



**STATE GRID**  
BRAZIL HOLDING S.A.  
国家电网巴西控股公司

# SGCC CORPORATE SOCIAL RESPONSIBILITY REPORT (BRAZIL) 2022



# SUMMARY

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# INTRODUCTION



# MESSAGE FROM THE PRESIDENTS

We are very honored to present to you the fifth Corporate Social Responsibility (CSR) Report of State Grid Corporation of China in its operations in Brazil. In this country, we are made up of CPFL Energia, State Grid Brazil Holding (SGBH), CET Brazil and NARI Brazil. In a year marked by several challenges, learning and achievements, we evolved our expertise in providing power to society with quality, responsibility, efficiency and dedication, behaviors that are necessary for a market leader company.

## **With a long-term view, we are dedicated to current and future challenges**

The vision of the future is an important part of SGCC's culture, which is shared by the Companies operating in Brazil. We understand that, with a view to market requirements and global trends, we will act more assertively, expanding the positive impacts on society.

## **We evolved steadily**

In the last year, we sought to approach the best ESG practices and structure ourselves to adopt them.

In terms of governance, CPFL Energia approved its 2030 ESG Plan, an evolution of the 2020-2024 Sustainability Plan, with defined commitments for the period, and updated its materiality matrix. In turn, SGBH concluded both its 2023-27 Strategic Planning and the review of the corporate risk matrix, in addition to internally organizing the company towards a more efficient work model, with restructuring and creation of areas that reflect its future vision.

From an environmental point of view, CPFL is proud of the energy it generates, 96% of which comes from renewable sources, contributing to the low-carbon transition of the Brazilian economy. Also in terms of fighting climate change, the ESG Plan brings the pioneering commitment in the energy sector to be carbon neutral from 2025. SGBH, on the other hand, became a signatory of the UN Global Compact and carried out its first fundraising through green debentures, in the

order of BRL 235 million, for the installation of transmission lines using ultra-high voltage technology. In addition, both CPFL and SGBH carried out their Greenhouse Gas Inventory (GHG), which makes it possible to monitor emissions, create effective actions and manage the impact on climate change.

In the social field, Amcham's ECO 2022 Award recognized CPFL's Corporate Culture Inclusion Program (CCIP), with emphasis on the CPFL and RGE in Hospitals project. Also regarding the internal evolution of this theme, the Company also promoted its first Diversity Week. In community relations, both CPFL and SGBH invest in socioeconomic development projects linked to health, sports, culture, education and infrastructure. These actions create opportunities and make a difference in people's lives, helping to build a prosperous society.

## **And we keep moving forward based on our values**

We consider people's safety to be a non-negotiable value. Operating practices are continuously reviewed and improved, with priority given to avoiding or mitigating business-related risks. Thus, we can ensure life preservation and the environment conservation.

Likewise, by understanding the responsibility we have as agents in the electricity sector, suppliers of essential resources to society, we act with zeal in our relationship with the various stakeholders. CPFL and SGBH communication channels are open instruments to receive the various types of manifestation, which are handled in a thoughtful and careful manner in order to pursue the necessary improvements in conduct and in the quality of the services offered.

**We ended the 2022 cycle with a feeling of satisfaction and gratitude**

With all this, the initiatives carried out materialize the long-term vision and commitments shared between SGCC and the companies that make up our front in Brazil.

We would want to show our appreciation for all of the accomplishments we reached together at the conclusion of this 2022 cycle, especially to our employees. For yet another cycle of relationships, we also want to thank our investors, suppliers, partners, government agencies, and local communities.

Best regards!

**Chen Daobiao**

*Chairman of CPFL Energia's Board of Directors*

**Sun Tao**

*Chairman of SGBH*



**Chen Daobiao**  
*Chairman of CPFL Energia's Board of Directors*



**Sun Tao**  
*Chairman of SGBH*

# ABOUT THE REPORT

In this fifth Corporate Social Responsibility Report of State Grid Corporation of China (SGCC) in Brazil, we bring together the main results of the companies in which SGCC invests in Brazil, with emphasis on State Grid Brazil Holding (SGBH) and CPFL Energia, as well as from CET Brazil and NARI Brazil.

The publication brings information from the period from January 1 to December 31, 2022.

A complete overview of these companies' initiatives is available in their annual reports, which follow the best sustainability management and reporting guidelines, such as the Global Reporting Initiative (GRI).

Any doubt, suggestion or comment about the report can be sent to:

✉ [comunicacao@stategrid.com.br](mailto:comunicacao@stategrid.com.br)

## SEE THE FULL REPORTS



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# STATE GRID CORPORATION OF CHINA



# SGCC

Headquartered in China, State Grid Corporation of China - SGCC operates in several countries and currently represents the largest energy transmission and distribution company worldwide. It ranks third in Fortune magazine, which lists the 500 companies with the highest revenues in the world.

In China, where it has been headquartered since 2002, as a state-owned company, it offers power transmission and distribution services, covering 88% of the territory and supplying electric power to over 1.1 billion people.

Covering  
**88%** of the Chinese territory

**1.1 billion**  
people served

Its branches operate in Chile, Philippines, Portugal, Australia, Italy, Greece, Hong Kong and Oman, in addition to Brazil, in electricity generation, transmission, distribution and sale. It also has operations in the USA, Venezuela, India, Russia and African countries.

In Brazil, SGCC integrates several segments of the electricity chain through the companies CPFL, SGBH, CET Brazil and NARI Brazil.

CPFL Energia operates in the generation, transmission, distribution, commercialization and service provision in electricity in all regions of Brazil. The SGBH is made up of 25 wholly or partially controlled, linked to electric power transmission services. CET Brazil has  $\pm 800$  kV Ultra-High Voltage Direct Current (HVDC) technology, providing project development, construction, assembly and equipment acquisition services. NARI Brazil supplies equipment for the power grid.

**4**

continents

**10**

countries and regions

**1.6 MI**

employees

**21 thousand**

foreign  
employees

**3<sup>rd</sup>**

place in the Fortune  
Global 500 ranking

# CORPORATE CULTURE



## STRATEGIC OBJECTIVE

Build a world-leading power grid company with Chinese characteristics.



## MISSION

Provide energy your life and empower our beautiful China.



## PRINCIPLE

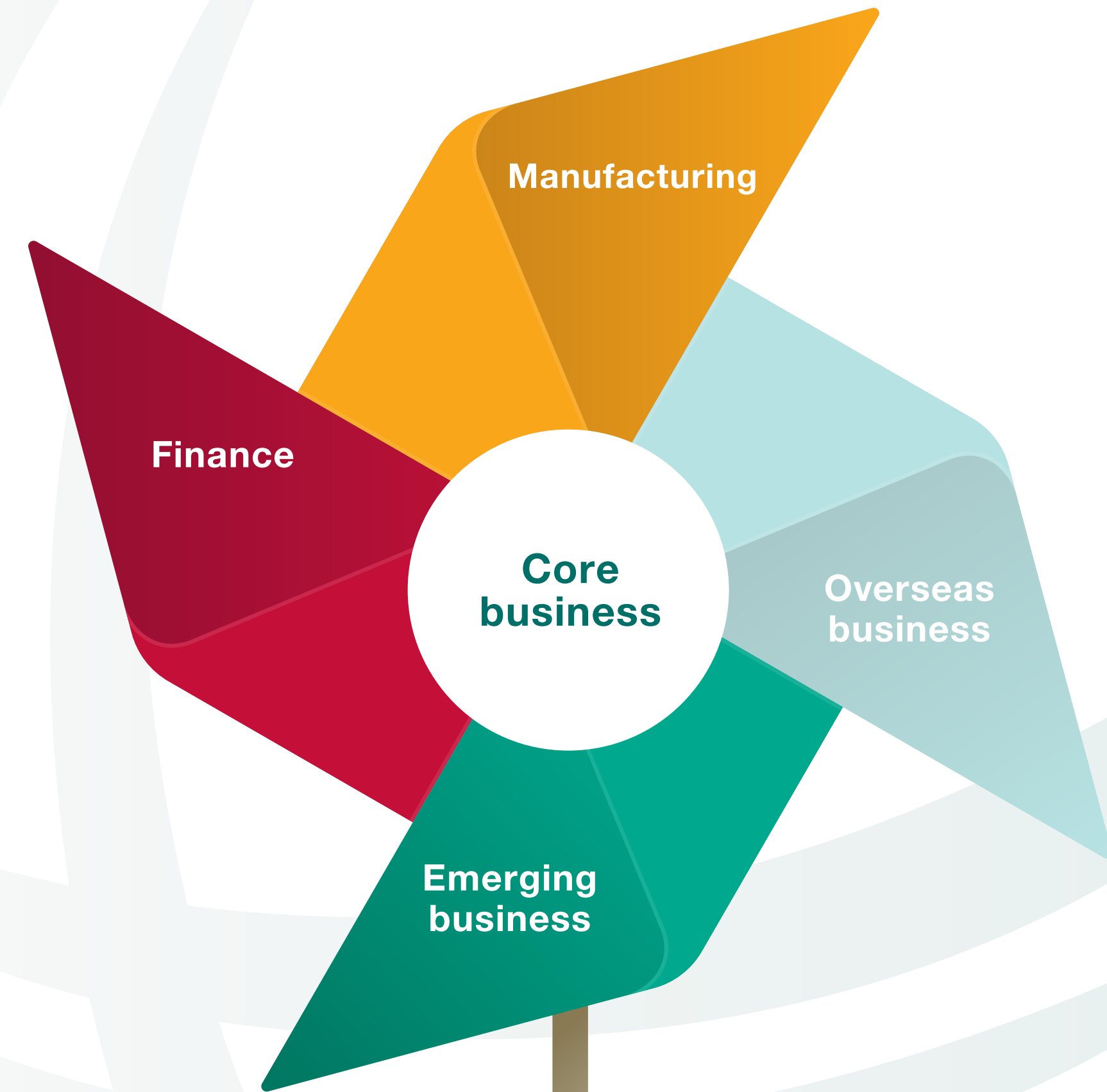
An energy concessionaire, by the people and for the people.



## CORPORATE SPIRIT

In pursuit of excellence and superior performance.

## DEVELOPMENT STRATEGY



# CPFL ENERGIA



## MISSION

- We provide sustainable, affordable and reliable energy at all times, making people's lives safer, healthier and more prosperous in the regions where we operate.
- We promote the growth of our business in a more strategic and competitive way, maintaining its dynamics and vitality, and we create an international corporate culture that follows standards and respects diversity while promoting our legacy.
- We provide equal opportunities for all employees, attracting talent to CPFL.



## VISION

- Be the largest electricity company in South America through reliable supply and services recognized by various audiences.
- Establish a lasting commitment to business development, innovation and corporate culture.



## VALUES

- For us, safety is a non-negotiable commitment.
- Our strength comes from collaboration between people.
- We innovate to offer the best solutions to our customers.
- We are dedicated to delivering results and the continuous pursuit of excellence.
- We are honest and responsible in everything we do to generate value in a sustainable way.



## MISSION

- Seek to be an outstanding and competitive company in the electricity sector.
- Provide sustainable and reliable service to the electrical grid and transmit clean energy. Promote the social and economic development of the areas surrounding our businesses.



## VISION

- Be one of the largest and most influential power transmission companies in South America, provide reliable transmission services through state-of-the-art technologies to our customers and be very well recognized by stakeholders.



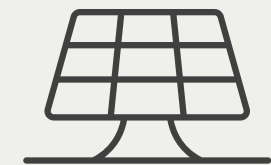
## VALUES

- Safety
- Commitment
- Innovation
- Quality service
- Ethics and transparency
- Sustainability
- Social responsibility

# PRESENCE IN BRAZIL



国家电网公司  
**STATE GRID**  
CORPORATION OF CHINA



## GENERATION



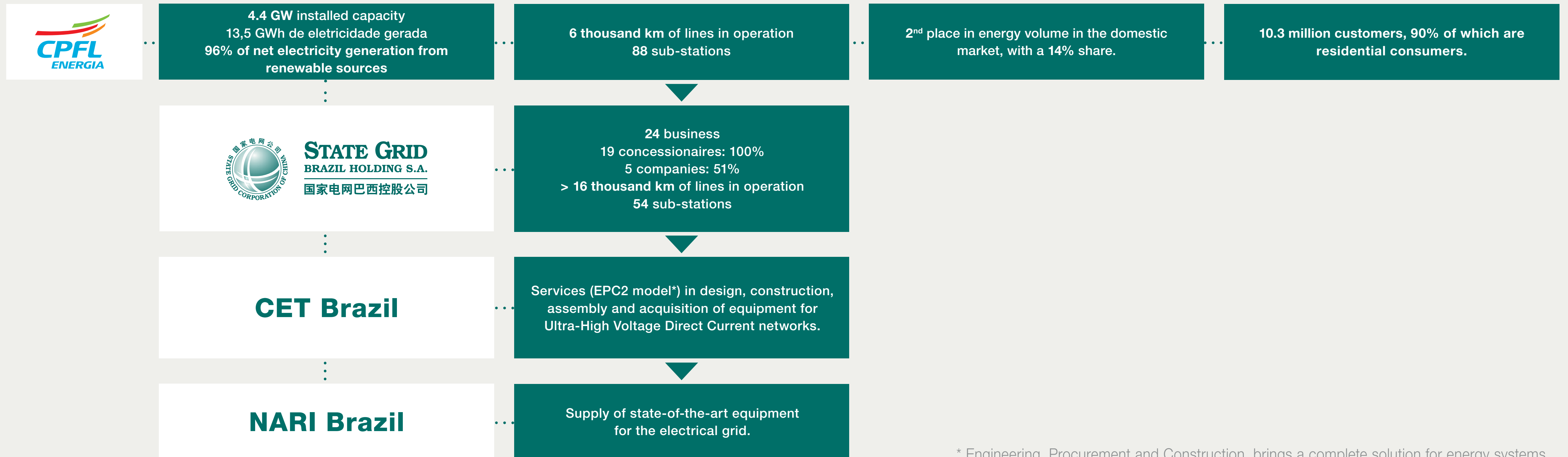
## TRANSMISSION



## DISTRIBUTION



## CONSUMPTION



\* Engineering, Procurement and Construction, brings a complete solution for energy systems.

