by an increase in collection lawsuits of the Company.

d. Other operating costs and expenses

This item increased 32.1%, summing BRL 45.0 million, mostly due to an increase in losses for the deactivation and disposal of assets amounting to BRL 31.5 million, impacted by the higher investment volume.

Outsourced workers
service costs rose
12.1% in 2022



	2022	2021	2020	2022 X 2021		2021 X 2020	
				Variation BRL (thousand)	Variation %	Variation BRL (thousand)	Variation %
Financial Income	593,726	457,697	1,334,983	136,029	29.7%	(877,286)	-65.7%
Recognition of tax credit	33,909	22,696	990,612	11,213	49.4%	(967,916)	97.7%
Default accruals on energy bills	258,721	306,662	247,294	(47,941)	-15.6%	59,368	24.0%
Exchange variation - purchase of electricity from Itaipu	-	9,243	42,729	(9,243)	-100.0%	(12,686)	-29.7%
Return on investments	109,918	31,331	37,865	78,587	250.8%	(6,534)	-17.3%
Exchange variation on loans and financing	-	9,243	35,089	(9,243)	-100.0%	(25,846)	-73.7%
Remuneration from sectoral assets and liabilities	146,754	35,903	20,169	110,851	110,851	15,734	78.0%
Other financial income	27,043	42,032	23,045	(14,989)	-35.7%	18,987	82.4%
(-) PIS/Pasep and Cofins tax on financial income	-35.7%	(20,213)	(61,820)	-35.7%	31.4%	41,607	-67.3%
(-) Financial expenses	722,773	391,228	291,002	331,545	84.7%	100,226	34.4%
Monetary, exchange rate and debt charges	546,685	276,141	173,289	270,544	98.0%	102,852	59.4%
Exchange variation - purchase of electricity from Itaipu	27,584	58,814	75,478	(31,230)	-53.1%	(16,664)	-22.1%
Remuneration from sectoral assets and liabilities	11,207	3,745	62	7,462	199.3%	3,683	5940.3%
Interest on R&D and PEE	33,171	14,255	11,022	18,916	132.7%	3,233	29.3%
Other financial expenses	104,126	38,273	31,151	65,853	172.1%	7,122	22.9%
Update/Provision for allocation of PIS and Cofins credits	(1,040,694)	-	-	1,040,694	100.0%	-	-
Net financial result	(1,169,741)	66,469	1,043,981	(1,236,210)	-1,859.8%	(977,512)	-93.6%

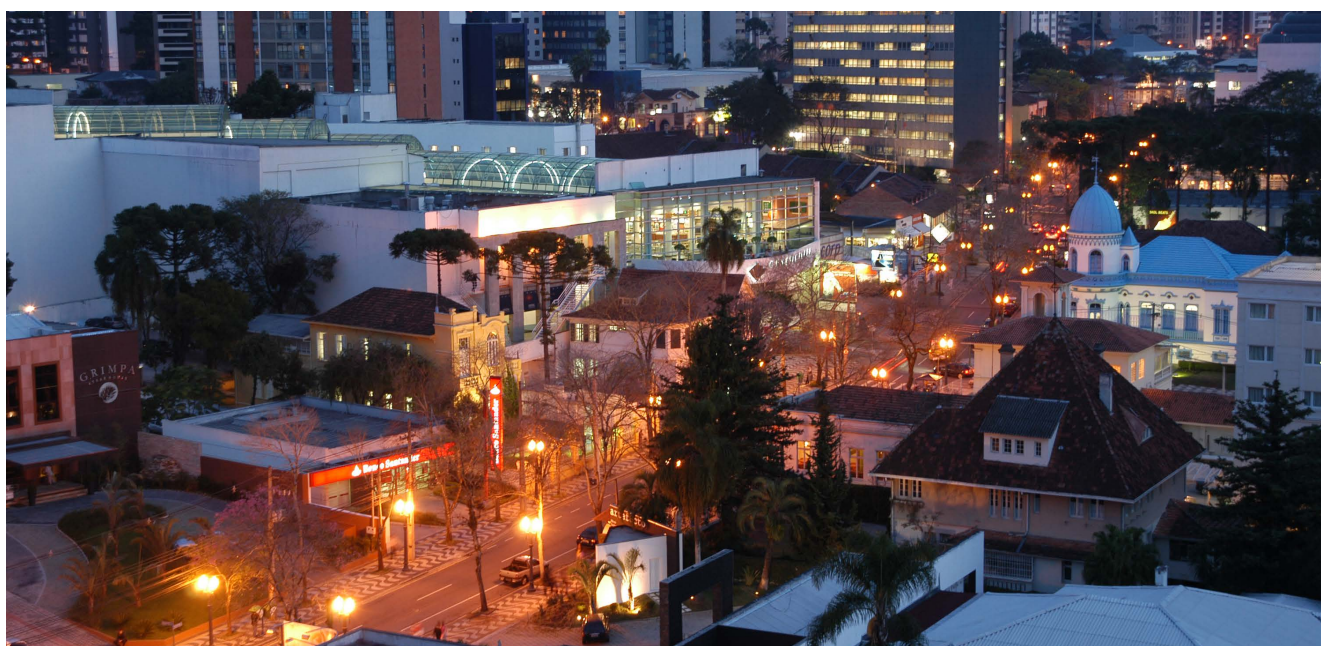
The financial result decreased BRL 1.236 billion, and, disregarding the effect of the update of the provision for allocation of PIS/ Cofins credits, the drop was 294.1% (BRL 195.5 million), impacted mainly by the increase in the debts of debentures, loans, and financing resulting from an increase in interest rates and the fundraising, off-

set by the increase in income from financial investments and income from remuneration of sectoral financial assets and liabilities.

EBITDA

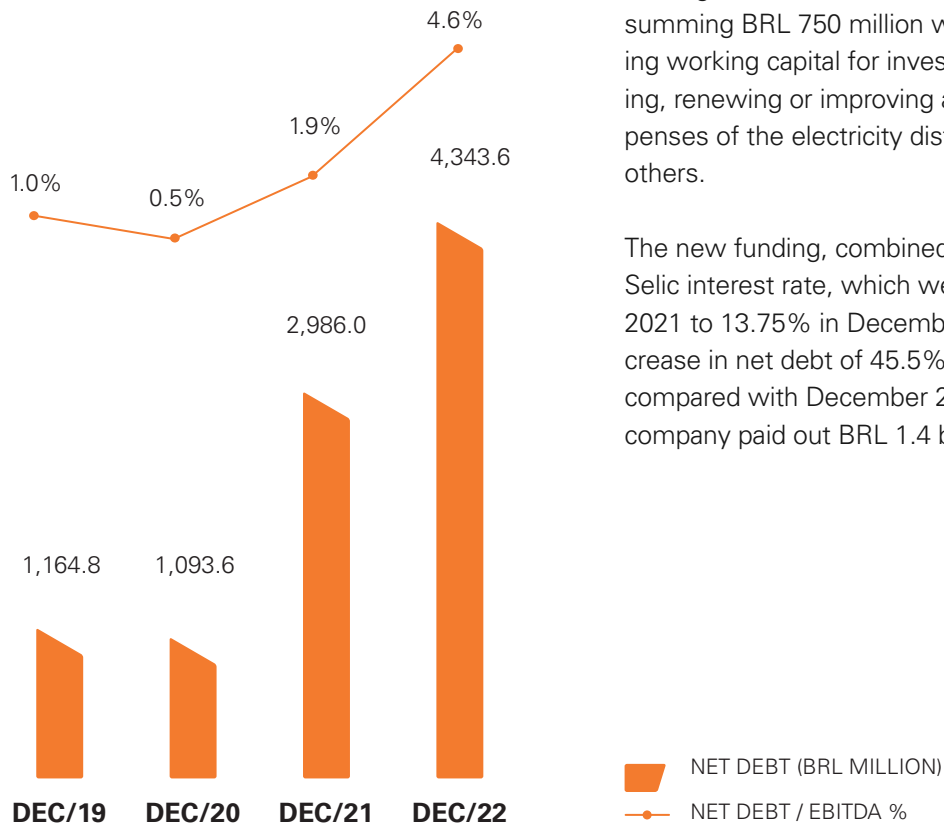
Corporate EBITDA in 2022 was BRL 938.8 million, 40.3% down from 2021 (BRL 1,573.6 million). Disregarding the amount of the PIS/Cofins share of BRL 810.6 million, the EBITDA reached BRL 1,749.4 million, up 11.2%, underscoring the positive performance of the company's operations.

	2022	2021	2020	2022 x 2021 variation (%)	2021 x 2020 variation (%)
Net income for the period	(229,778)	857,884	1,854,181	-126.8%	-53.7%
Deferred corp. income tax and CSLL contribution	(585,568)	76,878	(55,653)	-861.7%	-238.1%
Provision for corp. income tax and CSLL contribution	130,103	298,719	933,931	-56.4%	-68.0%
Net financial expenses (income)	1,169,741	(66,469)	(1,043,981)	-1,859.8%	-93.6%
EBIT	484,498	1,167,011	1,688,478	-58.5%	-30.9%
Amortization	454,307	406,632	374,851	11.7%	8.5%
EBITDA	938,805	1,573,643	2,063,329	-40.3%	-23.7%
Net Operating Income	13,903,300	14,836,392	11,552,896	-6.3%	28.4%
EBITDA Margin/NOI	12.6%	10.6%	17.9%	-	-



Indebtedness

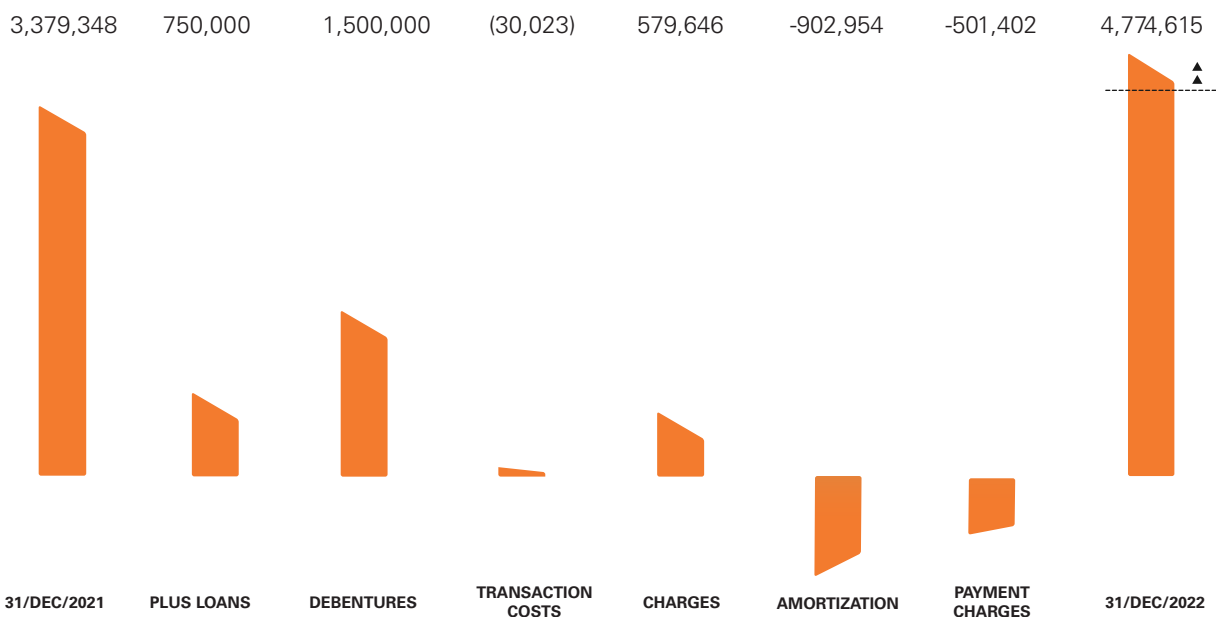
LEVERAGE RATIO



Throughout 2022, the Company issued debentures totaling BRL 1.5 billion and Bank Credit Notes (CCBs) summing BRL 750 million with the purpose of boosting working capital for investments aimed at expanding, renewing or improving and/or reimbursing expenses of the electricity distribution network, among others.

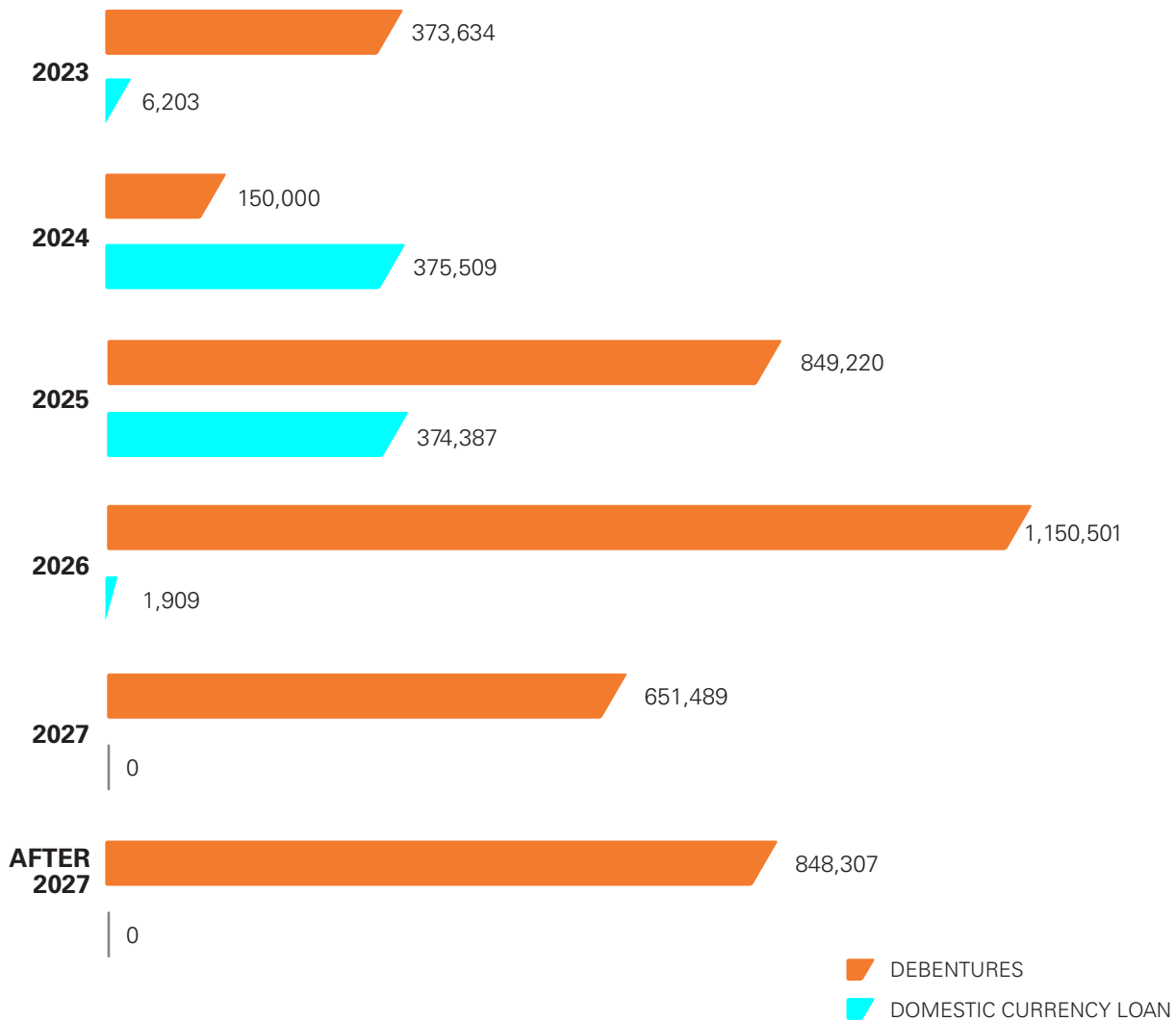
The new funding, combined with the increase in the Selic interest rate, which went from 2% in January 2021 to 13.75% in December 2022, caused an increase in net debt of 45.5% in December 2022 as compared with December 2021. In this period, the company paid out BRL 1.4 billion.

CHANGE IN DEBT IN 2022 (BRL)



Maturity Schedule (BRL million)

MATURITY SCHEDULE¹ (BRL THOUSAND)



1. Currently, Copel DIS has no balance of loans in foreign currency.

Cash Flow

In fiscal year 2022, Copel DIS generated a net cash of BRL 36.8 million, while in 2021 cash consumption reached BRL 1,068.5 billion, mostly due to the better performance of the operation in 2022.

The effect of the Company's largest investment plan can be seen in the analysis of the investment activities.

OPENING BALANCE (BRL MILLION)



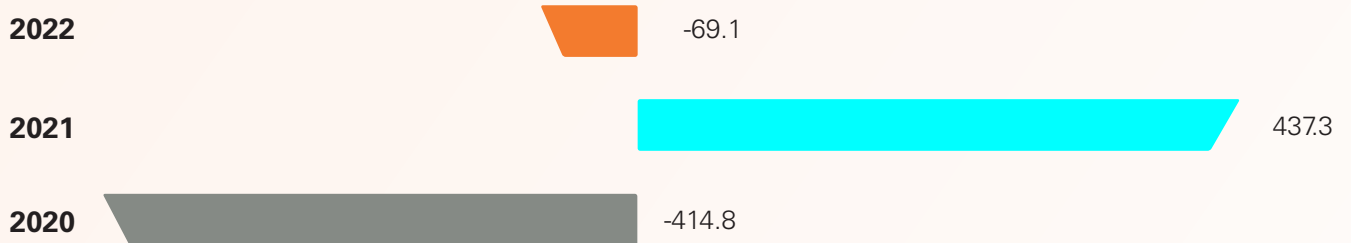
OPERATIONAL ACTIVITIES (BRL MILLION)



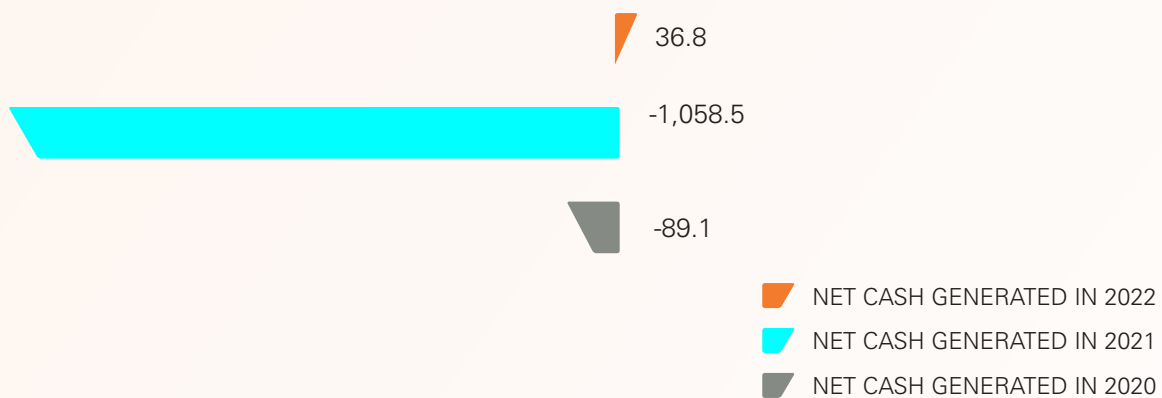
INVESTMENT CASH GENERATION (BRL MILLION)



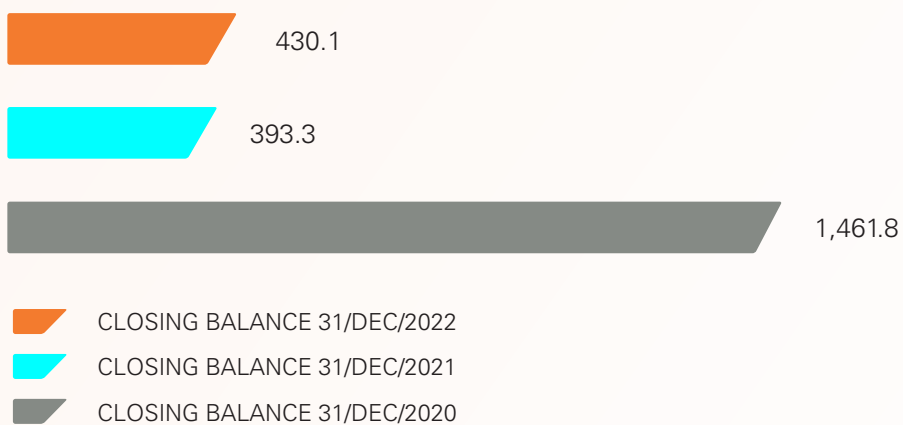
FINANCING ACTIVITY (BRL MILLION)



NET CASH GENERATED IN 2022 (BRL MILLION)



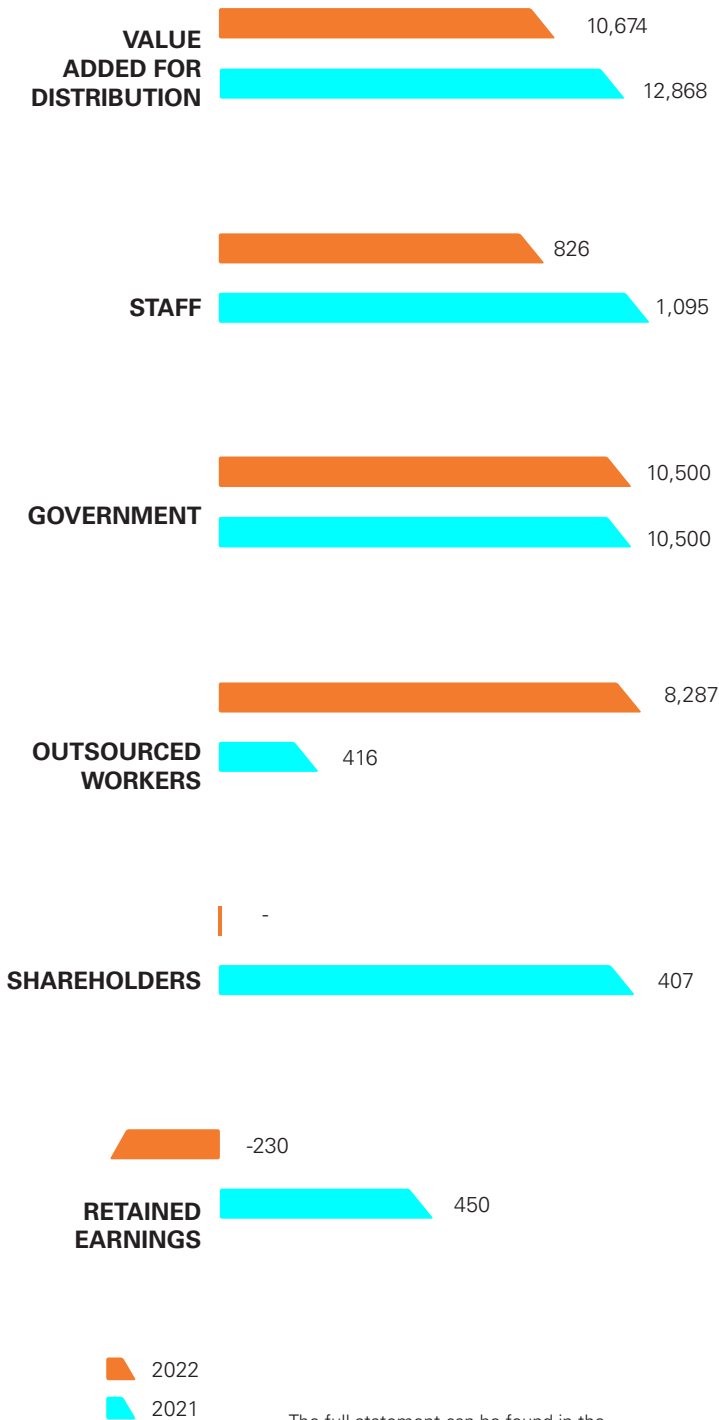
CLOSING BALANCE (BRL MILLION)



The full statement can be found in the Financial Statements

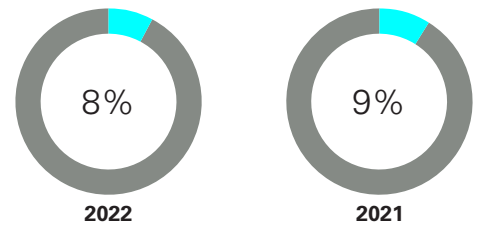
Added value

Copel DIS registered BRL 10,674 million in total added value in 2022, up 17.1% as compared with the previous year (BRL 12,868 million). The summarized distribution of this value is shown in the graphs, and the pie charts shows the shares of the main items.

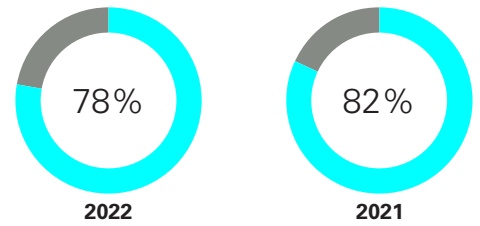


The full statement can be found in the Financial Statements.

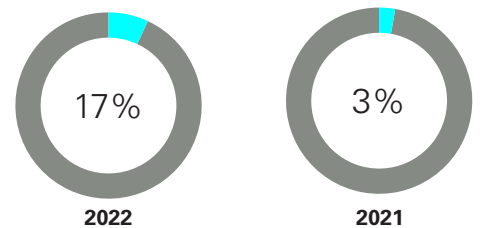
STAFF



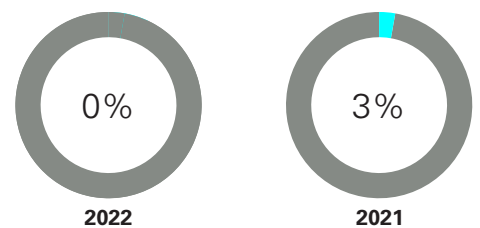
GOVERNMENT



OUTSOURCED WORKERS



SHAREHOLDERS



RETAINED EARNINGS

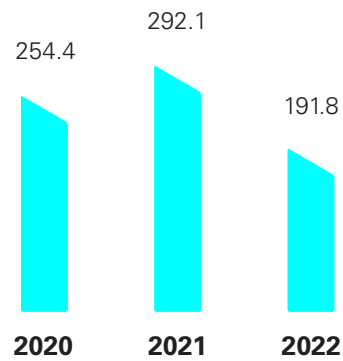
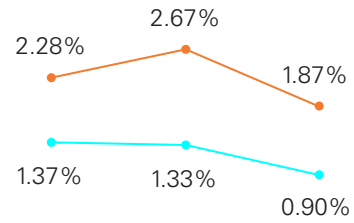


Consumer Default

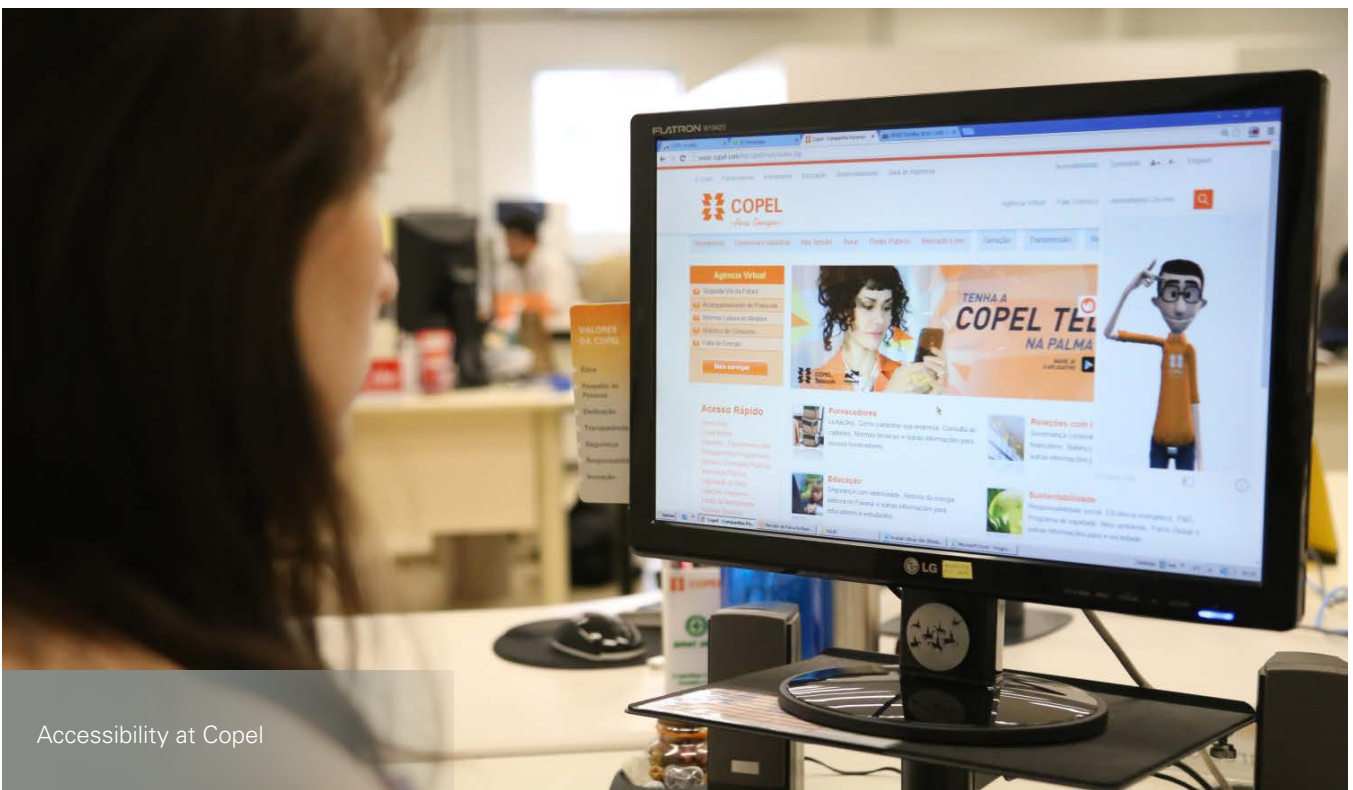
In December 2022, the default of Copel DIS consumers, also known as Corporate Delinquency, hit BRL 191.8 million, which is equal to 0.90% of its billing for the previous 12 months, with a drop of 34.3% as compared with December 2021. The results show a significant improvement over the previous year in the two main default indicators of Copel DIS, according to the methodology.

The good result was made possible due to the use of the collection tools, such as default notices (SMS, email, bill protests, collection letters) and, as a last resort, the suspension of supply. These actions led to the recovery of default accounts with many late-payment days.

DEFAULT



■ DEFAULT (BRL MILLION)
 ● DEFAULT ABRADÉE (%)
 ● DEFAULT COMPANY (%)



Accessibility at Copel



Staff profile

Hiring through public exams provides equal conditions for all candidates

Since it is a government-controlled company, in which the majority shareholder is the government of the state of Paraná, entering the workforce is through a public exam and is based on the principle of equality and equal opportunity for all professionals with equal conditions offered to all candidates.

The hired item in the calculation of number of new hires, rate of new employees and turnover included the hired employees as well as the reinstated employees.

All of Copel's employees are entitled to parental leave. After returning from a six-month maternity leave, a change in working hours from 8 to 6 is available for a period of 60 days for nursing mothers. The paternity leave is 20 days.

