

# Eletrobras Chesf 2022 Annual Report

Executive Summary



Eletrobras  
Chesf

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# FOREWORD

You are reading the Executive Summary of the [2022 Annual Report](#) published by Eletrobras Chesf, an Eletrobras Group company. The report has been developed in accordance with international standards on sustainability reporting and in line with the practices adopted by the Eletrobras Group parent company. It presents crucial information about our company and our key projects, initiatives, and results during the period from January 1 to December 31, 2022.

View of the São Francisco River in Penedo, Alagoas





# 2022 AT A GLANCE



## Economic

Net income:

**R\$ 1.7 billion**

10 substation expansions:

**+ 2,400** MVA

transformer capacity

**+ 52.82** km of TLs

Record operational availability:

**99.97%**

for TLs and transformers

**R\$ 1.6 billion**

for renewal and expansion of  
company infrastructure

**Fulfillment of the final conditions  
precedent of the concession  
agreements, allowing the company  
to participate once again in energy  
transmission auctions**



## Environmental

**98.7%**

of installed capacity certified by  
Instituto Totum for issuance of  
I-RECs

In 2022, after a 12-year hiatus,  
with the flood season came the  
resurgence of the Paulo Afonso  
waterfall, a series of falls that can  
reach a height of 80 meters in the  
tourist area of lakes and canyons  
on the São Francisco River, enabling  
**tourist visits to be resumed**

**Voluntary Reforestation Program,**  
in line with SDG 15 and Eletrobras  
Group strategies



## Social

Highest ever average hours of  
training per employee:

**62.40**

We put

**R\$ 2.4  
million**

into **funds for Children and  
Adolescents (R\$ 1.2 m) and Older  
People (R\$ 1.2 m)**

**In 2022, there were no cases of  
violations of indigenous people's  
rights, including employees and  
communities impacted by the  
company's operations**



## Governance

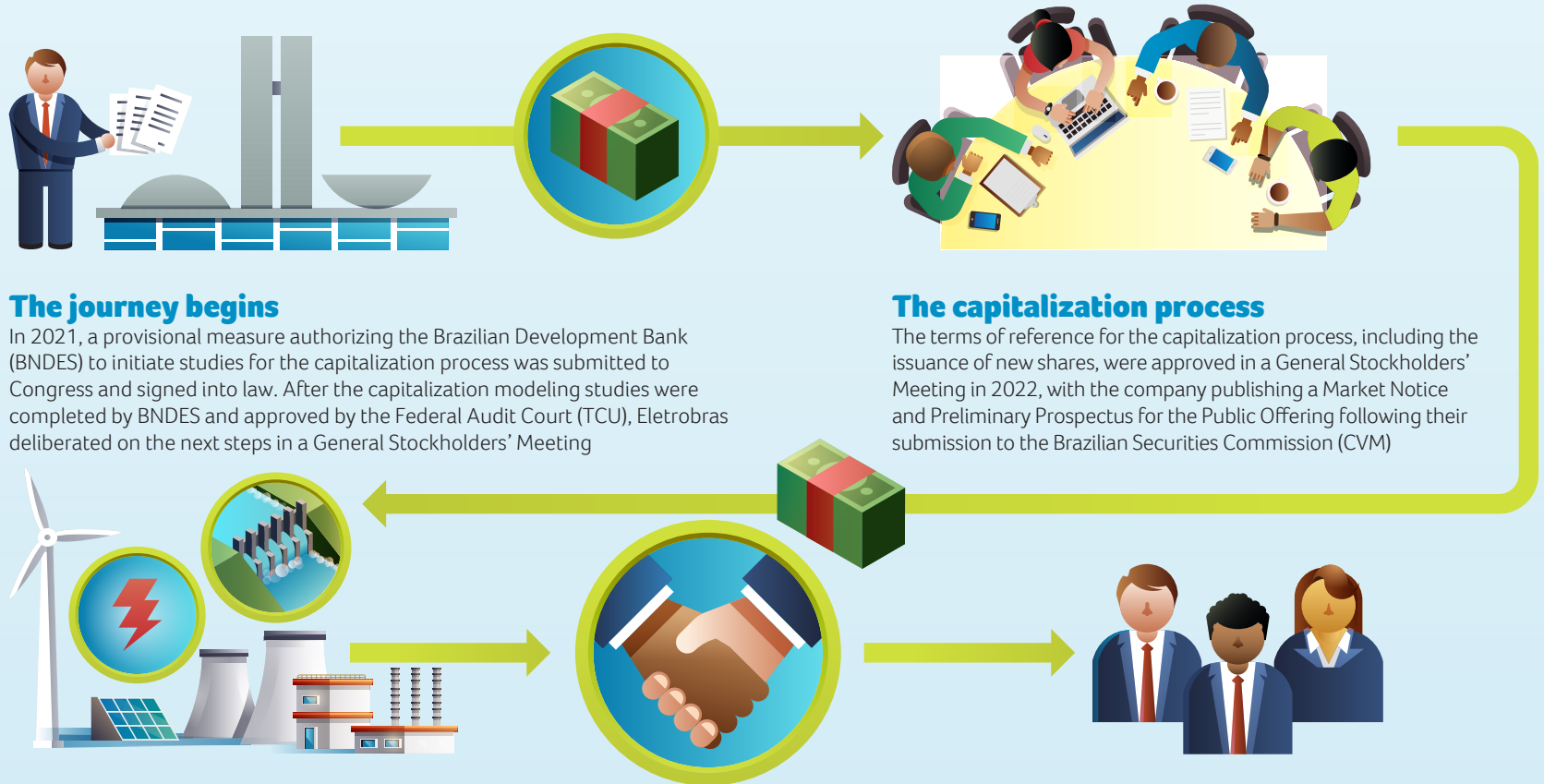
**Our New Code of Conduct broadens  
our perspective on ethics and  
integrity, and touches on ESG  
aspects in each topic**

Improvement in the overall  
Corporate Sustainability Index (ISE  
B3) rating:

**79.40**

against 75.69 in 2021

# CAPITALIZATION



## The journey begins

In 2021, a provisional measure authorizing the Brazilian Development Bank (BNDES) to initiate studies for the capitalization process was submitted to Congress and signed into law. After the capitalization modeling studies were completed by BNDES and approved by the Federal Audit Court (TCU), Eletrobras deliberated on the next steps in a General Stockholders' Meeting

## The capitalization process

The terms of reference for the capitalization process, including the issuance of new shares, were approved in a General Stockholders' Meeting in 2022, with the company publishing a Market Notice and Preliminary Prospectus for the Public Offering following their submission to the Brazilian Securities Commission (CVM)

### Eletrobras becomes one of the largest corporations in Brazil

The government acquired no new shares in Eletrobras' Public Offering, resulting in its equity interest in the company being reduced from 61.69% to 36.99%. As a consequence, the company transitioned from a state-owned enterprise to a corporation, with no single majority controlling entity.

Following the capitalization process, Eletrobras signed new concession agreements with the federal government for its 22 hydroelectric power plants, meeting all the conditions precedent for the privatization process. The agreed-upon conditions provide for a phased transition out of the quota system, a landmark shift to electricity sales on the open market

### ENBPar

Following the privatization, some government assets and programs will be operated by ENBPar. Under the supervision of the Ministry of Mining and Energy, ENBPar will incrementally take over activities that cannot be privatized, such as Itaipu Binacional and the Angra dos Reis nuclear power plants. It will also oversee initiatives like the *Luz para Todos* ("Light for All") and *Mais Luz para a Amazônia* ("More Light for the Amazon") programs, PROINFA contracts, and PROCEL initiatives

### Corporate management

Now organized as a corporation, Eletrobras has launched a comprehensive organizational redesign including a management framework that centralizes strategic and institutional functions at the holding company while decentralizing operations functions among its subsidiaries (Eletrobras Eletronorte, Eletrobras Chesf, Eletrobras Furnas, Eletrobras CGT Eletrosul and Eletrobras Eletropar)

# ABOUT ELETROBRAS CHESF

Companhia Hidro Elétrica do São Francisco (Eletrobras Chesf) is a publicly traded company, majority-owned by Centrais Elétricas Brasileiras S.A. (Eletrobras). Its main activities are concerned with electricity generation, transmission and trading.

Headquartered in Recife (PE), Eletrobras Chesf was Brazil's very first public electricity company. As of 2022, following the capitalization and consequent privatization process, the Eletrobras Group no longer operates under the regulations of the Government-Owned Corporations Act (Law no. 13,303/16) and Decree No. 8,945/16. Our Bylaws, available [here](#), have since been revised to reflect this change.

**Eletrobras Chesf is a  
publicly traded company,  
majority-owned by  
Eletrobras.**



The Sobradinho Dam (BA)



## WHAT'S CHANGING

### Reformulated Bylaws, Policies and Standards

As of 2022, following the capitalization and consequent privatization process, the Eletrobras Group no longer operates under the regulations of the Government-Owned Corporations Act (Law no. 13,303/16) and Decree No. 8,945/16. The Eletrobras Bylaws, available [here](#), have since been revised to reflect this change.

# Eletrobras Chesf at a Glance



## CORPORATE HYDROPOWER PLANTS

- |                 |                               |           |
|-----------------|-------------------------------|-----------|
| 1 Boa Esperança | 4 Apolônio Sales              | 7 Pedra   |
| 2 Sobradinho    | 5 Paulo Afonso I, II, III, IV | 8 Funil   |
| 3 Luiz Gonzaga  | 6 Xingó                       | 9 Curemas |

## CORPORATE WIND FARMS

- |                        |                                 |
|------------------------|---------------------------------|
| 1 Casa Nova II, III, A | 2 Pindaí Cluster (11 windfarms) |
|------------------------|---------------------------------|

— TRANSMISSION LINES

## ELETROBRAS CHESF OPERATES

### 12 CORPORATE HYDROELECTRIC PLANTS:

- 8 on the São Francisco River
- 2 on the Contas River (BA)
- 1 on the Parnaíba River (PI)
- 1 on the Piancó and Aguiá rivers (PI)

**10,262.33 MW**  
generation capacity

### 14 WIND FARMS:

**198.1 MW**  
generation capacity

### TOTAL INSTALLED CAPACITY:

**10,460.43 MW**  
corporate  
**2,642.94 MW**  
equivalent owned via Special  
Purpose Entities (SPEs)

### TOTAL LENGTH OF TRANSMISSION LINES (TL) ACROSS ALL VOLTAGE LEVELS:

**21,999.32 km**  
(corporate) and  
**1,810.78 km**  
equivalent (SPEs)

### TOTAL OPERATIONAL TRANSFORMATION CAPACITY:

**79,193.67 MVA**  
(corporate)  
**138**  
power substations\* and

**12**  
step-up substations

\* Includes directly owned substations (120) and substations of other transmission companies in which Chesf has assets (18).

### OPERATIONAL TRANSFORMER CAPACITY – SPEs:

**4,083.7 MVA**  
equivalent

# Eletrobras Group MATERIALITY ASSESSMENT





## Materiality review

Eletrobras completed a materiality review in 2022 to ensure that the most important issues for the business were included in the tracking, management, and reporting of disclosures in the 2022 Annual Report, for both the holding company and subsidiaries.

All topics from the materiality matrix compiled in 2021 were reassessed on social and environmental impact, in accordance with internationally recognized best practices. The same material topics were maintained, with some being renamed.