# CPFL ENERGIA

CPFL works, day after day, to ensure its energy is capable of improving the quality of life of all the people and families it serves.



## Generation



- 1 HPP Luís Eduardo Magalhães\*
- 3 HPP Foz do Chapecó
- 4 HPP Campos Novos
- 5 HPP Barra Grande
- 6 Ceran Complex
  - HPP Monte Claro
  - HPP Castro Alves
  - HPP 14 de Julho
- 9 TPPs
  - Termoparaíba and Termonordeste
- 7 Substations
  - 2 (SP), 1 (CE), 1 (SC), 3 (RS)

\* HPP Luis Eduardo Magalhães is under Jaguari Generation/Paulista Lajeado and not CPFL Generation



- 2 HPP Serra da Mesa
- 5 HPP Barra Grande
- 7 46 SHPPs+HGPs, being 25 SHPPs and 21 HGPs
  - 25 SHPPs (10 MG/ 1 MT/ 7 SP/ 6 SC/ 1 PR)
- 8 21 HGPs (2 MG/ 1 MT/ 14 SP/ 4 RS)
- 10 49 Wind Farms
  - 12 (CE), 33 (RN), 4 (RS)
- 11 8 TPPs (Biomass)
  - 5 (SP), 1 (RN), 1 (MG), 1 (PR)
- 12 Tanquinho Photovoltaic Solar Plant (UFV) (SP)

HPP - Hydroelectric Power Plant / SHPP - Pequena Central Hidrelétrica  
 HGP - Hydroelectric Generating Plants / TPP - Thermolectric Power Plant / PV - Photovoltaic Plant



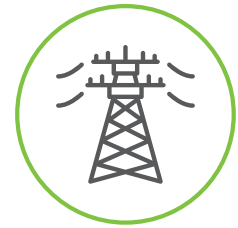
## Commercialization and Services



- 3 Operational Transmission Bases (SP and RS)
- 1 Planning Tower (SP)
- 1 Refurbisher Operational Basis (SP)
- 2 Operational Basis for Reverse Chain (RS and SP)
- 22 Operational Distribution Bases (SP)
- 1 Projects Factory

- 1 cpfl total
- 2 cpfl atende
- 3 cpfl pessoas
- 3 cpfl finanças
- 3 cpfl supre
- 3 cpfl infra
- 4 alesta

<sup>1</sup> CPFL Soluções is a commercial brand that serves all of Brazil, and gathers the following companies: CPFL Brasil, CPFL Serviços and CPFL Eficiência.



## Transmission

- 1 88 substations
- 2 129 transmission lines
- 3 6,120 km of transmission lines

Considering CPFL Transmissão, CPFL Piracicaba, CPFL Morro Agudo and CPFL Maracanaú.



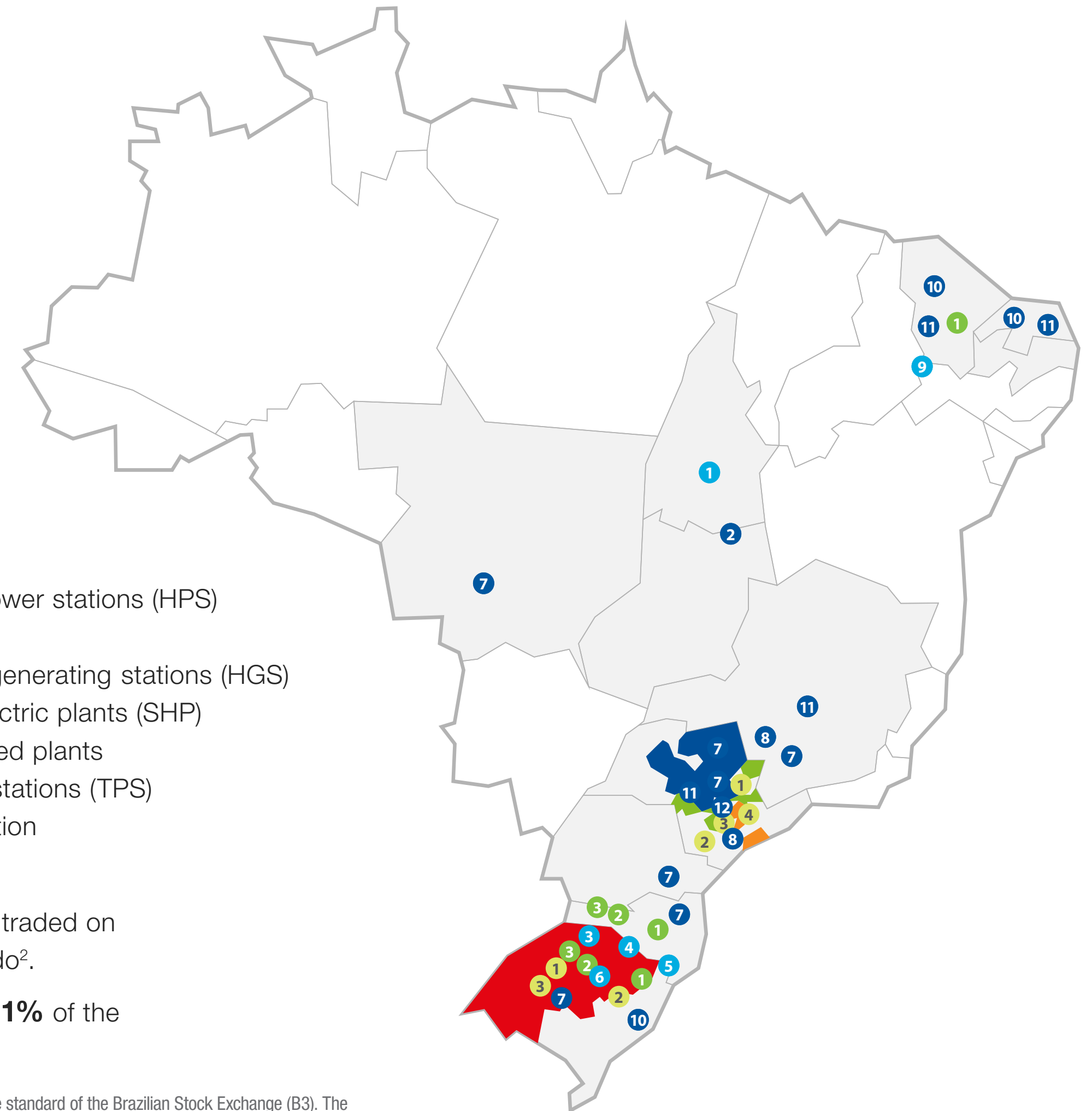
## Distribution

- cpfl paulista
- cpfl piratinga
- cpfl santa cruz



**10,342,132**  
 Number of customers in the distribution segment.

**333,968 km**  
 Extension of the distribution network.



## OUR ASSETS

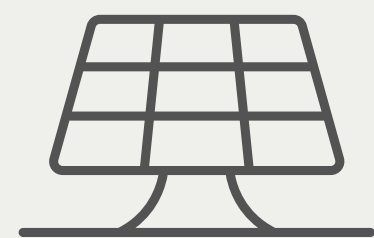
- 8 hydroelectric power stations (HPS)
- 49 wind farms
- 21 hydroelectric generating stations (HGS)
- 25 small hydroelectric plants (SHP)
- 8 biomass-powered plants
- 2 thermal power stations (TPS)
- 1 solar power station

Publicly company traded on B3 - Novo Mercado<sup>2</sup>.

SGCC holds **83.71%** of the capital share.

<sup>2</sup> Highest Corporate Governance standard of the Brazilian Stock Exchange (B3). The participating companies pledge to adopt best practices, beyond what is required by law.

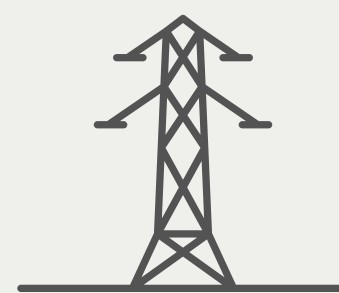
## HIGHLIGHTS IN BUSINESS



### GENERATION

#### SHP Cherobim - Small Hydroelectric Plant (SHP) Lúcia Cherobim

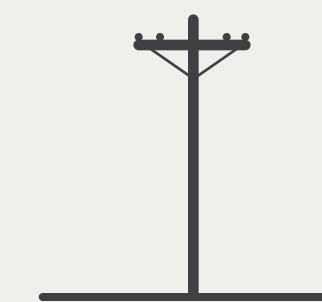
With completion scheduled for 2024, the SHP located on the Iguazu River (PR) will reach an installed capacity of 28 MW, and will then be able to supply around 11 thousand homes.



### TRANSMISSION

#### CEEE-T Transmission Lines

The integration of the State Electricity Transmission Company (CEEE-T) of Rio Grande do Sul was completed in 2022, after six thousand kilometers of lines were purchased by CPFL Transmissão in a privatization auction, held in 2021.



### DISTRIBUTION

#### CPFL Paulista

With an investment of BRL 32.6 million, the expansion and technology upgrade of the Bela Vista Substation (São Carlos-SP) was delivered in 2022 with the installation of CPFL Group's first green transformer, which uses insulating vegetable oil that is 100% biodegradable and non-toxic. Another investment, the installed capacity of Bethânia Sub-station (São Carlos-SP) was doubled at a cost of BRL 15.1 million.

After almost two years of evaluations, studies and implementations within the scope of the ADMS (Advanced Distribution Management System) project, in 2022, we activated the management and optimization programs for energy distribution systems. Now, it is possible to receive alerts of failures in the electric power supply through algorithms that automate this operation and quickly identify the actions necessary to restore services.

## CPFL BUSINESS

In addition to its direct participation in the electricity supply chain, CPFL contributes to the demands of the sector and its socioeconomic transformation. Our Shared Services Center adds value to the business by supporting the Company's administrative and operational activities, and has the know-how to meet internal demands in the finance, people, and infrastructure fronts, among others.

### Shared Services Center



Customer service through the distributors' toll-free telephone number, virtual chat, social network and e-mail.



Organization and financial operation to support business decision-making.



People and human resources management service, such as payment, benefits, selection and admission of employees.



Asset management service, such as car fleet, real estate, administrative services and building maintenance and security.

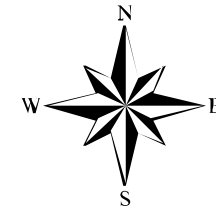


Logistics and supply chain planning and management, with purchasing, materials and distribution services.

## CPFL SOLUÇÕES

CPFL Energia has an exclusive front to support its businesses in generation, transmission and distribution: CPFL Soluções. The business is responsible **for developing integrated solutions to update and generate more efficiency in the relationship between clients and electric energy**, ensuring savings and improved performance.

The specialized teams work in consulting, planning, management, commercialization, infrastructure projects, distributed generation, energy efficiency and offering carbon credits and renewable energy certificates.



**Legend**

- Headquarters of State Grid Brasil Holding S.A.
- Capital
- Existing Transmission Lines - EPE
- International Boundary
- State Boundary

**Transmission System**

- Substations
- Transmission Line**
- Existing**
- 800 kV line
- 500 kV line
- 440 kV line
- 345 kV line
- 230 kV line
- 138 kV line
- Eletrodo
- Under Construction**
- 500 kV Line

**Graphic Scale**

Projection: GCS SIRGAS 2000  
 0 100 200 400 600 800  
  
 Scale: 1:27.000.000

**Concessionaries**

- 1 **EXPANSION**  
TRANSMISSÃO ITUMBIARA MARIMBONDO S.A.
- 2 **ITUMBIARA**  
TRANSMISSORA DE ENERGIA S.A.
- 3 **EXPANSION**  
TRANSMISSORA DE ENERGIA ELÉTRICA S.A.
- 4 **RIBEIRÃO PRETO**  
TRANSMISSORA DE ENERGIA S.A.
- 5 **SERRA DA MESA**  
TRANSMISSORA DE ENERGIA S.A.
- 6 **POÇOS DE CALDAS**  
TRANSMISSORA DE ENERGIA S.A.
- 7 **SERRA PARACATU**  
TRANSMISSORA DE ENERGIA S.A.
- 8 **CATXERÊ**  
TRANSMISSORA DE ENERGIA S.A.
- 9 **IRACEMA**  
TRANSMISSORA DE ENERGIA S.A.
- 10 **ARARAQUARA**  
TRANSMISSORA DE ENERGIA S.A.
- 11 **ITATIM**  
LINHAS DE TRANSMISSÃO DO ITATIM S.A.
- 12 **PORTO PRIMAVERA**  
TRANSMISSORA DE ENERGIA S.A.
- 13 **MONTES CLAROS**  
LINHAS DE TRANSMISSÃO DE MONTES CLAROS S.A.
- 14 **MARECHAL RONDON**  
TRANSMISSORA DE ENERGIA S.A.
- 15 **ATLÂNTICO CONCESSIONÁRIA**  
DE TRANSMISSÃO DE ENERGIA DO BRASIL S.A.
- 16 **CANARANA**  
TRANSMISSORA DE ENERGIA S.A.
- 17 **PARANAÍTA RIBEIRÃOZINHO**  
TRANSMISSORA DE ENERGIA S.A.
- 18 **XINGU RIO**  
TRANSMISSORA DE ENERGIA S.A.
- 19 **SILVÂNIA**  
TRANSMISSORA DE ENERGIA S.A.
- 20 **BMTE**  
BRASIL MARITIMO TRANSMISSORA DE ENERGIA S.A.
- 21 **Luziânia-Niquelândia**  
Transmissora S.A.
- 22 **PARANAIBA**  
TRANSMISSORA DE ENERGIA S.A.
- 23 **TP NORTE**  
Matrinchã Transmissora de Energia S.A.
- 24 **TP SUL**  
Guaraciaba Transmissora de Energia S.A.