NEW EMPLOYEE HIRES GRI 401-1

	2022		2021	
	No.	Rate	No.	Rate
By gender				
Men	2	100	2	66.67
Women	0	0	1	33.33
Total	2	100	3	100
By age				
Under 30	0	0	0	0
Between 30 and 50	1	50	1	33.33
Over 50	1	50	2	66.67
Total	2	100	3	100
By region				
South	3	100	2	100
Southeast	0	0	0	0
Midwest	0	0	0	0
Northeast	0	0	0	0
Total	3	100	2	100

Note: a division by company was considered for the breakdown of data by subsidiaries, considering that stamped employees, who provide services to all subsidiaries, and stamps are distributed in the companies in the same proportion as in the table: **hired** represents the number of employees hired by the Company (i) in the time period (t.); **dismissed** represents the number of employees dismissed by the Company (i) in the time period (t); total employees represents the **total number of employees** of the Company (i); and in the end period (t-i), i.e., **end of the previous period** or beginning of the current period.

Calculation methodology: the turnover rate is calculated using the formula (hired + terminated/2)/by the total number of employees in the year.

EMPLOYEES WHO LEFT THE COMPANY GRI 401-1

	2022		2021	
	No.	Rate	No.	Rate
By gender				
Men	221	3.22	149	2.10
Women	93	4.81	94	4.53
Total	314	3.57	243	2.65
By age				
Under 30	3	2.05	19	5.56
Between 30 and 50	105	1.64	135	2.08
Over 50	206	9.24	89	3.81
Total	314	3.57	243	2.65
By region				
South	314	3.57	243	2.65
Southeast	0	0	0	0
Midwest	0	0	0	0
Northeast	0	0	0	0
Total	314	3.57	243	2.65

Note: a division by company was considered for the breakdown of data by subsidiaries, considering that stamped employees, who provide services to all subsidiaries, and stamps are distributed in the companies in the same proportion as in the table: **hired** represents the number of employees hired by the Company (i) in the time period (t.); **dismissed** represents the number of employees dismissed by the Company (i) in the time period (t); total employees represents the **total number of employees** of the Company (i); and in the end period (t-i), i.e., **end of the previous period** or beginning of the current period.

Calculation methodology: the turnover rate is calculated using the formula (hired + terminated/2)/by the total number of employees in the year.

TURNOVER GRI 401-1

	2022	2021	2020
Total headcount	4,257	4,430	4,641
By gender			
Men	3.22	2.10	-
Women	4.81	4.53	-
By age			
Under 30	2.05	5.56	-
Between 30 and 50	1.64	2.08	-
Over 50	9.24	3.81	-
By regional distribution			
South	3.57	2.65	-
Southeast	0	0	-
Midwest	0	0	-
Northeast	0	0	-
Total	3.57	2.65	-

Note: a division by company was considered for the breakdown of data by subsidiaries, considering that stamped employees, who provide services to all subsidiaries, and stamps are distributed in the companies in the same proportion as in the table: **hired** represents the number of employees hired by the Company (i) in the time period (t.); **dismissed** represents the number of employees dismissed by the Company (i) in the time period (t); total employees represents the **total number of employees** of the Company (i); and in the end period (t-1), i.e., **end of the previous period** or beginning of the current period.

Calculation methodology: the turnover rate is calculated using the formula (hired + terminated/2)/by the total number of employees in the year.

Employees and collaborators

GRI 2-7

Copel DIS had 11,858 professionals, of whom 4,257 were its own employees and 7,601 outsourced in 2022. The number of employees dropped 3.91% in 2022 as compared with the previous year due to the Voluntary Dismissal Program offered in 2022.

For the breakdown of data by subsidiaries, a division by company was considered since the stamped employees (Copel DIS employees who currently work in another subsidiary) provide services to all subsidiaries.

GRI 2-8, 202-1

Employees who work 6 or 8 hours a day as full-time and 4 hours as part-time were considered for the workload.

Outsourced workers totaled 7,601 in 2022 for jobs

related to conservation/security of facilities, engineering work, administrative services, auxiliary services, commercial/support services, and technical/operational services. No significant change was verified in comparison with 2021.

In the assessment of all the relevant operational units, i.e., the entire structure of Copel DIS, 100% of the organization's board members were hired from the local community, i.e., Brazil. In addition, referrals for the board of directors must comply with the requirements and prohibitions defined by Federal Law 6404/1976 and 13303/2016 and by the internal policy and standard for the nomination of members of statutory bodies. **GRI 202-2**

EMPLOYEE INFORMATION, BY GENDER GRI 2-7

	2022			2021			2020		
	Men	Women	Total	Men	Women	Total	Men	Women	Total
Employees	3,366	891	4,257	3,463	967	4,430	3,593	1,048	4,641
Permanent employees	3,366	891	4,257	3,463	967	4,430	3,593	1,048	4,641
Full-time employees	3,364	890	4,254	-	-	4,421	-	-	-
Part-time employees	2	1	3	-	-	9	-	-	-

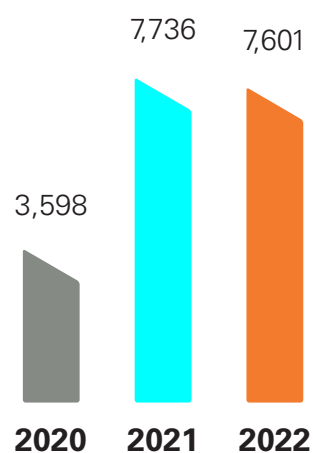
Note: Copel DIS has no temporary employees, nor does it have employees with zero-hour contracts.

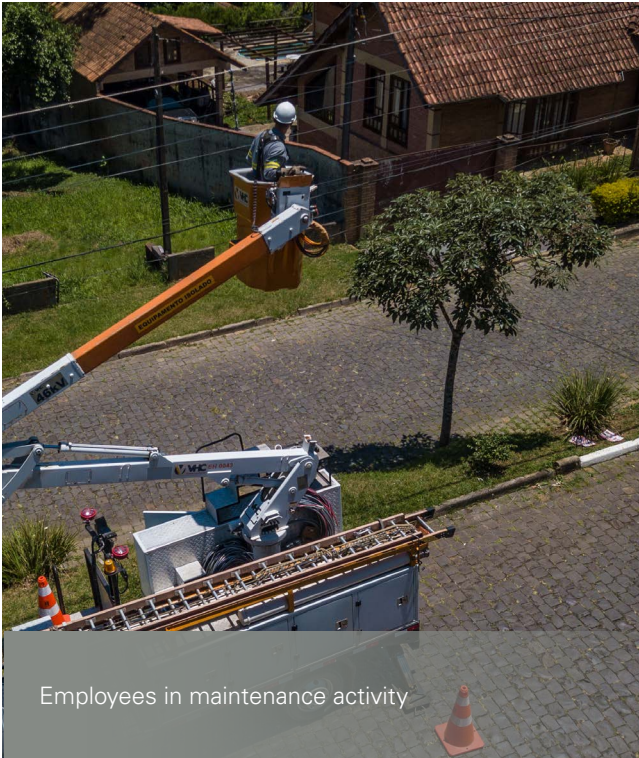
EMPLOYEE INFORMATION, BY REGION GRI 2-7

	2022		
	Paraná	Other states	Total
Employees	4,256	1	4,257
Permanent employees	4,253	1	4,254
Full-time employees	4,253	1	4,254
Part-time employees	3	0	3

Note: Copel DIS has no temporary employees, nor does it have employees with zero-hour contracts.

OUTSOURCED WORKERS GRI 2-8





Employees in maintenance activity

Respect for free trade union association and the right to collective bargaining GRI 2-30

The company has a relationship with 18 unions representing the different worker categories and, throughout the year, holds meetings to discuss matters of mutual interest. Around the time of the base date (set in October), this relationship is stepped up so that the parties can discuss proposals and demands for the closing of the Collective Bargaining Agreement

Ensuring compliance with the clauses of the Collective Bargaining Agreement mitigates possible future problems between the unions and employees. Moreover, dismissals for just cause are preceded by a summary administrative procedure, regulated by an internal administrative rule, which guarantees the employee's right of defense. At Copel 100% of the employees are covered by collective bargaining agreements.

Work environment surveys

Copel's People Management policy incorporates the monitoring of the work environment to ensure a positive workplace, which improves interpersonal relations and employee engagement.

For this purpose, corporate environment surveys are conducted by an external company using a census methodology, i.e., all employees are asked to fill out the assessment so their expectations and level of satisfaction are known. The Copel Holding Company conducts this monitoring through the Great Place to Work (GPTW) platform. The reading is obtained from work environment surveys, which analyze two employee Visions:

- Area - relates to the place of work
- Company - assessed as a whole based on the respective steering committee

The policy aims to create a positive work environment



4,095 employees took the survey



73% adhered to the process

The survey assesses the positive and negative aspects of the Company based on benchmarks with other companies.

In the last edition, held between 30/May/22 to 15/May/22, 5,645 employees from the entire group were invited and 4,095 responded, representing 73% of the total. According to the Trust Index tool used by GPTW to assess employee perception, the average in 2022 stood at 65, representing a slight drop as compared with 2021, when it scored 70.

Remuneration and careers

GRI 2-21, 202-1

Copel, through People Management, has put in place policies that recognize excellent performance, rewarding and valuing the performance of employees and teams, according to a career and remuneration plan.

The Company considers internal and external balance based on meritocracy principles in remuneration and recognition practices. As such, it recognizes the need to map potential leaders for the future and act towards forming successors in order to meet Company needs.

Salaries are managed by the Career and Remuneration Structure area, and Copel does not pay less than the national minimum wage.

Copel requires from its contracted parties, among other contractual obligations, the employee's registration form at the Labor Ministry, copies of work and social security cards and FGTS and INSS payments as proof of regularity with Social Security, FGTS and the Labor Justice department.

In 2022, the total annual remuneration of the highest paid individual was 4.46 times higher than the average annual remuneration of other Copel employees. In 2021, the compensation of the highest paid individual was 5.43 higher than the annual employee average.

The ratio between the percentage increase in the annual total remuneration of the highest paid individual in the organization and the average percentage increase in the annual remuneration of all employees was 1.21%.

The percentage increase for the highest paid individual was 11.04% and the average percentage increase for the other employees was 9.11%.

The decrease for the other employees is due to the variable remuneration component (PLR + PPD) and to the fact that Copel did not correct the salary scale in 2022.

**VARIATION BETWEEN LOWEST WAGE AND
MINIMUM WAGE, BY GENDER GRI 202-1**

Operational Unit	2022		2021	
	Men	Women	Men	Women
Lowest salary paid by the organization (BRL)	2,173.37	2,088.51	2,173.37	2,173.37
Minimum wage determined by law or union (BRL)	1,212.00	1,212.00	1,100.00	1,100.00
Lowest salary/ minimum wage ratio	1.79	1.72	1.98	1.98

Note: the operational unit considered was Copel DIS. Employees with a reduced workday of 4 hours were not considered in the calculation.

**RATIO OF BASIC SALARY AND
REMUNERATION OF WOMEN TO MEN - BY
JOB CATEGORY GRI 2-21, 405-2**

Job category	Basic salary	Remuneration
Secondary-level technical professional	0.95	0.97
Secondary-level professional	0.91	0.94
University-level professional	0.82	0.88
Operational	0	0

Note: the whole of Copel DIS was considered as an operational unit. Such was considered averages for base salaries as well as remunerations, excluding from the calculation 02 employees and 01 part-time employee (4h).

The Career and Remuneration Structure groups the positions and jobs and seeks to find an internal and external balance

**Committee for the Assessment of
Career Progression**

This process aims to encourage employee development and give fair opportunities and transparency in promotions.

A selective process for progression at the University Level targeted at the Senior and Consultant stages, in addition to the requirements established in the Career and Remuneration Structure, is available. The process groups positions and jobs and creates an internal and external balance through periodic salary surveys.

Through it, a commission for special assessment, composed of the company's area representatives, reviews the curriculum as well as the self-assessment of the candidates based on the following criteria: mastery of the area, alignment with the context, communication, representativity and results.

Benefits GRI 401-2

Copel offers a benefits package compatible with the best companies and that goes beyond what is provided for by law. All employees, regardless of their workload, are provided with:

- Meal/food allowance
- Daycare allowance
- Extended maternity leave
- Extended paternity leave
- Profit sharing
- Copel Performance Bonus
- Early payment of 13th salary
- Education allowance
- Vacation bonus
- Flexible schedule
- Aid for people with disabilities
- Aid for employees with a disabled dependent
- Vocational rehabilitation and adjustment program
- Supplementary sick pay
- Life insurance
- Chemical dependency program
- Vaccination

In line with the growing trend for a hybrid work regime adopted by most companies in the post-COVID-19 phase, Copel has implemented rules for its Home Office Program, as set forth in the Collective Bargaining Agreement, which sets out the conditions for this system (part work from home and part work in office) with voluntary adhesion by employees from specific areas.

Regarding maternity leave, the Constitution provides for 120 days of leave but Copel offers an extra 60 days in addition to reducing the daily work day from 8 to 6 hours, with no impact on salary, for 60 days after the return from maternity leave to encourage and promote nursing. These benefits extend to mothers who adopt, even for late adoptions. After returning from maternity leave, the mothers have at their disposal Nursing Rooms, dedicated areas for the collection and storage of milk. In this action, the mother receives a kit with instructions on storage, glass bottles and a thermal bag for proper transport.

Copel also offers extended paternity leave from 5 to 20 working days.

PARENTAL LEAVE GRI 401-3

		2022	2021
Employees who were entitled to take the leave	Men	3,366	3,463
	Women	891	967
Employees who took the leave	Men	111	33
	Women	42	101
Employees who returned to work during the reporting period after their leave of absence ended	Men	111	32
	Women	42	100
Employees who returned to work after their leave and were still employed 12 months after their return	Men	107	35
	Women	37	129
Return rate	Men	100	99.67
	Women	100	99.01
Total		100	98.51
Retention rate	Men	96.40	109.38
	Women	88.10	129.00
Total		94.12	124.24

Note: to make the retention study possible, the base was composed of employees who were expected to return in 2021.

Complementary social security

GRI 201-3, 404-2

Copel offers two pension plans through the Copel Foundation: Unified - BD/Saldado and Plan III - CD/CV, along with a health care plan, in which the employee can create a financial reserve fund during his or her professional life. For each regular contribution, the sponsor (Copel) contributes the same amount and employees have the option of making contributions to increase future income, without the sponsor's counterpart. The reserve formed is transformed into a benefit at the time of retirement.

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

The level of participation in retirement plans, such as participation in mandatory or voluntary, regional or national plans is 99.17%.

The level of participation in retirement plans, such as participation in mandatory or voluntary, regional or national plans is **99.17%**

On 31/Dec/2022, both pension plans were covered in excess. The Unified Plan registered a surplus of BRL 653,553. The Voluntary Contribution Plan, in turn, registered a surplus of BRL 12,116.

Since both funds presented a surplus on 31/Dec/2022, no plans have been made for insufficiency of funds.

In addition, the Copel Foundation offers *Viva Tranquilo*, a financial and social security education program for employees to learn about the importance of a supplementary pension plan. It also encourages employees to transfer their pension from banks and insurance companies to the Foundation.

It has also offered, since 1979, the Retirement Preparation Program (PPA), with a series of lectures on financial social security education, consumption and savings behavior, entrepreneurship, quality of life and health.

PERCENTAGE OF EMPLOYEES WHO CAN RETIRE IN THE NEXT 5 AND 10 YEARS, BY JOB CATEGORY

EU15

Job category	%
Line and connection workers	20.64
Power plant operators	0
Engineers	14.69
Maintenance mechanics	16.91
Other	23.81

Note:

All employees are in the Southern region.

Employees retiring in the next 5 years were considered.

The retirement criterion considered was age - 65 for men and 62 for women. A division by company/CNPJ Corporate Taxpayer ID number was considered for the breakdown of data by subsidiary. This assumption was established considering that the stamped employees provide services to all subsidiaries and the stamps are distributed in the companies in the same proportion as the staff.

Professional Development

Training and skill-building

GRI 404-2, EU14, EU16

The People Management policy develops training actions for leaders and employees with the aim of enhancing their skills and competencies so they can reach levels of performance excellence, and encourages the employees to take an active role in their self-development.

Professional development at Copel is guided by the management of competencies and defined by pinpointing the training and qualification needs of the staff. The actions are organized into: education training, mandatory training, training for professional development, events (seminars, lectures, workshops, conferences, etc.), and research and development projects.

At Copel DIS, professional development underpins four areas of training: legal, essential, managerial, and strategic (mandatory courses, training and improvement). In order to develop its staff, it regularly promotes initiatives to prioritize the development of specific and specialized skills.

The actions take place through in-house training given by in-house or contracted instructors, external training courses, and participation in national and international events on topics related to company business, including outsourced workers.

The Legal Training Plan includes the courses required by the Regulatory Standards (*Normas Regulamentadoras* - NRs) of the Labor and Employment Ministry or other relevant body. In 2022, the courses were primarily conducted in the face-to-face modality and resumed after the COVID-19 lockdown. During the year, the highlight was NR10 attended by 1,554 people, and NR35 attended by 1,343 people, of which most people took both trainings.



Human Leadership Event

The Essential Training Plan comprises the training courses that Copel DIS considers essential for the achievement of its goals and challenges, in line with the company's strategic benchmarks. Training needs are identified to map technical competencies and identify development gaps.

Copel DIS works with 4 training plans:

1

LEGAL TRAINING PLAN

Safety training provided for in labor regulatory standards (RS).

This comprises the training courses that Copel DIS considers essential for the achievement of its goals and challenges, in line with the company's strategic benchmarks:

- **New Managers' Workshops** – every year, a new managers' workshop is held at Copel DIS, with managers appointed less than six months prior. In 2022, an initial welcoming session was held with all directors and CEOs, who shared their management tips, and four subsequent meetings were held to train the new managers in the following topics: Manager Controls (indicators, management systems, etc.), HR Routines, Social Service, Performance Assessment, Labor Safety, Occupational Health, and others.
- **Leadership Workshop** - Copel DIS offered leadership workshops in 2018 to help develop managers in topics related to the leadership pipeline. A total of 28 development classes were held in 2022 to train around 500 leaders throughout the state.
- **Leadership meetings** - these meetings are held periodically with the entire management body and they encompass activities such as analysis of the company's results; disclosure of the organizational strategy and development of managerial competencies, and others.
- **Talent Bank** - This is the Copel DIS succession program, which includes the professionals considered to have the potential to take on more complex roles in the near future. The talent that is included in this program undergoes development processes to increase their level of maturity and improve their competencies.
- **InovaDIS** - week dedicated to the culture of innovation and learning. The goal is to engage employees and champion innovation within Copel.
- **Conexão com o Futuro (Connection with the Future)** - integration and professional development program for Copel DIS interns in which workshops and lectures are offered for training, interactions, skill building and to encourage learning. The program also aims to contribute to the role of the supervisor, who accompanies the trainee daily in the performance of activities.

2

ESSENTIAL TRAINING PLAN

Training prioritized in the mapping of competencies and considered essential for the performance of activities based on the company's strategic reference.

3

STRATEGIC TRAINING PLAN

Training provided to employees with strategic roles in the company, the human capital of the intangible assets, according to the Kaplan and Norton methodology.

4

MANAGERIAL TRAINING PLAN

Training for the development of company leaders based on individual action plans of the talent bank and on mapping leadership profiles.

The Company also offers subsidies to employees to take technical, undergraduate and graduate courses.

Management EU18

Copel has an indicator that tracks training ensuring the workforce is trained in health and safety, and it is managed, along with other company indicators, through the Strategic Management System (SGE). Both the analysis and the feedback of the data obtained through the tool are done in critical analysis meetings, known as RACs for (*Reuniões de Análise Crítica*) for short. EU16

The percentage of workers trained in 2022 in relation to the total company workforce was below expectations due to the effects of the COVID-19 pandemic. Copel's training, as a rule, was structured for face-to-face interaction, and due to contact restrictions, Copel was forced to interrupt the face-to-face training, which greatly affected the indicator.

The dip in the percentage was more significant because, besides the persistence of the effects of the

pandemic, there was a significant increase in the number of outsourced employees, who did not receive some of the training courses which despite not being mandatory are part of the company's list of preventive training courses.

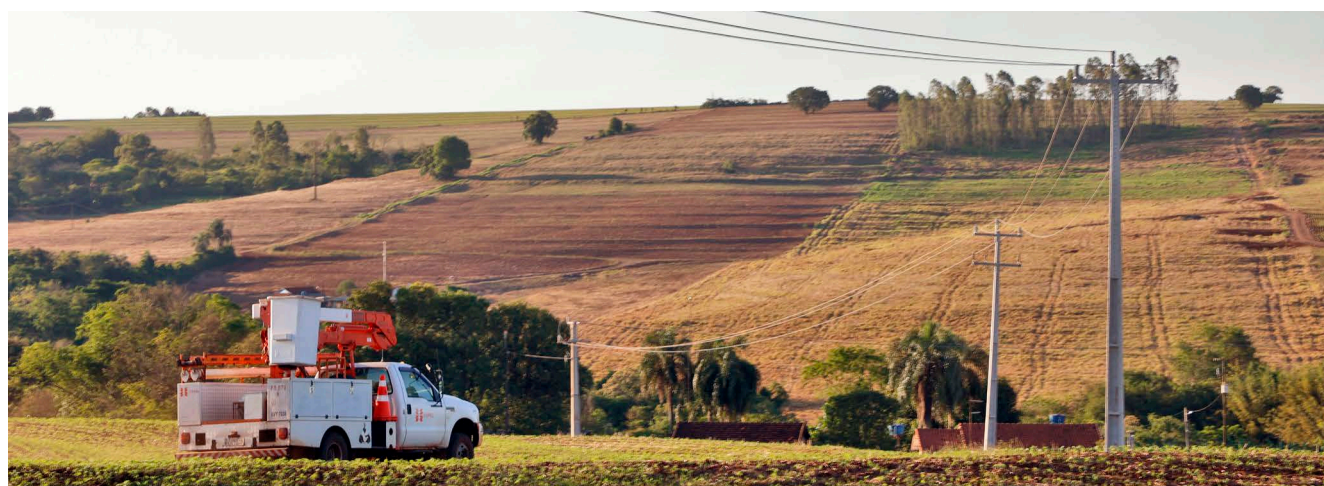
In 2022, with the gradual return of in-person activities, the training area carried out several actions, hiring external training or providing internal training, to train the entire workforce that had been held back in previous years and managed to cover a little more than 70% of all contracted employees and subcontractors.

AVERAGE HOURS OF TRAINING BY JOB CATEGORY AND GENDER GRI 404-1

	2022
Men	37.13
Women	28.10
Total	35.24
Secondary-level technical professional	56.62
Secondary-level professional	26.76
University-level professional	45.45
Operational	23.25
Total	33.25

PERCENTAGE OF CONTRACTED AND SUBCONTRACTED WORKERS WHO HAVE UNDERGONE RELEVANT HEALTH AND SAFETY TRAINING EU-18

Percentage of contracted and subcontracted workers who have undergone relevant health and safety training	0.72
Total contracted and subcontracted employees	11,587
Total contracted and subcontracted workers who have undergone relevant health and safety training	8,301
Construction activities	2,146
Operation activities	2,205
Maintenance activities	3,950



Assessment GRI 404-2

The *Nossa Energia* (Our Energy) performance management program created in 2013 was revamped in 2021 and now includes practices that are more inherent to the market and personalization when dealing with employee competencies.

Therefore, this new assessment model was adopted in 2022 based on the pillars of **competencies, key business areas** and **levels of complexity** to evaluate and differentiate the attributions and responsibilities of the professionals based on their job, development, maturity, and career progression. As such, the employees began to be divided by key business area and assessed according to the complexity levels they present in their job performance. The model also includes self-assessment, mid-term assessment and the prepa-

ration of development plans as mandatory steps for all employees. Furthermore, the process flow includes assessment and an analysis stage for consistency of assessments to create more balance and homogeneity in the application of the assessment, through the consolidation of previous assessments and critical reviews with recommendations pointing out some situations that must be observed by managers.

As a rule, the program covers all Copel employees considered suitable, with the exception of licensed workers, newly hired / reinstated employees or those on leave who worked less than 180 days during the assessment cycle. In the last cycle, employees who were unable to work (in person or remotely) for 180 days or more were also not considered. As such, 100% of the suitable employees were assessed.

EMPLOYEES WHO RECEIVE PERFORMANCE REVIEWS BY GENDER AND JOB CATEGORY (%) GRI 404-3

2022

	Employees who received assessments	Employee Total	Percentage of employees who received assessments
Gender			
Men	3,272	3,366	97.21%
Women	871	891	97.76%
Total	4,143	4,257	97.32%
Job category			
Operational	3	3	100%
Secondary-level technical professional	891	901	98.89%
Secondary-level profes- sional	2,764	2,860	96.64%
University-level profes- sional	485	493	98.38%
Total	4,143	4,257	97.32%

Talent Bank

The succession management of Copel DIS is carried out through the Talent Bank Program aimed at identifying and training potential successors. The talent identification is carried out through referrals made by the immediate manager and a review and validation by a full board, which is in charge of expanding and substantiating the assessment of each manager. The talent is assessed based on four criteria: potential, performance, maturity and length of stay at Copel.

High potential employees and managers are classified with basis on two key areas —performance and maturity, which generates a matrix made up of four quadrants: The Mentoring and Coaching programs stand out as one of the development initiatives.

In the 2022 cycle, 243 talents were mapped:

- 162 (67%) are employees and supervisors with the potential to become division managers.
- 65 (27%) are division managers with the potential to become department managers.
- 16 (6%) are department managers with the potential to become members of the steering committees.

Exercising Leadership Program

This action aims to support managers in managing their areas and also helps to boost the ongoing development of Copel DIS' leadership.

Within this macro program, we have several other related programs, such as *Diálogos de Gestão* (Management Talks), *Reuniões de Análise Críticas* (Critical Analysis Meetings), *Baú do Conhecimento* (Chest of Knowledge), *Conversa Olho no Olho* (Eye-to-Eye Conversation), *Pé na Lama* (Sticky Situation), *Dicas de Gestão* (Management Tips) and +Desenvolver.

Leadership workshop

Copel DIS started this project in 2018 aiming to develop managers with topics related to leadership. The training model is that of a leader training leaders by providing greater internalization of topics since the participants act as students as well as instructors.

- **2019: O Papel do Líder (The Leader's Role)** – A total of 484 managers attended this edition with the inclusion of heads, department managers, division managers and supervisors in 31 events.
- **2020: Feedback, Gestão de Conflitos e Flexibilidade (Feedback, Conflict Management and Flexibility)** – A total of 524 managers attended this edition with the inclusion of CEOs, department managers, division managers and supervisors. Agency monitors and technicians, who are informal leaders in their teams, were also involved in this process.
- **2021: Segurança Psicológica (Psychological Security)** – A total of 588 students attended this edition with the inclusion of CEOs, department managers, division managers, supervisors, monitors, branch technicians and employees. This edition included 31 classes, 93 different instructors and 248 hours of training in total.
- **2022: Jornada do Colaborador (Collaborator's Journey)** - this workshop was attended by 486 participants divided into 28 classes, encompassing the entire COPEL DIS leadership, from CEOs to supervisors. In total, 224 hours of training were conducted.



People management practices

Acknowledgments

The Company has practices in place to recognize employee:

- Formal praise cards are handed out in cases of outstanding service that improves corporate results. They are delivered personally and, whenever possible, in the presence of family members, creating important, touching moments.
- DIStaque is a tool used by employees to praise and show appreciation towards colleagues, strengthening the culture of recognition and relationship of the teams. In 2022, 7,418 DIStaques were sent, among which 3,015 corresponded to "well done" and 4,403 "thanks".

DISabafo

This is a program that aims to strengthen the bonds between the leadership and the employees through a new relationship channel in which the employee can talk about any subject directly with the manager of the department, the head or even the director.

People's Day

Fridays are the day that managers spend time on people, therefore, service and training meetings are not allowed on Fridays. That's the day for connecting with the team!

Eye-to-Eye

Eye-to-eye conversations aim to strengthen the bond between leaders and followers, encouraging the creation of a trusting environment in the organization. It is a practice in which the manager meets individually with the employee to encourage communication and strengthen the bond of trust through conversations about personal and professional matters.

All Against the SAIDI

The Todos Contra DEC program is the means by which the CEO of Copel DIS travels through the regions of the state to engage employees in the fight against SAIDI. Together in search of a solution!

Family Day at Copel

This meeting takes place annually and allows the employees' families (spouses, children, parents, grandparents, and siblings) to get to know the company's units and work routines, greatly strengthening the bonds between family members, employees, and the company. With the experience gained from online activities during the coronavirus pandemic, the program became hybrid, mixing face-to-face and virtual activities.

Bem Gestar Program

Set up by Copel's Health and Quality of Life area, this Program aims to support mothers and fathers during the pregnancy process and after the birth of the child. It offers a series of actions, including registration of pregnant women, responsible paternity, discussion of content about pregnancy, laws, childbirth, post-partum, and nursing. The program is designed to be welcoming and disseminate information pertinent to this stage of life.

Copel Choir

An activity aimed at active and retired employees and their dependents. This event promotes integration, quality of life at work, the development of culture and music education, as well as the valuation of Copel's name and brand in the community. Copel's Choir is present in the five macro-regions of the State of Paraná.

Friday with the Superintendent and Coffee with the Director

With the purpose of bringing employees closer to the leadership, two practices were created in which the employee has the opportunity to represent their area to receive special recognition from the Director or their CEO in pre-scheduled meetings.

Diversity

GRI 2-23

Copel has a Permanent Committee for the Promotion of Diversity to foster equity and compliance with human rights in the Company with priority given to vulnerable groups and those subject to discrimination, especially those based on gender, race, color, disability, and sexual orientation.

Two teams make up the Committee: the technical team, with specific knowledge on the topics in question; and the team focused on strategic areas that acts as a bridge between the Committee and the areas of interest.

Identifying weaknesses and improving the way the Company deals with issues related to diversity is an essential part of its position as a company that abides by the commitments undertaken with the UN Global Compact and the Sustainable Development Goals, especially SDG 8 - Decent Work and Economic Growth -, which is among those prioritized by the Brazilian electricity sector and by Copel.

These commitments highlight the importance of upholding respect for and protection of human rights and eliminating discrimination at work. Copel has this content formalized in its Human Rights Policy and Sustainability Policy. The promotion of diversity in the company also reflects Copel's connection with the UN Women Empowerment Principles (WEP).

A few of the topics worked on with the group, formed by a technical professional, 11 supervisors, eight division managers, and two department managers, are competencies such as conflict management, multiple intelligences, assertiveness, intuition, creativity, positive leadership, communication, situational leadership, delegation, leadership, essence of management, productivity, and focus, among others.

During the period, actions were taken to engage stakeholders, detect and define development goals, roll out the pre-defined actions and monitor and assess the outcome. The second stage of the project was kicked off in January 2023.



The Permanent Commission for the Promotion of Diversity aims to **foster equity** and compliance with human rights at Copel

DIVERSITY OF GOVERNANCE BODIES AND EMPLOYEES GRI 405-1**Governance bodies and employees**

	DIS Executive Board		Board of Directors		Audit Board		Statutory Audit Committee	
	No.	%	No.	%	No.	%	No.	%
By gender								
Men	4	100	3	75	3	100	0	0
Women	0	0	1	25	0	0	0	0
Total	4	100	4	100	3	100	0	0
By age								
Up to 30	0	0	0	0	0	0	0	0
From 30 to 50	2	50	3	75	0	0	0	0
Over 50	2	50	1	25	3	100	0	0
Total		100		100		100		0

Note: 100% of the individuals that make up the organs of the organization are white.