## Relevant topics

In addition to the list of 11 material topics, there are five relevant topics that are strategic for the Group but may not apply to all companies.

|   | Material Topics 2022                                   | 2021                                |
|---|--|-------------------------------------|
|    | Ethics, integrity and compliance                       | Governance, integrity and ethics    |
|    | Community engagement                                   | Communities                         |
|    | Worker health, safety and well-being                   | Health, safety and well-being       |
|    | Climate change   | Climate change                      |
|    | Biodiversity and ecosystem services                    | Biodiversity and ecosystem services |
|    | Energy transition and energy efficiency                | Energy transition                   |
|    | Attracting, developing and retaining employees         | People management and development   |
|    | Water and effluent management                          | Water                               |
|    | Human rights   | Human rights                        |
|    | Risk and emergency management                          | Risk management                     |
|   | Innovation and technology                              | Technology and innovation           |
|   | Relevant Topics 2022                                   | Relevant Topics 2021                |
|  | Waste management                                       | Waste                               |
|  | Service quality and safety                             | Not listed                          |
|  | Customer relationships                                 | Customers                           |
|  | Supply chain management                                | Suppliers                           |
|  | Government relations and advocacy                      | Regulatory environment              |
|  | Specific to Eletronuclear and not included in the list | Nuclear safety                      |
|  | Specific to Eletronuclear and not included in the list | Radioactive waste                   |



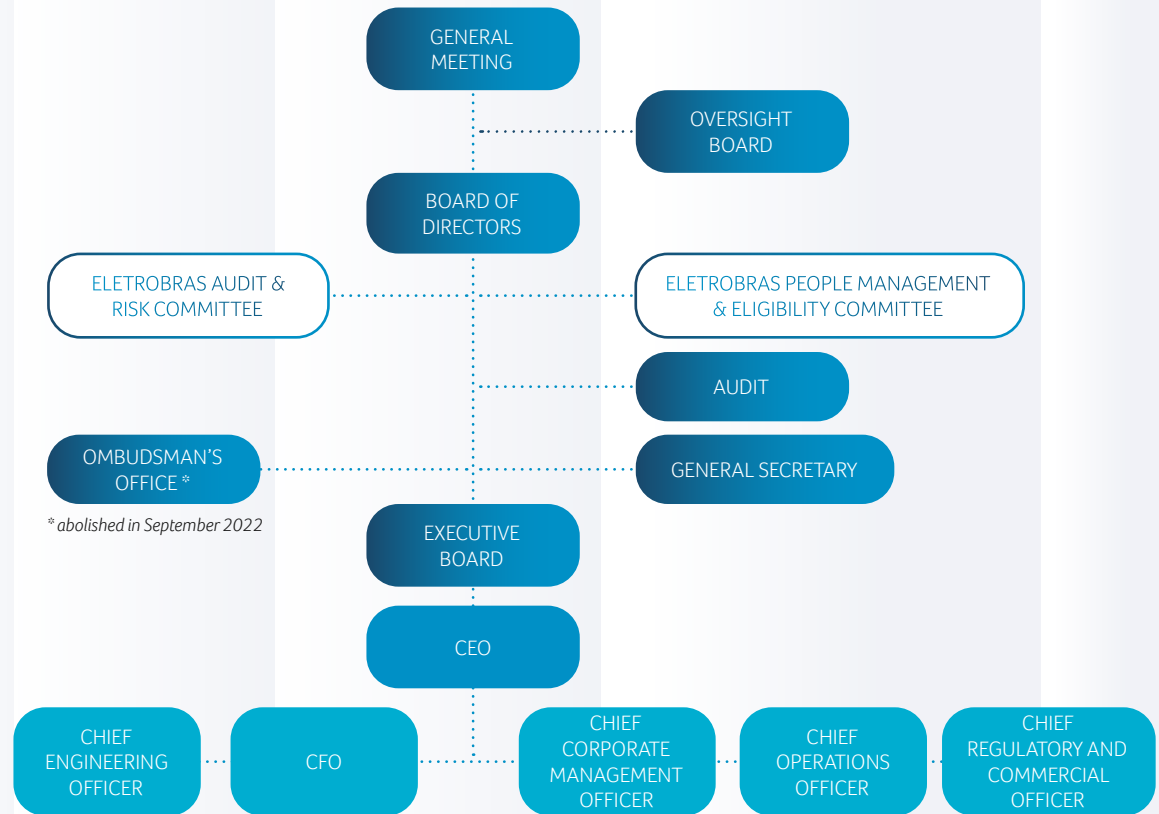
# GOVERNANCE

Eletrobras Chesf's corporate governance structure is set out in our Bylaws and in the charters of our governance bodies. It is comprised of the General Meeting, the Board of Directors, the Executive Board and the Oversight Board, and bases its actions on the principles of equality, accountability, transparency and corporate social responsibility.

Based on the Bylaws, the Annual General Meeting attributes roles and responsibilities to the Board of Directors, Executive Board, subordinate officers and Oversight Board. The Board of Directors delegates powers to the Executive Board and to each director, by means of decisions recorded in the meeting minutes. The Executive Board, in turn, delegates authority to managers and employees, by means of decisions recorded in the meeting minutes and internal rules.

Eletrobras Chesf works in conjunction with the Eletrobras Group Integrity (Compliance) Program. The program aims to advance a management approach focused on preventing and mitigating the impacts from misconduct, noncompliance or unlawful acts in business processes such as procurement, sponsorship, donations, collaborations, and selecting partners and appointing board members for SPEs.

## Eletrobras Chesf's management structure



## A leaner organizational structure

Following the privatization of the Eletrobras Group, we launched an organizational redesign of the parent company and each of our subsidiaries. The primary goal is to create a greater sense of unity in the design of our organizational structure and corporate strategy.

The new structure was implemented in December 2022, with corporate functions centralized in the parent company and operational functions—including operation and maintenance, trading and financial functions—devolved to each subsidiary.



# STRATEGIC PLANNING

Eletrobras Chesf formulates its strategic planning based on the its corporate identity (mission, vision and values) and implements it through the development and monitoring of initiatives and projects that enable and leverage its strategic objectives. To guide its operations, the company builds plans with different time horizons—long, medium and short term—always aligned with the parent company's definitions.

The guiding instrument of the company's long-term planning, common to all Eletrobras companies, is the parent company's 2020-2035 Strategic Plan, which establishes guidelines for business development and for maintaining the mission and achieving the projected vision (access the document [here](#)). Based on this, the Eletrobras Chesf Strategic Plan is prepared, with a ten-year time horizon.