## NARI BRAZIL

NARI Brazil has operated in Brazil for 9 years, with strong support in technology and resources from its parent company NARI Group Corporation, a renowned equipment manufacturer and provider of complete solutions in the power grid sector.

NARI Brazil is an active company in the local market through substation protection and control and substation EPC (Engineering, Procurement and Construction) projects. It is recognized for its integrity, resilience and professionalism, and in recent years, it has met its project deliveries with performance, even in the context of the COVID-19 pandemic.

NARI Brazil values the renewal of partnerships established with its clients and the promotion of Brazil-China cultural exchange. Over the years, NARI Brazil has been continuously strengthening its safety, quality and technological advances. It is dedicated to transferring knowledge from China to Brazil and sharing cutting-edge energy technologies and solutions with partners in Brazil, such as High Voltage Direct Current (HVDC), Advanced Metering Infrastructure (AMI), Centralized Control and Management Centre (CCMC), Power Management System (PMS), among others.



## CET BRAZIL

CET Brazil is the company in charge of State Grid's EPC platform, providing services in this modality. Its main business consists of carrying out the construction of electrical grid infrastructure and inter-regions transnational interconnection projects.

Responsible for the implementation of converter units at the Xingu and Terminal Rio substations of the UATCC project in 2022, CET has won two new solar photovoltaic projects with a total installed capacity of 155 MW located in the state of Minas Gerais. This first renewable energy project to be implemented in Brazil is honorably being carried out together with CEMIG.

In the power transmission sector, Milagres II expansion project started operations on schedule, and the construction of the STE substation project and the TCP 138 kV GIS project are on schedule.





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# VALUE GENERATED IN 2022

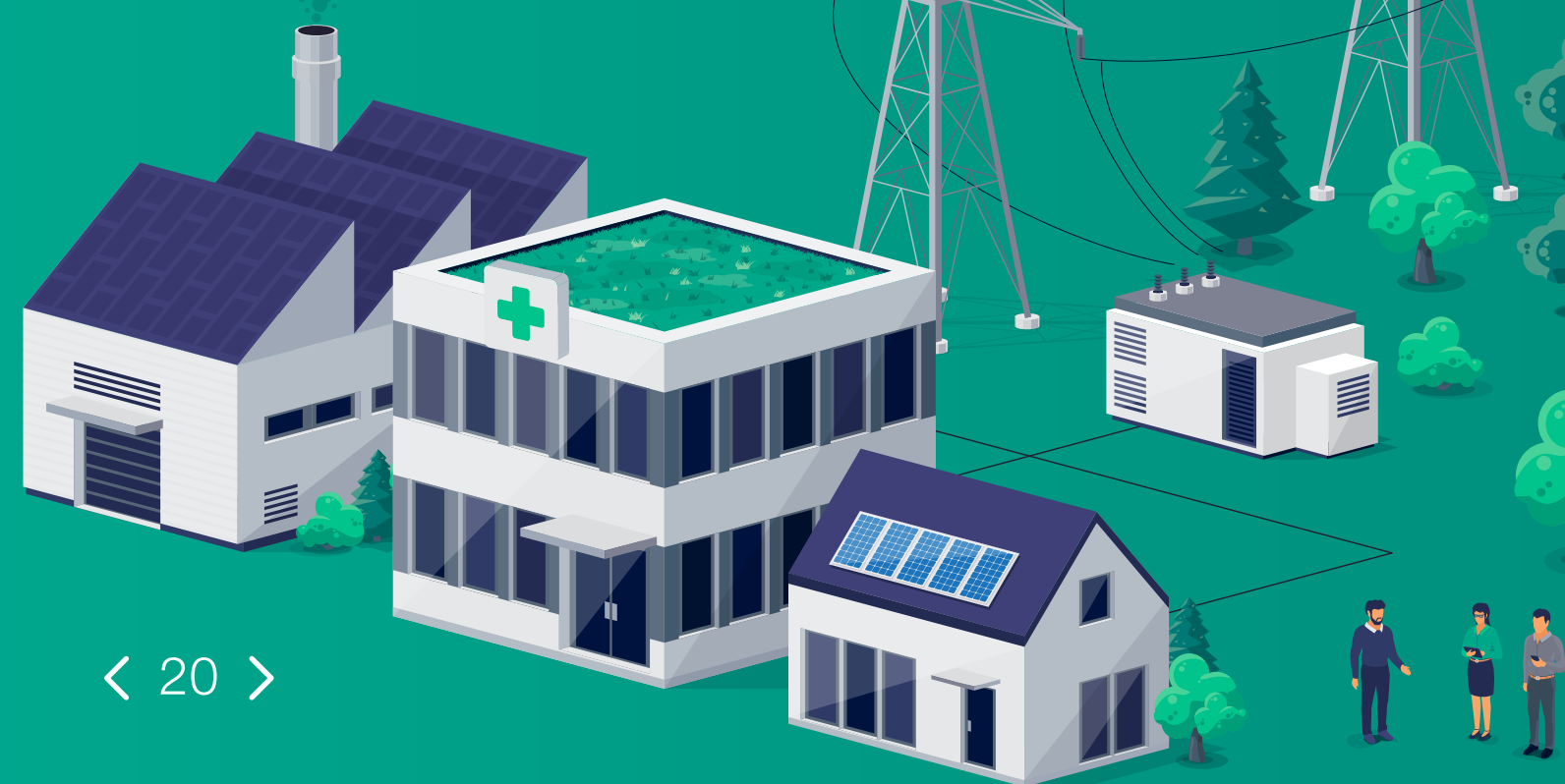


# CPFL HIGHLIGHTS

Conclusion of **CPFL Transmissão** integration



**167 hospitals** impacted by the CPFL and RGE in Hospitals Program



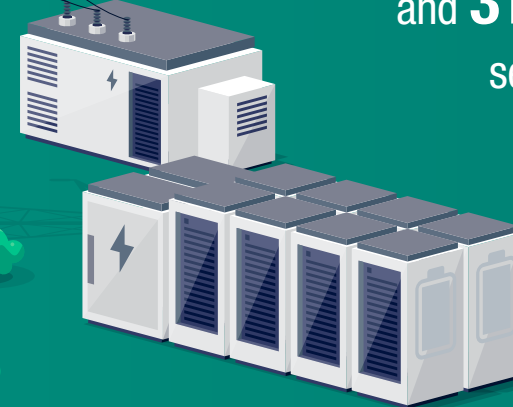
Network **automation and modernization**, and the best performances in the country in ANEEL DEC\* indicator



**More than 23 million** people impacted by the Guardian of Life Program: safety is a non-negotiable value for CPFL Energia

**Over 40 thousand** children and young people impacted by the CPFL Institute

**11,565** transformers refurbished and **312.5 tons.** of materials sent for **recycling**



**14,222 employees** trained in anti-corruption policies



Improvement of R&D studies, with a focus on **innovation and environmental management**

**90%** of our services already take place through digital channels, **improving the Customer Journey**



Carrying out the **first Diversity Week** with the support of the affinity groups of CPFL +Diversa



Redesigning our **Nosso Jeito de Ser** (Our way of being) – **People at the heart**



**Over 1,000 courses** available in the CPFL University portfolio



**R\$ 39.4 billion** in net revenue and **R\$ 5.2 billion** in net profit at CPFL Energia, including CPFL Transmissão

Launch of **2030 ESG Plan**

**CPFL Group Commitments:** to become carbon neutral by 2025 and reduce 35% of our total GHG\*\* emissions by 2030



**100% of the fleet at Indaiatuba – SP** is comprised of electric vehicles, with 16 electro-stations

\*DEC - Average Interruption Duration  
\*\*GHG - Greenhouse gases

### **New 2030 ESG Plan**

In 2022, CPFL Energia created and approved the 2030 ESG Plan with leaders and internal stakeholders. Resulting from the interconnected vision between the Strategic Planning and the 2020-2024 Sustainability Plan, it brings greater coverage of ESG aspects and the long-term vision (2030), which is more aligned with Agenda 2030 and the United Nations' Sustainable Development Goals (SDGs).

### **CPFL Transmissão Integration**

In the electric power transmission segment, CPFL Transmissão was fully integrated into CPFL Energia's businesses, which led the company to a strategic role in the Brazilian energy matrix.

### **Investment in safety**

Investments in 2022 focused on expanding and modernizing the electrical system, R&D projects, initiatives to promote a culture of safety along with the society and to revitalize urban tree planting.

### **ALLEGRA Pacaembu Project**

Fruto The result of a partnership between CPFL Soluções and the concessionaire Allegra Pacaembu, the project for the Pacaembu Stadium, located in the city of São Paulo-SP, comprises a photovoltaic plant, natural gas co-generation plant, emergency generators and battery banks.

Scheduled for completion by the end of 2023, the project will also feature an intelligent monitoring system, energy efficiency measures and ten electric vehicle chargers.

In addition to execution, CPFL Soluções will be responsible for the operation and maintenance of the systems for the next 15 years, totaling around BRL 300 million in contracts and a unique and pioneering position in the search for integrated solutions for the market.



Learn more about CPFL Energia's initiatives in the 2022 Annual Report.



# HIGHLIGHTS FROM SGBH

## INPUTS

### MANUFACTURED CAPITAL

- Installed Transmission Infrastructure;
- Sub-stations;
- Operational centers.

### NATURAL CAPITAL

- Renewable natural resources;
- Non-renewable natural resources.

### SOCIAL CAPITAL

- Relationship with public authorities and energy regulatory agencies;
- Relationship with local communities.

### FINANCIAL CAPITAL

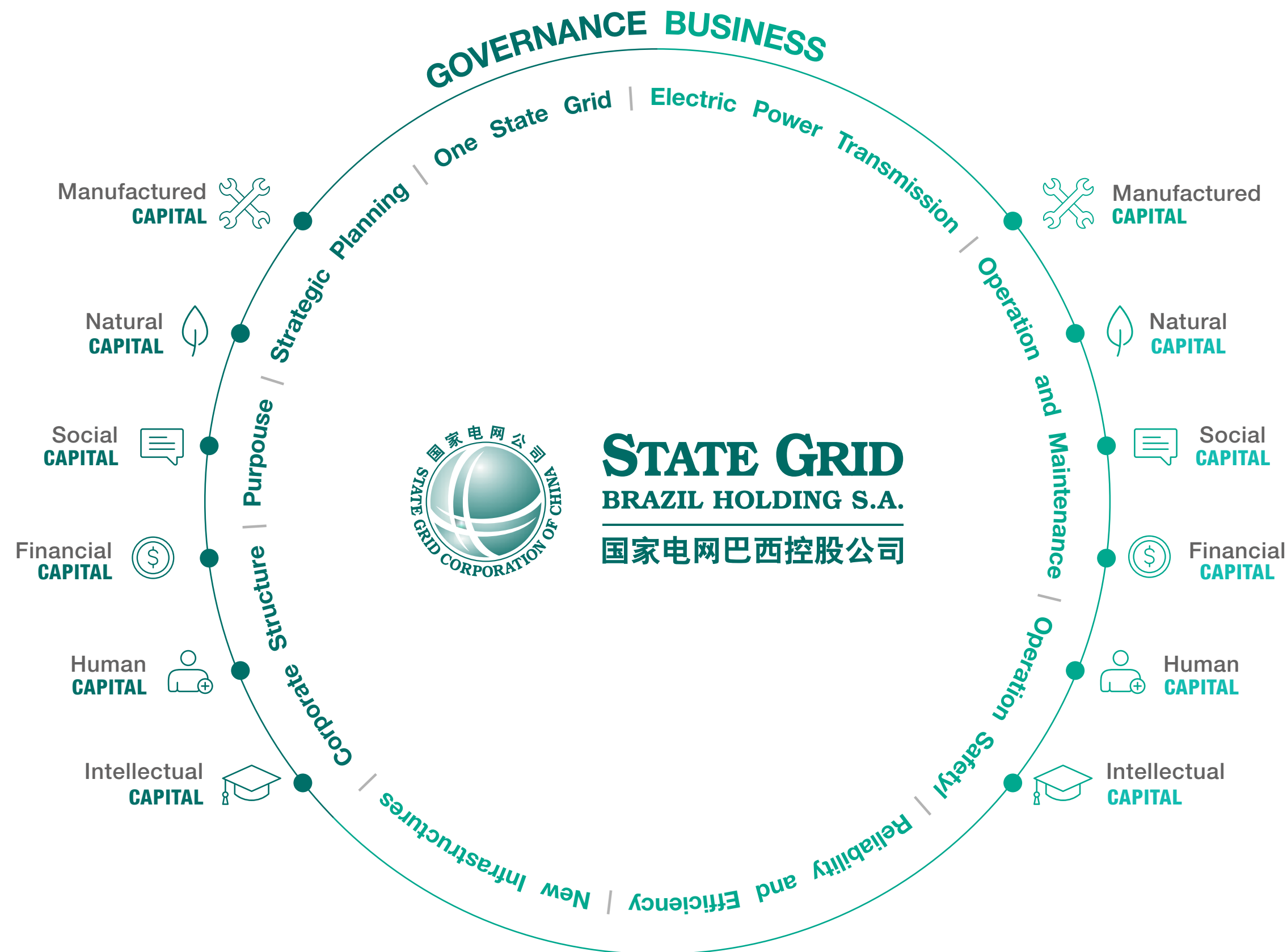
- Investments in people, infrastructure and innovation;
- Revenues;
- Third-party capital and financing;
- Shareholders.