NUMBER AND PERCENT OF EMPLOYEES BY JOB CATEGORY AND RACE¹ GRI 405-1**Governance bodies**

	Operational		Secondary-Level Technical Professional		Secondary-Level Professional		University-level Professional	
	No.	%	No.	%	No.	%	No.	%
Asian	0	0	24	2.67	91	3.20	26	5.31
White	3	100	742	82.63	2,349	82.48	417	85.10
Indigenous people	0	0	0	0	5	0.18	1	0.20
Mixed race	0	0	100	11.14	310	10.88	39	7.96
Black	0	0	32	3.56	93	3.27	7	1.43
Total	3	100	898	100	2,848	100	490	100

Diversity of governance bodies and employees groups²

People with disabilities	0	0	3	100	99	99	5	100
LGBTQIA+	0	0	0	0	1	1	0	0
Total	0	0	3	100	100	100	5	100

1. The employees who did not inform race/color total 18 professionals, of which: three are secondary-level technicians, 12 are secondary-level and three are university-level workers.

2. In the system, there is 1 self-declared LGBTQIA+ employee.

Diversity Achievements in 2022



GPTW survey analysis

Applied annually at Copel, the GPTW survey involves over 70% of the workforce. In 2021, the Diversity Commission started to carry out a stratified analysis of the results with the purpose of creating and monitoring satisfaction indicators linked to gender, race, age, sexual orientation and disability. A new mapping and monitoring mechanism was created to detect priority aspects for the promotion of diversity within the Company.



Diversity Training

In order to highlight the importance of human rights and the fight against LGBTphobia, including in the workplace, Copel held an awareness program, starting on May 17, the International Day against Homophobia and Transphobia, and ending on June 28, the International LGBTI+ Pride Day.

Among several actions, the company launched a page with exclusive content about LGBTI+ rights on the internal corporate communication channel, bringing together the main information about the topic in an accessible and objective way.

The podcast Sustainability Energy started a new season, addressing ESG (Environmental, Social and Governance) issues, after going through each SDG prioritized by the electricity sector (*read more in Prioritizing Sustainable Development Goals*). In this edition, the focal point was respect for diversity and for people's safety, regardless of their gender identity, sexual orientation or biological sex.



Mirian Goldenberg, a retired professor from the Cultural Anthropology Department and from the Graduate Program in Sociology and Anthropology of the Philosophy and Social Sciences Institute (IFCS) from the Federal University of Rio de Janeiro was invited to Copel to conduct the training "Our unconscious gender biases: new challenges in the world of work", which had record attendance and was attended by more than 500 people.

At the event, the importance of all people identifying unconscious gender issues was highlighted, taking into consideration three levels of understanding: discourse, behavior, and values.

Several other aspects about the cultural image of men and women were also addressed and all the training is available on Copel's internal platform for all employees to access.



Accessibility

Copel has adopted a broad action plan to improve accessibility in the Company. Training on the topic was carried out with teams from different areas and a review of their processes and their suitability in regard to accessibility.

Another highlight was a training project for employee volunteering in institutions that serve people with disabilities, in partnership with *Ação Social para Igualdade das Diferenças* (Social Action for Equality of Differences).

The volunteers who attended were trained on best practices and then developed activities with different institutions. The actions included everything from recreational activities to support in preparing a resume for the job market. The final stage of the initiative led to five volunteer actions - one in each region of the state.



Diversity Newsletter

Published quarterly, this newsletter provides a summary of the Committee's actions during the period and encourages contact with diversity content in the company. The goal is to make the topic familiar and impact the corporate culture.



Diversity focus groups

In order to improve contact with the internal staff of different municipalities and facilitate listening, aiming to expand the engagement and suitability of the Committee's actions, focus groups were set up to discuss issues linked to race/color, accessibility and people with disabilities, age and religion and gender. In 2022, training was given for the commission to work with focus groups, and the following groups were worked on: race, people with disabilities, age, and gender (in this case, men).



Campaign to Eliminate Violence against Women

Copel is aware of all the challenges that Brazil needs to face in order to overcome violence against women, especially black women and trans women, as revealed by the *Atlas da Violência*, drawn up annually by the Institute for Applied Economic Research (Ipea).

The company recognizes its role as an important educational source on the subject for its employees. As such, the Diversity Committee worked on releasing monthly videos aimed at eradicating violence against women, as well as other actions.



Human rights GRI 414-2

Copel's Human Rights Policy follows the Universal Declaration of Human Rights established by the United Nations Organization (UNO), and the international standard of the UNO Guiding Principles for Business and Human Rights, the Global Compact Principles, the Declaration of Fundamental Principles and Labor Rights, of the International Labor Organization (ILO), and ISO 26000/2010.

The Policy is related to SDG 8 - Decent Work and Economic Growth and is one of the five Sustainable Development Goals (SDGs) prioritized by Copel and the Brazilian electricity sector. The document sets forth guidelines on the topic for all areas and serves as a basis for preventing, mitigating, and remedying violations that may occur in the company, in its production chain, or in communities impacted by its business.

Copel, through its Policy, agrees to respect Human Rights by recognizing its responsibility in its area of influence, prioritizing the parts of the production chain whose activities are contracted or directly impacted by the Company or that present a higher risk of violation, either by the nature of the activity, the place where it is carried out or any other characteristics identified as relevant.

The policy is added to Copel's Human Rights Program, grounded on the same documents and initiatives, of which the bases are:

- Review, setup and fine-tuning of Copel's policies and regulations for the prevention, inspection and mitigation of violations.
- The production and dissemination of teaching materials with information on Copel's reporting channels to be accessed if violations are detected.
- Conducting courses, lectures and awareness-raising actions aimed at the internal public, outsourced employees, the production chain and the local community.

Some of the main actions developed through the program are:

- Human Rights training set up by Copel in a Distance Learning format, encompassing content about human rights and the Brazilian Constitution, guidance to identify infringements inside and outside the Company and the applicable reporting channels.
- Textbook and video on Human Rights at Work for outsourced workers. The material has simple, objective, and accessible language and is shown in all of the company's integration meetings. The materials are available on Copel's website and social networks.
- Manual for the Identification and Prioritization of Risks in Human Rights that sets out a methodology developed by Copel for its activities and those of its contractors.

The policy sets forth guidelines on the topic for all areas and lays down a base to prevent, mitigate and remedy violations that may occur in the company.



Migration and Refuge Project GRI EU24

The project was created in 2020, and the first stage was consolidated in 2021 with the creation of a guidebook in the five most spoken languages in the state: Haitian Creole, Spanish, French, English, and Portuguese. The material was disclosed to several institutions through the Paraná State Council of Migrants and Refugees (CERMA) and to Copel's service teams and is available on the Sustainability Portal. The articles follow the logic of linguistic integration, which means that the content is not only translated but the terms are also expressed in Portuguese so the reader can become familiar with the local word and identify it when accessing the Company's website and other channels. In addition to the digital version, the textbooks were printed in 2022 so they could be used during consultations in agencies and institutions that serve this public since this group does not always have access to digital resources.

In partnership with the EletriCidadania Program for Corporate Volunteering, the project was expanded, and during the year two new groups of volunteers from Copel DIS were trained, totaling 195 volunteers trained

to work with migrants and refugees. Five corporate actions were put in place during the year and, at the end of 2022, Copel participated in the 1st edition of Empowering Refugees (UN/UNHCR) in Southern Brazil, in partnership with *Cáritas Brasileira Regional Paraná* - an organization that fosters national and international solidarity actions to assist communities affected by socio-environmental disasters or that are in a vulnerable situation.



195
trained
volunteers



Guidebooks
in printed and
digital format



Health and Safety at Work

GRI 403-1, 403-2, 403-3, 403-5, 403-7, 403-8, 403-9, 403-10,
EU 16, EU25

Copel DIS conducts its actions based on the Occupational Health and Safety Policy, which sets out the main guidelines for the topic



Copel DIS strives to provide a healthy work environment, in which employees and managers collaborate in a process of ongoing improvement to protect and encourage safety, health and well-being for all.

With regard to the health and safety of the workforce (own and outsourced), the Labor Safety Department, along with the CIPAs and all other Copel DIS areas, is responsible for detecting risks and defining preventive actions so that the activities can be developed in a way that protects the workers.

Copel DIS activities contain significant risk factors, therefore, the company gives a great deal of importance to occupational health and safety. Its actions are based on the Occupational Health and Safety Policy, which defines the guidelines below for the matter:

- Everyone is responsible for safety, health and well-being.
- All accidents can be avoided.
- Nothing justifies breaking the safety rules.
- It is everyone's responsibility to identify, recognize, communicate, and eliminate situations of risk.
- Safety must be a part of every moment, on and off the job.
- The culture of workplace safety and health and quality of life is engendered with knowledge, commitment, and integrated attitudes.

The Company runs well-defined and systematized processes, such as the already consolidated Program *Preservando a Vida* (PPV - Preserving Life), Safety and Health Management at Work—Standardized Tasks (*Gestão de Segurança e Saúde no Trabalho* - GSST), Copel Video Monitoring (CVM), Serious Accident Analysis Meeting (*Reunião de Análise de Acidentes Graves* - RAAG), Safety Sectors, and others (these initiatives are detailed on the following pages).

Training is also a vital tool. Copel DIS also invests in training to promote occupational health and safety. In 2022, the in-person training model was resumed, after the end of the period of COVID-19-related restrictions.

The training, upskilling and refresher courses covering occupational health and safety were attended by a total of 6,625 people, of which 2,358 were company employees and 4,267 were outsourced workers. The courses included: NR5 (CIPA); NR10 (Working with Electricity); NR17 (Ergonomics); NR23 (Formation of Fire Brigades); NR33 (Working in Confined Spaces); and NR35 (Working at Height).

All the training courses made available were designed based on the diversity of jobs in the company. The monthly follow-up of the indicator of percentage of employees with legal training in the current term reached the 100% mark, which is aimed at ensuring all employees are trained and qualified to work in risky areas.

The occupational health and safety indicators are included in the Management Contract and are broken down into items that make up the Management Commitments with the steering committees and/or departments.

The management commitment executed by the Labor Safety department and the steering committees includes items that underline the compliance with the legal requirements applicable to the organization, particularly the enforcement of the Regulatory Standards (RS or *Normas Regulamentadoras* - NR) and the social security laws, such as:

- **NR 01** - General Provisions
- **NR 04** - Specialized Services in Safety Engineering and Occupational Medicine
- **NR 05** - Internal Commission for Accident Prevention
- **NR 06** - Personal Protective Equipment - PPE
- **NR 07** - Occupational Health Medical Control Programs
- **NR 09** - Environmental Risk Prevention Programs
- **NR 10** - Safety in Facilities and Services in Electricity
- **NR 11** - Safety in Facilities and Services in Electricity
- **NR 12** - Machinery and Equipment
- **NR 15** - Unhealthy Activities and Operations
- **NR 16** - Hazardous Activities and Operations
- **NR 17** - Ergonomics
- **NR 23** - Fire Protection
- **NR 31** - Safety and Health at Work in Agriculture, Animal Breeding, Forestry, Logging and Aquaculture
- **NR 33** - Safety and Health at Work in Confined Spaces
- **NR 35** - Working at Height
- Decree 3048, of May 6, 1999

It is important to point out that the management system of the topic covers all workers, including the administrative, occupational health, and building construction inspection sectors, taking into account:

In 2022, 6,625 professionals participated in the trainings, of which 2,358 were company employees and 4,267 were outsourced workers

- **Administrative:** development of administrative activities in an office environment
- **Occupational health:** development of actions aimed at health, disease prevention, and work accidents in office environments
- **Supervision of building construction:** planning and supervision of building construction on company premises

WORKERS COVERED BY AN OCCUPATIONAL HEALTH AND SAFETY MANAGEMENT SYSTEM GRI 403-8

	Total	Percentage
Number and percentage of employees and workers who are not employed but whose work and/or workplace is controlled by the organization and are covered by this system	11,657	100%
Number and percentage of employees and workers who are not employed but whose work and/or workplace is controlled by the organization and are covered by this system that has been audited internally	0	0
Number and percentage of employees and workers who are not employed but whose work and/or workplace is controlled by the organization and are covered by this system that has been audited internally or certified by an external party	0	0

Note: no worker was excluded from this disclosure.

Guaranteed participation

GRI 403-4

Copel DIS has robust processes in place to encourage employee involvement and queries about relevant processes and communications in the area of occupational health and safety. Some of the systematics used, which allow for worker involvement, include:

- **Safety Minute:** weekly meetings held by the workforce to discuss information relevant to occupational safety.
- **CIPAs in Action:** this app enables registration of Near-Miss Events, CIPA minutes, miscellaneous records, flow of submission and consultations, accident control, forms and regulations, sector scoring and meeting schedules.
- **Technical Meeting (Electricians' Rodeo):** this app enables registration of Near-Miss Events, CIPA minutes, miscellaneous records, flow of submission and consultations, accident control, forms and regulations, sector scoring and meeting schedules. This is a playful way of valuing professionals, encouraging integration, improving care with work safety and sharing experiences and knowledge.
- **Safety Months:** this is an internal concept carried out by each steering committee, in which everyone concentrates on supporting preventive actions in order to evidence the Labor Safety and Health of employees and contractors.

Formal committees and health and safety committees are also available:

- **Permanent committee for the Risk Detection process related to the electrical distribution system:** establish procedures and actions for situations registered in the *Caça ao Risco* (Risk Detection) program, inherent to the Company's distribution grid. Frequency of meetings: monthly.
- **Joint committee formed by Copel and the Union of Electricity, Gas, Water, Works and Services Companies of the State of Paraná (Sineltepar):** works to improve the health and safety conditions of the workforce. Frequency of meetings: biannual.
- **Internal Accident Prevention Commission (CIPA):** aimed at preventing occupational accidents and maintaining workers' health; investigating and analyzing accidents; assessing risk conditions, inspecting activities and work environments, and finally issuing recommendations. Frequency of meetings: monthly.
- **Serious Accident Analysis Committee (RAAG):** pinpoint the causes of the accident and create deterrents so they do not reoccur. Frequency of meetings: in the event of accidents with potential for injury and absences of more than 15 days.
- **Light accident analysis committee (RAAL):** identify the causes of the accident and create deterrents so they do not reoccur. Frequency of meetings: monthly.
- **Committee for the analysis of Occupational Health and Safety Management standards (GSST):** define the procedures and identify the risks and preventive actions for the execution of tasks of commercial and emergency services, measurement, operation, maintenance and construction related to electrical system distribution, tasks rated as posing significant risk such as reading and warehousing. Its objective is to provide the basic guidelines for activities and to alert to the main risks and abnormalities that may arise during the work performance. Frequency of meetings: periodic according to incoming demand.
- **Accident Analysis Commission (CAA):** analyze accidents involving the fleet and define responsibilities. Frequency of meetings: monthly.
- **Safety Sectors:** multiplies good safety practices, engages employees in carrying out preventive actions, serves as a liaison between employees and CIPA, holds OSH meetings and Analyze Near-Miss Events. Frequency of meetings: monthly.

The health information of employees is handled only by health professionals, with no sharing of sensitive information with external parties.

The quality of the services is guaranteed by the documentary audit of the periodic medical exams and records and complementary exams, the follow-up of the exam performance indicator, and the issue of the Occupational Health Certificate (*Atestado de Saúde*

Ocupacional - ASO). The Enterprise Management system monitors and provides managers with the ASO information of their teams through the health panel/ dashboard, in addition to satisfaction surveys taken by all employees after they have concluded their exams. In this way, managers can keep track of the health of their teams.

For outsourced workers GRI EU16

In the Manual of Work Safety Instructions (MIS), in the item Work Safety and Health Requirements for Copel DIS Contractors, several requirements are listed for contractors regarding PPE, EPCs, uniforms, tools, and accessories, and the material must follow

the requirements of Copel's technical specs, GSST standards, Work Orders, and Standards. The main ones are:

- **Legal training** - is monitored by the indicator Percentage of Employees with Legal Training on Time, which ensures that risky activities are carried out by qualified employees, guaranteeing the health and safety of all.
- **Inspection of the PPV** - the Preserving Life Program monitors technical and safety procedures on site during job performance, according to GSST standards and the laws in effect, when a technician oversees the teams, issues a report, and registers the inspection in a specific app.
- **SG3** - the Outsourced Workers Management System performs the minimum mandatory control of training for the

jobs, as per the technical instruction manual in the SG3 app, always based on the job.

- **MIS** - the contracted party must adopt a systematic training system for its employees that offers mandatory training and recycling, as established by the law in effect. Such must be carried out in institutions recognized by the Education Ministry (MEC), by the National Service for Industrial Learning (Senai) or by Copel.

In 2022, with the gradual return of face-to-face activities, the training area put in place several actions to hire external training and set up internal training classes to train the entire workforce after the period of isolation. 100% of the employees had attended the Legal Training by September.

Legal Training

2020	91.43%
2021	45.25%
2022	100%

Risk identification and prevention

GRI 403-3, EU25

In the work routine of Copel DIS employees, several activities have to be conducted at addresses within the concession area (situated in urban, rural and maritime areas) that pose significant accident risk. The main situations that generate serious events are related to traffic, the appearance of living creatures, falls from height, crashes (impact of people against and by) and, above all, electricity.

The Occupational Safety Department, the Internal Accident Prevention Committees (CIPAs) and other Company areas are in charge of identifying occupational risks and defining preventive actions.

One of the roles of the Health and Quality of Life Division is to manage the Occupational Health Medical Control Program (PCMSO) which, along with the Risk Management Program (PGR), oversees aspects related to the different regulatory standards, activities, environmental dangers and risks in every role or activity developed in the business units, focusing on identifying possible injuries and problems caused by these risks and, as a result, affecting the health of workers.

The health actions are coordinated on an ongoing basis in combination with occupational safety engineering professionals. By analyzing the environmental dangers and risks detected and registered in the e-management system, the obligation and frequency of medical assessments, complementary exams, and medical-administrative practices can be established to prevent, track and diagnose early changes in health conditions related to the nature of the work and to determine the physical and mental fitness of the employee. These precautions are beneficial not only for the employee but also for his or her colleagues, third parties and the community, including to avoid situations that may be detrimental to future work capacity and quality of life.

The area also conducts special medical exams whenever an illness, that could be caused by or may interfere with work activities, is suspected. Whenever a work restriction is detected, the occupational health

team works in combination with local management to minimize the exposure to a certain hazard or risk (either by eliminating it or another form of control).

The Occupational Health and Safety Policy ensures that all employees have the right to postpone any task in which they feel at risk. Copel's Conduct Code determines that no employee may perform activities without safety conditions and without complying with the current laws or technical standards and instructions. Complaints of non-compliance with these guidelines can be made through the Whistleblowing Channel.

The following was reported in 2022:

- Three deaths of outsourced workers were registered at Copel DIS and none with its own employees, a fatality rate of 0.42.
- 15 company employees had work-related injuries (rate of 2.12) and 100 outsourced workers suffered injuries during the performance of their activities (rate of 14.15). The main injuries were dislocation, cuts, burns, and contusions. In workers who are not employees the main injuries were fractures, crushing, cuts, electric shocks, contusions, fractures, and abrasions.
- In 2022, 35 community people were involved in electricity-related accidents and 17 died (15 deaths occurred in 2021).

The company has 17 health and safety lawsuits pending and 3 have been resolved. The number of individuals involved in occupational accidents increased from 23 in 2021 to 36 in 2022.

OCCUPATIONAL ACCIDENTS¹ GRI 403-9

Number and rate of deaths resulting from work-related accidents

	Employees	Workers who are not employees but whose work and/or workplace is controlled by the organization
Number	0	3
Rate	0.00	0.42
Number and rate of high-consequence work-related injuries (excluding deaths)		
Number	0	3
Rate	0.00	0.42
Number and rate of recordable work-related injuries		
Number	15	100
Rate	2.12	14.15
Hours worked		
Number	7,065,648.08	14,831,148.00

Note: no workers were excluded from this content. The rates are calculated according to the SIG - Abradee manual.

Work-related ill health GRI 403-10

The data for 2022 shows an increase in relation to 2020 and 2021, which changed the work environment for a large part of the employees, who maintained full or partial home-office during these years. These factors generated a repressed demand that could be identified only in 2022 after the respective registration and singular corrections.

The main work-related ill health identified were musculoskeletal disorders. Ergonomic hazards and risks, inherent in activities that require special body positions

and structures, were the cause of the work-related ill health in the period. The body parts most affected were arms, necessary to perform the main tasks with the proper equipment, which ensures electrical insulation and safety distance for work without typical accidents.

In situations where the risk is inherent to the process, as in the case of electricity, the following control measures are taken to reduce employee exposure:

- Guidance on how to take breaks and create a work cycle
- Evaluating and reducing the time spent in a certain position - such as outstretched arms
- Use of equipment with less weight and reduced frequency of use in a workday
- Carrying out work with a minimum of two people so turns can be taken
- Comply with the requirement to perform a Preliminary Risk Analysis in all activities as a measure to assess risks and control measures
- Investment in ergonomic materials and safety equipment, such as suitable furniture
- Moving equipment, such as basket cranes and platforms
- Individual assessments in cases of complaints to determine the specific risk and minimize effects, checking for association with other specific risks such as unfavorable weather conditions, organizational climate, and psychosocial factors.

Complementary examinations and specialized medical assessments are also important measures. The identification and analysis of the hazards and risks is done in the company Risk Management Program (RMP) and registered in the computerized Occupational Health and Safety management systems. Part of the process is to:

- (i) identify hazards and possible health injuries or aggravations
- (ii) assess occupational risks by indicating the risk level
- (iii) classify occupational risks to determine the need to adopt preventive measures
- (iv) implement prevention measures, according to the risk classification
- (v) monitor the control of occupational risk

The work activities are carried out in hazardous areas that are often aggressive and involve urban, rural, and maritime areas that carry significant risks inherent to the activities. The risk factors are varied, such as proximity and operation and maintenance maneuvers in the power electrical system and contact with electricity energy, besides working at height and physical effort in some operational activities.

Hazard and risk identification and analysis is done within the scope of the Risk Management Program



Smart Copel - DIS Integrated Hub

WORK-RELATED ILL HEALTH GRI 403-10

	Employees	Workers who are not employees but whose work and/or workplace is controlled by the organization
Deaths resulting from work-related ill health	0	0
Rate of deaths resulting from work-related ill health	0	0
Cases of recordable work-related ill health	3	0

Note: the Occupational Health area does not control health actions for workers who are not employees.

Main health and safety actions



Occupational Health and Safety Management Program

- **GSST**: aims to define the procedures and identify the risks and preventive actions for the performance of tasks for commercial and emergency services, measurement, operation, maintenance and construction connected with the electrical distribution system. It includes tasks assessed as having a significant risk, such as reading and storing. It sets out guidelines for activities and warns of main risks and abnormalities connected with them.

Preservando a Vida (Preserving Life) Program (PPV)

this program defines field inspections of safety procedures during the performance of activities by employees and contractors in accordance with the standards of the GSST area. Reports are prepared with scores for the flaws found, as well as proposed solutions. The inspectors undergo training courses for field inspectors to improve preventive vision and identify workers at risk of disease and accidents at work.

PP+V: a project implemented in 2022, with support and to complement the PPV, which includes in the process of field inspections the observation and behavioral approach of the operational teams, in addition to technical issues, enhancing the actions aimed at safe behavior and operational discipline.

Preliminary Risk Analysis

(**APR Digital**): an app that records the prior assessment of the risks involved in performing a particular job. This is used by the engineering areas and contractors hired by Copel before field activities are carried out. Photos are taken and data is stored and georeferenced.

Copel Video Monitoring

(**CVM**): this is a process to monitor the operational teams of Copel DIS through images of cameras installed in the vehicles. The point of the monitoring is to improve accident prevention mechanisms; increase and allow inspections to be carried out remotely; analyze any deviations, flaws and accidents so effective recommendations can be made; make technical and work safety recommendations for employee improvement and for continuous improvement in work procedures and tools.

7 Golden Rules of Copel DIS:

initiative that aims to disseminate prevention throughout Copel DIS. They are based on Occupational Safety Principles that show absolute respect for life and are therefore inviolable. They are specifically aimed at field activities and express attitudes aligned with the culture of safety, a premise for everyone in the company. Their correct application in the activities guarantees the preservation of life. They are:

- Golden Rule #1: APR
- Golden Rule #2: Right of refusal
- Golden Rule #3: Communicate
- Golden Rule #4 Test
- Golden Rule #5: Ground
- Golden Rule #6: Life Rope
- Golden Rule #7: Be temporary.

Major Accident Analysis

Meeting (RAAG): this meeting is convened when an accident of a serious nature occurs. It is attended by the staff of the safety area, the CIPA, and the manager of the responsible area so the causes of the occurrence can be flagged and deterrents are put in place to avoid any recurrence.



Light Accident Analysis

Meeting (RAAL): this meeting is convened in the event of light accidents. It is attended by the technical staff from the Work Safety area so the causes of the accident can be flagged and actions are carried out to prevent a recurrence.

Integration in Occupational

Health and Safety: all out-sourced or contracted employees must first attend this meeting, which covers all safety and health care pertaining to the activities and workplace. They may only start the job if they have attended this meeting. The training includes a specific manual, the material included in all service agreements and specific lectures. Compliance with legal security requirements by service providers is monitored by the contract manager.

A Permanent Committee for Risk Detection within the Electrical Distribution

System: establishes procedures and actions for handling situations registered in the Risk Detection program, which records potential accident risks in internal and external environments.

Permanent Committees to Study the Occurrence of Work Accidents:

these committees aim to identify the root causes of accidents and define the actions that need to be taken.

CIPAs (*Comissões Internas de Prevenção de Acidentes*):

these are Internal Accident Prevention Committees present throughout Copel, which are in charge of identifying risks in work processes and drawing up risk maps and work plans for prevention.

Security Sectors:

divisions of CIPAs, whose attributions are to multiply good safety practices, engage employees in preventive actions, serve as a liaison between employees and CIPA, hold health and safety meetings, and analyze near misses.

Root Cause Analysis Work Group:

permanent committees to study the occurrence of accidents at work, with the objective of identifying the root causes and determining the actions to be taken.

Program for Medical Control of Occupational Health:

this program aims at promoting and preserving employee health, as well as establishing the requirement and periodicity of medical assessments, complementary exams and medical-administrative conduct.

Chemical Addiction Program:

Copel offers treatment to employees diagnosed with chemical addictions through a program that focuses on the problem from a preventive and therapeutic, as well as health, social and functional, aspect by creating actions to improve the health conditions, well-being and productivity of the employee.

Risk Management Program:

this program assesses the risks posed to areas where activities are being developed so that action plans can be created to eliminate any noncompliances found.

Management Commitment:

signed by the areas and the staff with the purpose of achieving the goals defined for the performance indicators, including health and safety at work. Every area agrees to implement internal plans and report the results throughout the year in periodic critical analysis meetings.

Work Safety Instruction Manuals:

these manuals contain instructions about complying with Copel DIS work safety guidelines.

BMI (Body Mass Index)

Program: this is a manual that offers Work Safety Instructions about BMI and weight for company and outsourced employees, who work as electricians since this particular job involves weight restrictions.

Workplace Safety Meeting:

this is an event in which safety professionals exchange experiences, share good practices and develop proposals for the area.

Instructional videos: preparation and dissemination of instructional videos to demonstrate to employees the proper way to carry out certain activities.

Joint committee formed by Copel and the Union of Electricity, Gas, Water, Works and Services Companies of the State of Paraná (Sineltepar):

this committee aims to improve the health and safety conditions of the workforce.

Monthly Accident Bulletin:

drawn up monthly and sent by email to all employees. It contains information about accidents that have occurred in the period. This event comes from the Management Commitment signed with the Copel DIS Management Steering Committee and is evidenced in the Strategic Management System (SMS) tool.

Safety Award: created with the purpose of encouraging and offering recognition for accident prevention work carried out by the areas that comprise the CIPAs. It encourages actions in the form of healthy competition aimed at the practice of active prevention with the involvement and participation of company and outsourced employees leading everyone to engage in safety, health and environment actions and become multipliers of these actions.

DSTD Portal: an app developed to unify the work safety management process (record accidents and near-misses, statistics, risk detection, CIPAs, GSST, etc.). In 2021, the Safety Path website was created to offer a bird's eye view of the actions in the area of work safety and it offers to its users an in-depth tour through the available information.

Telemetry and Fleet Tracking Device (TFT): investments have been made to ensure that the fleet is used properly, safely and in accordance with the rules of the Brazilian Traffic Code, other applicable laws and Copel's internal rules. The vehicles and forklifts are equipped with TFT and the maximum speed programmed in this equipment cannot be set higher than that established by law. Compliance with the programs of speed and maximum overtaking speed defined in the TFT ensures safe driving practices.

Occupational Health and Safety Portal: this portal was created with the purpose of centralizing information pertaining to occupational health and safety to enable all company employees to easily and quickly search for issues relevant to the topic. STPAST Technical Committee: this committee meets on a weekly basis to discuss technical matters and make decisions, such as: preparation and review of technical specs, analysis of safety equipment, new technologies in PPEs and EPCs, and others. The Committee is also in charge of classifying accidents in terms of frequency of occurrence x injury potential in order to define which occurrences will go to the RAAG Director and the RAAG Superintendent. The progress of the group's activities is also monitored in the meetings.

Nexo System: This system is used by the Specialized Service in Safety Engineering and Occupational Medicine to streamline and optimize processes and management related to the areas of Occupational Health, Occupational Safety, e-Social/Management Social Security and Environment of the company.

STPAST Technical Committee: this committee meets on a weekly basis to discuss technical matters and make decisions, such as: preparation and review of technical specs, analysis of safety equipment, new technologies in PPEs and EPCs, and others. The Committee is also in charge of classifying accidents in terms of frequency of occurrence x injury potential in order to define which occurrences will go to the RAAG Director and the RAAG Superintendent. The progress of the group's activities is also monitored in the meetings.

Internal Occupational Accident Prevention Week (*Semana Interna de Prevenção de Acidentes do Trabalho - Sipat*): Sipat is held every year in June. This event includes discussions about subjects related to the main corporate topic and considers actions to prevent accidents and work disease, existing safety and health indicators, protection technologies, and quality of life at work. In 2022, Sipat will take on a hybrid and integrated format (online + in-person). The event, at its peak, was attended by 3,279 people. In addition to Sipat, some CIPAs hold other events during the year with lectures focused on their realities.

PPE Management System (EPI-SPI): this is an app that executes and assists the process of managing personal protective equipment, above all, enabling the management to forecast, control, deliver and replace personal protective equipment.

Caça ao Risco (Risk Detection) Program: this Program facilitates the recording of potential risks of accidents in internal and external environments, helping the areas and entities involved in occupational safety to plan, execute, track and estimate costs for the actions planned and adopted to eliminate potential risks.

Safety Announcements: the Occupational Safety Department issues safety announcements by email for the purpose of campaigns within the scope of Copel DIS, updating documents and safety recommendations to update managers on safety issues.

Accident Statistics: the Occupational Safety Department tracks and compiles statistics of Copel DIS to keep all stakeholders up to date.

Accident Analysis Committee: the purpose of this committee is to analyze accidents involving the fleet and define responsibilities.

Training: to ensure that all employees are trained and qualified to carry out their technical and operational activities and considering that safety is a premise, the company has created the monthly indicator—percentage of employees with valid legal training, of which the goal is to reach 100%.

Corporate Health and Safety Campaigns: the constant search to reduce accidents has been substantiated by maintaining permanent safety campaigns, such as the "How much is your life worth?", which is geared towards raising the awareness of employees on the job.

PartiCIPAção (PartiCIPAtion): this was created to increase the interaction between the CIPAs of Copel DIS and to promote Safety and Health actions to reduce occupational accidents. It also encourages the sharing of experiences and creates an environment of innovation for the prevention of accidents at work.