For the medium and short term, we prepare a Business and Management Plan (PNG), a specific set of projects to be developed over a five-year horizon with annual reviews, and which is created from the [Business and Management Master Plan of the parent company](#).

Based on these plans, Eletrobras establishes a Business Performance Goals Contract (CMDE) together with its subsidiaries, in which key economic-financial, operational, management,

governance and socio-environmental aspects are monitored. These instruments are institutionalized after approval by a meeting of the Executive Board and deliberation by the Board of Directors.

The company's planning is composed of the:

- Eletrobras Chesf Strategic Map;
- PNG
- CMDE
- Annual Variable Compensation Program (RVA) approved by the Executive Board and the company's Board of Directors, and periodically monitored by these bodies and the Oversight Committee.

In 2022, Eletrobras Chesf's business planning was monitored monthly through meetings of the Executive Board and Board of Directors, with the objective of evaluating the business performance of the PNG. Weekly meetings were also held with the Executive Board to monitor strategic indicators, as well as quarterly meetings of the Strategic Evaluation Meeting (RAE) to monitor business performance in relation to the company's Strategic Plan.

## WHAT'S CHANGING

### Strategic Plan to be Revamped

Following the privatization, we initiated a complete overhaul of our corporate strategy to align it with the new chapter we have embarked on as a company. Under this scenario, the parent company is developing a new Strategic Plan, which includes cross-cutting ESG aspects.

With the new definitions of the Strategic Plan, plans for the subsidiaries will be developed using best market practices as inputs.

Eletrobras Chesf's  
long-term planning is  
guided by the parent  
company's 2020-2035  
Strategic Plan.

# Strategic post-CAPITALIZATION challenges

## Preparing the company for a new era

### Transition WG

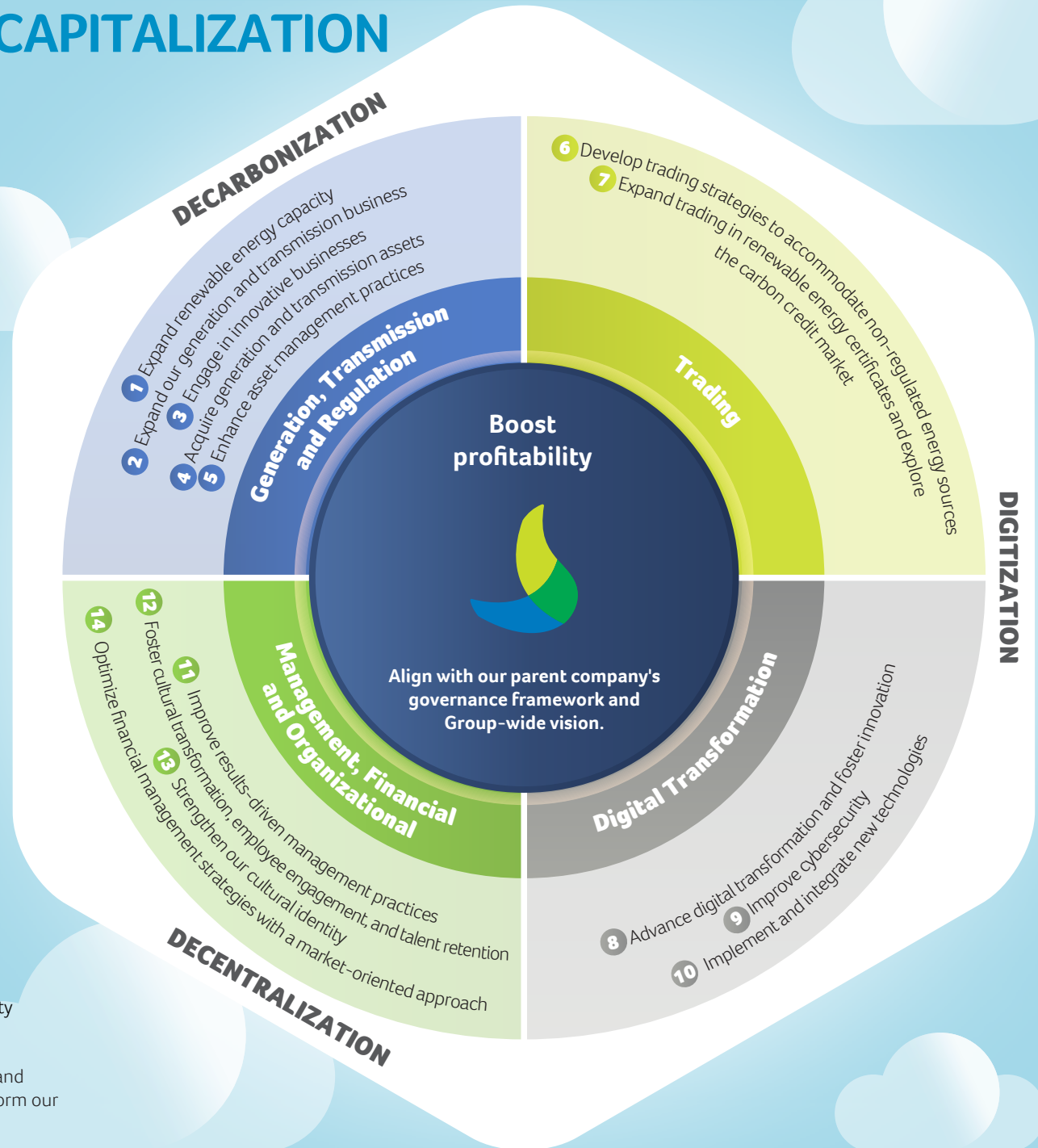
Eletrabras Chesf has established a Transition Working Group (WG) to proactively position the company for sustainable growth in an increasingly competitive market following the capitalization process. This multi-stakeholder WG has identified and proposed optimal solutions to drive necessary changes in the company's processes, organizational structure, and strategy. The objective is to maximize post-privatization results by adopting a new business model that operates outside the quota system