### HUMAN CAPITAL

- Own and third party employees;
- Suppliers;
- Partners.

### INTELLECTUAL CAPITAL

- Technical knowledge of the team;
- Investments in R&D and innovation.



## GENERATED VALUE

### INTERNAL

#### MANUFACTURED CAPITAL

- Operation and maintenance of transmission lines of 19 concessionaires;
- Expansion of transmission networks;
- Acquisition of new energy transmission contracts.

#### NATURAL CAPITAL

- Execution of environmental licensing conditions: forest restoration and environmental compensation projects.

#### SOCIAL CAPITAL

- Employees' professional and personal development;
- Safety in operation and maintenance.

#### FINANCIAL CAPITAL

- Employee remuneration;
- Equity return.

#### HUMAN CAPITAL

- Training and qualification;
- Employee skills development.

#### INTELLECTUAL CAPITAL

- R&D Projects;
- Adherence to international innovation and quality standards;
- Implementation of innovations in O&M;
- Employee training.

### EXTERNAL

#### MANUFACTURED CAPITAL

- Energy transmitted to society with an average availability greater than 99.7%;
- 10,196 km of transmission lines;
- 2,543 km of Ultra High Voltage technology;
- Construction of Silvana (STE) - financed with green bond.

#### NATURAL CAPITAL

- Impact on biodiversity;
- Emissions 85,674 tCO<sub>2</sub> of GHG emissions;
- Generation of 140 tons of waste.

#### SOCIAL CAPITAL

- Interference in local communities;
- Social projects with affected society and communities;
- Relationship with suppliers;
- Signing to the Global Compact.

#### FINANCIAL CAPITAL

- Distributed added value of R\$ 3,3 billion;
- Amount of taxes, fees and contributions;
- Third-party capital remuneration.

#### HUMAN CAPITAL

- Safety and well-being of employees, partners and communities;
- 4 accidents at work without death;
- Qualified job openings.

#### INTELLECTUAL CAPITAL

- Development of technologies and solutions for society;
- Partnerships in research and development.

## One State Grid

With long-term thinking, focused on achieving better performance and competitiveness in order to pursue the ambition of being recognized as one of the largest power transmission companies in Brazil, in 2022, SGBH created the **One State Grid** concept.

Based on the prediction of internal and external, latent and future challenges, the concept determines the principles and conduct necessary for leaders and company members when searching for integrated solutions, the result of collective action.

### We objectively direct corporate results towards the essential objectives of SGBH:

- To maximize the availability of electricity transmission lines, avoiding possible failures and implementing improvements in operation and maintenance;
- To add shareholder value and manage manageable costs and expenses;
- To prepare people, improve processes and technologies.

### In order to fulfill these objectives, the following principles of the One State Grid have been defined:

- Efficiency and efficacy;
- Trust, respect and empathy-based relationship;
- United company, guided by the same purpose and open to innovation;
- Active cooperation between departments, including the relationship between directors and managers;
- Clear communication;
- Long-term planning;
- Individual and collective commitment and responsibility;
- Safety.



*Working together in the same direction, sharing the same principles, values and corporate culture, prioritizing common goals.*

## Global Compact

In mid-2022, SGBH took another big and significant step in its ESG journey: the signing of the United Nations (UN) Global Compact demonstrates that, far beyond operational safety, commitments incorporate practices in favor of the environment, society and governance.

With this, we will be increasingly aligned with the Sustainable Development Goals (SDGs) defined in the UN 2030 Agenda, materializing the corporate objective of transmitting energy in a sustainable way and through transparent conduct.

## Green Bond STE

In 2022, SGBH was awarded the first issue of BRL 235 million in Green Bond to implement the infrastructure of Silvânia Transmissora de Energia S.A (STE). In compliance with all criteria of the Green Bond Principles, the operation was coordinated by BTG bank and will be monitored by NINT Natural Intelligence. STE is a 30-year concession, contracted in May 2021 for installation in the State of Goiás. SGBH expects to generate

around 1,500 direct and indirect jobs over the 36 months scheduled for its implementation, at a total cost of BRL 476 million. The system will be part of the National Integrated System (SIN) with the objective of reinforcing the safety and reliability of power transmission in the country.

## 2023-27 Strategic Planning

The first edition of SGBH's Strategic Planning (SP) was held in 2021 and was widely accepted and engaged by all boards, in addition to the direct participation by SGCC. In 2022, 2023-27 SP was prepared in an environment of collaboration, trust and corporate maturity, and subsidized the Comprehensive Corporate Plan (PCA) and 7 Strategic Sub-Plans in **Comprehensive Corporate Plan (PCA)** and 7 Strategic Sub-Plans in **Technology and Innovation, Project Management, Operation and Maintenance, Ultra High Voltage, ESG, IT and Solutions**. Now, SGBH has a robust benchmark for its actions, provided with the medium and long-term vision that permeates the culture of the Companies that make up the SGCC. Learn more at page. 29.

We will present the highlights of SGBH in 2022 throughout the report:

## Greenhouse gas inventory (GHG)

Page. 50

## Live Line Maintenance

Page. 54

## ISO 9.001 Standard

Page. 37

## ISO 56.002 Standard

Page. 54

 [Access more information about SGBH initiatives.](#)



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# GOVERNANCE AND STRATEGY



The companies that make up the SGCC have their own governance and strategy, always in line with the corporate culture and best practices.

# CORPORATE GOVERNANCE

CPFL Energia has a strong culture that is present in the daily lives of all its stakeholders. We act with the purpose of providing sustainable, affordable and reliable energy to families and people in the locations where we operate.

## CPFL

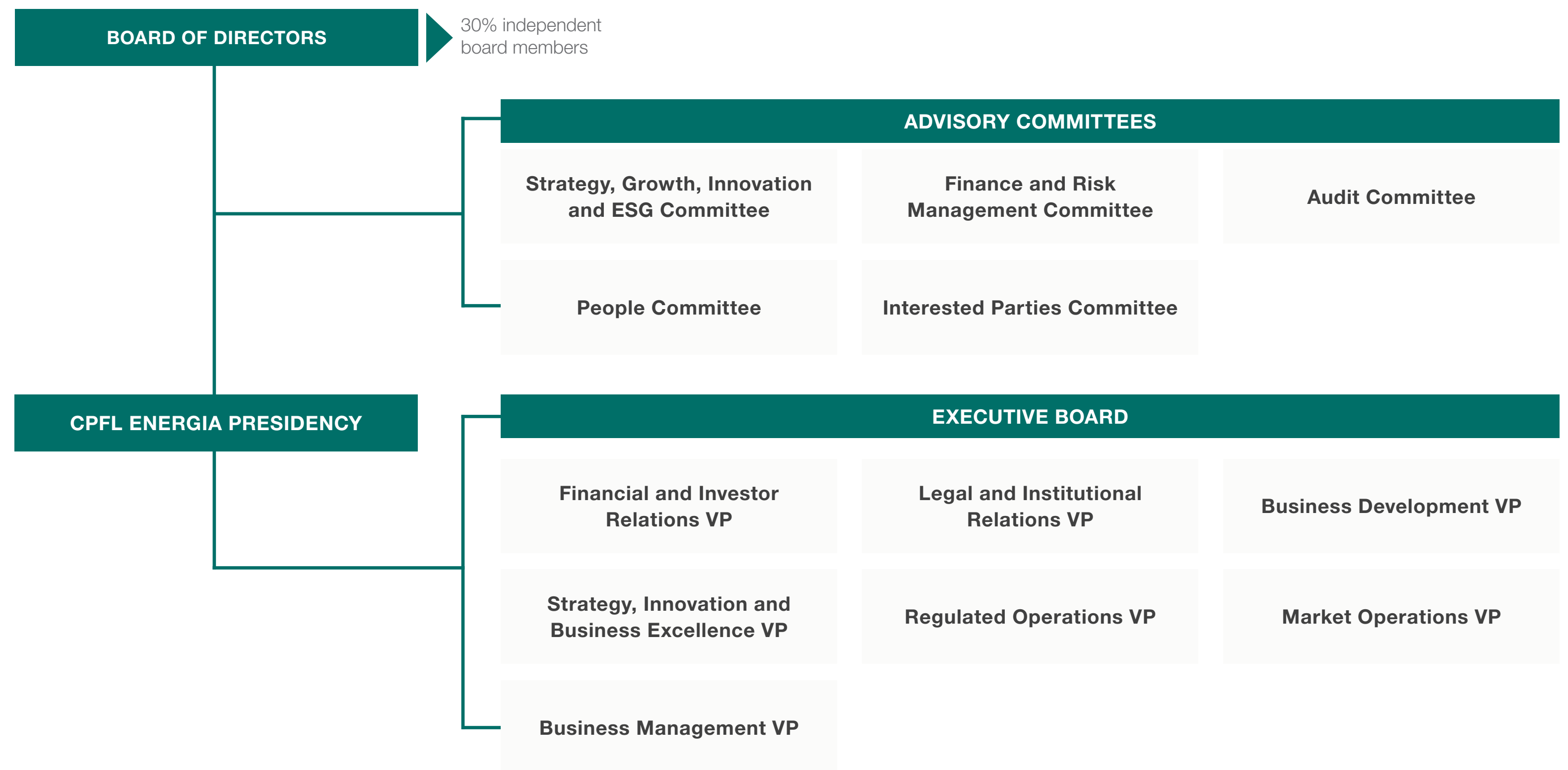
CPFL Energia is a publicly-held company, with shares (CPFE3) traded on the São Paulo B3 – Brazil stock exchange.

Listed on the Novo Mercado segment, it follows the rules of governance structure and shareholder rights specific to this group, focused on transparency, responsibility, independence and diversity.

Its corporate conduct seeks to promote an environment of continuous interaction between shareholders, Board of Directors, Advisory Committees and Commissions, Fiscal Council and Executive Board.

The solid governance structure follows the best corporate practices in the market involving ethics, sustainability and a vision of growth.

Strategic decisions are taken by the Board of Directors, supported by six Advisory Committees. The Presidency has seven vice-presidents in the executive direction of the company and reporting to the Board of Directors.



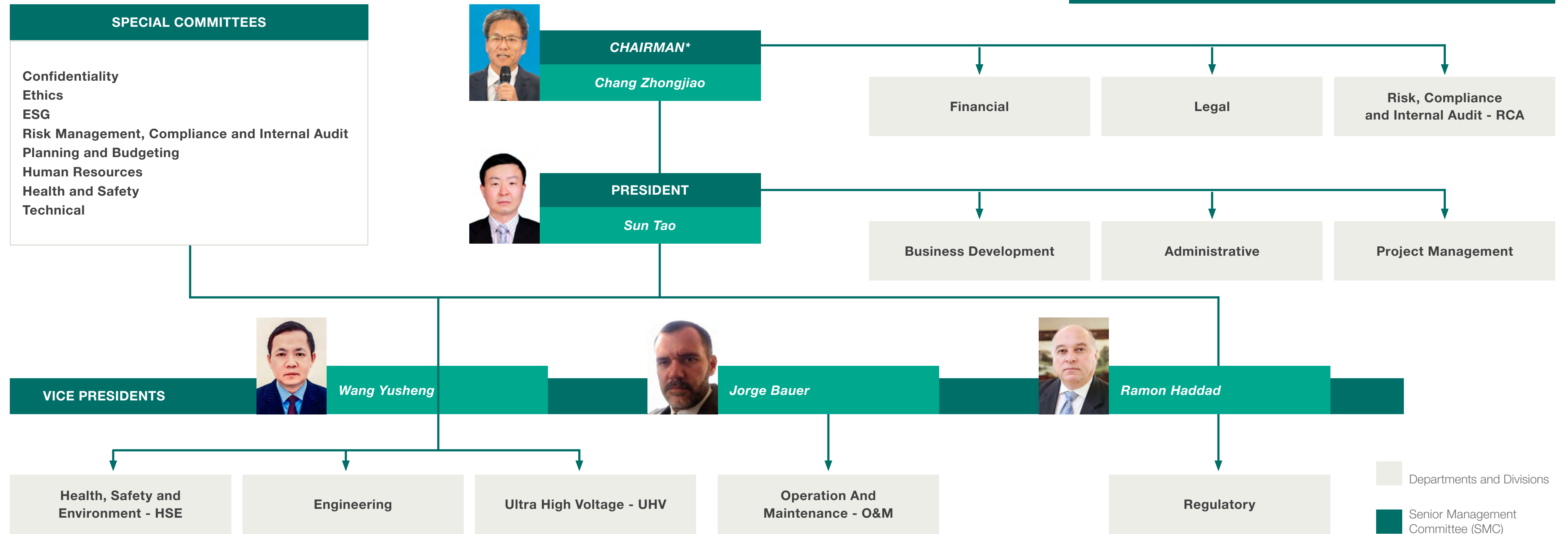
# SGBH

SGBH is a privately held company controlled by SGCC. In 2022, the governance structure was reviewed and the Strategic Planning (SP) was concluded, giving a long-term vision to the business and internal organization.