Sistema TFG (TFG System): this is an app created to facilitate the process of recording and analyzing accidents, as well as making the generation of statistical data more transparent and reliable. The system also centralizes and streamlines the search of accident-related information, making all the documentation digitally available. It also enables the management and other stakeholders to monitor the progress of the indicators.

Actions for the community

GRI EU24

The following are a few of the actions put in place to offer guidance and create awareness in communities where Copel provides services or where the impact of its products, ventures and administrative activities are felt:

- Copel's involvement in government actions *Paraná Cidadão* and *Mutirão da Cidadania* offers guidance to the stakeholders regarding sustainability and safe and efficient use of energy in a playful way through educational games and the Energy Efficiency van.
- Guidelines on sustainability, the responsible and safe use of electricity and care for the environment are provided to elementary school students at municipal schools, companies and non-governmental institutions through the *Iluminando Gerações* (Enlightening Generations) Program.
- The number of accidents with the community is also monitored through specific indicators included in the Management Commitments.
- Offering of online guidebooks and folders on Copel's website, on paper at Copel's agencies and at community, trade, industry, civil construction and rural fairs and events.
- Organization of annual Safety Month with the Community, in which guidance actions are presented to the population for the safe use of electricity. This is done by means of lectures for students in the public school network, instructions for civil construction and rural workers, visits to private construction sites, delivery of informative material to farms, unions, civil, electrical, and painting material stores, and to small informal service providers. Also the placement of pamphlets in public places and the dissemination of electricity safety campaigns through mass media and social networks.
- Explanations, in the event of new undertakings carried out by Copel DIS, about health, safety, and positive and negative impacts generated by the Company's presence in the region. The topics are dealt with through the Awareness Program with Construction Site Workers and the Community Relationship Program.
- Expansion of the Enlightening Generations program to strengthen the work of accident prevention and encourage responsible use of electricity through lectures for elementary school students.
- Producing and disseminating instructional videos for teenagers and high school students. The content is generated by Copel's Occupational Safety Department and is part of the *Energia Segura* (Safe Energy) campaign. The tips will also be available on Copel's channel on the social video network.

Promotion of work health

GRI 401-2, 404-2, 403-6

Copel offers a health plan (closed non-profit social security and complementary assistance entity), whose monthly fees are shared and offer a vast network accredited in the state of Paraná for medical, dental and pharmaceutical care, including outpatient, hospital and obstetric plans, as well as services in psychology and physiotherapy. For employees hired before the exams of June 04/05, 2015, Copel funds 80% and the employee 20% of the Prosaúde II Plan. For those hired after that, the plan is Prosaúde III, in which Copel pays 50% of the plan and the employee pays the other 50%. What differentiates one plan from another is the percentage of each share, the amount of the monthly fee, and the post-employment benefit. Both offer medical, hospital, dental, and pharmaceutical coverage.

In the case of a disabled employee, Copel grants reimbursement of 50% on the amount spent to acquire prostheses, orthoses and hearing aids, limited to the amount set in the collective agreement. Moreover, when the disabled person is a dependent of the employee, Copel pays, as a social benefit and without a salary nature, a financial aid according to the monthly amount negotiated in the collective agreement.

Integrated with periodic medical exams (legal scope of monitoring and prevention of work-related risks), Copel includes an additional stage of preventive exams associated with cardiac, gynecologic, prostate, colorectal and ophthalmologic diseases, according to the age and sex of the employee, providing specialized medical assessments and complementary exams at no cost.

The *Plenamente* Program was created for mental health and includes workshops and learning tracks that provide information about psycho-emotional health, emotional balance, concepts, and biases. Through a partnership with the Copel Foundation and its *EquilibradaMente* program, psychological support is also offered 24 hours a day to all Copel employees.

In terms of caring for employees, Copel created the Primary Health Care Unit (PHU) at the main complexes. The service center is the place where employees can perform primary and periodic health exams, with a focus on prevention, in addition to prophylactic dental

care. The benefit extends to family members and does not charge for coinsurance.

Through the Copel Foundation, the company has three units of Primary Health Care (PHU), where employees and their dependents receive care without coinsurance, for the purpose of monitoring and prevention. The units are located at the company's headquarters, inside the km³ Complex (opened in 2021) in Maringá and Londrina (opened in 2022).

The PHUs stand out as a great advance in health prevention and promotion, operating in the areas of mental health care, diabetes, hypertension, dyslipidemias, as well as women's, children's, and elderly people's healthcare, and smoking for prevention and treatment, with multidisciplinary follow-up by family doctors, nursing staff, dentists, nutritionists, and pharmacists. The PHUs also have medical and dental consultation rooms, an exam collection room, pharmacy, gynecological care and stabilization room, for urgent cases.

The Company offers, in an institutionalized way, the Chemical Addiction Program aimed at the recovery of employees addicted to illegal drugs and alcohol through hospital and outpatient, medical and psychological treatment, at no cost according to internal regulations, in addition to monitoring the company's social and health service, adapting environmental activities and risks for personal and collective safety.

The company also offers benefits aimed at quality of life, such as indoor games, the Pre-Retirement Program, Energy and Health space, Copel's choir, hours during the working day to volunteer and benefits offered through the Copel Foundation, such as private pension, medical, hospital, dental care plan and loans with interest rates lower than those practiced by the market.

It also provides influenza vaccination for employees who wish to have it, annually and at no cost.

Themed information and awareness campaigns, such as Yellow September, Pink October, Blue November, and others, are organized, along with the CIPAs.

To further facilitate employee access to occupational health services, the Company in 2022 began offering

To further facilitate employee access to occupational health services, the Company now offers legal occupational medicine consultations, such as periodic medical exams, at the PHU in the head office.

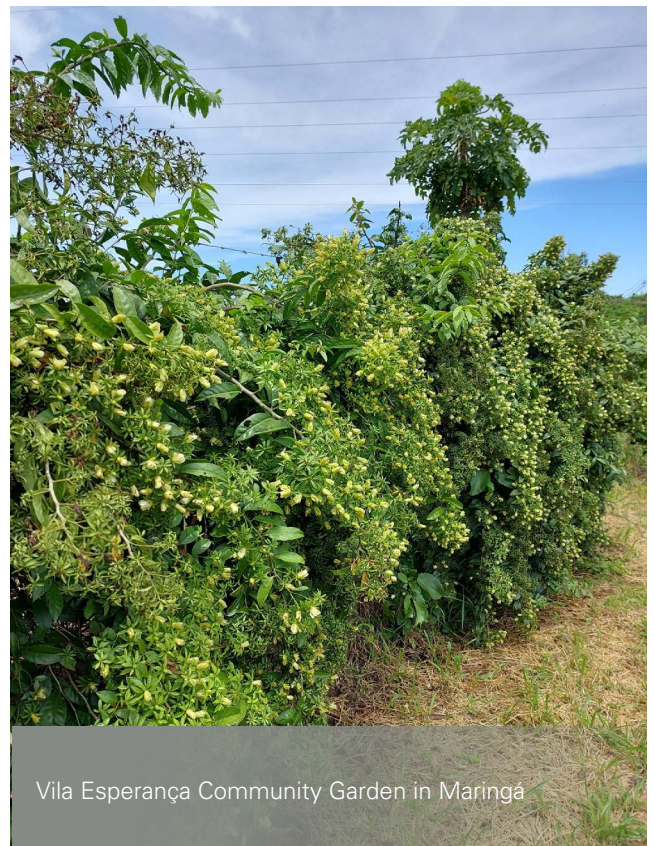


There are also initiatives in place to promote **well-being and quality of life**

legal occupational medicine consultations, such as periodic medical exams, at the PHU in the head office and Copel's largest complex, minimizing the travel time for the users.

A campaign to encourage and raise awareness of the importance of performing periodic exams was also disseminated and was aimed at managers and employees, with easy-to-understand language for greater engagement and commitment to health. A webpage was also published on the intranet with pertinent information, communication channels, regulations and laws, to motivate employees and managers to meet deadlines as well as take care of their own health.

The workers can access to the occupational health service upon request by the health area for external periodical exams, accreditation to drive vehicles, absenteeism monitoring, medical exams, verification of changes or restrictions in periodical exams and/or return to work; or the service can also be accessed via management demands for special evaluations such as personal health history, presentation of medical statements or certificates.



Vila Esperança Community Garden in Maringá

Healthy pregnancy

The Healthy Pregnancy Program is one of the actions developed by the Copel Foundation. The beneficiaries of the Copel Foundation, holders or dependents enrolled in the program, receive information about the care they should take during pregnancy, exams that should be done every trimester and guidance on childbirth.

Pregnant women can also ask questions about other subjects, and there is a 24-hour service for urgent and emergency cases.

The care is extended postpartum with a nurse visiting the maternity ward to advise the mother on specific baby care and nursing.

Included in the company's policy is also the expansion of legal rights with the extension of the maternity leave period by 60 days. In addition, on returning to work, mothers who work an eight-hour day can have their workload reduced to six hours/day for another 60 days for nursing purposes.

In view of the importance of the nursing stage, Copel offers a Nursing Support Room in its main centers. It is a comfortable and cozy place where mothers can collect and store their milk for their infant. In this action, the mother receives a kit with instructions on storage, glass bottles and a thermal bag for proper transport. The Nursing Room was a suggestion made in one of the voluntary meetings of the "Chat with the President" program, which was successfully adopted.

The company, as a participant in the Citizen Company (*Empresa Cidadã*) Program, also adopted the practice of extending paternity leave from five working days to 20 days, allowing the father to have more intense contact with the family in the first days of the child's life. In addition, in order to assist the employee during the monitoring of his wife or companion during the gestation period, Copel offers up to 16 working hours for this purpose.

Encouragement of physical activity

Copel Association

This non-profit entity was founded in 1996 by Copel's employees. Located in Curitiba (PR), its mission is to provide quality of life through leisure, sports, cultural, and social activities. It promotes sports, such as karate, cycling, indoor soccer and others.

Sesi games

Copel also encourages its employees to participate in any sport in the SESI Games, which is held every year. As such, the attendance record is released on the days or times of the competitions. In 2022, for example, the Industries' Rustic Race Circuit, an initiative of Sesi Paraná and held in Curitiba, was composed of three stages, the first of which was named Copel.

Atuba Rustic Race

Created by employees of Copel's Building Administration at the Atuba Complex, this circuit has been held annually since 2002. In addition to promoting social integration and health among athletes, the race also promotes Copel's social responsibility since the entry fee is one kilo of non-perishable food and the food is then donated to charities. Employees participating in the Race are allowed to register for attendance in the afternoon on the day of the event.

Community

GRI EU22

A mutual cooperation between Copel and the communities, at the time of project implementation, as well as in the course of the work of already-structured businesses, is vital in meeting the expectations of developing local services safely and with in minimizing the negative impact on the environment.

Copel DIS is aware of its role in the economic development of the regions where it operates because:

- During the period of implementation of new projects, such as networks and substations, the increase in the circulation of vehicles in the region, as well as of outsourced employees, fuels the local economy mainly in terms of eateries and hotels.
- Improvements in grid infrastructure attract new investors to these regions since access to quality energy is then available to ensure a stable electricity supply, which creates new opportunities for direct and indirect jobs.

The presence of outsourced companies in grid improvement and expansion work creates new jobs in the region. In this aspect, Copel DIS also has to deal with the possible negative indirect economic impact caused by the possibility of raising expectations in the region related to the hiring of more labor than necessary.

Social-environmental and relationship programs are implemented by the company to mitigate the most significant impacts in relation to the energy distribution grids.

Copel has targeted its efforts at deploying programs and projects that are in line with the global goals of the SDGs, particularly in relation to SDGs 4, 7, 8, 9,



Luz solidária – Telma e filho (Solidarity Light - Telma and son)

11 and 13. The company is also involved in integrated actions developed by the state government and city governments.

The correlation of the actions developed in 2022 with the SDG goals was highlighted to reflect the development of global initiatives with greater involvement of institutions that provide services to the communities.

At Copel DIS, the budget for the implementation of socio-environmental actions is focused on the Property, Environment and Social Responsibility Management Department (*Departamento de Gestão Imobiliária, Meio Ambiente e Responsabilidade Social - DGMR*). The budget was stepped up in 2022 to expand the range of actions aimed at the communities, particularly in regard to the institutions. In regard to the Private Social Investment Policy, a new version was approved by the Board of Directors, with the expansion of the scope of this policy from "donations and voluntary contributions" to "private social investment", due to the need for a more comprehensive policy.

Relationship with the community GRI 2-25

As a component of the project licensing process, socio-economic impact studies are carried out for each new project. The periodicity of the review varies according to the complexity of the project, and the results provide support for the socio-environmental programs that, besides having a mitigating and compensatory nature, seek to answer the questions of the surrounding communities about pertinent issues.

During the implementation stage of a project, relationship programs are also carried out with the communities to explain the installations and the possible impact of the construction work and inspections are conducted in the constructions and operations. Communication channels are also opened for information

gathering and for the possible signaling of impacts that require amortization measures.

In order to mitigate impacts, Copel DIS contacts the communities that will be directly or indirectly affected by the construction work through the Community Relationship Program. Accordingly, it provides guidance on topics related to safety and the environment, as well as provides answers for any questions that may arise establishing an additional communication channel between the company and the community.

The main programs are:

- **Relationship Program with Communities surrounding the projects:** this program aims establish a line of communication between the developer and the surrounding population by disseminating the benefits and restrictions associated with the project. With total transparency in its official information, Copel DIS strives to minimize the distrust and insecurity of the affected population.
- **Environmental Awareness Program:** this program, which includes the construction workers (third parties), offers guidance to the workers about the environmental conservation practices that will be followed during the construction, disseminates knowledge about the environmental impacts of the undertaking and how to minimize them, and encourages the inclusion of environmental concepts and positions in the workers' routines. By maintaining communication with the workers, the Company raises awareness about environmental issues related to their work so the activities affect the environment surrounding their workplace as minimally as possible.
- **Program for Relationship with Communities in the *Boa Vizinhança* Surroundings:** this program engages the communities surrounding the facilities of Copel DIS in a way which makes it possible to assess their needs and expectations and implement practices aimed at local development. Copel DIS' face-to-face actions with the communities, which had been put on hold due to the COVID-19 pandemic, were resumed in 2022. As a result of the post-pandemic impact on families, the socio-environmental actions in the surrounding communities focused mainly on fundraising and assistance campaigns, in addition to social and cooperative actions. The institutions that assist families in the surrounding area also received special attention from the company. An important milestone in the year was the return of employees' voluntary participation in social actions in all regions. The periodic presentation of the actions carried out with the communities in the Critical Analysis Meetings (CAMs) at their various hierarchical levels has made it possible to disseminate and assess the company's performance from the sustainability aspect.

- **Internal Socio-Environmental Committees (CISAs):** these committees are present in all macro-regions where Copel DIS provides service and works directly with the communities and are aimed at supporting local sustainable development through social and environmental awareness actions, workshops and training. They represent an important link between the Company and the community in identifying needs and expectations and proposing actions to minimize negative impacts and maximizing positive ones.

Indicators linked to the management commitments of the coordinating areas are evaluated to ensure the periodic monitoring of the main socio-environmental programs. The opinion of stakeholders directly involved in the process is gauged through opinion polls conducted by Abradee and Aneel and spontaneous messages and posts in the media and social networks.

Several easy-access channels are open to the communities: the company website, the 0800 line, Ombudsman and face-to-face service, at branches or at Copel's own and/or outsourced service stations (Copel and You Program) within all municipalities of the Company's concession area.



Impacts generated

GRI 2-25, 413-2, EU20

The significant impacts caused in the project implementation phase are identified in environmental studies, such as the Simplified Environmental Reports (SER). In the case of the licensing modality in which the licensing environmental agency requires the SER, the following programs provided for in the Detailed Environmental Programs Report (DEPR) are adopted to mitigate the impacts found: Environmental Management Program of the Construction Work, Management Plan for Construction Debris, Reforestation Program, Preventive Archeology and Heritage Education Program, etc.

The main negative socio-environmental impacts were associated with products, processes and administrative facilities: waste generation and dust; increased noise and vibration levels; increased traffic of vehicles and people in the region; visual impact and change in the natural landscape due to vegetation removal; limitation in the use and occupation of the land and interference in the daily life of the surrounding communities.

The installation of distribution lines (69 and 138 kV) interferes with the use and occupation of land on the properties due to the need to create a safety strip. The impacts are mitigated by compensating the owners.

The most significant socio-environmental impacts of the distribution networks (low voltage and 13.8 and 34.5 kV) are accidents with third parties, the management of vegetation under the networks and interference in the urban landscape. To mitigate these impacts, Copel adopts technologies that replace bare grids, such as the protected compact network, the secondary insulated network, the insulated network, the underground network and sheltered substations, in addition to the *Florestas Urbanas* Program (Urban Forests), which supplies tree seedlings to the city government for planting on public roads.

The Company's involvement in themed committees such as the Inter-institutional Work Committee for the



BRL 54.6 million
earmarked for indemnities in the last
three years

Analysis of Municipal Urban Afforestation Plans in the State of Paraná, enables the company to take part in the analysis and decisions discussed with the communities.

In regard to the impact caused by the company's administrative areas, Copel maintains the *Boa Vizinha* (Good Neighborhood) Program to encourage the engagement of communities surrounding Copel DIS' administrative buildings, so that it can assess their needs and expectations and, based on that, develop practices aimed at local development.

In areas where lines and networks are present, safety lanes are put in place to restrict the use of the areas. In order to prevent these areas from being misused for waste disposal and even for encroachment, Copel implements community gardens in partnership with municipal governments through the *Cultivar Energia* Program (read more in Relevant Actions in 2022).

The routes of the lines are studied so as to cause the least possible impact on the environment and on the routine of the communities. Copel DIS also adopts substitutive technologies for bare networks as a way to mitigate the impact on vegetation besides ensuring greater protection in relation to risks in contact with electricity, both for people and animals.

With regard to the electricity distribution operations, there was no need to displace people. The Company, however, paid indemnifications to properties during the year for the installation of new lines and substations. In the past three years, BRL 54.6 million have been earmarked for cases of this type.

The amount of construction work has decreased in recent years. Although the number of indemnifications for easements and expropriation has decreased, the number of cases of construction damage indemnifications has been increasing because they are generally paid near the end of the construction stage (the phase in which most of the projects are reaching).

The amount of indemnified properties is a consequence of the amount of work carried out to expand the distribution system. So there is not much control over this number. What occurs is the greater or lesser anticipation of land clearances in regard to the startup dates of the construction.

Copel manages displacement impacts through specific indicators linked to the Total Reliability and Paraná Trifásico programs.

On the properties

Over the years, Copel has been expanding the use of compact networks in order to reduce the need for tree pruning on properties, in addition to adopting smart systems in full development through programs such as Total Reliability and *Paraná Trifásico* (see more in *Relevant Actions in 2022*) **GRI EU20**

Contingency plans

Through the Integrated Corporate Risk Management Policy, the company defines the guidelines to manage severe weather events and draws up contingency action plans for events of damage/failure in its equipment or critical facilities, such as substations and/or High Voltage Distribution Lines (HVDLs).

It also has in place operational procedures for measures such as monitoring the charging and load of its installations (and actions to be set in motion in cases of risk to its operational limits).

In the event of a loss of function of important assets in the system, such as power transformers in substations or HVDL towers, the company has contingency plans set up to transfer the loads to other circuits on a temporary basis so it can carry out procedures to install specific assets for these situations. The assets are available in its inventory of spare parts, such as transformers and mobile substations or even emergency towers, which can operate for long periods until the equipment has been replaced or repaired.

The professionals of the operation area, as well as field company and outsourced workers, are trained to act in contingency situations for the operation and/or maintenance of the equipment.

Events considered major are reviewed, preferably the day after the regularization, so the facts can be mapped and the actions can be taken to avoid future mishaps.

The company's substations and warehouses have Emergency Action Plans in place to jump into action in the event of accidents involving chemical products, particularly insulating oil for electrical equipment.

Copel has an environmental emergency response contract, whereby the contractor is called in to provide first response and full response, aiming at the containment of leaks and the removal of contaminants for subsequent final disposal. The Emergency Action Plans are placed on the walls of substations and warehouses.

The Contingency Plans for severe weather events and the operational procedures described are available in computerized digital portals and within the platform that stores the ISO Quality Manuals, according to the process, with access to all. Disclosure occurs at meetings and access knowledge tests are conducted through internal audits.

To improve the process, QR Codes were created so that employees involved in emergency situations can

view the plans on cell phone or tablet screens.

In 2022, the contingency plan for severe weather events underwent a major revision, carried out by a multifunctional work group and, after approval by senior management, was widely disclosed in an online event, which was attended by all the leaders of the areas that are part of or affected by the plan.

In the Reported Positive Impact (REI 03), the automation of regular meter information collection enables the customer to better manage his energy consumption. The information was previously only available monthly and only a few days after the closing of the invoice. The user interface was overhauled in 2022 and now boasts a more practical display of information for everyday use.

The Reported Positive Impact (Total Reliability 01), on the other hand, contemplates the increase in resilience of the distribution system, enabling more electrification for economic and social activities and promoting productivity and/or efficiency gains, while reducing direct production losses due to downtime or the restarting of processes required in cases of prolonged downtime.

Impact of services GR1 203-2

Through the Reported Positive Impact (REI 01), the automation of power reconnections make the activity almost instantaneous after the customer has made the request, ensuring the electricity is turned back on quickly. The reconnections previously depended on the physical availability of a team of electricians and the travel to the consumer unit, which is why the period of 24 or 48 hours was given, respectively for urban and rural consumers, in force in the sectoral regulation.



1,179
peoples
compensated

NUMBER OF PEOPLE PHYSICALLY OR ECONOMICALLY DISPLACED AND COMPENSATION, BY TYPE OF PROJECT GRI EU22

New plants	12
New transmission lines	595
Total amount of people compensated	1,179
Financial value of compensation for people displaced in the past three years (BRL)	54,640,137.08

Company involvement with social action

GRI 203-1, 203-2, EU24

The Internal Socio-environmental Committees (CISAs) created in the five macro-regions of Copel DIS operate as a point of contact between the communities, the leadership and the workforce of the region to listen to the needs and expectations of each segment and, consequently, propose and develop structured actions.

The presence of regional facilitators of the main social programs, such as Enlightening Generations, Good Neighborhood, and Cultivate Energy in each macro-region also makes it easier to integrate the communities and bolster actions in each region.

Numerous activities took place with the communities in 2022, including the workshops and Skill-Building Sessions for in-house workers (Copel workforce and outsourced workers) and for outside stakeholders (communities, social and educational institutions)

Throughout the year, several actions were implemented in institutions for guidance on the efficient and safe use of energy, and the donation of food, clothes, and toys

covering topics such as human rights, diversity, environment, child labor, health, and Sustainable Development Goals (SDGs).

The year of 2022 marked many important partnerships of Copel DIS with universities and social and educational institutions for the creation of workshops,

training, assistance actions and guidance for the various stakeholders.

An important milestone was the establishment of a partnership between Copel, the Paraná State Education Department, and the Curitiba Municipal Education Department to expand the activities of the Enlightening Generations Program to all schools in Curitiba, including students from Elementary School II, in addition to those from Elementary School I, who were already part of the project.

Another partnership with city governments, through the Cultivate Energy Program, was also a highlight during the year, and it provided an expansion in the implementation of community gardens in new regions of the state and increased the number of families benefited, generating positive repercussions even in the external press (*see more in Relevant actions in 2022*).

During the year, several actions were also implemented in institutions, including guidance on the efficient and safe use of energy, donation of food, clothes, toys, etc. The Company also offered workshops and basic training for women. A great highlight in this area was the project developed by CISA North for the structuring of the Teaching Apartment. This is a space set up inside Copel's facilities in the Londrina complex that offers a free course in basic electricity to the community, particularly women. The goal of this project is to open the way for a possible professional career for women, as a new job option, or simply to provide access to knowledge that can be used at home, focusing on safety and responsible use of energy. Attendance in the course has exceeded company expectations and the first session finished in December 2022 and new classes are scheduled for 2023.

Copel DIS also maintains the following community engagement programs:

Mais que Energia (More than Energy) Program

This program was created to deploy, expand and consolidate social investment projects for the community. The first project of the program was kicked off after a poll conducted in 2011 with PCD (People with Disabilities) customers, in which it was found that deaf people consider themselves to be very little acknowledged in social and business actions, given that a large part of this contingent is fluent only in Sign Language and does not understand the Portuguese language. This data gave the Company the basis to support the structuring of the first project for institutions and schools to serve this audience by expanding/adapting the structure to improve the processes of training, capability and development of full communication of deaf and deaf-blind people in topics such as

education and social inclusion, safety of environments for service, accessibility and health aiming to improve the quality of life of these people. No investments were made in the Program in 2022, however, in order to give continuity to its main goal, which is to contribute to the improvement in the quality of social and/or educational services for specific audiences, a second project is planned for 2023, focused on meeting the needs of women. Professional training courses will be held to aid in the reinsertion of this group in the job market in order to contribute to their financial and psychological empowerment after the Coronavirus pandemic.

Eletricidadania (Electric Citizenship) Program

This is one of the most recognized corporate volunteering programs in Paraná. Created in 2004, employees can voluntarily and spontaneously dedicate up to eight hours of their workday every two months to social works. In 2022, 166 volunteers from Copel DIS worked in the program, totaling 988 hours of volunteer work, covering topics such as human rights, education, inclusion, health, environment,

citizenship, sustainability, and others, aligned with commitments voluntarily assumed by Copel, such as the Global Compact and the United Nations Agenda 2030 for sustainable development, summarized in 17 Sustainable Development Goals (SDGs).

A few of the initiatives are:

- Specific campaigns to collect clothes, food, hygiene and cleaning products, school supplies, toys and chocolate.
- Permanent campaigns to collect recyclable products.
- Gardening task forces.
- Training, workshops and live sessions aimed at Copel's internal and external audience, in which employee volunteers act as instructors and as support for the organization of these events.
- Voluntary involvement of employees in revitalization actions and/or organizations of social and/or educational institutions registered in the Public Call for Volunteers.
- Enlightening Generations (*Iluminando Gerações*) Program, in which employees give lectures at elementary schools about the responsible and safe use of energy, sustainability and natural resources.
- Collective Purchase Project and Community Vegetable Gardens (*Cultivar Energia* Program), company volunteers work together to market the produce of the vegetable gardens involved (Maringá and Curitiba), organize the purchasing groups, the purchase of bags with the products, and the logistics of receiving and delivering the bags.
- Profession Cycle (*Ciclo de Profissões*) Project with employees participating in training and acting as mentors in professional counseling for socially vulnerable young people.
- More Inclusion (*Mais Inclusão*) Project, in which mentors helped build the personal portfolio/professional CV of people with disabilities.
- The Profession Cycle (*Ciclo de Profissões*) Project was chosen as the best project of the southern region in the Corporate Volunteering category of the National Volunteering Incentive Award 2022, granted by a Federal Government program.
- The Empowering Refugees (*Empoderando Refugiadas*) program received the support of 40 Copel volunteers, which gave workshops on topics such as rights and laws in Brazil, health system and self-care, CVs and employability, among others.

Collection from Third Parties

This comprises business management services involved in bookkeeping, control and collection from Third Parties through invoices by contract or agreement. The amounts to be entered must be authorized in writing or via voice recording from the energy bill holders or their spouses. The donations are limited to a minimum of BRL 1.00 and a maximum of BRL 500.00. In 2022, an average of 265 donations/month were registered with an average monthly collection of BRL 15.30, distributed among 87 philanthropic institutions.

Solidary Energy Program (*Energia Solidária*) GRI 203-2, EU19

This is a benefit created by the Paraná State Government, which pays the electricity bill for low-income families, indigenous people and Quilombolas (members of isolated rural communities that were created by former runaway slaves) (State Law 20943/2021). Families with a per capita income of up to half a minimum wage, enrolled in the Social Tariff, and whose household consumption does not exceed 150 kWh are entitled to the benefit. Families with a total income of up to three minimum wages, who have a member with a disease or pathology whose treatment requires the continuous use of high-demand electrical appliances, and enrolled in the Social Tariff, will receive from the program the maximum consumption corresponding to 400 kWh. The payment of the excess consumption is the responsibility of the holder of the energy

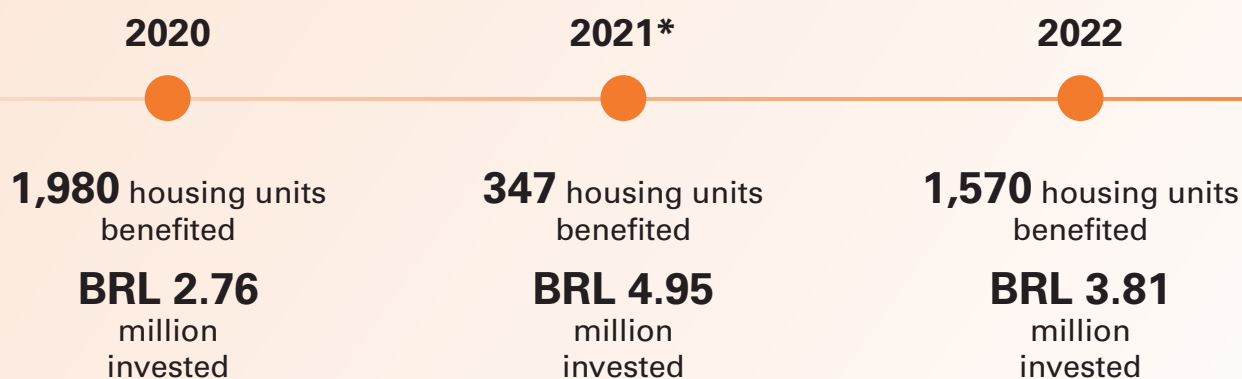
bill. The benefit is valid for only one consumer unit per family. On average, 359,000 families were assisted by the program in 2022 through a disbursement of BRL 118 million.

Casa Fácil Housing Program PR GRI 203-2, EU23

This program, established by State Law 20394/2020 and regulated by Decree 7666/2021, carried out through Cohapar/Copel DIS agreement 001-2021 between the Paraná Housing Company (Cohapar) and Copel DIS, contemplates actions in the housing area developed by the Paraná State Government with the objective of furthering the production and acquisition of new housing units, requalification, expansion or overhaul of urban and rural properties, land regularization, and urbanization in the social interest housing area in Paraná. Copel DIS participates by building electricity distribution grids and implementing service entrances in projects aimed at families with a monthly income of up to six minimum wages. The costs incurred by Copel DIS with the implementation of this program is reimbursed by the State of Paraná during each financial year with budget funds from Cohapar.

Access to electricity provides low-income communities located far from urban centers with a better quality of life, comfort and more possibilities for economic development, as contemplated in the international practices recognized and recommended in the ESG and in Human Rights.

Results of the *Casa Fácil* (Easy Home) Housing Program



*The investment in distribution networks and service entrances (the number of housing units completed in 2021) was corrected from 1,675 to 347 due to the change in the methodology for calculating the amounts in the new agreement, according to DIS/SEE/DERG/VEOR controls, with no change in the transferred amounts.

Night Irrigation Tariff and Night Rural Tariff Programs

GRI 203-2, EU19

To encourage agricultural productivity, the Rural Night Tariff grants a discount of 60% to 70% on the electricity tariff used for production in the period between 9:30pm and 6:00am. This program benefited 12,528 consumer units of rural producers in 2022, representing BRL 44.4 million in discounts granted in their electricity bills.

The Nightly Irrigation Tariff offers subsidies for the construction or reinforcement of networks to serve the irrigators. It also encourages irrigation and aquaculture equipment to be used at night.

A total of 3,900 consumer units benefited in 2022, totaling subsidies amounting to BRL 16.6 million. The funds are provided by Aneel through the Energy Development Account (*Conta de Desenvolvimento Energético* - CDE).