### Strategic challenges

The WG developed a transition plan revolving around four pillars:

- Governance, risk management, sustainability and financial performance (ESG)
- New investments and trading
- Improving process and cost efficiency
- Establishing and meeting service and quality requirements

Eletrabras Chesf has explored market trends and identified 14 strategic challenges that will inform our transformation efforts

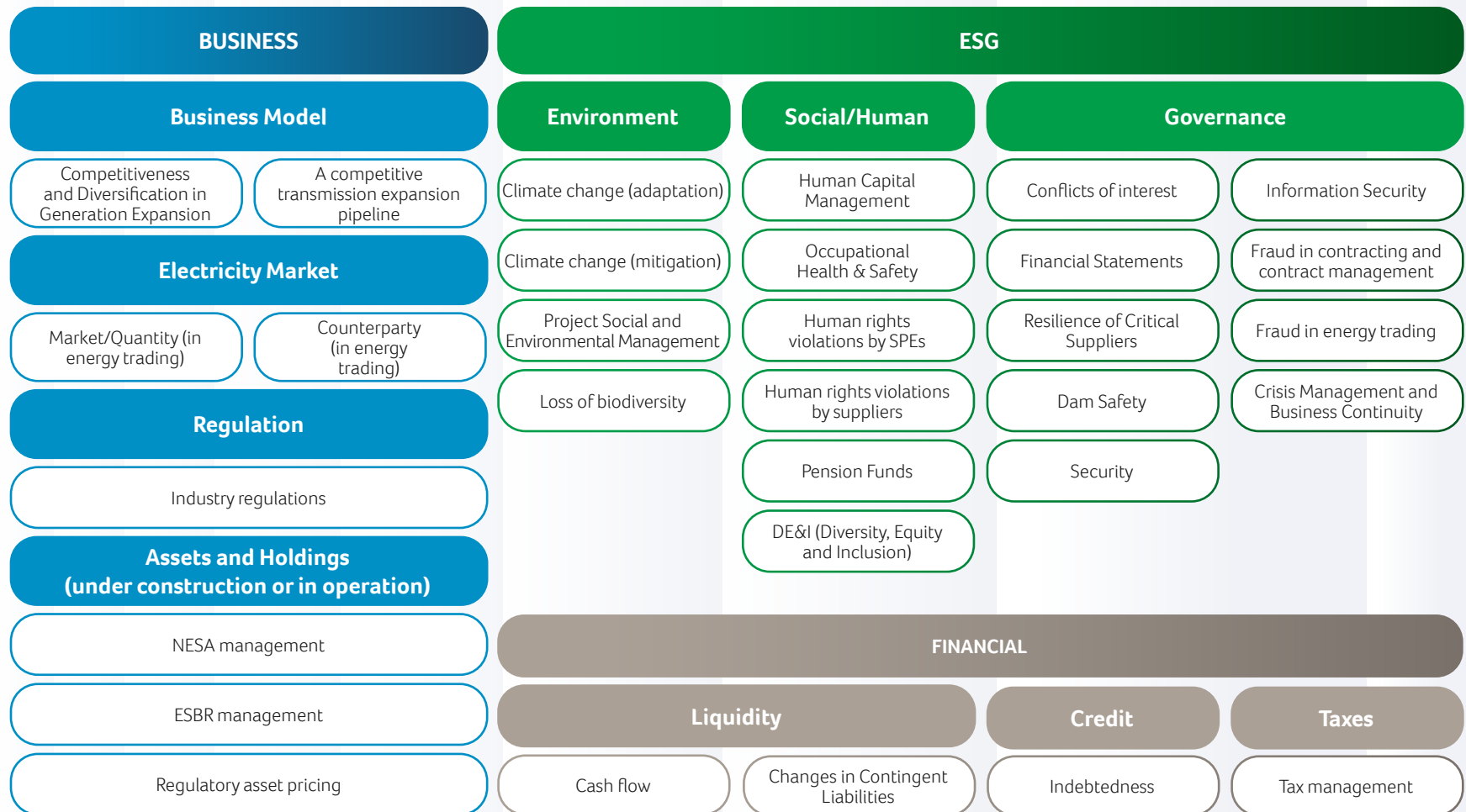


# Risk management

In January 2023, we approved a new version of the corporate risk matrix, based on the model approved by the parent company in December 2022, which covers three pillars: Business, ESG

and Financial. It comprises 31 risk events, 29 of which are corporate and applicable to Eletrobras Chesf and another two that were inserted locally by a decision from our directorate.

## New risk matrix





# Voluntary Commitments

Based on strategic policy and planning instruments, we make external voluntary commitments, always in line with the company's ESG pillars. In 2022 Eletrobras Chesf supported the following initiatives:

- the United Nations (UN) Global Compact
- Gender & Racial Equity Program
- UN Women's Empowerment Principles
- Pledge on Addressing Sexual Violence against Children and Adolescents
- Eletrobras Pledge on Climate Change
- Open Letter – Private Sector Support for Carbon Pricing in Brazil, developed by Business for Climate Initiative (IEC)
- SDGs
- Open letter – Business for Human Rights
- Brazilian Business Commitment to Water Security
- Brazilian Business Commitment to Biodiversity
- *Na Mão Certa Program*, Childhood Brasil
- Global Compact 100% Transparency Movement
- Business Pact for integrity and combating corruption (Instituto Ethos)

A floating solar platform on a dam reservoir in Sobradinho (BA)



## 2030 Agenda and SDGs

Eletrobras Chesf prioritizes initiatives and projects that support the 2030 Agenda and SDGs. This initiative reflects the commitments established by the company in its Code of Conduct. Eletrobras Group's 2020-2035 Strategic Plan and in the 2022-2026 Business and Management Plan (PNG), we defined nine SDGs as priorities and whose performance is reported in this report. Our priority SDGs are:



# PROSPERITY

Eletrobras Chesf presented a positive economic performance in 2022, with most of its indicators and targets obtaining values above expectations. With these results, the company consolidates a movement of stabilization and economic-financial balance that began in 2016, with constant value generation for its stakeholders.