Strategic decisions are taken by the Senior Management Committee (SMC), composed of Chairman Chang Zhongjiao, President Sun Tao and three Vice-Presidents, Wang Yusheng, Jorge Bauer and Ramon Haddad, executives with recognized experience in the electricity sector.

The SMC is supported by eight Expert Committees, with the newly created ESG Committee.

In 2022, Mr. Chang Zhongjiao, Mr. Sun Tao and Mr. Jorge Bauer took over the positions at the SMC.



\* In March 2023 Chang Zhongjiao returned to China and Sun Tao was appointed Chairman.

# CORPORATE GUIDELINES

## CPFL

CPFL Energia prioritizes an integrated conduction of the business, where the Strategic Planning and the ESG 2030 Plan go hand in hand. This long-term vision has provided a real leap forward in achieving positive results in projects and initiatives. Additionally, they have a Materiality Matrix, responsible for mapping the priority themes for the business.

### Strategic Planning

In the context of transformations in the Brazilian electricity sector, with the opening of the free energy market, digitization and modernization of the grid, in addition to the growing demand for ESG practices, the strategic planning defined optimizing current businesses and growing the operation segments as the two main pillars.

### 2030 ESG Plan

In order to reinforce CPFL Group's commitment to Sustainability and ESG practices, CPFL Energia's "2030 ESG Plan" was launched during the Climate Conference (COP27) in Egypt, and features new guidelines and strategies to provide sustainable, affordable and reliable energy at all times, making people's lives safer, healthier and more prosperous in the regions where it operates.



# SGBH

As a measure of progress in corporate governance, in 2022, the SGBH approved relevant mechanisms, such as the Environmental Policy, internal rules of procedures and the ESG Committee.

## Strategic Planning

SGBH **2023-2027** Strategic Planning (SP) was developed in 2022 and subsidized the Comprehensive Corporate Plan and 7 Strategic Sub-Plans for its wide dissemination in the company, in themes of **Technology and Innovation, Project Management, O&M, UHV, ESG, IT and Solutions**. It was prepared based on the analysis of information on the context and perspectives of the electricity market in Brazil, as well as considering business opportunities and expectations regarding the company's performance.

During the SP elaboration, the company experienced engagement from the boards and the direct participation of shareholders, in an environment of collaboration, trust and maturing of the relationship between SGBH and SGCC. Now, SGBH has this relevant benchmark for medium and long-term actions, with a dedicated department to lead its dissemination.



# ETHICS, TRANSPARENCY AND COMPLIANCE

Governance based on ethics, transparency and compliance is part of SGCC's culture in our commitment to respect local and international legislation, in addition to maintaining a relationship of responsibility towards stakeholders.

CPFL Energia, in all its businesses, acts guided by the ethical principles provided for in the Code of Ethical Conduct, which is periodically reviewed by the Board of Directors, as well as by internal policies, such as the Anti-Corruption Policy. The documents serve to guarantee compliance and integrity of CPFL Group in all its activities and projects, including employees, customers and suppliers.

Recently, SGBH created a Risk, Internal Controls, Compliance and Internal Audits (RCA) department, linked to the Chairman, which allowed for a leap in quality in the work

model, with the definition of standards and methodologies. Additionally, there were advances for the future creation of the Governance Portal, a platform that will consolidate corporate documentation and increase governance transparency.

In terms of long-term risk management, corporate risks were mapped by executives and operational areas, and in 2023, the main risks will be assessed, addressed and monitored.

As a measure to internally disseminate the practice of ethical conduct and compliance, face-to-face classes are offered, for both corporate headquarters and regional teams; online training and monthly compliance pills on current topics are disseminated by email, such as data protection and privacy, diversity and inclusion and prevention of moral harassment in the workplace.

## GENERAL DATA PROTECTION LAW (LGPD)

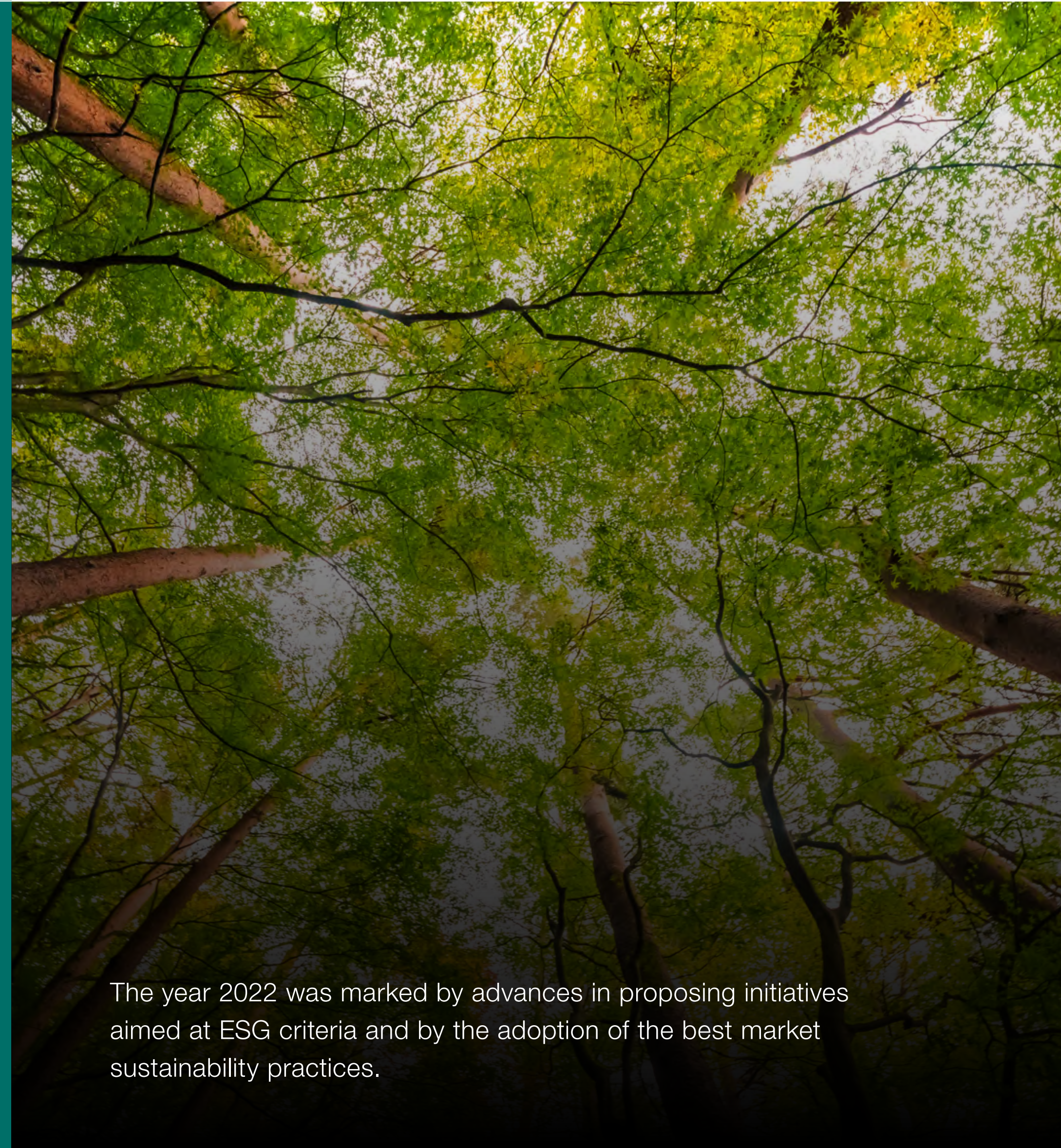
CPFL has developed a Data Protection Governance Program aimed at improving its strategy, management, techniques and employee acculturation with respect to the theme. As a result of the initiative, there were no complaints of privacy violation or customer data loss identified.

Supported by a Data Protection and Privacy Policy, SGBH has adopted measures to adjust its website and information management processes, aiming to guarantee the security of personal and sensitive data.



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# SUSTAINABILITY MANAGEMENT



The year 2022 was marked by advances in proposing initiatives aimed at ESG criteria and by the adoption of the best market sustainability practices.

**CPFL Energia** now has the ESG 2030 Plan, an evolution of the 2020-2024 Sustainability Plan, in line with the Company's Strategic Planning. The new plan comprises 23 public commitments, which are guidelines for medium and long-term actions focused on improving business performance.

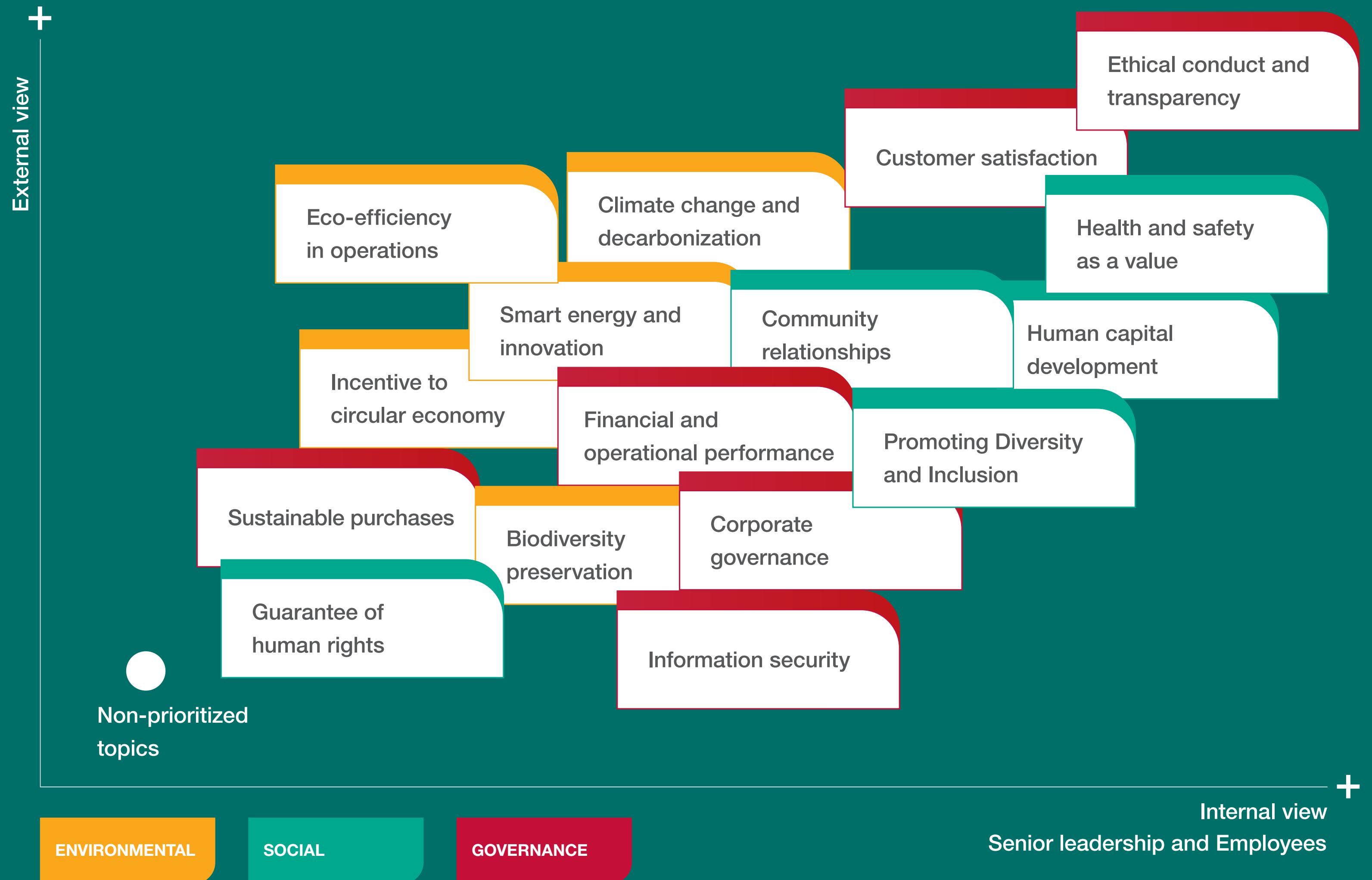
At **SGBH**, the definition of material topics and the publication of the first Annual Report, in 2021, guided the company towards the actions of 2022. With ESG as one of the pillars of the 2023-27 Strategic Plan, guiding actions for the coming years, the ESG area was also created in 2022. With a specific sub-plan for the theme, the creation of the new area made it possible to carry out important actions, such as integrating the list of the UN Global Compact signatory companies, creating an ESG Committee, winning the first issue of green bonds for the execution of Silvana Transmissora de Energia and monitoring greenhouse gas (GHG) emissions).



Global Compact signing ceremony.

# CPFL MATERIALITY

The CPFL Group's Materiality Matrix was updated in 2022 with the identification of 16 priority themes, which will guide practices and decision-making in a more assertive way in ESG initiatives. The most prominent themes for the audiences consulted were: Ethical conduct and transparency, Health and safety as a value, Customer satisfaction, Human capital development, Relationship with communities and Promotion of diversity and inclusion.



# SGBH MATERIALITY

With the definition of material themes in (see details on <https://stategrid.com.br/en/relatorio-de-sustentabilidade/>), in 2022, some themes that were already priorities at SGBH took the lead in the implementation of improvements, such as actions focused on Safety in operations, Social investment and Resilient infrastructure.