Social Electricity Tariff (*Tarifa Social de Energia Elétrica* - TSEE)

Improvements implemented GRI 203-1

During 2022, Copel has invested BRL 1.58 billion in the infrastructure of lines, networks, substations and physical facilities to improve service quality. The expansion of the service network for customers and consumers directly impacts the economic and social development of the communities.

The improvements in network infrastructure draw into the region new investors who require quality energy to ensure stability in energy delivery and to generate new opportunities for direct and indirect jobs.

Specifically with regard to social investments in infrastructure for the communities, actions were developed in 2022 to overhaul the facilities of institutions that offer social care to the elderly and to families in vulnerable situations located in several municipalities,

GRI 203-2, EU19

This consists of granting discounts on the electricity tariff of low-income families enrolled in the Single Registry of Social Programs of the Federal Government with monthly family income per capita less than or equal to 1/2 the national minimum wage. Also, elderly people aged 65 or over or people with disabilities may benefit through the Benefit of Continued Provision of Social Care (BPC), family registered in the *Cadastro Único* ("Single Registration") with a monthly income of up to three minimum wages, who have a disease or disability whose treatment, medical or therapeutic procedure requires the continued use of appliances, equipment or instruments that, for their operation, require electricity to function. The discounts apply to a monthly energy consumption cap of 220 kWh. The discounts applied, i.e., the difference between the Residential Tariff and the Low Income Residential Tariff, called Monthly Revenue Difference, are reimbursed to distributors with funds from the CDE, through the Brazilian Electricity Regulator (Aneel).

A total of 575,000 consumer units were benefited by the TSEE in 2022, through an Aneel disbursement of BRL 151.6 million for the program.

such as Curitiba, Ponta Grossa, Matinhos, Londrina, Maringá and Cascavel, linked to the *Boa Vizinhança* Program, totaling an investment of around BRL 20,000 of the company's own funds.

Copel, through the *Paraná Trifásico* Program, is investing BRL 2.7 billion in Paraná to build 25,000 kilometers of three-phase networks. These networks replace the old single-phase rural networks, upgrade the electrical grid in the countryside and ensure cheaper access to three-phase energy for rural consumers. On the coast alone, 197 kilometers of new three-phase networks have already been built (see more in Relevant actions in 2022).

LOW INCOME RATE

	2022	2021	2021
Households served as low-income	575,000	370,919	306,196
Total low-income households out of total households served (customers/residential consumers) (%)	14%	10%	8%
Billing revenue in the low-income residential subclass (BRL thousand)	286,873,604	170,906	101,853
Total billing revenue in the "low income" residential subclass in relation to total billing revenue in the residential class (%)	7%	4%	3%
Subsidy received (Eletrobras), related to low-income consumers (BRL thousand)	151,600	95,480	103,942

Tax Breaks

Copel, through tax exemptions, supports several projects to encourage culture through federal law (National Culture Incentive Program) and state law (State Program for Promotion and Incentive to Culture of Paraná - Profice). In addition to cultural projects, the company encourages sports projects through the Federal Sports Incentive Law and the State Law (State Sports Promotion and Incentive Program (Proesporte). It also creates incentives for social projects related to the statute of children and adolescents (*Fundo da Infância e do Adolescente - FIA*), the statute of the elderly or projects aimed at health development (National Program to Support Oncological Care (*Programa Nacional de Apoio à Atenção Oncológica - Pronon*))

and the National Support Program for Health Care for People with Disabilities (*Programa Nacional de Apoio à Atenção da Saúde da Pessoa com Deficiência - Pronas*)).

A total of 180 projects were supported in 2022 and the total value of incentives reached BRL 22,977,784.20. In addition to the programs that implement federal, state and municipal public policies directly related to energy, such as those described above, Copel also has social interest programs that indirectly contribute to public policies and are related to secondary topics.

COMPANY INVOLVEMENT IN PROJECTS* (BRL) GRI 201-4

	2022	2021
Amount of funds allocated to projects	22,977,784.20	19,382,644.00
Amount of funds allocated to the largest project	470,620.80	500,000.00

*Cultural and sports projects, etc., with funds from tax incentives - Rouanet, Profice (ICMS), Proesporte (ICMS), Pronon, Pronas, FIA, and the Paraná State Fund for the Rights of the Elderly (Fipar).

Customers and consumers

GRI EU28, EU29

Part of the work mission of Copel DIS is to promote customer satisfaction. This premise is closely linked to the Company culture and the greater the efficiency in operational processes, the higher the indicator. Operational efficiency is a regulatory requirement and, therefore, is managed with excellence.

The customer's perception of the Company is monitored through satisfaction surveys.

Copel DIS consults rural customers every four years and with public authority customers in the first and last year of the mayors' term of office. The satisfaction indicator is also tracked by the annual poll carried out by Aneel, and also by Abradee, with a focus on residential customers.

The Company also controls complaints (ECF and ECD), analyzes recidivism with the Ombudsman, monitors websites such as "*Reclame Aqui*", "*Consumidor.gov*" and the indicators agreed with the areas in the Management Commitment as well as the creation of work groups focused on improving customer satisfaction.

Customer satisfaction is also related to the frequency



Smart meter replacement in
Marmeleiro

of power supply outages. Copel DIS was 24% below the regulatory number in 2020, 29% below in 2021, and 22% below in 2022. This result maintains a comfortable difference with respect to that defined by the regulator. However, in 2021, one of the driest years in history, it contributed to the lowest value ever recorded by the company. The weather conditions in 2022 were adverse and the year registered the highest occurrence of storms on record. Such events have a high correlation with the frequency of outage indicators.

There is a breakdown of the limits of this indicator for each region and agency, with daily monitoring of the values being sent by email, as well as the availability of more detailed studies through BI. In addition, the company holds weekly follow-up meetings to monitor the indicator. These meetings are attended by top management but there are also bimonthly meetings attended by the entire leadership chain and meetings after every substation shutdown. There are also six decentralized divisions in the state, whose main assignment is to monitor the system's performance.

FREQUENCY AND AVERAGE DURATION OF POWER SUPPLY INTERRUPTIONS

GRI EU28, EU29

Total interruptions	26,222,159
Total consumer interrupted hour	39,605,870
Total customers served	4,956,930
System Average Interruption Frequency Index (SAIFI)	5.29
System Average Interruption Duration Index (SAIDI)	7.98

Cases/Projects

GRI EU28, EU29

Names	Description	Results
RADAS	Tracking of accidental shutdowns in substations	112 meetings held with 163 completed actions
DIS Notice 213	Monitoring and actions to improve the continuity indicators of the Aneel electrical sets	Up 5% over previous year
Cutting Schedule	Carry out vegetation control (one of the main causes of shutdowns) using a schedule that takes into consideration, among other variables, the performance of the electrical feeders	91% adherence to schedule
Deployment of automatic reconfiguration systems	Automatic resetting systems allow fast fault recovery and isolation, through the installation of automated sectionalizing equipment, which enables the scope of interruptions to decrease	Installation of 304 new systems

Management

Copel also has a Consumers Council whose new mandate (06/2022-2026) began in July 2022. Established by the Brazilian Electricity Regulator (Aneel) and regulated by Resolution 963/2021, the Consumer Council has among its main attributions the follow-up and supervision of the quality indicators for the services provided, the breakdown of tariffs, and regulatory issues that concern the work of the distribution concession operators in Brazil. It is also up to the Council to come up with suggestions to improve Copel's relations with

its consumers and the community in general.

The Council that carries out activities with Copel DIS is recognized as one of the most active in the country and it is composed of representatives from the rural, residential, industrial, commercial, and public sectors. The advisors' work is voluntary.

Consumer services GRI EU3

The management of the number of consumer units is done by tracking the billing reports that show the amount of consumers per category.

When out-of-average variations are found, the billing areas are asked about the discrepancy. In addition, the number of consumers is projected and the discrepancy is also monitored internally.

In the period between 2018 and 2022, the number of consumers has been growing at the geometric average of 2.0% a year.

The annual change was recorded as follows:

- 2022/2021 = 1.9%
- 2021/2020 = 1.9%
- 2020/2019 = 2.6%
- 2019/2018 = 1.6%

Accessibility in services

Copel offers several service channels to the community to improve the communication between the company and the consumers and public:

Website

www.copel.com

Main Phone

0800 5100116, toll free, 24 hours

Copel Mobile **app** for Android and iOS

Online agency

<https://avanl.copel.com/avaweb/paginaLogin/login.jsf>

Ombudsman

ouvidoria@copel.com; 0800 6470606
(working days from 8am to 6pm)

Consumer units GRI EU3

4,131,039 residential

69,811 industrial

45,978 institutional (power and public service)

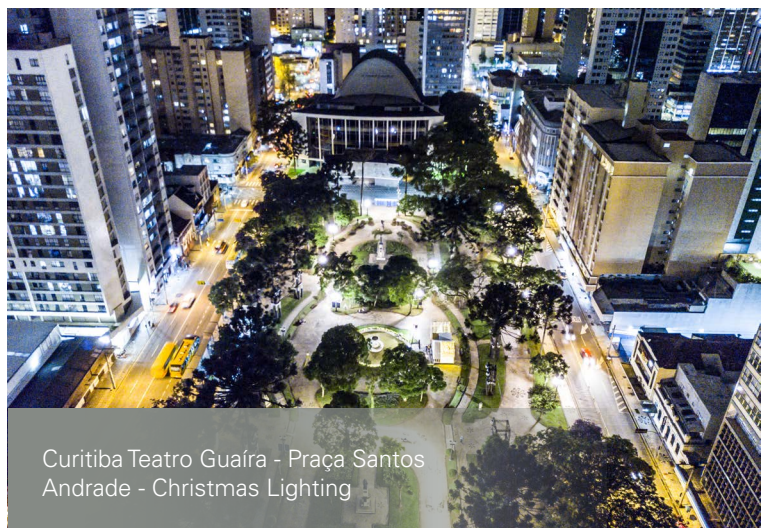
45,978 commercial

341,882 other classes (rural, its own consumption, etc.)

Total consumer units **5,020,528**

Copel offers energy bill in Braille for blind consumers.

Copel's website is accessible to people with visual and hearing disabilities.



Curitiba Teatro Guaíra - Praça Santos
Andrade - Christmas Lighting

Online service

With the growing trend of customers using digital services, the company is working on improving its online tools to facilitate the customer experience and speed up the provision of services. Besides the free app for Android and systems, the company offers a virtual branch and a WhatsApp number that receives the most common requests, such as debt checks and second copies of the electricity bill, reconnection, and the sending of meter readings. These combined channels processed 38.8 million requests from Copel DIS customers in 2022.

Integrated hub

Since 2019, the Integrated Distribution Hub (CIDIS) centralizes all Copel's Distribution operations in a single location. CIDIS handles the entire operation of substations and networks of medium voltage and high voltage up to 138,000 Volts in the state of Paraná, in addition to managing the teams that are sent out to render emergency services throughout the state.

Through the modern automation systems, all the networks can be managed remotely and the distributed generation can be increased. The Smart Copel building is home to Copel DIS' largest on-site service branch, which has an intuitive self-service track, as well as attendants to solve the more complex cases.

Smart Copel is a modern and sustainable building that includes power generation, a charging station for electric cars and rainwater collection in accordance with the Company's care for the environment.

Telemetry accounts for
95% of all the readings
of the 15,000 customers
served

Telemetry

Telemetry is the system in which the reading of bills is transmitted to Copel through a GPRS or ethernet cellular network, eliminating the need to travel to the consumer unit. Currently, about 95% of all readings of the approximately 15,000 customers served in Medium and High Voltage are carried out via telemetry.

The number of cuts in 2022 was higher than in 2020 and 2021, however, still 12% lower than that registered in 2019. This result was partly impacted by the prevention of supply suspension due to the pandemic, particularly in 2020 and 2021. In regard to reconnection times, the numbers increased in 2022 as compared with the previous two years. **GRI EU27**

The default result changed only slightly - the Corporate Default indicator reached 0.90% in 2022, compared to 1.33% in 2021. The suspension process is triggered automatically by the business management system consumer units/invoices, after identification of the consumer units/bills that are past due and that have 15 days for settlement, and which are subject to a cut based on the due date and cut-off criteria.

After the suspension, if the bill is paid and there is no other outstanding invoice that prevents the reconnection, the system automatically generates a reconnection service. The reconnection services are performed as a priority and in compliance with the established technical standards. **GRI EU27**

NUMBER OF RESIDENTIAL DISCONNECTIONS DUE TO NON-PAYMENT GRI EU27

	2022	2021	2020
Less than 48 hours	469,590	354,423	283,242
From 48 hours to a week	55,920	39,457	22,755
From a week to a month	79,186	58,257	17,496
From a month to a year	65,849	24,323	83,703
More than a year	-	-	-

POWER RECONNECTION PERIOD AFTER PAYMENT GRI EU27

	2022	2021	2020
Less than 24 hours	420,547	333,520	269,406
From 24 hours to 48 hours	23,595	18,708	13,836
From 49 hours to 72 hours	14,903	11,906	10,309
From 73 hours to 96 hours	5,867	5,648	4,584
From 97 hours to a week	10,299	9,079	7,862
More than a week	64,179	53,740	41,819

ENERGY SALES BY TARIFF CLASS (GWH)

Captive + Free	2022
Residential	8,212
Industrial	12,249
Commercial	6,256
Rural	2,487
Public powers	642
Public lighting	939
Public services	812
Own	19
Total	31,614

Customer satisfaction

Residential customer satisfaction survey is conducted by Aneel

The IASC ANEEL award (Aneel Customer Satisfaction Index) is part of Copel DIS' indicators. Aneel's residential customer satisfaction survey generates the Customer Approval Index (*Índice de Aprovação dos Clientes - IASC*), which expresses an average score for all residential customers interviewed. This score is then compared with that of the other concession operators that also participate in the survey conducted by sample once a year, usually in the second half of the year. The position in the ranking defines the winner of the IASC award. The last result released was for 2021, and Copel ranked 4th, reaching the predefined goal.

COMPLAINTS INDICATORS GRI EU23

	Complaints - DIS	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Monthly	Unsubstantiated	7,097	6,097	7,123	5,741	5,303	4,523	4,398	4,490	3,770	3,579	3,553	3,596
	Substantiated	2,243	2,436	2,744	2,559	2,514	3,007	4,932	3,683	1,814	1,879	2,051	2,013
	Total	9,340	8,533	9,867	8,300	7,817	7,530	9,330	8,173	5,584	5,458	5,604	5,609
Accumulated	Unsubstantiated	7,097	13,194	20,317	26,058	31,361	35,884	40,282	44,772	48,542	52,121	55,674	59,270
	Substantiated	2,243	4,679	7,423	9,982	12,496	15,503	20,435	24,118	25,932	27,811	29,862	31,875
	Total	9,340	17,873	27,740	36,040	43,857	51,387	60,717	68,890	74,474	79,932	85,536	91,145

Notes:

First-level complaints (those registered by the customer directly through the Company's 0800 number or in person) - 31,875 out of a total of 91,145 complaints.
Past due business service terms - 1,898,469 services requested; only 40,143 exceeded the deadline.

SERVICES PROVIDED WITHIN THE DEADLINE

Month	Services					
	Amount	Past due	Monthly percentage	Accrued percentage	Challenge 98.92	Goal 98.55
Jan	137,899	881	99.36%	99.36%	98.92	98.55
Feb	146,398	966	99.34%	99.35%	98.92	98.55
Mar	160,700	1,844	98.85%	99.17%	98.92	98.55
Apr	139,800	3,036	97.83%	98.85%	98.92	98.55
May	171,450	2,782	98.38%	98.74%	98.92	98.55
Jun	174,495	9,937	94.31%	97.91%	98.92	98.55
Jul	189,003	10,810	94.28%	97.3%	98.92	98.55
Aug	185,162	4,352	97.65%	97.35%	98.92	98.55
Sep	160,872	895	99.44%	97.58%	98.92	98.55
Oct	141,073	1,847	98.69%	97.68%	98.92	98.55
Nov	145,151	1,882	98.7%	97.76%	98.92	98.55
Dec	137,899	911	99.38%	97.89%	98.92	98.55
Accumulated	1,898,469	40,143	97.89%	97.89%	98.92	98.55

Suppliers

GRI 2-6, 204-1, 308-2, 412-2, 414-2

Copel DIS recognizes suppliers as an integral part of its success and has invested in a closer relationship with these stakeholders. The growth of construction investments, increased every year, causes the company to also increase the number of contracts for materials and services in a continuous growth process.

The supply chain is made up of generators (transmitters) and energy traders; suppliers of materials and equipment, among which the main ones are manufacturers and retailers of materials for the energy distribution network (cables, transformers, poles, connectors) and service providers (engineering, maintenance, customer care and others). Given the nature of Copel DIS' activities (energy distribution in concession area), there is no specific definition differentiating the "major operational units" within this area.

The Company had 5,061 active suppliers in 2022, of which 160 are new suppliers. The amount paid in the same year totals BRL 10,372,449,794.71. Of the total budget allocated to purchases, 18.61% was spent

on local suppliers (which are located in the state of Paraná) and in 2021, this figure stood at 21%.

Since it is a government-controlled company, the utility hires through tenders, however, it adopts supplier selection and contracting practices such as differentiated and preferential treatment for Micro and Small Businesses (ME and EPP) in purchases and contracts in regional lots, enabling the involvement of small local suppliers even though there is no formal policy or control indicator.

The differentiated and preferential treatment is set forth in Federal Law 147/2014 and mostly includes local suppliers operating within the Copel DIS concession area.

SUPPLIERS BY REGION GRI 2-6

State	Amount	%
PR	4,107	81.15%
SP	274	5.41%
RJ	106	2.09%
MG	85	1.68%
SC	81	1.60%
RS	54	1.07%
BA	47	0.93%
PI	43	0.85%
PE	37	0.73%
CE	31	0.61%
Other	31	3.87%

NEGATIVE SOCIAL IMPACTS IN THE SUPPLY CHAIN AND ACTIONS TAKEN GRI 414-2

	2022
Total suppliers evaluated in regard to social impacts	124
Total suppliers identified as causing adverse environmental and/or social impacts	9
Significant impacts - actual and potential - identified in the supply chain	employees involved in serious accidents, with leave, or fatal accidents
% of suppliers identified as having negative social impacts with whom improvements were agreed as a result of the assessment ¹	0
% of suppliers identified as having negative social impacts with whom relationships were terminated as a result of the assessment ¹	0

1. Reason for omissions: data not available. There is no centralized management of terminations or improvement agreements related to these reasons.

Management

GRI 2-24,308-1, 407-1, 408-1, 409-1, 414-1

Copel includes in its calls-for-tender requirements regarding compliance with environmental laws for some types of materials and specific services, such as the acquisition of wood, paper, plant removal services, equipment decontamination, etc.

If there are negative impacts practiced by suppliers that violate the contractual instrument, the contract manager has the duty to evaluate the relevant administrative sanctions that may be warnings, and/or fines, contractual termination, and/or temporary suspension (independent administrative process). The Company's current goal is to reach the supplier's supplier, expanding the use of ESG criteria along the action chain and has adopted for this purpose benchmarking practices.

During 2022, nine suppliers (corresponding to 7.25% of the total) were identified as causing significant adverse social impacts (serious or fatal accidents).

In addition to being disqualified for the award (see more on the box), according to the individual analysis,

suppliers may have their contracts terminated/not renewed and may also be penalized with suspension of the right to bid and contract with COPEL, as analyzed by the Suppliers Administrative Infractions Analysis Commission (CAF).

In order to become a Copel supplier, the interested company must complete the Integrity Assessment of Suppliers and Partners, designed with the purpose of knowing, assessing and mitigating the integrity risks in the Company's business relationships with third parties (suppliers, service providers, consultants, partners, brokers and associates), beneficiaries of sponsorship and strategic partners (mergers, acquisitions and restructuring).

Integrity Questionnaires are also used, in which the selected suppliers or partners inform their practices and the information needed for the assessment. The criteria adopted are:

- Profile of suppliers and partners: basic data must be provided, such as company size, owners, controlling partners, directors, and officers, goods and services sectors provided/ supplied, countries where it operates or has headquarters, among other items.
- Public sector: existence of public sector influence on the company's business, as well as the level of relationship of the company and of other companies in the business group - including members of top management and partners - with public agents.
- Politically-exposed people: map if the members of senior management (Directors and Board Members), partners and/or their relatives (up to the third degree) fall under the politically-exposed people category.
- Potential conflicts of interest: identification of kinship between any manager or employee of Copel with shareholders, directors, members of the board of directors, top-level employees or representatives of the company and other companies in its business group. GRI 2-15
- History and reputation: identification of the involvement of the company and other companies in its business group - including members of senior management - in cases of ethical discrepancies, fraud, and corruption.
- Integrity Program: identification of the existence and application of mechanisms to prevent and detect incongruities and acts of corruption.
- Personal Data: any information related to an identified or identifiable natural person.
- Sensitive Personal Data: personal data concerning racial or ethnic origin, religious conviction, political opinion, membership of a trade union or of a religious, philosophical or political organization, data concerning health or sex life, genetic or biometric data when linked to a natural person.

The evaluation of the Integrity Questionnaires may result in the classification of suppliers according to the "degree of integrity risk": low risk, medium risk, high risk.

No new suppliers selected based on environmental criteria were contracted in the 2022 cycle.

Although Copel does not contract using specific environmental or social criteria, it is worth mentioning that Copel's contracts have clauses committing it to compliance with labor laws, respect for freedom of association and fighting child labor and slave-like labor. The presentation of a statement of socio-environmental responsibility, signed by the company's legal representative, is required in all acquisition and/or hiring processes. In the event of non-compliance, sanctions are enforced, such as warnings, contractual fines, or temporary suspension from participating in tenders and contracting with Copel and its wholly-owned subsidiaries and controlled companies will be barred for a period of up to two years. According to the gravity

of the event, the contract may be terminated and the relevant legal entities will be informed of the infringement. No such violations were identified in 2022.

The management and inspection of Copel DIS contracts, supported by the law, procurement and contracting policies and standards, as well as the Company's Conduct Code, includes topics related to the Supplier Manual and the agendas of integration meetings with the contractors' employees and respect for the law and human rights in labor relations.

The confidential communication channel is open to the contractors' employees. In the event of a report of an irregularity, the managers are notified so that the appropriate measures can be taken, such as the application of administrative sanctions, or the report may be forwarded to the Public Prosecutor's Office in the event of illegal conduct.

Incentive

In order to encourage and recognize good practices, Copel DIS awards the best suppliers and one of the factors evaluated is compliance with the clauses that refer to environmental criteria in the contracts. The award is used as an inducer in the search for excellence in work and awards the winners with the Copel Seal.

Held for six years, the Supplier Award was resumed in 2022 in a face-to-face format. Eight categories were awarded, including two new ones: Pole Manufacturer and Sustainability - which shows how the Company is aligned with ESG issues, although such performance was already evaluated in other categories.

To participate in the 2022 COPEL DIS Supplier Award, 225 suppliers were evaluated. Labor Management and Practices in Occupational Safety and Health and Social Responsibility were included in the criteria of the assessment.

Training

With the aim of improving relationships, as well as investing in the training and refresher courses, Copel holds lectures, meetings, and workshops, both on-site and online, to bring together its suppliers. For example, the webinar on Leadership Development was held in 2022 to present the leadership practices adopted by managers at Copel DIS so suppliers and partners can use them as a benchmark in their activities.

The Company also offers Code of Conduct training to disseminate the principles that guide the actions of Copel DIS and its employees.

It also offers on its company website, a guidebook on Good Practices in Data Protection, which explains how Copel respects the use of personal data in the selection of its suppliers, valuing security regarding the privacy of information from the selection process of companies that will provide services, as well as during the term of the contract until its termination, in line with the terms of the General Data Protection Law (LGPD).

Human rights

Copel revised its Human Rights Policy at the end of 2021 under the due diligence, underscoring even further the importance of the revision of the Global Reporting Initiative (GRI) guidelines, also in 2021.

As such, Copel's Human Rights Policy follows the Universal Declaration of Human Rights established by the United Nations Organization (UNO), and the international standard of the UNO Guiding Principles for Business and Human Rights, the Global

Compact Principles, the Declaration of Fundamental Principles and Labor Rights, of the International Labor Organization (ILO), and ISO 26000/2010.

The document reaffirms the company's commitment to human rights issues throughout its sphere of influence, encompassing its activities, its production chain, and the communities affected, taking into consideration:

- At the start of new contracts with third parties, everyone goes through an integration process, in which Copel provides guidance on the rights and duties of the contractor, in addition to socio-environmental, human rights and labor rights issues.
- Copel hands out the Human Rights Guide to all outsourced employees with specific guidance regarding the subject and the forms of conduct. Other guides offered by the company aim to guide its own employees and third parties regarding issues such as Sexual Harassment and Bullying.
- All the contracts executed with suppliers have a specific social responsibility clause with penalties for noncompliance. When selecting and hiring suppliers, the company requires a statement of social and environmental responsibility.

There is a clause, likewise to the statement, that provides for the prohibition of any type of slave-like work or any other form of illegal work, the employment of people under 18 for dangerous or unhealthy night work, people under 16 for any type of work, sexual exploitation of children and adolescents in the company's area of influence, the practice of sexual harassment and/or bullying in the work environment, any type of discrimination in relation to sex, gender, origin, race, color, physical condition, health, religion, marital status, age, family situation, among others.

Failure to comply with this clause may cause the services provided by the contractor or the contract to be suspended and the new company may be barred from entering into any bidding processes. Compliance with contractual clauses is monitored by contract managers. When carrying out field inspections, either at the contractor's premises or at the construction sites, contract managers assess, in addition to technical issues, aspects of human rights such as housing conditions, presence of workers under 18 and the use of safety equipment.



Electricity sector indicators

Energy Efficiency Program

In 2022, 14 projects
were selected in the
public tender

Law 9991/2000 and Aneel Regulatory Resolution 920/2021 determine the application of financial resources in the Energy Efficiency Program aiming to increase the efficient use of electricity in all sectors of the economy.

Copel DIS issues every year a bid notice for consumers to submit project proposals that demonstrate the importance and economic feasibility of improving the energy efficiency of equipment, processes and end uses of energy. Industrial, residential (condominium), rural, commercial and service consumers, public authorities, public lighting and public services can participate.

A total of 14 projects were selected in 2022 in the tender for projects PEE COPEL 005/2021 from among industrial, residential (condominiums), and public lighting consumers. In the area of street lighting, the municipalities of Jandaia do Sul, Mallet, Porecatu, São José dos Pinhais and São Mateus do

Sul had their projects approved. The consumers will be summoned in early 2023 to sign the contractual instrument.

The PEE COPEL 006/2022 call-to-tender for proposals was also published and was open to receiving proposals for Energy Efficiency projects, including consumer units served in the concession area belonging to the following typologies: industrial, residential (community areas in condominiums), public power, rural, public services, public lighting. The period for receiving proposals started in December 2022 and ended in March 2023.

The projects aimed at replacing equipment for energy-saving alternatives are to receive a total of BRL 30 million to replace light bulbs, household appliances, industrial machinery and other equipment powered by electricity provided that they replace similar old ones, bringing gains in efficiency in electricity consumption.

Research & Development (R&D) Program

GRI EU8

Regulated by the Brazilian Electricity Regulator (Aneel), the Research and Technological Development Program of the Electricity Sector recommends that the energy concession operators invest in research and development projects (R&D) in order to obtain original and innovative solutions for technical problems of the electricity sector.

Aneel establishes the guidelines and instructions regulating the preparation of R&D projects through the document Procedures of the Research & Development Program (PROP&D), contained in Aneel's Regulatory Resolution 754/2016. Its purpose is technological training and the promotion of innovation for the creation of new processes or products or the evident improvement of their characteristics through the implementation of research projects contracted with research and development institutions. The mission is to produce technical and operational, economic, social and environmental benefits, generating and adding value to Copel DIS and to society as a whole.

The projects submitted must include proposals addressing environmental preservation, human resources training, and technological development, with priority being given to obtaining results of practical application, focusing on the creation and improvement of products, processes, methodologies, and techniques, as well as infrastructure support, patent generation, technological training, and benefits to energy consumers.

Besides complying with Law 9991/2000, one of the

Investments in R&D and innovation are essential to the company's positioning in the market

Investments

Copel has invested heavily in its R&D program over the past three years and has spent a total of BRL 151,583,888.38 during the period

GRI EU8

goals for R&D investments is to advance the socio-environmental issue, in which there are opportunities for developing innovative projects in important areas such as urban mobility, electric vehicles, safety with the community and partners, generating technical, operational, economic, social, and environmental benefits.

Copel invests in the future of the energy sector because it understands that investments in Research & Development and in Innovation are essential to position the company in the market in the long-term.

Research and development activity

GRI EU8

	Limit balance (R\$)	Rate
		0.72
2022	26,722,873.99	1.61
2021	66,602,645.84	2.26
2020	88,347,288.25	

Note: The follow-up index has dropped over the last three years, which reflects the investment level.

Cases/Projects GRI EU8

Names	Description	Results
R&D 2866-0444/2016	<ul style="list-style-type: none"> The project encompasses the installation of a 500 kW/2 MWh Energy Storage System (ESS), composed of two different battery technologies (one flow battery of 250 kW/1 MWh; the other lithium ion battery also of 250 kW/1 MWh) The project covers the operation of these ESSs in three different operation regimes, considering the possibilities of combining load shifting, frequency control, smoothing of voltage drops, reactive control, and other possibilities The project also includes the development of a spatial multicriteria algorithm, which can be applied in any situation where an ESS needs to be installed, its feasibility analyzed, and one of the available storage technologies chosen 	<ul style="list-style-type: none"> The development of the spatial multi-criteria algorithm The installation of a 500 kW /2 MWh ESS at the Ipiranga substation (PR)
R&D 2866-0456/2016	<ul style="list-style-type: none"> The overall purpose of this project was to develop methodologies for tactical and operational planning of underground reticulated distribution grids, including contingency analysis and the possibility of energy injection from distributed generation sources 	<ul style="list-style-type: none"> Development of planning methodologies Development of models for contingency analysis and diagnostics Acquisition of system and equipment for measurements in the electrical grid Methodology to analyze the impacts of the connection of distributed generation sources Network measurement planning and deployment Development of the automatic contingency analysis and diagnosis module Validation of distributed generation modules: penetration of distributed generation sources in reticulated grids
R&D 2866-0510/2019	<ul style="list-style-type: none"> This project was focused on the research and development of a teaching-learning methodology that uses an immersive, multiuser virtual reality environment to train teams of electricians in distribution network maintenance The virtual reality environment is composed of 3D models of the LV (low voltage) and HV (high voltage) distribution network components, which recreates an active learning environment for procedures and maneuvers, reproduces the performance of the equipment and simulates the interaction with the Operations Center, among other features 	<ul style="list-style-type: none"> The teaching-learning methodology encourages self-learning, problem-solving, and teamwork Multi-user immersive virtual reality environment simulating several different situations experienced by electricians

Electromobility

Copel has the largest number of research & development projects regulated by Aneel, and also supports the development of standards for the use of electric vehicle recharging in buildings for collective use. The Company, as a pioneer in the electric charging area, implemented the country's first electro-highway, the Paranaense Eletrovia in 2018, a 730-kilometer corridor on the BR-277 to connect the Port of Paranaguá to Foz do Iguaçu. The highway is equipped with 12 electric charging stations.

In 2022, Copel expanded the vehicle charging stations on the BR-376 and BR-101 highways in a circuit from the outskirts of Londrina in northern Paraná to Joinville in Santa Catarina, interconnecting the two states. It also inaugurated the first ultra-fast charger in Curitiba, which has the capacity to connect three vehicles at once. In addition, the company has put into operation another electric station with six chargers on the Green Line in the direction of São Paulo.