The stronger results presented by Eletrobras Chesf are the result of a broad reorganization of its cost and expense structure and advocacy at ANEEL for revenue recognition based on positive operating performance.

## Highlights



### PROFIT

**R\$ 1.7 billion**



### DIVIDENDS AND INTEREST ON EQUITY

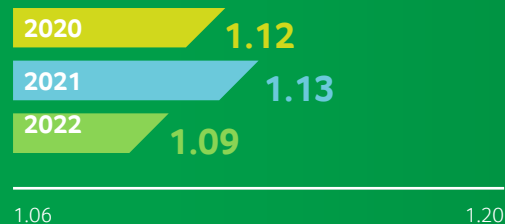
**R\$ 1.39 billion**



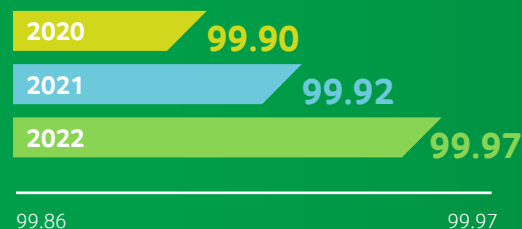
### NET OPERATING REVENUE

**R\$ 7.87 billion**

## Average Generation Availability



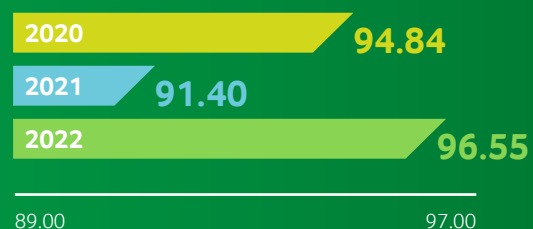
## Average Transformer Availability



## Transmission Line Operational Availability



## System Robustness Rating



## Average plant availability factor by energy source (%)\*

| Primary electricity source | 2020   | 2021   | 2022   |
|----------------------------|--------|--------|--------|
| Hydro                      | 91.95% | 91.99% | 93.37% |
| Wind                       | 99.08% | 98.39% | 96.80% |

\* Includes own assets (which may include corporate and shared properties) and SPEs.

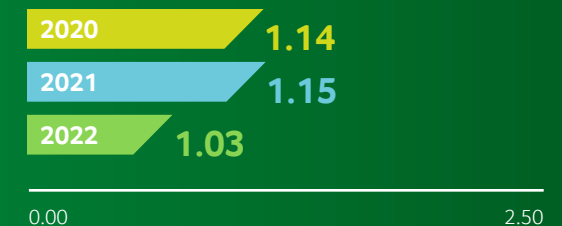
\* The historical data for 2020 and 2021 is based on the new methodology used from 2022 onwards.

## Average plant availability and outage by source \* – 2022

|   | Hydro     | Wind     |
|---|-----------|----------|
| Number of hours of planned outage (hours) | 17,204.04 | 417.42   |
| Number of hours of forced outage (hours)  | 9,672.91  | 2,829.60 |
| Average availability in generation (%)    | 95.49%    | 99.18%   |

\* Own assets (which may include corporate and shared properties).

## Variable Component (PV)



In these charts, the higher the figure the better, except that for the Variable Component chart the reverse applies.

# INNOVATION & TECHNOLOGY



The link between corporate and open innovation



## Innovation Hub

Capturing synergies with energy startups to address pain points

## Cooperation Agreements

Developing agile, scalable solutions through collaborations with universities, science and technology institutes, startups, and companies, aiming to achieve exceptional productivity and excellence in knowledge-intensive processes

## Eletrobras Innovation Awards

Harnessing ideas from employees and rewarding them for innovative solutions implemented within the company.  
14 available categories

## Training innovation champions

Expanding our innovation ecosystem by training employees to become internal catalysts and agents of innovation, adding value to the company's processes