## ENVIRONMENTAL

### Biodiversity

- Environmental Licensing projects and investments
- Care of biodiversity-rich protected areas
- Forest Replacement Projects
- Environmental compensation

### Environmental management

- Greenhouse gas inventory
- Solid waste and effluent management
- Water consumption monitoring and management
- Mitigation of plant suppression and forest replacement

### Energy transition

- Research and Development (R&D) projects

## SOCIAL

### Safety in operations

- Operational training
- Behavioral Safety Program (PSC)
- Safe driving measures
- Fire outbreak alert dashboard

### Local communities

- Dialogue channels with the community
- Actions for population awareness and safety
- Quilombola Basic Environmental Program in the Malhadinha Community

### Social investment

- Social investments in culture, sport, health, education and infrastructure.

## GOVERNANCE

### Resilient infrastructure

- Average availability 99.72% to 100%
- Average failure index 0 to 0.56

### Ethics and compliance

- Risk, Internal Controls, Compliance and Internal Audits Department (RCA)
- Code of Ethics and Conduct
- Ethics Channel
- Ethics Committee
- Trainings

### Technology and innovation

- Ultra High Voltage Technology
- Investment in research and development (R&D)
- Partnerships

# CPFL EVOLUTION

## Green Hidrogen

Considered one of the fuels of the future for not emitting polluting gases, green hydrogen is part of CPFL's renewable sources portfolio.

The goal of the ESG Plan foresees investing around BRL 40 million in R&D projects and green hydrogen technologies by 2030.

## Electric fleet

Active since 2007, CPFL has progressed in the project to electrify the operational fleet of service vehicles and pioneered the installation of charging stations.

Based on the analysis of impacts, risks and opportunities of technology and its infrastructure, investments of BRL 60 million were planned for electric mobility initiatives, within four years, starting in 2020.

In addition to the reduction in GHG emissions, the fleet electrification also brings benefits in eliminating noise pollution, promoting advances towards smarter cities.

## CPFL +Diversa (More Diverse) Program

In order to advance the representativeness of different social groups and understand the meaning of diversity and inclusion in the business, the CPFL+ Diversa program was launched in 2020.

With an integrated look at specific demands and needs, we work in the thematic groups of Generations, LGBTQIAP+, Women, People with Disabilities and Black People.

Through the collaboration of affinity groups, projects and debates, an increasingly positive impact on people's lives and inclusion in the world of work is expected.

## Electrician school for women

Created in 2021, this **women-only** school aims to encourage the female presence in the role of electrician, as well as in the job market, through the hiring of female students who have completed the training. As a result, the number of female electricians at the Company more than tripled compared to 2021. The initiative aims to generate income

and create opportunities such as social benefits, and in 2022, **five new classes were completed, and 110 women were graduated.**

## Eco-efficiency in buildings

Building eco-efficiency measures promoted by CPFL are focused on the implementation of systems and technologies aimed at the comfort of indoor environments, decentralized electricity generation and reduction of energy consumption, in new or existing developments.



# SGBH EVOLUTION

## ESG Committee

Among the specialist committees supporting the SMC's decisions, the ESG Committee was created in 2022, which will help define best practices in the Company's environmental, social and governance aspects. Comprised of **14 members**, the group will embrace the ESG evolution associated with business.

## New ESG Area/Coordination

Yet another team focused on ESG, this operational instance was created to lead SGBH's initiatives and strengthen long-term commitments.

## Greenhouse Gas (GHG) Inventory

SGBH now has information on its Scope 1, 2 and 3 GHG emissions for the years 2021 and 2022. Monitoring is the first step towards creating actions aimed at mitigating emissions.

[See more details on Responsibility Report 2022.](#) 🔗



1<sup>st</sup> meeting of the ESG Committee.



### Responsible Driver Conduct

Operational displacements were identified as the main risks which SGBH employees are exposed to, due to the distances covered and the facility access conditions. In order to mitigate this risk and encourage good vehicle driving practice, the company adopted a system to monitor its own and third-party vehicle fleet.

The tool monitors drivers and vehicles in factors such as speeding, improper curves and sudden acceleration or braking, with real-time alerts and management reports issued to managers. The system has already provided excellent results, and in 2022, there were no collisions due to speeding or driving misconduct.



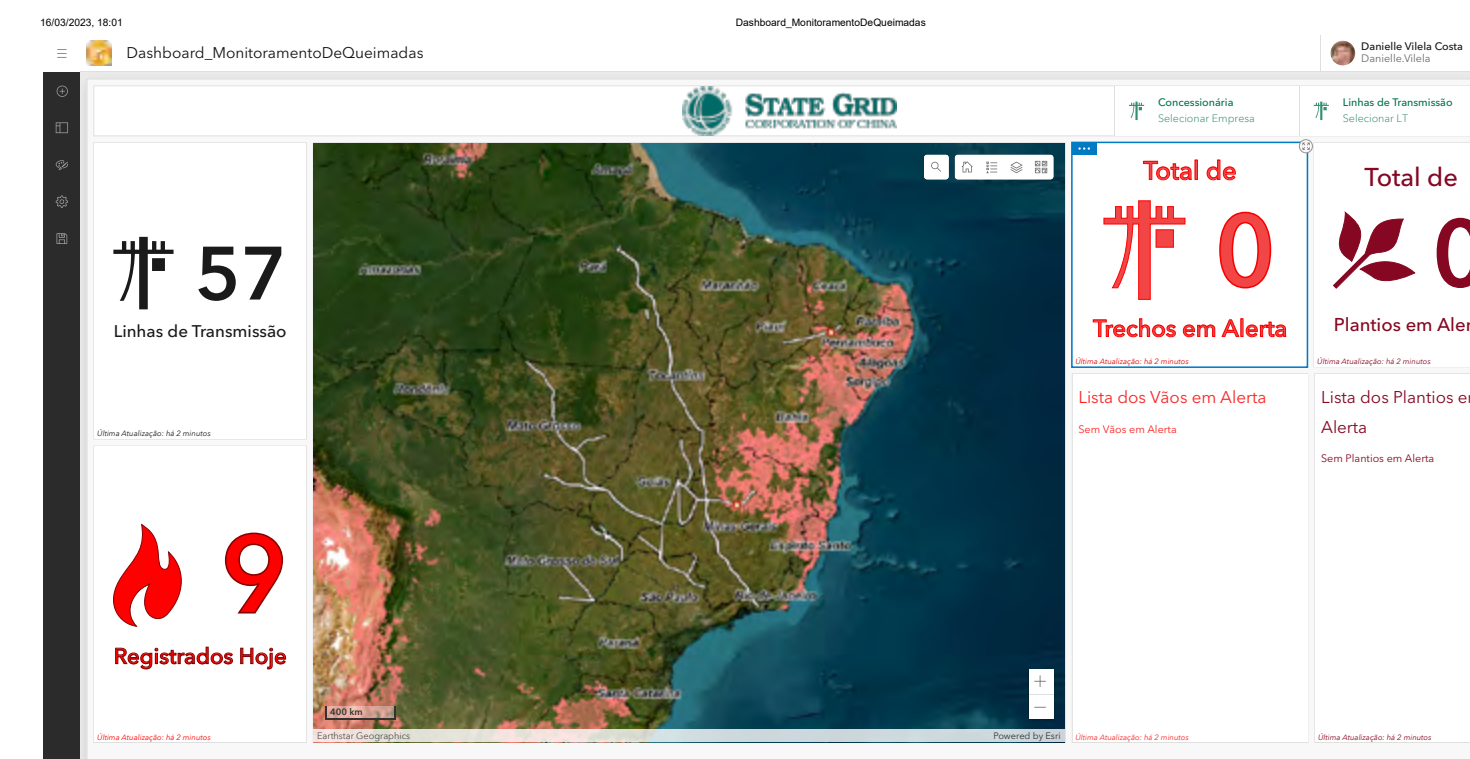
### Quality of Life Program

Thinking of all our teams, the company has a wellness program coordinated by the human resources area and supported by the health area. We provide nutrition, psychological support and sports programs.

### ISO 9001 Standard

An important achievement in 2022, SGBH's engineering department is now certified by the NBR ISO 9001 Standard, which led to the creation of a structure for the Company's Quality Management system.

In addition to defining requirements, procedures and work instructions specific to engineering projects and studies, the standard will be used as a guide in the coordinated integration of activities with other departments in the correct way, which brings high potential for improving the quality of services.



### Fire outbreak alert dashboard

Fires are another important risk category identified by the SGBH for their ability to critically affect transmission lines and endanger communities and ecosystems.

Thinking about mitigating this type of events, the Dashboard was created with the aim of integrating fire data and monitoring the infrastructure through a GIS (Geographic Information System) platform.

With an online interface, the system triggers alerts and e-mails to those responsible for the lines operation, and is accessed by the operation and maintenance (O&M) team, technicians and leaders of the Regional Offices and the Vice-Presidency of SGBH. These signals make it possible to promptly mobilize teams to respond to any emergencies around the transmission lines, thus preserving their functionality.



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# OPERATIONAL HEALTH AND SAFETY



People's safety is a non-negotiable value expressed in the commitments of the companies making up the SGCC. Our operations are guided by operational risk management, preservation of employees and communities health and environment conservation.

# OUR EMPLOYEES



**15,534**

male and female employees

## PERMANENT AND FULL-TIME EMPLOYEES

20%  
WOMEN  
3,058



80%  
MEN  
12,435

## TEMPORARY AND PART-TIME EMPLOYEES (TRAINEES)

51%  
WOMEN  
21



49%  
MEN  
20

## GENDER

20%  
WOMEN  
3,079



80%  
MEN  
12,455

## TRAINING

**826 thousand**

hours of training and capacity building



**91%**

of CPFL Energia employees received anti-corruption training in 2022.



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**842**

male and female employees

**HIRING**

Permanent

**97%**

Temporary

**3%**

**PERIOD**

Full-time

**98%**

Part-time

**2%**

**GENDER**



**TRAINING**

**43** hours/person

training on topics such as health and safety, ethics and compliance, prevention of moral and sexual harassment, fighting fraud and corruption, conflict of interests and diversity and inclusion.



# SAFETY IN OPERATIONS

## CPFL ENERGIA

In line with State Grid prerogatives, CPFL Energia seeks to ensure the physical safety of all its employees, outsourced employees, suppliers, customers and the community. In 2022, in the electricity generation segment, the monitoring of Small Hydroelectric Plants (SHPs) and Hydroelectric Generating Plants (HGSs) is done through the Dam Safety Management System (SGSB) - a digital platform developed by CPFL Energia, which uses cloud computing resources to monitor the structures' evolution in real time, in addition to data science and machine learning tools applied to data analysis of these assets' behavior. In terms of distribution, we highlight the Safer Afforestation (“Arborização + Segura”) program, carried out in partnership with the public authorities, in which CPFL identifies trees of species, sizes and phytosanitary conditions that pose a risk to the municipal electricity grid and replaces them with more suitable species.

Events	Employees	Outsourced
0	Deaths from work-related injuries or health problems	4
36	Notifiable accidents	99
0	Accident with serious consequences	5

**CPFL is part of the #MenteEmFoco (Mind in Focus) movement, part of the Global Compact Brazil Network.**



MOVIMENTO  
MENTE EM FOCO



An environment capable of contributing to the happiness and mental health of our employees is essential to guarantee the success and excellence of CPFL Group, since a team of healthy and motivated people is necessary for the connection with the true purpose and culture of the company.

## Life Guardian (“Guardião da Vida”) Program

Life Guardian (“Guardião da Vida”) Program campaigns promote the awareness of populations in concession areas, addressing the risks of the electrical grid and the main causes of accidents, such as flying kites close to the grid, civil construction work close to energized cables and so on. An innovation consists of hiring geolocation services, with push notifications on registered cell phones within a specific radius, allowing for much more assertive real-time communication. During 2022, we entered into a partnership with Climatempo (connected to weather forecast), which offers a series of safety tips to the population in accordance with climate events in the region, such as storms. In this way, we seek to bring greater knowledge to people and families surrounding our activities so that physical accidents are mitigated and avoided, making them guardians of life. Our people, in turn, are encouraged to act as Life Guardians inside and outside the Company, based on greater awareness on the importance of the safety issue. In 2022, over 23 million people were impacted by the initiative, which involved an investment of BRL 2.7 million. We will continue to act with the commitment to be a positive reference in safety for the populations and communities in which we operate, after all, this is a non-negotiable value for CPFL Energia.

# SGBH

SGBH adopts an Occupational Health and Safety (OHS) Management system that covers all employees in the Operation and Maintenance (O&M) and Corporate areas, with internal requirements in addition to the legal requirements adopted in order to provide agility in routine activities and readiness to respond to emergency events.

The company develops a strong safety culture, taking care of employees and disseminating the behavior of being responsible for their own and everyone's safety, as the zero rule in any activity carried out.

Within the safety culture, a few years ago, SGBH created the **Vital Award** to recognize employees who stood out as safety agents for their careful conduct or for proposing innovations that add safety to operational routines. The award as **The award as** is granted in the following categories: **Safe Behavior, Safe Working Conditions and Safety System.** Legal and internal requirements are adopted to promote agility in routine and readiness in response to emergency events.

Events	Employees
0	Deaths from work-related injuries or health problems
0	Cases of notifiable disease
4	Notifiable accidents
1	Accident with serious consequences
4	Employees involved in accidents

## Covid-19 preventive measures

The measures to combat the Covid-19 pandemic were strongly present in the employees' routine.

Since 2020, we have adopted the conduct of understanding the seriousness of the situation in the regions where we operate and ensuring the adoption of preventive measures. As a measure of flexibility, the hybrid work model was adopted for corporate teams.