In all, Copel's number of charging stations is now 32 after an expansion that was developed in partnership with the startup Move, selected by the Copel Volt program.

Besides the expansion in the number of electric charging points, the project with Move is technologically integrating all the electrical points into a single management system. As such, they will be centralized on a single platform, which will inform the chargers available the amount of energy provided by each and the carbon dioxide emissions (CO₂) avoided by using electrical power instead of fossil fuel. The system will also be ready for the future sale of this type of supply.

Copel is also coordinating an international group that brings together energy utilities to interconnect the electric roads in Brazil (PR, SC and RS), Paraguay, Uruguay and Argentina.



Copel expands
to **32 recharging
stations** for
vehicle charging



Curitiba Solar Inauguration - Barigui Park



Catalyst

The actions of Copel DIS aim to protect and promote the cultural assets of the state and country

In addition to excellence in the provision of energy services, Copel DIS plays a key role in Paraná society by presenting itself as a catalyst for good social and business practices.

The Company's objective is to protect and promote the cultural assets of state and country linked to acquired knowledge dissemination actions to ensure their permanence and the enjoyment of present and future generations.

The Company has therefore implemented preservationist, preventive and educational actions in the field of cultural heritage, as a result of the installation of energy distribution undertakings.

Tangible and intangible cultural heritage

Article 216 of the Federal Constitution of 1988 states that Brazilian cultural heritage includes tangible and intangible goods, taken individually or jointly, that bear references to the identity, action and memory of the different groups that make up Brazilian society. This includes: forms of expression; ways of creating, doing and living; scientific, artistic, and technological creations; works, objects, documents, buildings, and other spaces that house artistic and cultural manifestations; urban groups and sites of historical, landscape, artistic, archaeological, paleontological, ecological, and scientific value.

Material culture is associated with the concrete elements of a society represented by physical structures, such as historic cities, archaeological and scenic sites.

Intangible culture, according to the United Nations Educational, Scientific and Cultural Organization (UNESCO), can be defined as “the practices, representations, expressions, knowledge and techniques—with the instruments, objects, artifacts and cultural places associated with them—whose communities, groups and, in some cases, individuals, recognize as an integral part of their cultural heritage.”

The Institute of National Historic and Artistic Heritage (Iphan), a self-governing federal entity linked to the Tourism Ministry, is responsible for the preservation of the Brazilian Cultural Heritage, protecting and promoting the country’s cultural assets.

Copel DIS recognizes that it has a responsibility,



Stone artifacts (Iguaçu Regional Museum)

as a result of the installation of its energy projects, to adopt a set of preventive actions and measures based mainly on Iphan Regulatory Instruction 001, of March 25, 2015, which aims to know, protect and safeguard the rich cultural heritage in the areas where it operates.

Before installing power plants, transmission lines, substations, Copel contracts studies to assess the possible impact of the works on archaeological assets, which may be in the soil in superficial or deep layers, in caves, slopes, rocky walls, etc. When the occurrence of assets in sites is confirmed, a plan is adopted to recover and relocate the material to institutions specialized in preserving this heritage.

The first records of the company's performance in this area date back to 1964 when the now-defunct Salto Grande power plant was built - shut down to build the giant Foz do Areia plant on the Iguaçu River, in the mid-south of the state. Since then, Copel has financed research projects for the prospection and

recovery of hundreds of archaeological sites identified not only in Paraná, but also in the ten states with power generation and transmission projects.

Copel currently has a specialized area with professionals trained in archeology, history, museology and sociology to manage all the cultural and archaeological heritage protection programs.

In recent years, Copel DIS conducted more than 75 Cultural Heritage Management Programs within the state of Paraná with emphasis on actions related to the following estates:

- **Spot-Listed:** through maintenance, conservation and restoration activities at Casa Joaquim Lacerda located in the historic center of the municipality of Lapa.
- **Archaeological:** through activities to survey the potential (diagnosis and field prospecting), recovery and on-site preservation of archaeological sites, archaeological monitoring during the work.
- **Registered:** through studies on linguistic diversity (Talian Language), carried out in the municipalities of Marechal Cândido Rondon and São José dos Pinhais, in addition to studies on the possible occurrence of holders and activities related to Capoeira (Masters' Craft and Round Practice) in the municipalities of Apucarana, Cristo Rei, Piraí do Sul, União da Vitória, Ponta Grossa, Paula Freitas, Mallet, Paulo Frontin, Maringá, Sarandi, Morretes and Guaratuba.
- **Valuated:** through a study of existing railway assets in the municipality of Paulo Frontin.

In 2022, Copel DIS conducted Archaeological Heritage Impact Assessment studies for ten energy projects.

Archaeological Heritage Management Programs were also carried out for five projects, considering archaeo-

logical monitoring actions, in addition to the recovery of three archaeological sites, and the establishment of procedures for preservation in situ (maintenance of the archaeological site in its original place) for two other sites.

Archeological heritage studies were conducted to register and signal 155 archeological sites, located in 13 municipalities in the state of Paraná.

Studies on Mobile Archeological Assets Collected from the Paraná River in the municipality of Porto Rico (PR), were put in place to help in the preservation of around 789 archeological artifacts collected in the Paraná River in 2009. The artifacts were made from metal, bone, glass, wood, leather, chinaware, and construction material found in two shipwrecks dating back from the period of the Tenentist Revolution.

In 2022, Copel DIS also conducted an Intangible Heritage Impact Assessment study to characterize, describe, and geo-reference the study area and the intangible cultural assets "*Roda de Capoeira* and *Ofício dos Mestres de Capoeira*" (Capoeira Circles and Capoeira Masters Profession), both federally registered assets, for an energy project located in the municipality of Piraí do Sul (Pará state).

Heritage Management Programs were carried out in



5
Enterprises



155 archaeological sites were included in the Re-registration and Signaling studies

Heritage Education

GRI EU19

The actions involve educational and knowledge communication processes, with a focus on cultural heritage

Copel implements educational actions with the local communities through Heritage Education programs. As set forth in Regulatory instruction IPHAN 001, of March 25, 2015, the topic covers educational and knowledge processes targeted at cultural heritage and is offered as a resource for the socio-historical understanding of cultural references in all their manifestations to enable the different groups and communities to recognize themselves as an integral part of the historical-cultural tradition so they can then value and preserve it.

The target audience is composed of communities impacted by the projects, employees involved with the projects, the school community, including teachers from the selected units, and training for the employees of Copel DIS and the contractors responsible for the construction work.

In 2022, the Heritage Education activities were struc-

tured according to the above precepts and presented the following results:

- Total of 29 trained employees of contractors
- Total of 24 Copel DIS employees trained in the Heritage Education Programs (in Training Event on Archaeology in Environmental Licensing)
- Total of 59 interviews conducted with the community (including residents, merchants, cultural institutions, and heritage houses around the implemented energy projects)
- Total of five Elementary and High Schools attended, with 125 students (Elementary School units)
- Total of one University attended, with 17 students

In all, the Heritage Education activities have already benefited more than 5,000 people since they were implemented at Copel DIS



Copel Museum Energy Space - school student visit



Environmental management

GRI 2-25

Aligned with its strategic reference, Copel DIS conducts environmental studies prior to the implementation of its projects. The goal is to know and manage possible environmental impacts caused by energy distribution. The main commitments aimed at mitigating adverse consequences are:

Previous environmental studies to know and manage possible impacts

- **Preliminary Environmental Analysis (PEA):** defines the best site for project implementation based on the analyses of the main points of social and environmental sensitivity of the region for implementation of new substations.
- **Study of Impact on Surroundings (SIS):** an ancillary instrument used to plan and organize urban land, provide subsidies for the technical, environmental and socioeconomic issues of the projects, possible impact on the direct and indirect population, as well as the municipality as a whole.
- **Forest Inventory (FI):** a tool used to measure the potential of forests and quantify the productive volume of a certain area, structure, and distribution of species. This information is vital for the proper stewardship of such areas since it provides an inventory of the suppression area needed for the implementation of Copel DIS projects, through the quantification and qualification of the species included in the document and the determination of the volumetric parameters of each.
- **Simplified Environmental Report (SER):** analyzes environmental feasibility for the deployment of

projects. It covers the technical characteristics of the project, describes the environmental reality of the areas of influence prior to the deployment (environmental analysis) in the physical, biotic and socioeconomic environments, and creates a prognosis of the impacts that may occur. It also proposes mitigating and/or compensatory measures for negative impacts and potentiating measures for positive impacts. It also suggests environmental programs to be developed during the installation and operation of the enterprise.

- **Detailed Report on Environmental Programs (DREP):** a document that presents, in detail, all the mitigating and offsetting measures and the environmental programs proposed in the SER. The environmental management is guided by Copel's Sustainability Policy and includes practices, projects, programs and actions that are transversally part of the Process to Provide Social, Environmental and Heritage Support. The guidelines contained in the document, applicable to Copel employees, outsourced workers and suppliers, were based on the concepts of ecoefficiency, according to which environmental initiatives must propose the proper use of natural resources and allow the dissemination of good practices and company values. Such guidelines are also part of the Supplier Manual.

Copel DIS sets its environmental goals through the work of committees comprised of representatives from different boards and they are developed with basis on the company's history and economic analysis, having as guidelines the Sustainable Development Goals (SDGs) and the best market practices.

Every committee defines the values, the timeframe, and the way to reach these goals, which are submitted to senior management for approval. Periodic performance tracking is put in place and improvements, if necessary, are implemented. The achievement of these goals is tied to the good professional performance of employees and managers.

The environmental targets are defined through the work of commissions composed of representatives from various boards

Environmental management programs

GRI 2-25

Environmental Management Program of the Construction Work

This program aims to manage and monitor all the factors and activities that may interfere with the environment during the construction of projects, including the implementation of environmental programs.

Program for Mitigation of Impacts on Forest Coverage

During the implementation of distribution lines, several actions are carried out to minimize the need to cut tree vegetation along the route. To prevent possible impacts to the flora, Copel prefers to set up projects in anthropized areas and chooses construction techniques that interfere as little as possible with the vegetation. In the case of the construction of high voltage distribution lines, towers are raised and cables are launched by pilot cable or drone to preserve forest fragments that may need to be crossed.

Reforestation Program

This program encompasses actions to offset the cutting of vegetation in the construction and deployment of distribution lines and energy substations. Copel has an important historical role in environmental recovery that goes back to the 1970s, when the first forest gardens were added to their first power plants for the production of seedlings.

Copel has an important
historical role in
environmental recovery,
dating back to the 1970s



**Environmental
restoration**
carried out
since the 1970s



**Forest
nurseries**
to produce
seedlings



Program to Drive Away and Relocate Animals

During the process to implement the project, certain animal species that live in the area need to be driven away or relocated since nests, burrows, breeding and/or feeding areas may be disturbed. As such the program tracks the suppression fronts throughout this process by monitoring the project area to ensure no animals are killed during the construction work, driving away animals from the area that will be suppressed, and removing any animals that are unable to move themselves out of the suppression area.

Management Program for Construction Debris (PGRCC)

This program is focused on the management of debris produced during the construction of the projects (*see more in Materials and Waste*).

Federally-Protected Cultural Property Program (Preventive Archaeology)

This program ensures the preservation, conservation and upkeep of cultural assets, which include archaeological, registered, spot-listed and valued, assets that belong to the federal government through archaeological research carried out on site, in line with the acquisition of Environmental Permits (LP, LI and LO) for the energy projects that will be implemented in Paraná.

Environmental Awareness Program for Construction Workers

This program was created to train and raise the awareness of workers at the construction site in regard to environmental matters.

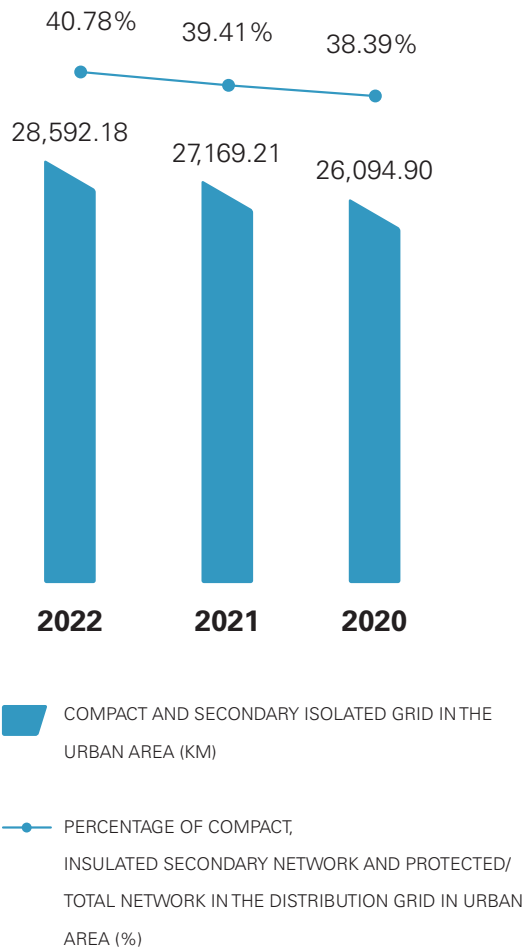
Copel DIS implements various programs to support its environmental management

Community Information and Relationship Program

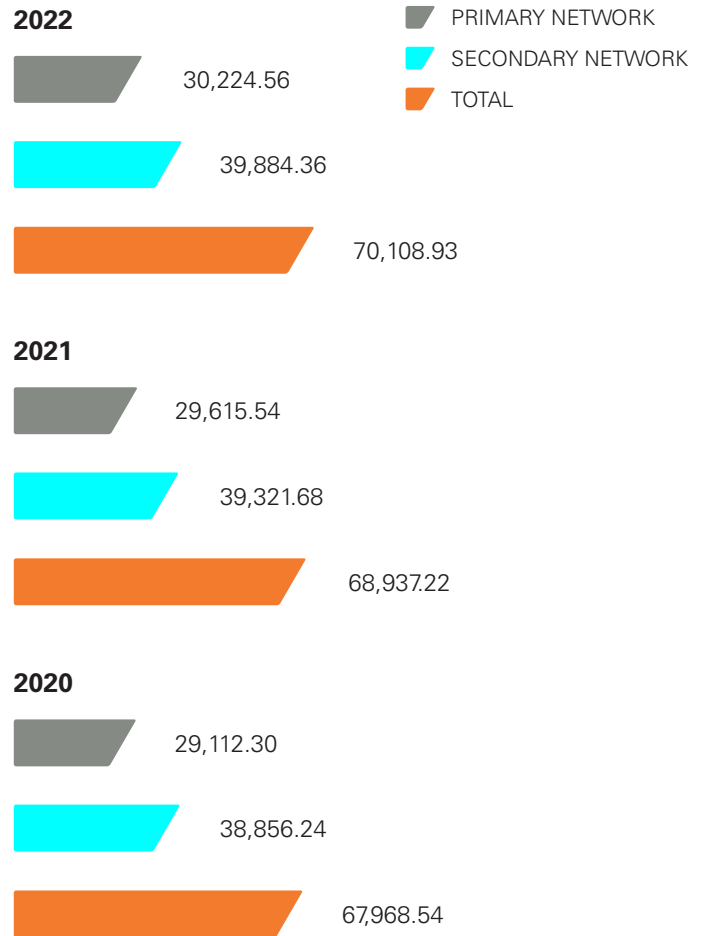
A close relationship between the owners and representatives of the undertaking makes it easier to negotiate and minimizes conflicts arising from misleading information with the potential of leading to expectations in the population. This program enables the communities affected to understand better the venture, the scale of the interference and the benefits that it will bring after its implementation, as well as to prevent electricity-related accidents through educational and recreational activities.

Technologies of energy distribution grids

The most significant socio-environmental impacts associated with energy distribution networks are the risk of accidents with third parties, conflicts with afforestation and visual pollution. To mitigate them in wooded areas or in rural areas with vegetation protected by law, Copel DIS adopts technologies for grid construction that cause the least environmental impact and that replace bare networks, such as protected networks in the protected compact configuration, on insulator and crossarm, insulated secondary network, insulated medium voltage and underground networks.



LENGTH OF URBAN NETWORKS (KM)



Notes:
 In addition to the sub-transmission networks, the distributors operate medium and low voltage lines, also called primary and secondary networks, respectively.
 Medium voltage lines (primary network): electrical voltage between 2.3 kV and 44 kV.
 Low voltage lines (secondary network: electrical voltage that can vary between 110 and 440 V in the Brazilian electrical sector.

Compact Distribution Grid (RDC) and Isolated Secondary Distribution Network (RSI)

The RDC minimizes the area of interference with vegetation and the need for tree pruning. This type of network has been the Company's preferred construction standard for overhead networks since 2010, especially in urban areas.

The ISN can be located in greater proximity to tree branches without the risk of causing disruptions in the event of an occasional and non-permanent contact with the conductors.

Together, the CDN and ISD represent respectively 39.89% and 4.28% of the total networks built by 2022 in urban and rural areas.

Underground Grid

This network is used in certain situations of high energy demand and reliability. It eliminates the need for tree pruning and reduces the possibility of accidents to third parties besides improving the visual aspect compared to overhead networks.

Medium voltage insulated grid

In certain situations where obstacles or dense vegetation are nearby, the Company may design and build medium voltage insulated overhead grids, which eliminate the need for pruning trees and reduce the possibility of accidents with third parties.

Biodiversity

GRI 304-1, 304-2, 304-4

Copel understands that the most significant impacts caused by its energy distribution business on biodiversity arise from changes in the environments where the projects will be built because it is not possible to completely eliminate deforestation in some cases.

A few of the direct and indirect impacts on biodiversity caused by Copel DIS' activities are:



The **potential plant and animal species** are surveyed in the environmental studies preparation phase

- The implementation and operation of projects may cause accidents with leakage of insulating mineral oil, SF6, fuel, concrete, and residue from metals, ceramics, polymers, and composites.
- The areas affected by the developments may favor exotic species, invasive exotic species, and other opportunistic species. They may find ideal living conditions after clearings are opened for the construction of structures and cable laying, and after periodic cleanups and in areas affected by earthworks.
- In the operation of distribution lines, the maintenance of the safety lanes for energy distribution lines and networks is carried out by means of manual or mechanical clearing. These techniques cause habitat fragmentation, soil erosion and favor invasive exotic species.
- The implementation of the distribution projects may cause a reduction and fragmentation in the forest cover. Such impacts may occur at a greater scale based on the characteristics of the project and the region, and may be reversible in the short or long term, depending on the need for maintenance of the open range under the power lines and distribution networks. However, after the characteristics of the projects and the previous studies are carried out to verify the presence of threatened species, the expectation is for the impact not to cause a species decline.
- During the implementation of distribution projects, a thinning of the forest cover and, consequently, a reduction of habitats for wildlife may occur depending on the size of the project and the affected region.
- In the environmental studies stage, potential species of flora and fauna that will be affected by the developments are listed along with an analysis of those classified as endangered.

Project implementation

GRI 304-1

The reliability and continuity of



The reliability and continuity of the electrical power supply require the implementation and periodic maintenance of distribution lines, which, in some cases, cross sensitive areas from the environmental point of view and even Conservation Units (CUs), some of which were created after the implementation of these projects. To mitigate these impacts, in the implementation planning phase, Copel conducts a detailed routing study to ensure that lines avoid areas of greater environmental fragility, such as protected areas and their buffer zones and priority areas for conservation.

If this is not technically possible, the company raises the towers to preserve the areas located in the easement passage and takes compensatory measures to mitigate the impact. Environmental studies are drawn up and programs are proposed to mitigate and offset negative impacts hinged on the environmental laws in effect and the degree of the project's impact, as defined by the environmental agency.

This process is valid for the assets after Conama Resolution 001/1986, the environmental licensing milestone - the older assets did not undergo this process.

To prevent the construction of substations in legally protected areas, Copel DIS has, since 2015, before the purchase of the land, drawn up the study Prior Environmental Analysis to check if the site is located within a conservation unit or its buffer zone, in addition to other socio-environmental restrictions.



Periodic maintenance of the passageways of the distribution lines

Vegetation

Plant removal is considered a negative impact on the biotic environment, a direct consequence due to the need to remove trees, with immediate manifestation and local scope. This impact, which is a permanent requirement, is of low intensity due to preliminary routing studies and because it is usually reduced to small fragments or isolated trees. The impact may be offset by planting and donating seedlings.

As part of its responsibility, Copel, however, adopts as a project premise the minimization of suppression, especially in protected areas and areas of environmental relevance, prioritizing the installation of enterprises in anthropized areas (that have undergone human intervention) and choosing to use construction techniques that interfere very little with the vegetation, in order to prevent and mitigate the impacts at all stages of planning, implementation and operation.

With this in mind, it carries out environmental studies in the various stages of environmental licensing, including the characterization and monitoring of changes in the local fauna and flora. It subsequently defines environmental programs and measures to avoid the impact, reduce intensity or compensate for it.

In addition to the studies provided for in the environmental licensing process, Copel DIS conducts an internal environmental study, called a Preliminary Environmental Analysis, to assess the socio-environmental restrictions of different locational alternatives in order to subsidize the choice of land for the deployment of switch stations and power substations. Also while in the phase of defining high and medium voltage distribution lines, the Company prioritizes laying down lines in areas devoid of trees and that do not interfere in delicate ecosystems and legally protected areas.

In addition, several actions are carried out in the

process of implementing high voltage distribution lines to minimize the need to cut down trees along the route. As such, low-interference construction techniques are used, such as raising the towers and extending the cables by drone to reduce the need to open a right-of-way in all stretches and opening service lanes that, after the end of these activities, will no longer be disturbed allowing the vegetation to regenerate in these locations.

In medium-voltage distribution lines, the use of a compact or protected grid is preferred because it reduces the need for tree pruning. This action aims to avoid pruning vegetation in the implementation as well as in maintenance stages.



As part of its responsibility, Copel adopts as a project premise the minimization of vegetation suppression, especially in protected areas and areas of environmental relevance



In order to avoid and offset the impact of vegetation suppression in the implementation stage of high voltage projects, based on the environmental studies prepared in the environmental licensing, specific environmental programs are proposed, such as Minimization of Vegetation Suppression, Reforestation and Atlantic Forest Offsetting, Monitoring and Control of Erosive Processes.

In situations whereby the cutting of native vegetation is inherent to the process, the Program to Drive Away and Relocate Animals is included in the project so that specialized and qualified monitoring can be carried out by a technical team during the suppression phase to drive away and relocate the native animals.

Within the scope of this program, activities are also carried out with workers to encourage them to work preventively in an attempt to minimize accidents with animals. In certain cases, the Fauna Monitoring Program may also be included so that the impact on the fauna is well characterized.

It may also be necessary to adopt an environmental

measure for specific signaling in certain sections of the High Voltage Distribution Lines (HVDLs) that may pose a risk to wildlife, with emphasis on collision and electrocution of birds, a negative and direct impact pointed out in the environmental studies of the HVDLs. The main species affected by collisions are those with gregarious habits, such as medium to large aquatic birds, while death by electrocution is more common with birds of prey.

The greatest potential for collision is linked to specific environments explored by the main species affected, such as river courses and wetlands. The impact may be considered permanent and irreversible, however, it can be minimized by signaling the line at the places with the highest accident occurrence.

The company points out that all suppression activities are carried out with the authorization of the relevant environmental agency, meet all the conditions related to the activity, as well as the forest offsetting actions, and are in accordance with the specific laws on the matter.

The suppression of vegetation is tracked by a monitoring program to mitigate any possible impact on plants and animals.

The suppression of vegetation is tracked by a monitoring program to mitigate any possible impact on plants and animals, besides providing follow-up of the activities for Reforestation and Atlantic Forest Offsetting within the applicable situations.

The extension of the impacts is concentrated in the Directly Affected Area (DAA) of the developments. In the case of linear developments, such effects depend on the characteristics of the environments involved.

The duration of the impact depends on its characteristics, so in the case of plant removal, the impacts are permanent.

In terms of the reversibility and irreversibility of the impacts, like their duration, it will also depend on the nature of each one, and such can be reversible (pruning vegetation, for example) or irreversible (such as bird collision with cables).

With the purpose of mitigating the impacts, environmental programs are also proposed for Minimizing Vegetation Suppression, Monitoring and Controlling Erosive Processes, Recovering Vegetation and Driving Away and Relocating Animals.

Two actions related to rural and urban areas stand out in the operational stage:

- **Integrated Vegetation Management (IVM)**

in electrical systems: the maintenance of the safety strip in the operation of distribution lines is carried out by means of manual or mechanical clearing. However, these techniques cause habitat fragmentation, soil erosion and favor invasive exotic species. As a replacement, actions are underway to implement Integrated Vegetation Management. IVM is a set of practices that aims to establish, in the long term, a plant community whose growth characteristics do not interfere with the operational performance of electrical installations or that require minimal intervention while also providing soil protection, shelter and food for the animals, as well as other benefits. The Research and Development (R&D Aneel) project for Integrated Stewardship of Vegetation in the Clearing of a Passageway in High and Medium Voltage Distribution Lines is under development and it is primarily focused on understanding how the use of integrated vegetation stewardships for

the clearing of vegetation in passageways changes the recovery of vegetation in these locations, as well as evaluate how this change will affect the number of interventions and cost for opening and maintenance. The environmental and external impacts of this methodology in comparison with the one used currently is under analysis.

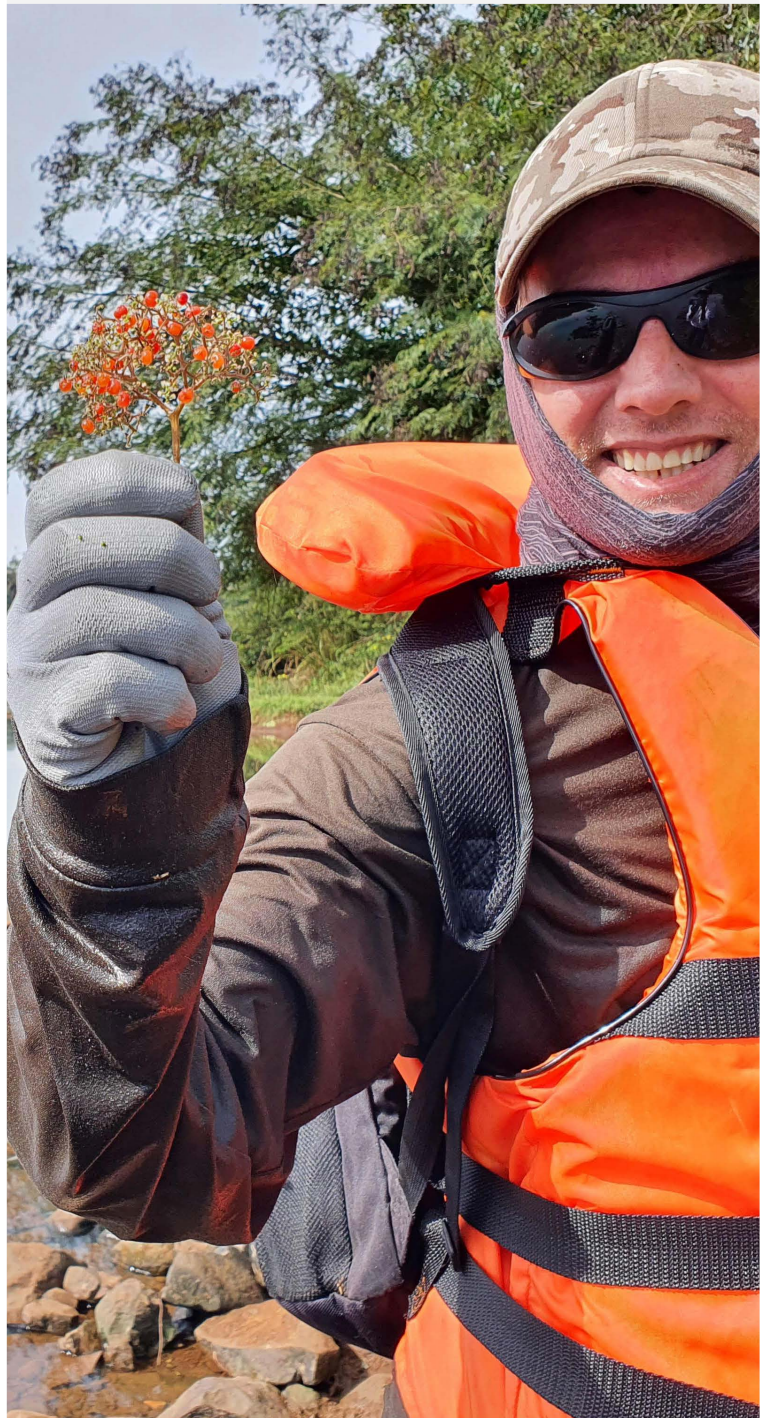
- **Urban Forests Program:** Copel DIS has traditionally supported city governments in plans to plant trees on public roads in order to improve city environments and reduce power disruptions caused by tree branches tripping the electrical system. One of the actions of this program is the production of seedlings, through a partnership with Copel Geração e Transmissão, currently carried out at the municipal nursery of Horto Florestal das Cabreúvas (Governor Ney Aminthas de Barros Braga Hydroelectric Power Plant, Iguaçu Reserve - PR).

Copel DIS has a tradition of supporting municipalities to plant trees on public roads

In addition to helping out interested municipalities, it enables compliance with environmental licensing conditions. More than 80,000 seedlings have been planted under the Florestas Urbanas program since it was implemented. In 2022, 5,750 seedlings were supplied to 17 municipalities. In 2021, 9,563 seedlings were supplied to 31 municipalities.

The actions necessary for the compatibility of urban trees with power grids were presented in lectures at the events "Landscaping: The city we have and the city we want" in Toledo (PR), and in the "V South Regional Meeting for Urban Landscaping (ERSAU)/III" of the Paraná Forum for Urban Landscaping (FORPARB) in Maringá (PR).

Another important initiative is that Copel DIS has joined the Inter-institutional Work Committee for the assessment of Municipal Urban Landscaping Plans coordinated by the Public Prosecutor's Office for the State of Paraná (MP-PR).



more than 80,000
seedlings planted
for urban afforestation

Protected areas

GRI 304-1

All the information needed to roll out the process in the various stages of environmental licensing can be obtained from the WebGeo geographic information system

Copel DIS has conducted since 2015 an internal environmental study, dubbed Preliminary Environmental Analysis, before purchasing any land to ensure it does not build substations in legally protected areas. The study checks if the site is located within a protected area or its buffer zone, in addition to other socio-environmental restrictions. The information needed to roll out the process in the various stages of environmental licensing can be obtained from the WebGeo geographic information system available on the company's intranet.

This tool can analyze the interference of projects in planning and in operation. Some projects have routes that traverse delicate areas from the environmental aspect, and even protected areas, and part of them were created after the implementation of the construction work.

By cross-checking the data of high voltage distribution lines (HVDLs) and medium voltage distribution networks (34.5 kV) with available data on the location of fully protected areas, according to the National System for Protected Areas of Nature (SNUC), it was possible to estimate the linear extension and the area of these projects that affect this type of protected area. The methodology used for the report consisted of cross-referencing georeferenced data from the boundaries of the fully-protected conservation units (SIG-SSA database) and the high-voltage distribution lines (69 and 138 kV) and 34.5 kV distribution networks (imported from the Copel database).

It is estimated that 42.8 km of HVDLs routes pass inside the protected areas in a stretch of approximately 0.93 km², taking into consideration an average safety strip 22 meters wide.

As for grids with a voltage of 34.5 kV, the area extends 328 km and has an area of approximately 5 km², including a strip 15 meters wide. These values are less than 1% of the total safety range areas of the projects. The Guaratuba State Environmental Protection Area (EPA) is one of three units that have the international designation of RAMSAR site in the State of Paraná.