## Key Areas of R&D+I Investment in 2022



Total R&D+I investment  
**R\$ 26,542,760.00**



Alternative sources  
**R\$ 18,151,870.00**



New materials and components  
**R\$ 6,484,120.00**



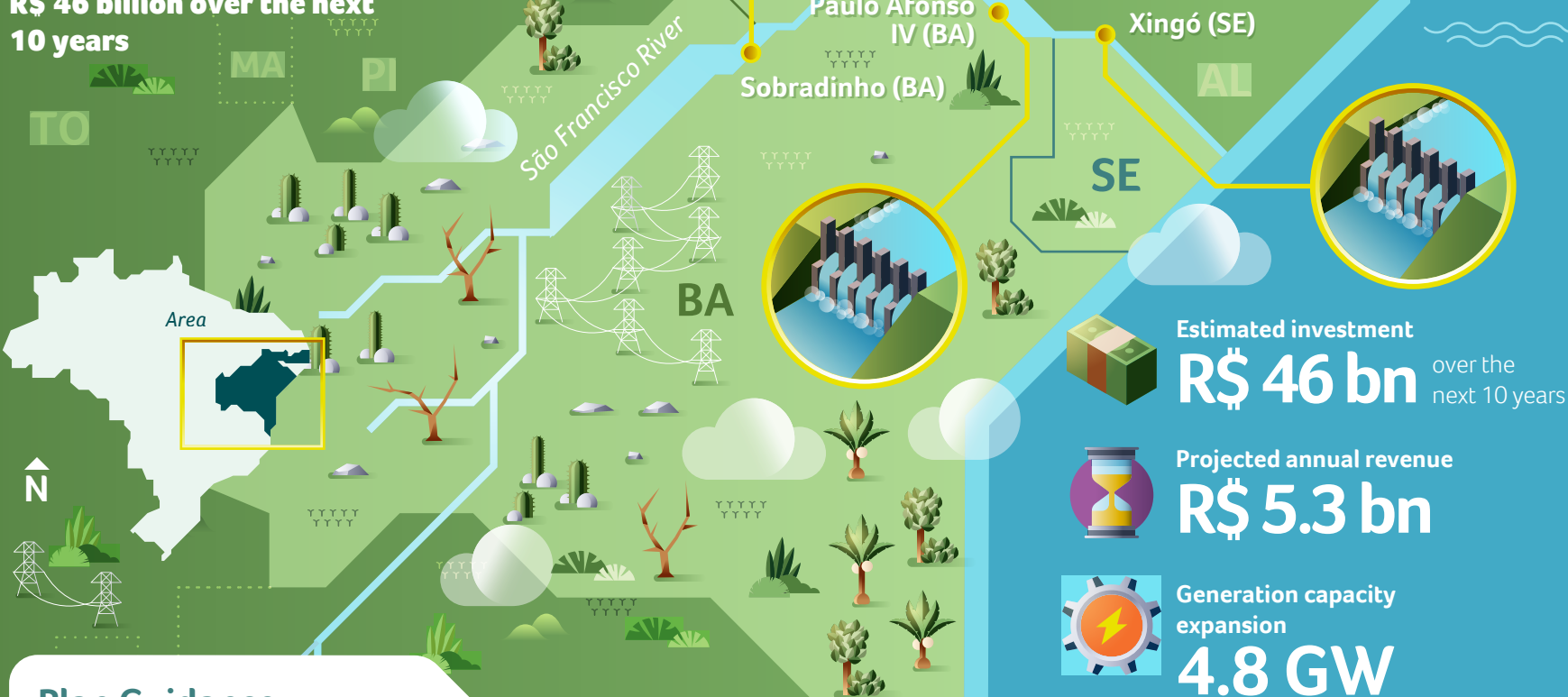
Safety  
**R\$ 1,278,400.00**



Power system operation  
**R\$ 628,370.00**

# 10 YEAR EXPANSION PLAN

Eletrobras Chesf's expansion pipeline comprises a set of **generation and transmission projects with planned investments in excess of R\$ 46 billion over the next 10 years**



## Plan Guidance



Our generation capacity expansion pipeline currently comprises 32 projects across multiple sources at different stages, totaling 4.8 GW of installed capacity. **Total pipeline investment is approximately R\$ 28 billion, with estimated annual revenue of R\$ 3.5 billion.**



Chesf's transmission expansion pipeline includes the acquisition of assets under construction or operation, authorizations for expansions, upgrades, improvements, and participation in transmission auctions. **Transmission investments are estimated at R\$ 18 billion, with an expected annual revenue of R\$ 1.8 billion.**



We have ongoing upgrade projects at the Sobradinho and Paulo Afonso IV dams, and as part of our pumped storage upgrade program spanning the Luiz Gonzaga, Apolônio Sales, Xingó and Paulo Afonso I, II, III and IV hydroelectric plants.



# Suppliers

Eletrobras' privatization has significantly impacted our procurement processes. With privatization, the corporation is no longer required to adhere to legislation that governs the procurement processes of state-owned companies, especially Law 8 666/1993 and Law 13 303/2016, which deal with public administration bidding processes and contracts.

This means that Eletrobras companies have begun contracting based on their own rules and criteria, complying with Brazilian legislation and best practices on a global level. Since the capitalization process, we have procured goods and services exclusively from vendors registered on the Supplier Space Portal. A new procurement regulation is being prepared, with implementation expected for the beginning of 2023.

## Contracted suppliers

|  |                 |
|--|-----------------|
| Contracted suppliers                   | 259             |
| Total value contracted through bidding | R\$ 1.4 billion |
| Estimated number of suppliers          | 1,474           |

## Proportion of spending on locally-based suppliers

|   | 2020             | 2021             | 2022             |
|---|------------------|------------------|------------------|
| Supplier spend (R\$)                              | 1,527,608,491.64 | 3,084,166,521.54 | 1,500,023,532.30 |
| Spend on local suppliers (R\$)                    | 593,581,584.17   | 775,263,129.01   | 759,492,202.97   |
| Percentage of budget spent on local suppliers (%) | 38.86            | 25.14            | 50.63            |

\* We consider local suppliers to be those located in the Northeast region of Brazil, where Eletrobras Chesf is located.

\*\* Suppliers linked to Eletrobras Chesf's CNPJ are considered.



Close-up view of transmission lines at Sobradinho (BA)

# Customer relationships

Eletrobras Chesf has two types of customers and beneficiaries by type of business:

## 1. TRADING

- Free consumers: electricity consumers with the right to freely negotiate the purchase and sale of energy, based on their migration to the free market. Free consumers can choose their energy supplier, as well as the supply conditions.
- Distributors: companies responsible for the delivery and distribution of energy to final consumers.
- Traders: entities responsible for supplying electricity to consumers.

## 2. TRANSMISSION

- Generators (self-producers, Independent Power Producers and Distributed Generation): individuals or companies or companies in a consortium that receive a concession or authorization to produce electricity for their exclusive use and may, upon authorization from ANEEL, sell their excess output.
- Transmitters: concession-holders or equivalent agents delegated by the Regulatory Authority to provide public power transmission services.

- Distributors: companies responsible for the delivery and distribution of energy to final consumers.
- Consumers: public or private individuals or companies, legally represented, that request the supply of energy or use of the electrical system.

As of 2023, Eletrobras Chesf will be able to expand its customer portfolio, initiating a more proactive relationship with the free market. This is due to the new concession contracts signed by the company with Aneel, a direct result of the company's privatization.



Transmission lines in Paulo Afonso (BA)

# PEOPLE

Eletrobras Chesf has 2,694 full-time employees, all in the Northeast region of Brazil. Currently, the company has a People Management Policy which strengthens a culture of development, productivity, recognition and retention of people, leadership focused on sustainability, promotion of safety and the well-being of professionals, respect for diversity, promotion of equality, equal opportunities and inclusion.

## WHAT'S CHANGING

### People management will undergo a cultural transformation

The capitalization of Eletrobras will significantly change the company's people management, especially in terms of attracting and retaining talent based on skills, results and diversity. The hiring process, previously conducted only through public tenders, will now be executed in accordance with the strategic plans and operational needs defined by the company's top management.