The SGBH continued with the periodic testing of people in face-to-face activities and kept the Monitoring Committee active, which monitored the internal evolution of registered cases and the weekly evolution of contamination and hospital availability in the municipalities where the teams are allocated.



# SAFETY: A NON-NEGOTIABLE VALUE

**For SGCC, safety comes first and we transmit this value to all companies making up the group.**

We are committed to ensuring the physical safety of all our employees, suppliers, customers and the community in each of our activities.

For this purpose, we invest and innovate in projects and initiatives on a daily basis, so that the risks of the interaction of these stakeholders with the electrical grid is increasingly mitigated.

CPFL and SGBH actions are guided by Occupational Health and Safety Management Systems (OHSMS), with procedures for identifying and assessing risks in the different activities to be carried out by the teams.

Hazard survey, impact assessment, identification of preventive measures and preparation of action plans are carried out and recorded in a digital system, thus ensuring the traceability and mapping of field activities.

Meanwhile, our third parties have periodic audits to assess compliance with rules and processes.

At CPFL Energia, the year 2022 featured the largest investments in safety, with a focus on dam structures at generation plants, and in terms of distribution, on the renovation of equipment and uniforms, grid automation and safety, installation of automatic reclosers and remote-controlled switches.

At SGBH, the theme focuses on activities with greater risks for the teams. On order to mitigate them, it has initiatives aimed at responsible drivers conduct, which seeks to reduce accidents when traveling between operational bases and transmission lines. In addition, the safety issue is present in the daily lives and in the culture of professionals, reinforcing its importance through training and awareness.





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# VALUING COMMUNITIES AND THE ENVIRONMENT

SGCC Brazil companies make up the essential service of access to electricity by the population. In the various Brazilian biomes, territories and realities, we affirm the corporate guideline of yielding positive results and establishing a long-term relationship based on ethics and transparency.

# POPULATION SAFETY

Among CPFL's actions aimed at ensuring the population well-being, in 2022, efforts were dedicated to **monitoring and safety of existing hydroelectric plants**, with improvements made to increase operational safety, structures maintenance and employee training.

The action plan and contingency measures-triggered in case of an emergency, are previously defined with city halls and civil defenses of the municipalities where the reservoirs are located and the teams undergo training and simulations.

Organized by the civil defenses, simulations serve to inform the population of the necessary actions to evacuate the affected areas.

Additionally, CPFL continuously invests in the innovation of engineering projects, with a view to making the operation increasingly efficient and risk-free. The technicians team is responsible for data analysis and dam management, while the field team performs regular inspections and verification of high-precision instruments.

Among SGBH's actions, due to the long-term nature of power transmission activities, with concessions of around 30 years, the company

seeks, from the licensing stage, **to minimize the impact and interference on public and private areas.**

During the transmission lines implementation phase, the company identifies potential properties and assesses the feasibility of installation. In this process, it seeks to elaborate conciliatory agreements with the directly affected population for land regularization and indemnities definition. In the infrastructure operation and maintenance phase, we maintain an open dialogue and seek to preserve the relationship of mutual trust with the population, the appreciation of heritage and respect for local cultures and traditions.



## Open dialogue with affected communities

The manifestation channels made available by SGBH are intended to clarify doubts, make requests or register complaints and compliments.

On the other hand, awareness channels disseminate accident prevention information and warn about the risks of proximity to transmission lines.



## PUT OUT FIRE HAZARDS

Fires cause damage that goes beyond the serious lack of electricity supply. Fire damages crops, causes material losses, damages the environment, and leads to the death of people and animals. Protect yourself against this danger.

Forest fire prevention program (PPIF)  
Fire on the line, damage to the population!

## SAFE NETWORK



<https://previnaincendiosgbh.com.br>

# SOCIAL INVESTMENTS

We can make a difference in people's lives. To this end, we invest our own and incentive resources in projects that promote the society where we operate in terms of job and income, culture, sports and health. We integrate projects and actions that value the population and put communities in the role of protagonists, seeking to implement mechanisms for the long-term continuity of the initiatives promoted.

Instituto CPFL is the main social arm of CPFL Group, with actions that connect social, sporting and cultural projects. Through it, the company acts to positively impact Brazilian society, especially children and young people in social vulnerability situations.

## FIND OUT ABOUT SUPPORTED PROJECTS IN THE REPORTS



CPFL ENERGIA  
[access here.](#)



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[access here.](#)



Instituto CPFL has invested over

**BRL 34 million**

in social and cultural actions, directly impacting the lives of **719 thousand** people.

SGBH has invested over

**BRL 2.5 million**

culture, health, sport, education and infrastructure actions.

# SOCIAL PROJECTS



Tomorrow's Star (Craque do Amanhã).



Tide of Tomorrow (Maré do Amanhã).



Lazzarini Foundation (Fundação Lazzarini).



Little Prince Hospital (Hospital Pequeno Príncipe).



Hospital of Love (Hospital de Amor).



Athlon Institute (Instituto Athlon).

# ENVIRONMENTAL MANAGEMENT

CPFL

## CLIMATE CHANGES

Scope (thousand tCO<sub>2</sub>e):

E1: 127.5

E2: 250.0

E3: 314.0

Biogenic: 3,710.2

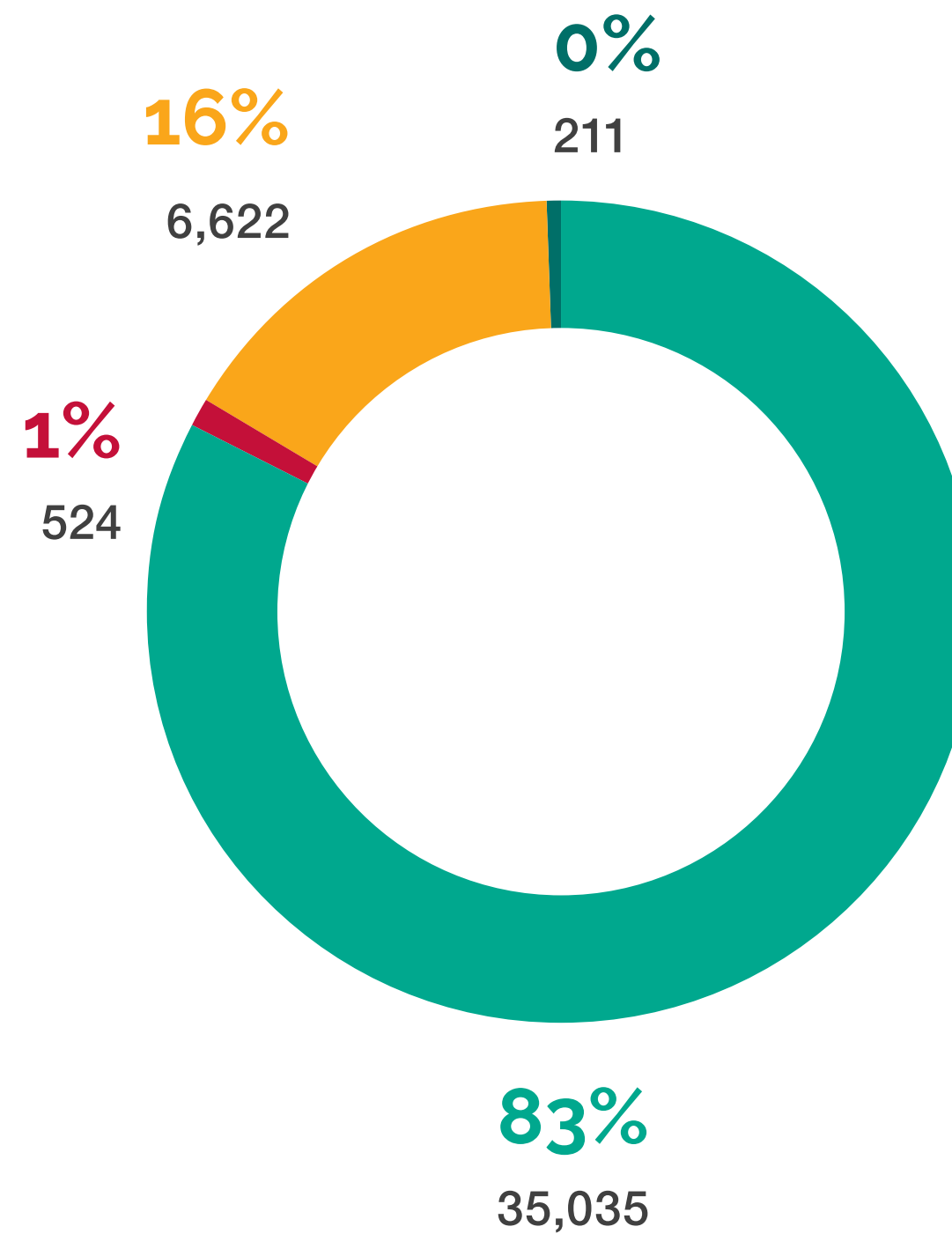
**691.5** thousand  
tCO<sub>2</sub>e in 2022

**57%** reduction  
vs 2021

## ENERGY

**42,392**  
thousand GJ

- Purchased electricity
- Non-renewable
- Renewable
- Consumption outside the company



## WATER CONSUMPTION

**4,530** million  
liters

## WASTE

**18,670** tons  
of waste

**15,488 t**  
non-hazardous

**3,182 t**  
hazardous

**6,779 t**  
disposal or discard

**11,891 t**  
diverted (reuse, recovery  
and recycling)

SGBH

## CLIMATE CHANGES

Scope (thousand tCO<sub>2</sub>e):

E1: 3.8

E2: 73.7

E3: 8.1

Biogênicas: 28.0

**85.7 thousand**

tCO<sub>2</sub>e in 2022

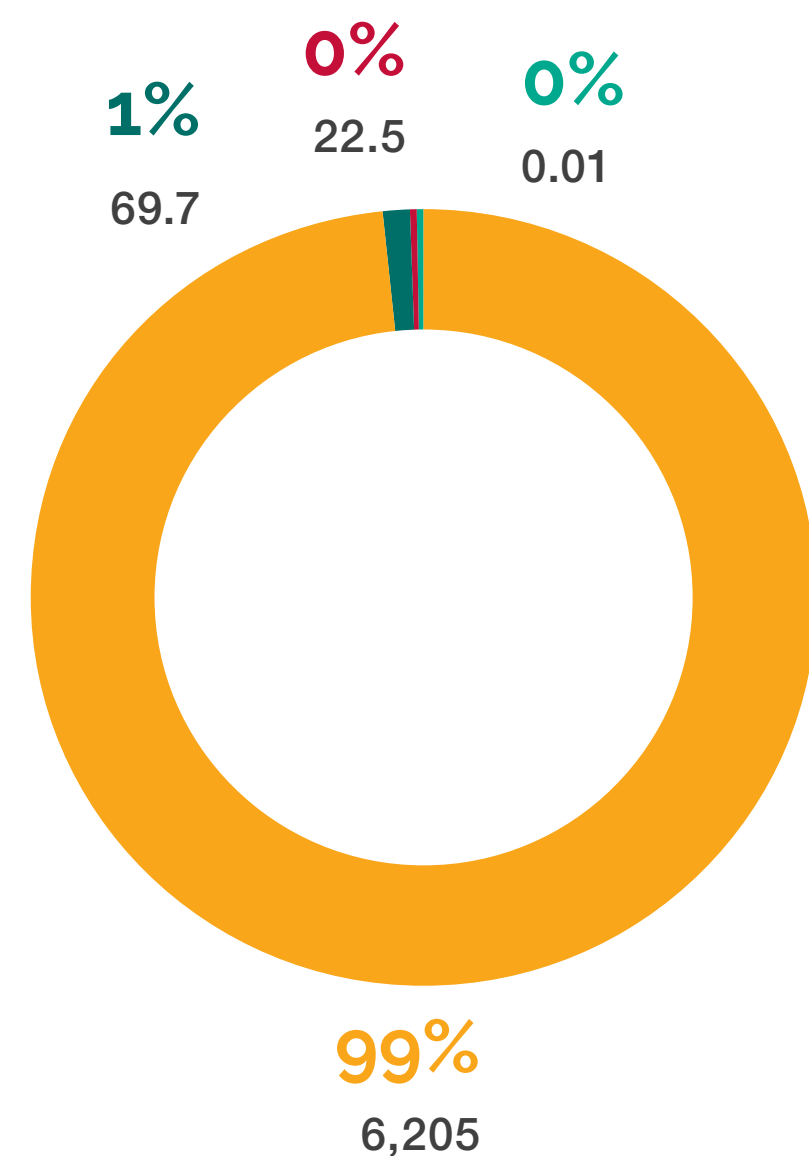
**61%** reduction

vs 2021

## ENERGY

**6.3 million GJ**

- Purchased electricity
- Non-renewable
- Renewable
- Consumption outside the company



## WATER CONSUMPTION

**24 million**

liters

## WASTE

**140 tons**

of waste

**135 t**

non-hazardous

**121 t**

disposal or discard

**5 t**

hazardous

**19 t**

for reuse, recovery  
and recycling

# ENVIRONMENTAL AND BIODIVERSITY CONSERVATION

**The installation, operation and maintenance of transmission lines implies interference in areas of different land uses. In order to mitigate negative impacts in the medium and long term, SGCC companies publicly define their commitment to restoring forests and maintaining areas until ecological processes can guarantee their succession without human intervention.**

At CPFL, managing biodiversity theme is of paramount importance, as it operates in the construction of electric power generation and transmission assets.

Even if such processes strictly follow environmental licensing rules and legislation, the reduction of biodiversity on a local scale ends up being unavoidable, which makes mitigation measures necessary.