Copel DIS has the following facilities within the EPA: Vossoroça substation (0.003 km²); Chaminé substation (0.01 km²); Salto do Meio substation (0.01 km²) and approximately 62 km (1.35 km²) of HVDLs and 89.3 km (0.13 km²) of energy distribution grids.

The RAMSAR Guaratuba Site has a high biodiversity value, given its high diversity of living creatures and rich landscape, composed of mountains, altitude fields, rivers, waterfalls, plains and mangroves. The EPA is a natural distribution area for the marsh weevil (*Formicivora acutirostris*), an endangered species.

At the RAMSAR ESEC Guaraqueçaba site, approximately 0.01 km² of safety lanes of medium voltage power distribution networks have been put in place to serve the local population.

Copel also participates in advisory boards of conservation units, such as the Guaricana National Park and the Saint-Hilaire/Lange National Park.

OWNED, LEASED OR MANAGED OPERATING UNITS IN PROTECTED AREAS GRI 304-1

Area name ¹	Location	Position in relation to the environmental protected area	Operation type	Size at operational unit (km ²) ²	Biodiversity value by EPA attribute	Biodiversity value by presence on protection list
Fully protected conservation units ³	State of Parana	Part of the route is located in the conservation unit	High voltage distribution lines (HVDLs)	0.93	Protection of land ecosystems	Includes state national parks, ecological stations and ecological reserves
Fully protected conservation units ³	State of Parana	Part of the route is located in the conservation unit	Medium voltage distribution networks at 34.5 kV voltage (DNs)	5.00	Protection of land ecosystems	Includes state national parks, ecological stations and ecological reserves
RAMSAR Sites - Guaratuba Fully-Protected Area	Guaratuba, Mandirituba, Tijucas do Sul, Matinhos, Pontal do Paraná, São José dos Pinhais, Morretes - PR	Located within the boundaries of the protected area	SE Vossoroca, SE Salto do Meio, high voltage distribution lines (HVDLs), medium voltage distribution networks (DNs)	1.00	The RAMSAR Guaratuba site has a high biodiversity value, given its high diversity of living creatures and landscape rich in wetlands.	RAMSAR Sites - Guaratuba Fully-Protected Area
RAMSAR Sites - ESEC Guaraqueçaba	Guaraqueçaba	Located within the boundaries of the protected area	Distribution networks at 34.5 kV	0.01	ESEC Guaraqueçaba is a fully-protected conservation unit in the public domain formed by mangroves, sandbanks, and coastal islands	RAMSAR Sites - ESEC Guaraqueçaba

Notes: the results shown in this item refer to the analysis performed in previous cycles. After this period, no projects in fully-protected conservation units were energized.

The numbers represent the strips that encroach conservation units, disregarding the type of land use of these areas. Furthermore, when such encroachments on native vegetation they may or may not represent a suppressed strip, given that, especially for HVDLs, the need for suppression depends on the parameters of the project, the topographical position and the type and height of the vegetation.

1. Own areas.

2. The calculations were done using ArcGIS software.

3. Fully-protected conservation areas includes national and state parks, ecological stations and ecological reserves.

Endangered species

GRI 304-4

The results of the forest inventory reports for high voltage distribution line projects (1), substations (1) and medium voltage distribution networks (66) developed in 2022 were considered as data of the flora.

The classification of threatened species was carried out considering the IUCN Red List of threatened species, in addition to the national list (MMA Ordinance 148/2022) and state lists (Red Lists published by IAP - Red Book of Threatened Fauna in the State of Paraná, Decree 7264/2010 and Decree 11797/2018) for classification of species under threat of extinction. Standard Operating Procedure (SOP) 05/2008 was also considered. In the event the species was classified differently among the lists, it was placed in the category of greatest threat.

For the wildlife data survey, the data from the Simplified Environmental Reports (RAS), the Environmental

Control Plan (PCA), and the Simplified Environmental Control Plans (PCAS) drawn up for seven projects in 2022 were considered and include four high-voltage distribution lines, two substations, and one switching station. The data from the first field campaign of the Wildlife Monitoring Program of LDAT 138 kV Castro Norte (Industrial District of Telemaco Borba) were also considered.

Based on these studies, only the species that were effectively recorded in field campaigns for analysis of the local wildlife in the areas of the projects and that were classified in some category of threat of extinction were considered. Therefore, species of potential occurrence, i.e. those that are recorded through secondary data from other studies, were not considered. Interview data was also not considered.

IUCN RED LIST SPECIES AND NATIONAL CONSERVATION LIST SPECIES, BY LEVEL OF EXTINCTION RISK

GRI 304-4

Extinction risk level	2022	2021
Critically endangered	1	2
Endangered	6	5
Vulnerable	8	6
Near threatened	11	11
Least concern	344	383
Total	370	407

IUCN RED LIST SPECIES AND NATIONAL CONSERVATION LIST SPECIES, BY LEVEL OF EXTINCTION RISK GRI 304-4

Extinction risk level	Species found
Critically endangered	Flora (1): <i>Araucaria angustifolia</i> (Bertol.) Kuntze - Paraná Pine
Endangered	Flora (5): <i>Aspidosperma parvifolium</i> A.D.C. - Guatambu timber tree <i>Ocotea porosa</i> (Nees & Mart.) Barroso - Brazilian walnut tree <i>Handroanthus serratifolius</i> (Vahl) S.Grose - Yellow ipê <i>Myrcianthes pungens</i> (O.Berg) D. Legrand - Guabiju fruit <i>Balfourodendron riedelianum</i> (Engl.) Engl. - Marfim tree Fauna (1): MASTOFAUNA <i>Tapirus terrestres</i> (Linnaeus, 1758) - Tapir
Vulnerable	Flora (2): <i>Cedrela fissilis</i> Vell. - Argentine cedar <i>Ocotea catharinensis</i> Mez - Canela-preta hardwood Fauna (6): AVIFAUNA <i>Platyrinchus mystaceus</i> (Vieillot, 1818) - White-throated spadebill <i>Pteroglossus bailloni</i> (Vieillot, 1819) - Saffron toucanet
Near threatened	Flora (4): <i>Handroanthus impetiginosus</i> (Mart. ex DC.) Mattos - Pink ipê tree <i>Ilex paraguariensis</i> A.St. (Hill) - Yerba mate <i>Podocarpus lambertii</i> (Klotzsch ex Endl.) - Pinho-bravo evergreen <i>Pterogyne nitens</i> (Tul.) – Amendoim-bravo tree Fauna (7): AVIFAUNA <i>Amazona aestiva</i> (Linnaeus, 1758) - Turquoise-fronted Amazon parrot <i>Aratinga auricapilla</i> (Kuhl, 1820) - Golden-capped parakeet <i>Biatas nigropectus</i> (Lafresnaye, 1850) - White-bearded antshrike <i>Euphonia chalybea</i> (Mikan, 1825) - Green-chinned euphonia <i>Leptashenura setaria</i> (Temminck, 1824) - Grimpeiro bird MASTOFAUNA <i>Lontra longicaudis</i> (Olfers, 1818) - Neotropical otter <i>Spajus nigritus</i> (Goldfuss, 1809) - Black capuchin monkey

Notes:

In the plant category, the species with the highest threat level is the *Araucaria angustifolia* (Bertol.) Kuntze (Paraná Pine), found in 24 projects (about 33.33% of the ventures), because it is a large species and is widely found in the state of Paraná.

The animal species with the highest threat level is the *Tapirus terrestres* (tapir) and is classified as EN (endangered) in the endangered mammal list of Paraná state.

Energy consumption

GRI 302-1, 302-3

During 2022, Copel DIS consumed 91,184.24 GJ of non-renewable fuel, of which 1,340.61 GJ was gasoline and 89,843.63 GJ was diesel.

The consumption of renewable fuels was 28,465.19 GJ, of which 17,921.96 GJ was ethanol, and 10,543.23 GJ was biodiesel.

Electricity consumption reached 70,193.57 GJ. Therefore, the total energy consumed was 189,843.00 GJ in 2022.

Copel has a target to reduce electricity consumption in administrative facilities per employee but it was not reached in 2021, likewise to the target of using ethanol in flex-fuel vehicles. The targets to reduce fuel consumption in the fleet, by type of fuel, were achieved for diesel oil and ethanol, but not for gasoline.

Energy intensity GRI 302-3

The energy intensity is calculated monthly based on the consumption in administrative facilities in relation to the number of employees, in MWh/employee. This is because Copel DIS believes that it does not make sense to use total consumption because consumption at substations is not associated with the number of employees.

2.93 was the
cumulative energy
intensity in 2022

ENERGY-RELATED TARGETS

Indicator	Unit	Result 2022	Targets	Result 2021	Variation 2021-2022	Result in relation to target
Electric energy consumption per employee	GJ/employee	10.55	8.78	9.84	7.22%	20.16%
Diesel oil consumption	GJ	89,844	68,771	73,861	21.64%	30.64%
Gasoline consumption	GJ	1,341	942	981	36.66%	42.33%
Ethanol consumption	GJ	17,922	12,825	13,742	30.42%	39.74%
Percentage of ethanol use in flex-fuel vehicles	%	93.51%	94.77%	93.83%	-0.34%	-1.33%

ENERGY EFFICIENCY

	2022	2021	2020
Energy Saved (MWh/year)	22,572.26	17,476.67	7,064.71
Energy Saved (tCO ₂ /year) ¹	2,674.81	1,537.95	621.69
Demand Reduction at Peak (kW)	2,682.73	2,607.27	776.30

Note: MWh and tCO₂ conversion in 2022 according to the annual Summary Report of the National Energy Balance – BEN 2022 (pp. 9 and 51), available at: <https://www.epe.gov.br/pt/publicacoes-dados-abertos/publicacoes/balanco-energetico-nacional-2022>.

INVESTMENT IN ENERGY EFFICIENCY**2022**

Project type	Investment (BRL thousand)		Source of funds (BRL thousand)		
	Total	%	Own	Outsourced workers	Customers
Industrial	8,422.9	14%	8,422.9	-	-
Trade and Services	26,159.5	44%	26,159.5	-	-
Public Power	6,857.3	12%	6,857.3	-	-
Public Service	-	0%	-	-	-
Rural	420.5	1%	420.5	-	-
Residential	5,782.4	10%	4,731.2	-	1,051.2
Low Income Homes	63.5	0%	28.2	-	35.4
Public lighting	11,431.3	19%	11,431.3	-	-
Municipal Energy Management	-	0%	-	-	-
Educational	-	0%	-	-	-
Other	165.2	0%	165.2	-	-
Total	59,302.7	100%	58,216.1	-	1,086.6

Note: The funds invested by Copel in the Energy Efficiency Program are those shown in the "Own" column.

FUEL CONSUMPTION (GJ) GRI 302-1

	2022	2021	2020
Non-renewable sources			
Gasoline	1,340.61	980.79	842.74
Diesel	89,843.63	71,863.58	86,764.29
Total	91,184.24	72,844.37	87,607.03
Renewable sources			
Ethanol	17,921.96	13,502.10	15,438.06
Anhydrous Ethanol	0	239.59	0
Biodiesel	10,543.23	9,003.72	10,367.03
Total	28,465.19	22,745.41	25,805.09
Electricity			
	70,193.57	75,351.46	77,721.02
Energy sold			
Electricity	-	-	0
Heating	-	-	0
Cooling	-	-	0
Steam	-	-	0
Total	-	-	0

Notes:

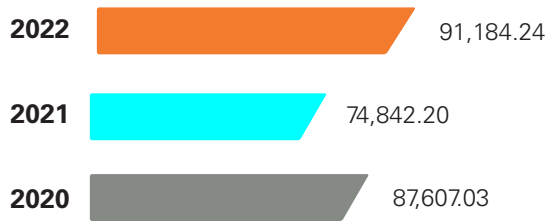
Source of conversion factors used: National Energy Balance (*Balanço Energético Nacional - BEM*) 2021.

There is no information about the consumption of diesel oil in generators and LPG in forklifts because this information has not yet been collected.

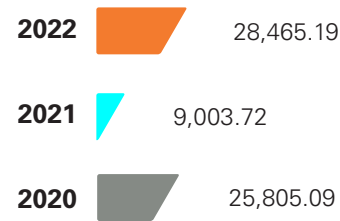


TOTAL ENERGY CONSUMED (GJ) GRI 302-1

FUELS FROM NON-RENEWABLE SOURCES



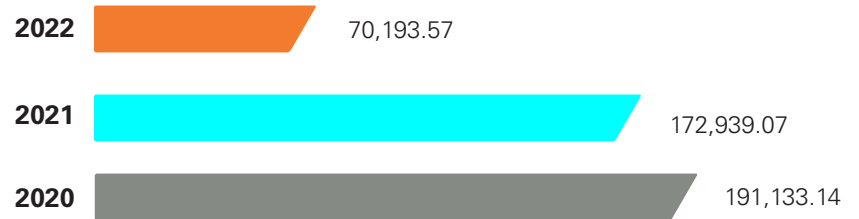
FUELS FROM RENEWABLE SOURCES



ENERGY SOLD



ENERGY CONSUMED



TOTAL



Notes:
Source of conversion factors used: National Energy Balance (*Balanço Energético Nacional* - BEM) 2021.
No information available about the consumption of diesel oil in generators and LPG in forklifts because this information has not yet been collected.

Water consumption

GRI 303-1, 303-2

Most of the water consumed by Copel DIS is used for administrative activities and derives from basic sanitation utilities, particularly Sanepar, totaling 73.56 megaliters of fresh water from third parties. It also extracts water from artesian wells and uses rainwater; therefore, this is not considered a significant aspect for Copel DIS.

The identification and assessment of water-related impacts is carried out based on the following factors:

The water consumed by the company comes mostly from basic sanitation utilities

- **Water use** - considers the estimated number of people required to set up the project and the average per capita consumption of water in civil engineering work. In addition, the average water consumption required to produce 1m³ of concrete is considered and included in the calculation of the total volume of concrete to be used on the job site. During the operation of the projects, the impact related to this factor is irrelevant because there is no periodic use of water in projects such as substations, high-voltage distribution lines (HVDLs) and power grids.
- **Release of effluents** - the benchmark value is 80% of the estimated amount for water use, with sanitary sewage being the effluent taken into account. The operation of substations, high-voltage lines, and power grids do not have activities that periodically generate effluents. Water and oil separator boxes in substations are checked for oil spillages from any power transformer but these are accidental events. **GRI 303-2**
Effluents from sanitary facilities are usually connected to the nearest sewage system, if one exists in a certain region. When not available, they go through conventional treatment systems such as septic tanks and anaerobic filters, with subsequent infiltration ditches or discharge into the bottom of the valley. However, the classification of the receiving water body is checked first, if it has already been classified. For effluents from the work fronts of high-voltage lines, the construction companies use chemical toilets and the effluents are directed to a dry pit, according to the procedure adopted by NR 31. **GRI 303-2**
- **Storm drainage** - the watersheds in which a certain development is located are considered. The soil conditions and the built and natural drainage of the surroundings are assessed to find possible factors that may culminate in surface drainage changes (sealing, for example) and alteration of the surface water quality due to the possible carriage of particles, effluents, and products to the water bodies located in these areas.

The impact caused by the consumption and disposal of water by the Company is not considered significant, therefore, no stakeholders are approached to comment on this issue.

Regarding that of freshwater (≤ 1000 mg/l of dissolved solid waste), the total volume abstracted was 73.56 ML in 2022, considering only water consumption from Sanepar. In 2021, this volume was 73.21 ML, and in 2020, 78.74 ML. **GRI 303-3**

Total freshwater discharge (≤ 1000 mg/l of dissolved solid waste) reached 58.85 ML in 2022, 58.56 ML in

2021, and 63.00 ML in 2020. The benchmark adopted was 80% of the water collected, which is disposed of as sanitary sewage, considering only the consumption of water from Sanepar and sewage intended for Sanepar. **GRI 303-4**

Therefore, in 2022 the Company recorded a total water consumption of 14.71 ML, slightly above 2021 (14.65 ML) and below 2020 (15.74 ML). It is worth noting that the Company does not use water in water-stressed areas nor have any changes occurred in water storage. **GRI 303-5**



Materials and waste

GRI 306-1, 306-2, 306-3, 306-4, 306-5

The Company invests in in-house campaigns and awareness-raising lectures with information on responsible consumption and proper waste disposal.

The company has internal rules and a solid waste management manual, which has instructions about how to reduce generation and properly manage waste from operation and maintenance activities.

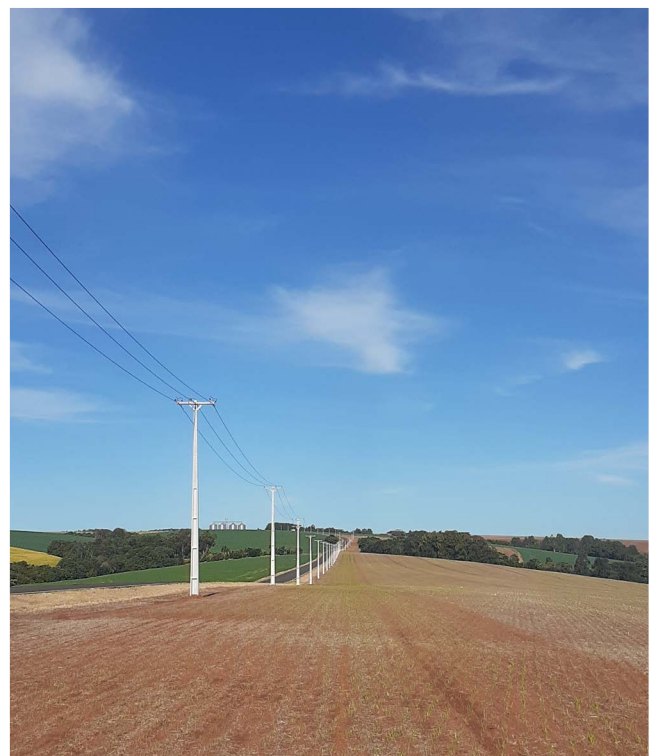
For suppliers, in addition to the manual for solid waste management, there is a manual for managing construction debris. Debris is generated from the construction of lines and substations and in construction sites. This waste is managed by the hired contractors, who are required to draw up a Management Plan for Civil Construction Waste (*Plano de Gerenciamento de Resíduos da Construção Civil* - PGRCC). It is worth mentioning that all plans must be pre-approved by the company. At the end of the project, the contractor must present the final management report and the supporting documentation for the full implementation of the PGRCC.

In the operation and maintenance activities of the distribution networks, the main waste generated is materials contaminated with oils and solvents and pruning debris. The waste generated in these activities is sent to temporary storage in the company's warehouses, and is recorded in the SAP system. The process used to collect and monitor data related to waste within the company is done using the SAP system, in which the information on waste generation and allocation is recorded internally.

During the construction of electricity distribution lines and networks, several methods are used to avoid the removal of plants and consequently the generation of

The process used to collect and monitor data related to waste within the company is done using the SAP system

plant waste. This includes everything from the choice of route - to avoid crossing areas that shelter native vegetation during the implementation of the project -, to the raising of towers, and to the construction work - that uses drones to stretch the cables. Hazardous waste is also generated in administrative activities but with less potential of an adverse impact. The impacts relate to the company's own operation and maintenance activities and those of third parties hired to carry out construction work for the implementation of electricity distribution ventures.



Waste from soil and water contaminated with oil is considered an environmental emergency oil spill, requiring the removal of the contaminated soil and water. Waste contaminated with PCB is sent to companies that specialize in decontaminating and/or incinerating this waste.

The contracting of third parties for the transport and final disposal of waste generated by Copel is carried out through processes that require proof of technical ability and the environmental licensing needed to carry out these activities. The contracted companies must submit a detailed work plan, which must be approved by Copel, before the service begins.

The Company oversees these processes by issuing manifests for the transport of waste and receiving

Certificates of Final Disposal (CDF) issued by companies hired for final disposal via the SINIR system. Copel occasionally conducts environmental inspections on contracted third parties for the final disposal of waste generated by the Company.

In 2022, the generation of non-hazardous waste at Copel reached more than 3,120 tons. A total of 783.87 tons was registered as hazardous waste (see table).

TOTAL WASTE GENERATED BY BREAKDOWN (T) GRI 306-3

2022

Category	Amount generated (t)
Non-hazardous waste	
Plastic waste	0.46
Ferrous metal scrap	26.28
Non-ferrous metal scrap	43.87
Electrical insulators and meters	2,060.87
Crossarms and poles	994.09
Total non-hazardous waste	3,125.57
Hazardous waste	
Electrical equipment insulating oil	18.33
Electronic waste	3.75
Lead-acid batteries	5.72
Treated wood (poles and crossarms)	64.15
Electrical transformers	691.92
Total non-hazardous waste	783.87

Note: does not include the waste generated by administrative activities and the construction of lines and substations.

TOTAL WASTE NOT DIRECTED FROM DISPOSAL, BY BREAKDOWN (T) GRI 306-4

2022

Breakdown	Waste directed to other reuse operations (t)	Waste directed to recycling (t)	Waste directed to other recovery operations (t)
Non-hazardous waste			
Plastic waste	0	9.14	0
Ferrous metal scrap	0	827.44	0
Non-ferrous metal scrap	0	541.54	0
Poles and crossarms	35,540.00	0	0
Insulators and meters	0	10,576.45	0
Total non-hazardous waste	35,540.00	11,954.57	0
Total non-hazardous waste not directed to final disposal		47,494.57	
Hazardous waste			
Used or contaminated lubricating oil	0	0	5.16
Electronic waste	0	15.93	0
Treated wood (poles and crossarms)	992.25	0	0
Lead-acid batteries	0	11.20	0
Waste contaminated with PCB	0	0	171.16
Electrical transformers	0	2,437.13	0
Lead	0	0.05	0
Total non-hazardous waste	992.25	2,464.31	176.32
Total hazardous waste not directed to final disposal		3,632.88	

Notes:

Copel DIS recovers used or contaminated lubricating oil through refining.

PCB-contaminated waste undergoes decontamination and recycling of oil and metallic materials from electrical equipment.

Pruning waste was not considered.

TOTAL WASTE NOT DIRECTED TO FINAL DISPOSAL, BY RECOVERY OPERATION (T) GRI 306-4

	2022			2021		
	Inside Copel	Outside Copel	Total	Inside Copel	Outside Copel	Total
Non-hazardous waste						
Preparation for reuse	0	35,540.00	35,540.00	0	0	0
Recycling	0	11,954.52	11,954.52	0	29,830.45	29,830.45
Other recovery operations (specify)	0	0	0	0	9,914.50	9,914.50
Total	0	47,494.52	47,494.52	0	39,744.95	39,744.95
Hazardous waste						
Preparation for reuse	0	992.25	992.25	0	311.50	311.50
Recycling	0	2,464.31	2,464.31	0	3,967.61	3,967.61
Other recovery operations (specify)	0	176.32	176.32		252.58	252.58
Total	0	3,632.88	3,632.88	0	4,531.69	4,531.69
Total hazardous waste not directed to final disposal	0	51,127.40	51,127.40	0	44,276.64	44,276.64

TOTAL WASTE DIRECTED TO FINAL DISPOSAL, BY BREAKDOWN (T) GRI 306-5

Breakdown	2022	2021
	Amount	Amount
Oil contaminated soil	336.40	-
Waste contaminated with PCB	29.03	-
Total	365.43	2,014.94

TOTAL WASTE DIRECTED TO DISPOSAL, BY OPERATION (T) GRI 306-5

	2022			2021		
	Inside Copel	Outside Copel	Total	Inside Copel	Outside Copel	Total
Non-hazardous waste						
Incineration with energy recovery	0	0	0	0	0	0
Incineration without energy recovery	0	0	0	0	0	0
Landfill	0	0	0	0	1,937.76	1,937.76
Other disposal operations	0	0	0	0	0	0
Total	0	0	0	0	1,937.76	1,937.76
Hazardous waste						
Incineration with energy recovery	0	0	0	0	0	0
Incineration without energy recovery	0	29.03	29.03	0	77.18	77.18
Landfill	0	336.43	336.43	0	0	0
Other disposal operations	0	0	0	0	0	0
Total	0	365.46	365.46	0	77.18	77.18
Total waste directed to disposal	0	365.46	365.46	0	2,014.94	2,014.94

MATERIALS USED IN COMPANY ACTIVITIES (T) GRI 301-1

Type of material	2022	2021	2020
Copper and aluminum conductors	8,838.94	8,533.79	7,359.35
Concrete, fiber and polymer posts and crosspieces.	176,131.93	176,648.01	132,201.83
Equipment: transformers, insulators, meters and other operating equipment	8,090.48	7,809.12	6,220.68
Iron	1,581.83	1,417.08	1215.83
Total	194,643.18	1.94.408,00	146,997.69

Notes:

All materials are classified as non-renewable and were purchased from external suppliers. The consumption represents the increase due to Copel DIS' construction program.

Climate change management

GRI 201-2, 305-1, 305-2, 305-3, 305-4

Copel DIS is engaged in best practices for sustainability and recognizes the effects of climate change in its management strategy. In alignment with the principles of the Global Compact, it adopts actions to manage its greenhouse gas emissions, find low carbon alternatives and make changes based on climate change.

From the Company's standpoint, global warming causes extreme weather events that directly affect its operations.

The risks presented by climate change mapped by Copel DIS are classified into Risks:

- Socio-environmental - damage to socio-environmental factors: severe weather events; more frequent and destructive forest fires; sea level rise; temperature rise.
- Image - damage to reputation: loss of credibility in the relationship with customers and shareholders.
- Operational - recovery time to normalize operations: losses due to system downtime; time spent re-establishing infrastructure in the event of climate disasters.
- Financial - financial losses with effect on income: financial loss due to system shutdown; expenses to re-establish infrastructure in the event of climate disasters.



Night view of Francisco Beltrão

To ensure the readiness to respond to extreme weather conditions, a contingency plan has been put in place to ensure that the necessary actions are set in motion.

A few of the methods used by Copel DIS to manage risks are:

- Real time monitoring of weather conditions by Simepar, in which warnings are transmitted to the Integrated Operation Center (Cidis) to define the amount of teams needed to respond to the occurrences, as well as to consumers.
- Contingency Plan, refer to adverse weather events, includes actions and measures to be taken to ensure readiness and response capability in cases of severe climate events.
- Investments to increase the resilience of the Distribution System.
- Agenda 2030 actions, such as: Carbon Neutrality Plan; Energy Efficiency Program (PEE); Urban Forestry Program; grid construction technologies with less environmental impact; and insulated low voltage grids.
- Implementation of the *Paraná Trifásico* (Three-Phase) Program.

The total cost of the risk management measures added up to BRL 576.337 million for: the Simepar contract (BRL 3.092 million); *Paraná Trifásico* (BRL 530.762 million); operational on-call service teams (BRL 23.663 million); and maintenance on-call teams (BRL 18.820 million).

System recovery either due to one-time or wide-spread events, is part of the routine of the electrical power distributor. In the case of severe climate events, which tend to cause disruptions in several places at the same time, Copel DIS has human and financial resources to ensure the electrical system can be repaired as quickly as possible. Therefore, any increase in the frequency of these events may require a greater use of resources and drive up direct recovery costs.

Once these events are kept within an average level of occurrence, in terms of material and equipment, consumption can be more easily predicted, which is why no major impacts due to these phenomena have been verified so far.

There are also indirect costs that are difficult to estimate, such as the social cost of unavailability of supply during the repair.

The company operates in accordance with the corpo-

rate standard Management of Climate Change Effects and has a subcommittee dedicated to discussing and proposing a methodology to survey risks related to the matter. It also seeks to anticipate measures to minimize the impact of risks related to climate change by using contingency support structures, carrying out meteorological monitoring and maintaining employees on call to fix the system as soon as possible, when necessary.



BRL 576 million
invested in risk management

In addition, it maintains a network of hydroclimatological monitoring stations and continuous weather forecasting services with the availability of satellite images and meteorological radars and quantitative forecasts in the regions where the Company has facilities.

The climate change risk is present in the heatmap of Copel DIS and it can be classified as physical, since it affects operations, and regulatory, due to the implications in the concession agreement.

In order to face the impact of climate change in its concession area, the Company participates in a Research and Development project together with Simepar to develop a mathematical model that will estimate in advance the risks of power outages caused by severe weather events.

Copel also invests in R&D and energy efficiency projects to contribute in the medium and long term to the climate issue. It also manages its internal processes to reduce impacts, mainly on quality indicators

linked to the concession.

GHG Emissions Inventory

GRI 305-1, 305-2, 305-3, 305-4

The commitments assumed include carrying out actions to mitigate greenhouse gas (GHG) emissions in processes and activities; training and encouraging the value chain to mitigate GHG emissions; and encouraging the creation of projects to adapt to the impact of climate change on business aimed at minimizing risk and finding new opportunities.

Copel makes an inventory of its GHG emissions according to the guidelines of the Brazilian GHG Protocol Program every year. The emissions verified in the 2021 base year edition are shown below.

Based on historical data, targets were established for all of Copel and one for Copel DIS.

Goals related to climate change management

Copel Holding Company

- Goals related to climate change management
- Reduce fleet emissions by 2% by 2022
- Reduce energy consumption by 5% by 2022
- Reduce Scope 1 emissions by 5% per projected demand by 2022
- Reduce by 1% energy consumption per Copel employee by 2022

Copel DIS

- Reduce technical losses by 0.1% by 2022

GREENHOUSE GAS EMISSIONS (TCO₂E) GRI 305-1, 305-2, 305-3

	2022
Total	163,741
Scope 1	8,053
Scope 2	139,580
Scope 3	16,108

In 2022, Copel DIS reduced 2,116.5100 tCO₂e of scope 1 emissions compared to the previous year GRI 305-5

Notes:

The methodology used was that of the Brazilian GHG Protocol Program in scope 1, 2 and 3. The inventory data is in the process of being verified by a third party and may therefore be subject to change after the verification has been completed.

DIRECT GHG EMISSIONS (SCOPE 1) (TCO₂ EQUIVALENT) GRI 305-1

	2022	2021	2020
Mobile combustion	1.078	5,484.105	6,272.044
Stationary combustion	6,898.965	-	265.037
Industrial processes	1,152.851	-	-
Solid waste and liquid effluents	-	-	-
Fugitive emissions	-	547.392	2,519.337
Agricultural activities	-	-	-
Land use change	-	2,116.512	10,071.300
Total	8,052.894	8,148.009	19,127.718

Notes:

The gases included were CO₂, CH₄, N₂O, HFCs and SF₆.

The base year chosen was 2017 for the Company as a whole. The same was considered due to the revision of the Company's targets. OThe total base year emissions were 213,983 tCO₂eq.

Data source: GHG Protocol program tool. According to the tool's information, the IPCC (2000, 2006), US-EPA, DEFRA, among others, are used as a base.

The consolidation approach adopted for emissions was operational control.

The methodology used was that of the Brazilian GHG Protocol Program in scope 1.

The inventory data is in the process of being verified by a third party and may therefore be subject to change after the verification has been completed.

BIOGENIC CO₂ EMISSIONS (TCO₂ EQUIVALENT)

	2022	2021	2020
	7,467.944	8,018.361	2,749.929

INDIRECT GHG EMISSIONS (SCOPE 2) FROM ENERGY ACQUISITION (TCO₂ EQUIVALENT) GRI 305-2

	2022	2020	2021
Electricity acquisition	835.13	785.089	2,600.972
Thermal energy acquisition	-	-	-
Transmission and distribution losses	138.744.51	157,841.836	400,252.808
Total	139.579,640	158,626.925	402,853.780

Notes:

The gas included in the calculation of the emissions was CO₂.

The base year chosen was 2017 for the Company as a whole. The same was considered due to the revision of the Company's targets. OThe total base year emissions were 319,791 tCO₂eq.

Data source: GHG Protocol program tool. According to the tool's information, the IPCC (2000, 2006), US-EPA, DEFRA, among others, are used as a base.

The consolidation approach adopted for emissions was operational control.

The methodology used was that of the Brazilian GHG Protocol Program in scope 2.

The inventory data is in the process of being verified by a third party and may therefore be subject to change after the verification has been completed.

OTHER INDIRECT EMISSIONS (SCOPE 3) OF GHG (TCO₂ EQUIVALENT) GRI 305-3

	2022	2021	2020
Upstream			
Purchased goods and services	-	11,321.645	-
Capital Goods	-	-	-
Energy and fuel related activities	-	-	-
Upstream transportation and distribution	-	8,727.010	138.885
Waste generated in the operations	-	2,587.310	11,662.475
Business travel	-	-	37.544
Employee Transportation	-	-	-
Leased assets	-	-	-
Other activities	-	-	-
Subtotal	-	20,048.660	11,838.904
Downstream			
Transport and downstream distribution	-	-	1,347.861
Processing of sold products	-	-	-
Use of sold products	-	-	-
Treatment of products sold after the end of their useful life	-	-	-
Leased assets	-	-	-
Franchises	-	-	-
Investments	-	-	-
Other activities	-	-	-
Subtotal	-	-	1,347.861
Total	16,108.0070	20,048.660	13,186.7

Notes:

The gases included were CO₂, CH₄ and N₂O.

Copel has not yet consolidated its base year definition. The year of 2019 was chosen as the year when some data collection assumptions were defined. Total emissions in 2019 = 686.67 tCO₂eq.

Data source: GHG Protocol program tool. According to the tool's information, there are 4.

The methodology used was that of the Brazilian GHG Protocol Program in scope 3.

The inventory data is in the process of being verified by a third party and may therefore be subject to change after the verification has been completed.

BIOGENIC CO₂ EMISSIONS (TCO₂ EQUIVALENT)

2022	2021	2020
1,656.7530	2,301.530	193.996

GHG EMISSIONS INTENSITY GRI 305-4

	2022
GHG emissions intensity index - scope 1 and 2 t CO ₂ eq.	147,637.1200
Specific metric - Energy Distributed, in GWh	19,370.0000
Intensity of greenhouse gas emissions	7.6219

Note: The gases included in the calculation are: CO₂, CH₄, N₂O, HFCs and SF₆.

NO_x, SO_x AND OTHER SIGNIFICANT AIR EMISSIONS (T) GRI 305-7

	2022
NO _x	8.2200
SO _x	2.2800
Persistent Organic Pollutants (POP)	0
Volatile Organic Compounds (VOC)	1.1100
Hazardous Air Pollutants (HAP)	0
Particulate Matter (PM)	0.7300
Other standard categories of air emissions identified in regulations (rename)	0

Note: average vehicle emission factors for the São Paulo metropolitan region were used - data from Cetesb. The inventory data is in the process of being verified by a third party and may therefore be subject to change after the verification has been completed.

Structure of the groups overseeing corporate governance

BOARD OF DIRECTORS

CEO

Daniel Pimentel Slaviero

Executive Secretary

Maximiliano Andres Orfali

Member

Ana Letícia Feller

Marco Antônio Barbosa Cândido

FISCAL COUNCIL

CEO

Demetrius Nichele Macei

Full members

Harry Françaia Junior

José Paulo da Silva Fo

Alternate members

Verônica Peixoto

Otamir César Martins

Roberto Zaninelli Covelo Tizon

EXECUTIVE BOARD

CEO

Maximiliano Andres Orfali

Finance director

Adriano Rudek de Moura

Legal and Institutional Relations Director

Eduardo Vieira de Souza Barbosa

Commercial, Regulation and Management

Director

Hemerson Luiz Barbosa Pedroso

ACCOUNTANT

Accountant - CRC-PR- 047941/O-4

Robson Carlos Nogueira

8

BALANCE SHEET



Annual Balance Sheet

In December 2022 and 2021

(Amounts in thousands of reais, unless stated otherwise)

Annual Balance Sheet

In December 2022 and 2021 (Amounts in thousands of reais, unless stated otherwise)

		2022		2021	
1. CALCULATION BASE					
NE 25	Net Income - NI	13,903,300		14,836,392	
2. INTERNAL SOCIAL INDICATORS					
		% on NI		% on NI	
	Remuneration of administrators	1,403	0.0	2,343	0.0
	Remuneration of employees	495,691	3.6	499,650	3.4
	Food (Food allowance and others)	88,257	0.6	83,970	0.6
	Mandatory social charges	166,516	1.2	169,333	1.1
	Pension plan	41,507	0.3	41,486	0.3
	Health (Welfare plan)	151,176	1.1	134,231	0.9
	Training and professional development	5,824	0.0	3,599	0.0
NE 26.3	Provisions for performance and profit sharing	28,076	0.2	241,043	1.6
NE 26.3	Workers' indemnities	(4,199)	(0.0)	63,013	0.4
	Culture	810	0.0	295	0.0
	Daycare or daycare allowance	852	0.0	1,002	0.0
	Safety and health at work	6,146	0.0	2,779	0.0
	Education	995	0.0	1,344	0.0
	Extended maternity benefit	157	0.0	360	0.0
	Surplus transport voucher	49	0.0	37	0.0
	Total	983,260	7.1	1,244,485	8.4
3. EXTERNAL SOCIAL INDICATORS					
		% on NI		% on NI	
	Culture	14,082	0.1	14,651	0.1
	Health and sanitation	-	-	604	0.0
	Sports	8,286	0.1	2,949	0.0
	<i>Casa Fácil</i> PR housing program	2,870	0.0	998	0.0
	Fund for childhood and adolescence	187	0.0	590	0.0
	National Fund for the Elderly	187	0.0	590	0.0
	Research & Development	34,435	0.2	38,478	0.3
	Energy Efficiency Program and Procel	77,390	0.6	69,970	0.5
	Other	996	0.0	2,275	0.0
	Total contributions to society	138,433	1.0	131,105	0.9
	Taxes (excluding social charges)	8,188,489	58.9	10,395,416	70.1
	Total	8,326,922	59.9	10,526,521	71.0

Annual Balance Sheet

In December 2022 and 2021 (Amounts in thousands of reais, unless stated otherwise)

	2022		2021	
4. ENVIRONMENTAL INDICATORS	% on NI		% on NI	
Investments and maintenance expenses in operational processes to improve the environment	423,591	3.0	349,806	2.4
Investments and expenses for the preservation and/or recovery of degraded environments	6	0.0	147	0.0
Investments and expenses for the environmental education of employees, outsourced, self-employed and entity administrators	63	0.0	10	0.0
Investments and expenses for environmental education of the community	400	0.0	88	0.0
Total	424,060	3.1	350,050	2.4
(1) Number of environmental sanctions in the year		6		2
Administrative environmental sanctions in the year		11		1
Value of environmental sanctions (BRL thousand)		126		12

Environmental targets

In regard to the establishment of annual targets to minimize waste, overall consumption in production/operation, and increasing efficiency in the use of natural resources	() has no goals () complies with 0 to 50% () complies with 51% to 75% (x) complies with 76% to 100%	() has no goals () complies with 0 to 50% () complies with 51% to 75% (x) complies with 76% to 100%
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EN - Explanatory Note

5. FUNCTIONAL BODY INDICATORS

Employees at the end of the period	4,257			4,430		
Admissions and readmissions during the period	2			3		
Degree of instruction of employees	Men	Women	Total	Men	Women	Total
University extension course	669	288	957	665	293	958
University Education	1,160	385	1,545	1,145	423	1,568
Technical education	640	42	682	683	50	733
High School	885	176	1,061	948	198	1,146
Elementary and Middle School	12	0	12	22	3	25
Age range of employees:						
From 18 to 30 (exclusive)	37			73		
From 30 to 45 (exclusive)	2,314			2,461		
From 45 to 60 (exclusive)	1,765			1,753		
60 or older	141			143		
Women working in the company	891			967		

Annual Balance Sheet

In December 2022 and 2021 (Amounts in thousands of reais, unless stated otherwise)

	2022	2021
% Women in managerial positions:		
in relation to total number of women	5.3	5.8
in relation to the total number of managers	19.8	21.2
Black people who work in the company	581	596
% Black people in managerial positions:		
in relation to the total number of black people	4.0	4.2
in relation to the total number of managers	9.7	9.5
People with special needs	107	119
Dependents	15,568	16,148
Outsourced	7,601	7,736
(2) Apprentices	103	98
(2) Interns	223	153
Employees with more than 10 years of effective service in the organization	3,830	3,699
Division of highest salary by lowest salary - including administrators	27	26
Employees earning more than 2 minimum wages	4,128	4,403
Labor lawsuits		
Labor lawsuits in progress at yearend	3,494	3,499
Lawsuits included in year	945	572
Labor lawsuits closed in year	960	503

6. RELEVANT INFORMATION REGARDING THE EXERCISE OF CORPORATE CITIZENSHIP

(3) Total Work Accidents (includes accidents with contracted parties)	95	79
Total consumer complaints and criticism:		
in the company	31,875	28,378
at second level	5,345	3,411
in court	7,399	6,808
% of complaints and criticism resolved or solved:		
in the company	100.0%	100.0%
at second level	100.0%	100.0%
in court	55.1%	4.7%

Annual Balance Sheet

In December 2022 and 2021 (Amounts in thousands of reais, unless stated otherwise)

	2022	Goals 2023
The social and environmental projects developed by the company were defined by:	directors and managers	directors and managers
The safety and health standards in the work environment were defined by:	all + CIPA	all + CIPA
In regard to freedom of association, the right to collective bargaining and the internal representation of workers, the company:	encourages and complies with ILO	will encourage and will comply with ILO
Private pensions include:	All	All
Profit sharing includes::	All	All
In the selection of suppliers, the same ethical standards and social and environmental responsibility adopted by the company:	are required	will be required
In regard to the participation of employees in volunteer work programs, the company:	organizes and encourages	will organize and will encourage

7. WEALTH GENERATION AND DISTRIBUTION

	2022	2021
Value added for distribution total	10,673,854	12,868,430
Added Value Distribution (AVD):		
Outsourced workers	16.8%	3.2%
Personnel	7.7%	8.5%
Government	77.7%	81.6%
Shareholders	0.0%	3.2%
Retained	-2.2%	3.5%

8. OTHER INFORMATION

- As of 2010, the Brazilian Institute of Social and Economic Analysis (Ibase) no longer prescribes its standard balance sheet model since it believes that this tool and methodology are already widely disseminated among companies, consultancies and institutes that uphold corporate social responsibility in Brazil. Therefore, Copel, which has been using this model since 1999, decided, based on Ibase's guidance, to improve its Social Balance sheet by also covering information requested in NBCT 15, aiming at the transparency of its information.
- The explanatory notes (ENs) are an integral part of the Financial Statements and also contain other information of a socio-environmental nature not included in this Social Balance Sheet.

(1) This information refers to administrative sanctions that were enforced during the year, which may be in defense proceedings or environmental lawsuits considered unfavorable in the year.

(2) Are not part of the staff.

(3) Calculated using the methodology used in the GRI G4 Sustainability Report - LA6 indicator.

(4) Includes the complaints in Procon, Ombudsman, Consumidor.gov and Aneel that were granted.



GRI Content Index

Usage Statement

Copel DIS reported in accordance with the GRI Standards for the period from January 1, 2022 to December 31, 2022.

GRI 1 used

GRI 1: 2021 Foundations

GRI STANDARD/ OTHER SOURCE	CONTENT	PAGE	OMISSION		REF. NO. OF THE GRI SECTOR STANDARD	
			OMITTED REQUIREMENT(S)	REASON	EXPLANATION	
	2-1 Organization details	8, 11				
	2-2 Entities included in the organization's sustainability report	The only entity included in this report is Copel Distribuição S.A. The Financial Statements are published by Copel (Holding Company). For more information, go to the investor relations website.				
	2-3 Reporting period, frequency, and point of contact	7				
	2-4 Restatements of information	No restatements were made in this report as compared with the previous ones.				
	2-5 External assurance	The GRI indicators were verified for Copel's 2020 Integrated Report (Holding Company) by an independent external audit, whose name and process used are detailed in the Audit Report. The publication can be viewed on the website www.copel.com				
GRI 2: General content 2021	2-6 Activities, value chain and other business relationships	11, 133	-	-	-	-
	2-7 Employees	80, 81	-	-	-	-
	2-8 Workers who are not employees	80, 81	-	-	-	-
	2-9 Governance structure and composition	51, 53	-	-	-	-
	2-10 Nomination and selection of the highest governance body	52	-	-	-	-
	2-11 Chair of the highest governing body	52	-	-	-	-
	2-12 Role of highest governance body in overseeing impact management	30, 52	-	-	-	-
	2-13 Delegation of responsibility for impact management	See Copel's Integrated Report (Holding Company).	-	-	-	-
	2-14 Role of highest governance body in sustainability reporting	8	-	-	-	-

A gray cell indicates something that is not applicable. This only relates to the columns "Omission" and "Ref. number of GRI Sectoral Rules"

GRI STANDARD/ OTHER SOURCE	CONTENT	PAGE	OMISSION		REF. NO. OF THE GRI SECTOR STANDARD	
			OMITTED REQUIREMENT(S)	REASON	EXPLANATION	
GRI 2: General content 2021	2-15 Conflicts of interest	55, 56, 135	-	-	-	-
	2-16 Communicating critical concerns	61	-	-	-	-
	2-17 Collective knowledge of highest governance body	See Copel's Integrated Report (Holding Company).	-	-	-	-
	2-18 Evaluation of the performance of the highest governance body	See Copel's Integrated Report (Holding Company).	-	-	-	-
	2-19 Remuneration policies	See Copel's Integrated Report (Holding Company).	-	-	-	-
	2-20 Process to determine remuneration	See Copel's Integrated Report (Holding Company).	-	-	-	-
	2-21 Annual total compensation ratio	83, 84	-	-	-	-
	2-22 Statement on sustainable development strategy	See Copel's Integrated Report (Holding Company).	-	-	-	-
	2-23 Political commitments	55, 93	-	-	-	-
	2-24 Embedding policy commitments	55, 58, 134	-	-	-	-
	2-25 Processes to remediate negative impacts	60, 117, 119, 146, 148	-	-	-	-
	2-26 Mechanisms for seeking and raising concerns	60	-	-	-	-
	2-27 Compliance with laws and regulations	The cut-off value of BRL 25 million used in Copel's 20-F report was considered significant. No restrictions were imposed on the organization's activities or operation in 2022. There were also no cases of fines or other monetary sanctions applied in the period.	-	-	-	-
	2-28 Membership associations	See Copel's Integrated Report (Holding Company).	-	-	-	-
	2-29 Approach to stakeholder engagement	8, 9, 30, 31	-	-	-	-
	2-30 Collective bargaining agreements	82	-	-	-	-

GRI STANDARD/ OTHER SOURCE	CONTENT	PAGE	OMISSION		REF. NO. OF THE GRI SECTOR STANDARD	
			OMITTED REQUIREMENT(S)	REASON	EXPLANATION	
Material topics						
GRI 3: Material Topics 2021	3-1 Process to define material topics	8	-	-	-	-
	3-2 List of material topics	9	-	-	-	-
Economic-financial performance						
GRI 3: Material Topics 2021	3-3 Management of material topics	See Copel's Integrated Report (Holding Company).	-	-	-	-
GRI 201: Economic performance	201-1 Direct economic value generated and distributed	See Copel's Integrated Report (Holding Company).	-	-	-	-
	201-2 Financial implications and other risks and opportunities deriving from climate change	9, 172	-	-	-	-
	201-3 Defined benefit obligation and other retirement plans	9, 86	-	-	-	-
	201-4 Financial assistance received from government	9, 126	-	-	-	-
Operational efficiency						
GRI 3: Material Topics 2021	3-3 Material topics management	See Copel's Integrated Report (Holding Company).	-	-	-	-
Energy Sector Supplement	EU4 Length of overhead and underground transmission and distribution lines by regulatory regime	43	-	-	-	-
	EU6 Management approach to ensure short and long-term electricity availability and reliability	9, 45	-	-	-	-
	EU7 Demand management programs, including residential, commercial, corporate and industrial programs	9, 43	-	-	-	-

GRI STANDARD/ OTHER SOURCE	CONTENT	PAGE	OMISSION		REF. NO. OF THE GRI SECTOR STANDARD	
			OMITTED REQUIREMENT(S)	REASON	EXPLANATION	
Energy Sector Supplement	EU10 Planned capacity compared to long term electricity demand forecast	See Copel's Integrated Report (Holding Company).	-	-	-	-
	EU12 Percentage of transmission and distribution loss in regard to total energy	9, 42	-	-	-	-
	EU28 Power supply interruption frequency	9, 127, 128	-	-	-	-
	EU29 Power supply average interruption duration	9, 127, 128	-	-	-	-
Environmental management and actions against climate change						
GRI 3: Material Topics 2021	3-3 Material topics management	See Copel's Integrated Report (Holding Company).	-	-	-	-
GRI 301: Materials 2016	301-1 Materials used, by weight or volume	10, 171	-	-	-	-
	301-2 Raw or recycled materials used	Currently, Copel DIS does not use recyclable input for the materials in inventory and used in its construction programs.	-	-	-	-
GRI 302: Energy 2016	302-1 Energy consumption within the organization	10, 161, 163, 164	-	-	-	-
	302-2 Energy consumption outside the organization	Copel does not manage energy consumption outside its organizational boundaries.	-	-	-	-

GRI STANDARD/ OTHER SOURCE	CONTENT	PAGE	OMISSION		REF. NO. OF THE GRI SECTOR STANDARD	
			OMITTED REQUIREMENT(S)	REASON	EXPLANATION	
GRI 302: Energy 2016	302-3 Energy Intensity	161	-	-	-	-
	302-4 Reduction of energy consumption	Electricity consumption only dropped in substations so no action taken by the company could be associated to such	-	-	-	-
GRI 303: Water and effluents 2018	303-1 Interactions with water as a shared resource	10, 165	-	-	Reason for omission: information not available. No assessment of water-stressed areas is carried out.	-
	303-2 Management of water discharge-related impacts	165	-	-	-	-
	303-3 Water withdrawal	166	-	-	-	-
	303-4 Water discharge	166	-	-	-	-
	303-5 Water consumption	10, 166	-	-	-	-
GRI 304: Biodiversity 2016	304-1 Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	10, 151, 152, 152, 157, 158	-	-	-	-
	304-2 Significant impacts of activities, products and services on biodiversity	151	-	-	-	-
	304-3 Habitats protected or restored	In the period, no specific habitat recovery actions were carried out.	-	-	-	-
	304-4 IUCN Red List species and national conservation list species with habitats in areas affected by operations	10, 151, 159, 160	-	-	-	-

GRI STANDARD/ OTHER SOURCE	CONTENT	PAGE	OMISSION		REF. NO. OF THE GRI SECTOR STANDARD	
			OMITTED REQUIREMENT(S)	REASON	EXPLANATION	
Energy Sector Supplement	EU13 Biodiversity of replacement habitats as compared to biodiversity of affected areas	10	-	-	Reason for omission: information not available. Since the environmental offsets carried out by Copel DIS in recent years were carried out only by supplying seedlings and not with planting or recovery of degraded areas, it is not possible to provide the data requested in this indicator.	-
	305-1 Direct greenhouse gas emissions (Scope 1)	10, 172, 174, 175	-	-	-	-
GRI 305: Emissions 2016	305-2 Energy indirect (Scope 2) GHG emissions	172, 174, 175	-	-	-	-
	305-3 Other indirect GHG emissions (Scope 3)	172, 174, 176	-	-	-	-
	305-4 GHG emissions intensity	172, 174, 177	-	-	-	-
	305-5 Reduction of GHG emissions	174	-	-	-	-
	305-6 Emissions of ozone-depleting substances (ODS)	-	-	-	Reason for omission: not applicable. Copel DIS does not produce, import or export ozone-depleting substances (ODS).	-
	305-7 Nitrogen oxides (NO _x), sulfur oxides (SO _x), and other significant air emissions	Copel DIS does not generate significant emissions.	-	-	-	-
	306-1 Waste generation and significant waste-related impacts	10, 167	-	-	-	-
GRI 306: Waste 2020	306-2 Management of significant waste-related impacts	167	-	-	-	-
	306-3 Waste generated	167, 168	-	-	-	-
	306-4 Waste not destined for final disposal	167, 169	-	-	-	-
	306-5 Waste directed to disposal	10, 167, 170, 171	-	-	-	-

GRI STANDARD/ OTHER SOURCE	CONTENT	PAGE	OMISSION		REF. NO. OF THE GRI SECTOR STANDARD	
			OMITTED REQUIREMENT(S)	REASON	EXPLANATION	
GRI 307: Environmental Compliance 2016	307-1 Non-compliance with environmental laws and regulations	In 2022, Copel did not identify any fines paid by the legal department nor nonmonetary sanctions imposed on the organization.	-	-	-	-
GRI 308: Environmental assessment of suppliers 2016	308-1 New suppliers that were screened using environmental criteria	10, 134	-	-	-	-
	308-2 Negative environmental impacts in the supply chain and actions taken	10, 133	-	-	-	-
People management and health and safety at work						
GRI 3: Material Topics 2021	3-3 Material topics management	See Copel's Integrated Report (Holding Company).	-	-	-	-
GRI 401: Employment 2016	401-1 New employee hires and employee turnover	10, 79, 80	-	-	-	-
	401-2 Benefits provided to full-time employees that are not provided to temporary or part-time employees	85, 113	-	-	-	-
	401-3 Parental Leave	10, 85	-	-	-	-
GRI 402: Work relations 2016	402-1 Minimum notice periods regarding operational changes	At Copel, there are no established deadlines for communicating operational changes. This issue is also not provided for in the collective agreement.	-	-	-	-
GRI 403: Occupational health and safety 2018	403-1 Occupational health and safety management system	10, 99	-	-	-	-
	403-2 Hazard identification, risk assessment, and incident investigation	99	-	-	-	-
	403-3 Occupational health services	99, 104	-	-	-	-
	403-4 Worker participation, consultation, and communication on occupational health and safety	102	-	-	-	-

GRI STANDARD/ OTHER SOURCE	CONTENT	PAGE	OMISSION		REF. NO. OF THE GRI SECTOR STANDARD	
			OMITTED REQUIREMENT(S)	REASON	EXPLANATION	
GRI 403: Occupational health and safety 2018	403-5 Worker training on occupational health and safety	99	-	-	-	-
	403-6 Promotion of worker health	113	-	-	-	-
	403-7 Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	99	-	-	-	-
	403-8 Workers covered by an occupational health and safety management system	99, 101	-	-	-	-
	403-9 Work-related injuries	99, 105	-	-	-	-
	403-10 Work-related ill health	10, 99, 105, 106	-	-	-	-
GRI 404: Capacity building and education	404-1 Average hours of training per year, per employee	10, 99	-	-	-	-
	404-2 Programs for upgrading employee skills and transition assistance programs	86, 87, 90, 113	-	-	-	-
	404-3 Percentage of employees receiving regular performance and career development reviews	10, 90	-	-	-	-
GRI 405: Diversity and equal opportunity 2016	405-1 Diversity of governance bodies and employees	10, 94	-	-	-	-
	405-2 Ratio of basic salary and remuneration of women to men	10, 84	-	-	-	-
GRI 406: Non-discrimination 2016	406-1 Incidents of discrimination and corrective actions taken	No cases of discrimination were registered at Copel.	-	-	-	-

GRI STANDARD/ OTHER SOURCE	CONTENT	PAGE	OMISSION		REF. NO. OF THE GRI SECTOR STANDARD	
			OMITTED REQUIREMENT(S)	REASON	EXPLANATION	
GRI 407: Freedom of association and collective bargaining 2016	407-1 Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	10, 134	-	-	-	-
	EU14 Programs and processes to ensure the availability of a skilled workforce	87	-	-	-	-
	EU15 Percentage of employees who can retire in the next 5 and 10 years, by job category and region	10, 86	-	-	-	-
	EU16 Policies and requirements regarding the health and safety of employees and employees of contractors and subcontractors	10, 87, 89, 103	-	-	-	-
Energy Sector Supplement	EU18 Percentage of outsourced and subcontracted workers who have undergone relevant health and safety training	10, 89	-	-	-	-
	Corporate governance, risk management and cybersecurity					
GRI 3: Material Topics 2021	3-3 Material topics management	See Copel's Integrated Report (Holding Company).	-	-	-	-
	205-1 Operations assessed for risks related to corruption	9, 57	-	-	-	-
GRI 205: Anti-corruption 2016	205-2 Communication and training on anti-corruption policies and procedures	59	-	-	-	-
	205-3 Confirmed cases of corruption and actions taken	9, 57	-	-	-	-
GRI 206: Anti-Competitive Behavior 2016	206-1 Legal actions for anticompetitive behavior, anti-trust, and monopoly practices	There are no pending or closed legal actions during the period in which the organization was challenged in regard to the practice of unfair competition or the infringement of antitrust and anti-monopoly laws.	-	-	-	-

GRI STANDARD/ OTHER SOURCE	CONTENT	PAGE	OMISSION		REF. NO. OF THE GRI SECTOR STANDARD
			OMITTED REQUIREMENT(S)	REASON	EXPLANATION
GRI 415: Public policies 2016	415-1 Political contributions	Since Copel is a mixed-capital company, it is legally forbidden from making this type of contribution. Art. 31(III) of Law 9096, of September 19, 1995, forbids parties to directly or indirectly receive in any form or pretext, pecuniary or cash or cash-equivalent aid, including through advertising of any kind from public entities and legal entities of any nature, except for the provisions referred to in art. 38 of this Law and those from the Special Fund for Campaign Financing.	-	-	-
GRI 418: Customer privacy 2016	418-1 Substantiated complaints concerning breaches of customer privacy and losses of customer data	There were no cases of leaks, theft or loss of customer data in 2022.	-	-	-
Social Responsibility					
GRI 3: Material Topics 2021	3-3 Material topics management	See Copel's Integrated Report (Holding Company).	-	-	-
GRI 202: Market presence 2016	202-1 Ratio of lowest wage and local minimum wage, by gender	10, 80, 83, 84	-	-	-
	202-2 Proportion of senior management hired from the local community	10, 80	-	-	-
GRI 203: Indirect economic impacts 2016	203-1 Infrastructure investments and support services	10, 21, 122, 125	-	-	-
	203-2 Significant indirect economic impacts	10, 121, 122, 124, 125	-	-	-
GRI 204: Procurement practices 2016	204-1 Proportion of spending on local suppliers	10, 133	-	-	-
GRI 408: Child Labor 2016	408-1 Operations and suppliers at significant risk for incidents of child labor	10, 134	-	-	Reason for omission: information not available. To date, there is no management of the assessment of (potential) risks of this nature at Copel. The Company's contracts have clauses committing to complying with the labor laws and to fighting child labor.

GRI STANDARD/ OTHER SOURCE	CONTENT	PAGE	OMISSION		REF. NO. OF THE GRI SECTOR STANDARD	
			OMITTED REQUIREMENT(S)	REASON	EXPLANATION	
GRI 409: Forced or compulsory labor 2016	409-1 Operations and suppliers at significant risk of forced or compulsory labor	10, 134	-	-	Reason for omission: information not available. To date, there is no management of the assessment of (potential) risks of this nature at Copel.	-
GRI 411: Rights of Indigenous people 2016	411-1 Incidents of violations involving rights of indigenous peoples	There were no records in 2022, of violations of indigenous peoples' rights.	-	-	-	-
GRI 413: Local communities 2016	413-1 Operations with local community engagement, impact assessments and development programs	-	-	-	Reason for omission: Copel DIS does not have this information available.	-
	413-2 Operations with significant actual and potential negative impacts on local communities	10, 119	-	-	-	-
GRI 414: Social assessment of suppliers 2016	414-1 New suppliers selected based on social criteria	10, 134	-	-	-	-
	414-2 Negative social impacts in the supply chain and actions taken	10, 97, 133, 134	-	-	-	-
Energy Sector Supplement	EU19 Stakeholder participation in decision-making processes related to energy planning and infrastructure development	10, 18, 19, 20, 21, 32, 33, 124, 125, 145	-	-	-	-
	EU20 Approach to managing displacement impacts	119, 120	-	-	-	-
	EU21 Contingency planning measures, disaster/emergency management plans and training programs, and recovery/restoration plans	Due to the type of operation, Copel DIS only has a contract to respond to environmental emergencies related to accidents involving dangerous products. The contractor is called in to perform the first service for containment and subsequent cleaning and final allocation of the waste	-	-	-	-

GRI STANDARD/ OTHER SOURCE	CONTENT	PAGE	OMISSION		REF. NO. OF THE GRI SECTOR STANDARD	
			OMITTED REQUIREMENT(S)	REASON	EXPLANATION	
Energy Sector Supplement	EU22 Number of people physically and economically displaced and compensation, by type of project	10, 116, 120	-	-	-	-
	EU25 Service user accidents and deaths involving company property	99, 104	-	-	-	-
Transformation of the energy sector						
GRI 3: Material Topics 2021	3-3 Material topics management	See Copel's Integrated Report (Holding Company).	-	-	-	-
Energy Sector Supplement	EU8 Research and development and expenditure aimed at providing reliable electricity and promoting sustainable development	9, 139, 140	-	-	-	-
Customer satisfaction						
GRI 3: Material Topics 2021	3-3 Material topics management	See Copel's Integrated Report (Holding Company).	-	-	-	-
Energy Sector Supplement	EU3 Number of residential, industrial, corporate and commercial customer accounts	129	-	-	-	-
	EU23 Programs, including those in partnership with the government, to improve or maintain access to electricity services and customer support	124, 132	-	-	-	-
	EU24 Practices to address language, cultural, low literacy and disability related barriers to accessing and safely using electricity and customer support	18, 98, 112, 122	-	-	-	-

GRI STANDARD/ OTHER SOURCE	CONTENT	PAGE	OMISSION		REF. NO. OF THE GRI SECTOR STANDARD	
			OMITTED REQUIREMENT(S)	REASON	EXPLANATION	
Energy Sector Supplement	EU26 Percentage of population not served in licensed distribution or service areas	According to Order 2344 and Annex I of Aneel of 17/ Jul/2012, Copel completed the Universalization Plan in the urban area in 2006 and the rural one in 2010.	-	-	-	-
	EU27 Number of residential disconnections due to default by duration of disconnection and by regulatory regime	130, 131	-	-	-	-





Annex I

Incorporation of the Global Compact Principles and Sustainable Development Goals

The Company ratifies its commitment to the United Nations Global Compact and the Sustainable Development Goals and presents its Progress Report,

in which it specifies the initiatives developed to implement the principles of the Global Compact in its operations.

Global Compact Principles



DIREITOS HUMANOS

- 01 Businesses should support and respect the protection of internationally-recognized human rights.
- 02 Ensure that such do not participate in infringing these rights.



TRABALHO

- 03 Businesses should support freedom of association and the effective recognition of the right to collective bargaining.
- 04 The elimination of all forms of forced or compulsory labor.
- 05 The effective abolition of child labor.
- 06 Eliminate discrimination in employment



MEIO AMBIENTE

- 07 Companies should support a precautionary approach to environmental challenges.
- 08 Develop initiatives to promote greater environmental responsibility.
- 09 Encourage the development and dissemination of environmentally-friendly technologies.



ANTICORRUPÇÃO

- 10 Businesses should work against corruption in all its forms, including extortion and bribery

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