Impacts on local biodiversity during the operating phase of assets are monitored, with regular reports to environmental agencies.

A relevant instrument is the constitution of the Excess Legal Reserve, which encourages the maintenance of forest remnants and biodiversity in addition to the mandatory percentage, a measure that strengthens areas of interest and contributes to the conservation of biodiversity and carbon stocks in existing forests.

In 2022, SGBH invested **BRL 14.56 million** in activities related to Environmental Licensing, and the main initiatives include:

- **Monitoring Program for Erosive Processes and Recovery of Degraded Areas** for the periodic monitoring and adoption of measures to correct, prevent and contain the emergence and evolution of erosion processes that may affect the surrounding population or pose a risk to the integrity and operation of the lines;
- **Social Communication Program**, with alerts to owners about the importance of periodic technical inspections, grounding assessment and sectioning of newly installed fences to avoid electrical shock events;

- **Forest Replacement Program** to recompose the vegetation of deforested areas with species native to the region.





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# INNOVATION

Innovation drives the energy sector and we, at SGCC, seek to lead the adoption of new technologies in order to always offer efficiency and quality in our services.

SGCC Companies develop R&D lines in the context of investments encouraged by the regulatory agency. In addition, the team's proposals and suggestions fuel innovation in operation and maintenance, with gains in efficiency in power transmission and employees safety.

## Customer-focused digitization and automation

In order to improve customer satisfaction, CPFL seeks to promote direct and agile communication for requesting new electricity connections, resolving doubts or solving problems.

By the end of 2022, 90% of CPFL Energia's services were carried out through digital channels, with an investment of more than BRL 50 million in the period.

## Big data for operational advances

In the pursuit of assertiveness and efficiency, the digitization structure has the Data Analytics tool to monitor the duration, efficiency of the operation and the consumer approval rate for each service.

From there, new action plans are put into practice in order to further enhance customer experience.

## “CPFL Inova” (CPFL Innovates)

In order to identify opportunities, in 2022, a complete mapping of scenarios and technologies that could anticipate the future of the electricity sector for the CPFL Group was carried out, based on five axes:

# 1

### Ultra Efficiency:

reach leaps in efficiency in various dimensions, such as network infrastructure and asset management, operational safety and workforce efficiency.

# 2

### End-to-End Digitization:

provide a better customer experience and competitiveness for the sector, in addition to greater monitoring of energy grids, telemetering and data management.

# 3

### Total Decentralization:

prepare for the scenario of customers independence on the network, which will increase the complexity of management and the demand for new solutions in products and services.

# 4

### Transformation of the electrical matrix:

prepare for technological advances linked to the diversification of energy sources in the national matrix.

# 5

### Urban electrification:

achieve a significant improvement in infrastructure and connectivity to meet the growing demand for energy in urban centers and the expansion of electric mobility.



Find out about the projects that made up the **2022 Innovation Week in CPFL Energia Annual Report Energia.**

## ISO 56002 – Innovation management

Yet another achievement that demonstrates its pioneering spirit: in 2022, SGBH was the first company in the electricity sector to adhere to ISO 56002 – Innovation Management standard. The decision was motivated by the objective of structuring innovation and technology advances in the company and assisting in decisions on the allocation of financial resources among ANEEL's R&D program candidate projects.

For the coming years, the standard will support acting in a structured way in project management, resource control and encouragement of innovations that bring effective improvements to services and greater quality in electricity supply to customers.

## ±800 kV live line maintenance

Something unprecedented in the Americas for the direct current ±800 kV voltage class, in 2022, there was a live line maintenance, that is, maintenance carried out while transmitting electricity, in a section of the Xingu Rio Transmissora de Energia (XRTE). The action took place in Unaí-MG and involved more than 20 professionals, in addition to the prior improvement of existing techniques, development of appropriate tools and certification of conductive clothing in accordance with the Brazilian Ministry of Labor rules. The success of the action brings benefits of increased operational capacity to SGBH and energy security to the National Integrated Electric Energy System.



# R&D INVESTMENTS

SGCC encourages innovation through the Research & Development (R&D) Program of the National Electric Energy Agency (ANEEL) and, organically, by accepting proposals and suggestions from the operational team. The culture of innovation is part of our attitude of pursuing pioneering spirit and the constant creation of new business fronts.

## CPFL

CPFL's R&D investments are directed to projects that transform the business towards the main trends in the electricity sector and offer operational excellence for sustainable, affordable and reliable energy to customers and communities. Additionally, we promote a culture of innovation, involving our internal professionals and the startup ecosystem. Currently, we encourage a pilot of **Battery Energy Storage** and the **Sustainable Campus** model. Find out more details on CPFL's RS22.

**BRL 65.5** million

### Battery Energy Storage

Through ANEEL's R&D Program, energy storage systems were installed in selected locations, such as a wind farm substation, distribution pole, residential condominium and commercial consumer.

### Sustainable Campus

We carried out this Sustainable Campus model project in partnership with the State University of Campinas (Universidade Estadual de Campinas - UNICAMP) from 2017 to 2022. By working as a "living laboratory", ten subprojects were developed to disseminate concepts and actions on the energy transition agenda, such as installation of photovoltaic plants and electronic devices and light fixtures in campus buildings.



## SGBH

SGBH adhered to the ISO standard for Innovation Management, which demonstrates the value of innovation for business. Among the outstanding projects already funded, we highlight the **Insertion of an Ultra High Tension Transmission System in Brazil** and the **LAST Portal**. Find out more details at SGBH's RS22.

**BRL 13.1** million

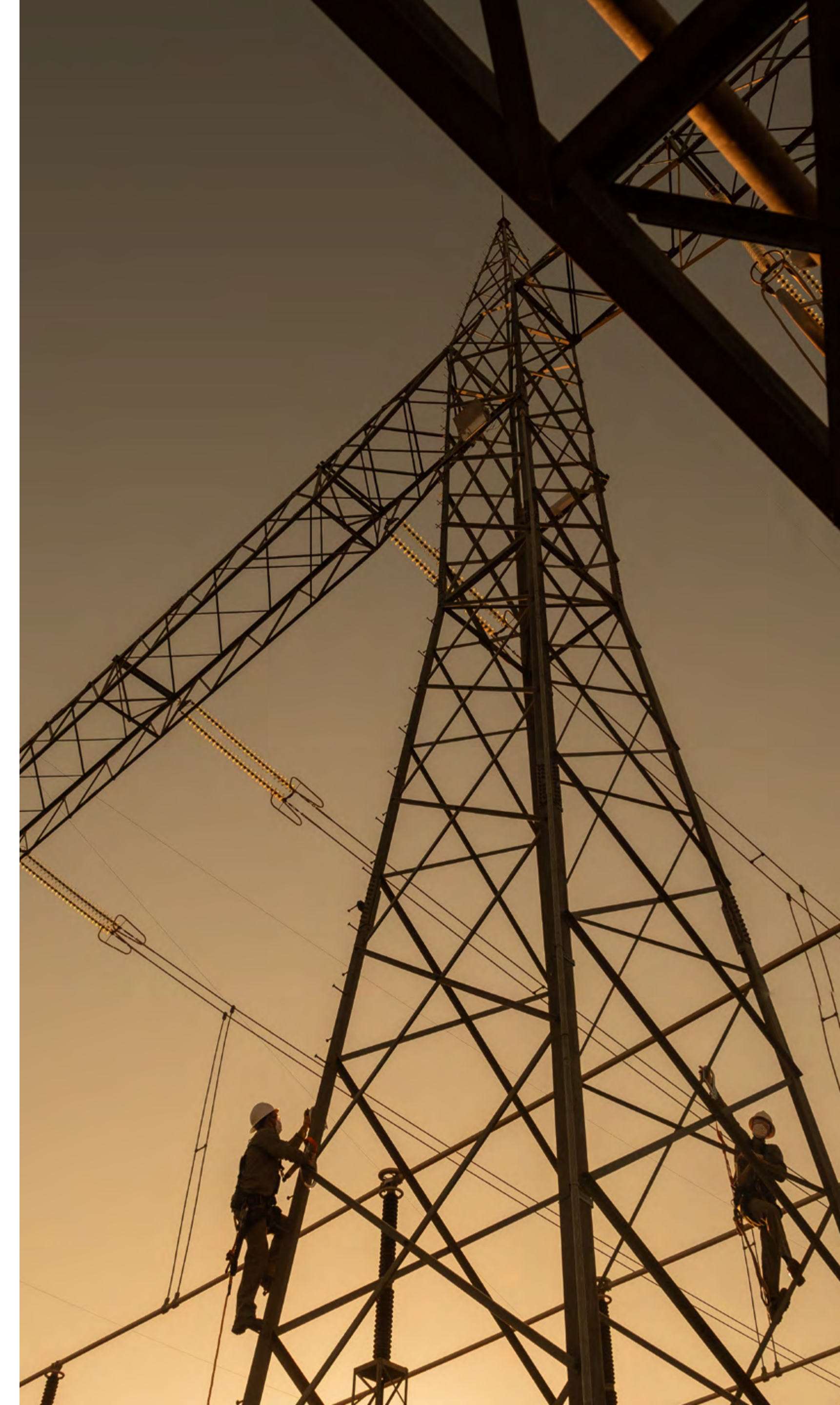
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### Insertion of an Ultra High Tension Transmission System in Brazil

The project aimed to verify the feasibility of inserting the Ultra High Voltage technology of 1,000 kV alternating current in the Brazilian Electrical System for the transmission of excess renewable energy generation (photovoltaic and wind) from the North and Northeast regions to the Southeast region. The research involved laboratory testing of transmission line insulation, electric field studies, overall system optimization analysis, screening and specification of equipment and components in line with international practice.

### LAST Portal

Consisting of two phases, this project developed a Reference Portal on Transmission Systems Environmental Licensing, with standardized and georeferenced information, bringing agility and transparency to the process and benefits in risk mitigation and social and environmental gains.





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# FINANCIAL PERFORMANCE



## CPFL ENERGIA RESULT

BRL million	Net operating revenue	General and Administrative Expenses	Net profit	Total Assets	Gross debt with third parties
<b>2022</b>	39,354	(18,070)	(11,543)	5,219	12,263
<b>2021</b>	39,210	(23,107)	(9,217)	4,854	9,160
Variation (%)	0.4%	-21.8%	25.2%	7.5%	33.9%

## SGBH RESULT

BRL million	Net operating revenue	General and Administrative Expenses	Net profit	Total Assets	Gross debt with third parties
<b>2022</b>	3,582.4	(173.9)	2,221.6	30,956.7	7,677.5
<b>2021*</b>	3,369.7	(95.8)	1,461.2	30,311.1	7,347.9
Variation (%)	+6%	+82%	+52%	+2%	+4%

\* Results updated in relation to the figures published in the 2021 report.

# MAP OF CONTRIBUTION TO THE SUSTAINABLE DEVELOPMENT GOALS (SDGs)

1. End poverty in all its forms everywhere.

- Our people. Page 39

4. Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.

- Social investments. Page 47
- Professional development. Page 41

6. Ensure availability and sustainable management of water and sanitation for all.

- Eco-efficiency: water, energy and waste. Page 49

8. Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all.

- Customer focus. Page 9
- Sustainable purchasing. Pages 35-37
- Opportunity for direct and indirect employment. Pages 39-43
- Sustainable economic growth. Page 58

10. Reduce inequality within and among countries.

- Social investments. Pages 47-48

12. Ensure sustainable consumption and production patterns.

- Environmental Licensing. Page 51
- Consumption of natural resources and impacts. Pages 49-50
- Waste and effluent management. Pages 49-50

15. Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss.

- Environmental and biodiversity conservation. page 51
- Environmental Licensing. Page 51

1 NO POVERTY



3 GOOD HEALTH AND WELL-BEING



4 QUALITY EDUCATION



5 GENDER EQUALITY



6 CLEAN WATER AND SANITATION



7 AFFORDABLE AND CLEAN ENERGY



8 DECENT WORK AND ECONOMIC GROWTH



9 INDUSTRY, INNOVATION AND INFRASTRUCTURE



10 REDUCED INEQUALITIES



11 SUSTAINABLE CITIES AND COMMUNITIES



12 RESPONSIBLE CONSUMPTION AND PRODUCTION



13 CLIMATE ACTION



15 LIFE ON LAND



16 PEACE AND JUSTICE STRONG INSTITUTIONS



3. Ensure healthy lives and promote well-being for all at all ages.

- Operational safety. Page 43
- Employees' health. pages 41-42
- Community health and safety. Pages 45-46

5. Achieve gender equality and empower all women and girls.

Our people. Page 39

7. Ensure access to affordable, reliable, sustainable and modern energy for all.

- Focus on Renewables. Pages 12, 18 and 35
- Climate Change. Pages 20 and 36

9. Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation.

- Our business. Page 8
- Safety: a non-negotiable value. Page 43
- Technologies and continuous innovation. Pages 52-56
- Infrastructure. Pages 12-18
- Operation and Maintenance. Pages 12-18

11. Make cities and human settlements inclusive, safe, resilient and sustainable.

- Focus on Renewables. Pages 12, 18 and 35
- Climate Change. Pages 20 and 36
- Biodiversity. Page 51
- Population safety. Page 45
- Dialogue with the community. Page 46

13. Take urgent action to combat climate change and its impacts

- Focus on Renewables. Pages 12, 18 and 35
- Climate Change. Pages 20 and 36

16. Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels.

- Corporate governance. Pages 25-29
- Ethics, transparency and compliance. Page 30
- Social investments. Pages 47-48
- Professional development. Pages 39-40

# CREDITS

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SGBH and CPFL Energia file

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