## Employment Contracts

### By region

NORTHEAST  
**2,694**



### By gender



MEN

**2,228**  
women



WOMEN

**466**  
women

**2,694**  
TOTAL<sup>1</sup>

### Employment type



FULL TIME

**426**  
women



PART TIME

**40**  
women

**1,775**  
men

**453**  
men

**2,201**  
TOTAL

**493**  
TOTAL

1. The total headcount includes the following: employees, requisitioned employees, rehired employees and political appointees. Not including seconded employees, those on unpaid leave, interns, and young apprentices. Following capitalization we have no more employees assigned to or requested from government bodies.

2. All Eletrobras Chesf employees have indefinite employment contracts. The reported data considers employees corresponding to the base on 12/31/2022.

3. As agreed with our parent company, employees on secondment are deemed to be employed under an indefinite contract, pursuant to Decree No. 9144 (August 22, 2017).

4. As established by our parent company, an employee working a minimum of 200 hours per month is deemed to be a full-time employee. And below 200 hours per month, a part-time employee.

5. All Eletrobras Chesf employees are located in the Northeast region.



## Voluntary Severance Program

In October 2022 Eletrobras launched the first Voluntary Severance Program (VSP) for the new, post-privatization company. This VSP is available to employees who are retired by the social security system, or who are eligible for retirement by April 30, 2023 according to age and length of contribution to the National Institute for Social Security (INSS).

At Eletrobras Chesf, there are 968 employees eligible for the plan. The starting commitment of the VSP has been submitted to the Superior Labor Court in the 2022/2024 Collective Labor Agreement (CLA), and offers conditions that are better than those in the previous 2019 plan. In all, 912 people will leave the company. In exceptional cases, at the discretion of Eletrobras, employees may leave after this.

Within the VSP, the company offered all its employees lectures on the following themes: longevity; family and social relations; and diversified activities – leisure, culture, education, volunteering and work, and a life planning. In addition, it provided psychosocial support through a network of psychologists and social workers from Eletrobras companies who actively listened to and referred people to other public or private services, when necessary.

Workshops focused on the well-being of employees were also offered, involving the themes of conscious eating, financial life and mental health.

## Cultural transformation

The cultural transformation at Eletrobras companies intensified in 2022, with the capitalization of the company. The mindset of a private organization focused on attracting and developing talent supported by a meritocratic work logic, became the central subject of our workshops and training.

### PERFORMANCE MANAGEMENT SYSTEM

In 2022, Eletrobras Chesf made advances to its Performance Management System (PMS), aligning the goals of all areas of the company with those established by the parent company.

As part of the deployment of this initiative, team and individual performance goals were defined, connecting the results to be achieved with the Eletrobras Chesf PNG and the Business & Management Master Plan of the parent company, reinforcing their strategic alignment.



Seminar for Eletrobras Chesf and CEPEL employees: mindset of a private organization to conduct business



## Human Rights

Eletrobras Chesf's Department of Public Relations, Social Responsibility and Sponsorship plans, proposes, executes and monitors actions related to human rights for its stakeholders, with an emphasis on employees, suppliers and communities in the company's areas of operation. To guide the company's actions, Eletrobras Chesf also has a Code of Conduct, Business Sustainability and Social Responsibility policies and a Conduct Guide for Suppliers.

The company is a signatory to the UN Global Compact, Guiding Principles on Business and Human Rights and Women's Empowerment Principles, the Network to Combat Sexual Violence against Children and Adolescents in Pernambuco and Childhood Brazil's Na Mão Certa Program.

Internally, broad awareness is promoted on the subject for employees through introduction courses to Human Rights, Diversity, Moral and Sexual Harassment. In addition, the PDNG 2022-2026 includes an indicator for training 100% of employees in human rights.

The company also maintains a Human Rights Working Group (GT DH) that promotes internalization of the theme among its stakeholders.



## Worker Health, Safety and Well-being

Eletrobras Chesf strives to ensure compliance with all current legal requirements regarding health and safety at work, especially the Regulatory Norms (NRs) of the Ministry of Labor and Social Security.

In addition to the Occupational Health and Safety Policy, there are regulations that determine rules on the acquisition, use, storage and conservation of personal protective equipment (PPE) and collective protection equipment (CPE) – both for employees and for contractors.

As a reinforcement, Eletrobras Chesf holds safety induction meetings before beginning contracts with suppliers. The company also promotes periodic security inspections and audits in these contracts.

To ensure proper management of the issue, Eletrobras Chesf has implemented two main initiatives:

- **The Prevenir+ project**, which aims to implement Occupational Health and Safety Management Systems (OHSMS) at its 11 electricity generation plants with the objective of obtaining ISO 45001:2018 certification, in addition to serving as a mechanism for monitoring Occupational Health and Safety (OHS) actions and to support the granting and maintenance of Fire Department Inspection Reports (AVCB). In 2022, the OHSMS was implemented at the Boa Esperança plant, in accordance with the ISO 45001:2018 standard; the OHS management systems at the Paulo Afonso IV and Xingó plants were recertified, also in compliance with this standard; and physical adaptations were made at all hydroelectric power plants, totaling an investment of approximately R\$ 13 million;
- **Energy, Health and Safety Program**, which guides all Eletrobras companies and was developed in partnership with the DuPont consulting firm. This program aims to work on an OHS culture for all the companies' processes, covering all employees, outsourced workers and visitors who work in the companies' facilities.

## Relations with Communities

The relationship with communities by Eletrobras companies is guided by Environmental, Social Responsibility, Communication and Engagement and Dam Safety policies.

The company has three programs aimed at social transformation, improving the quality of life in communities and preserving the environment:

- Actions aimed at agricultural producers and students for the development of riparian vegetation around the São Francisco lakes in the states of Pernambuco, Sergipe, Alagoas and Bahia. The objective is to encourage the socioenvironmental sustainability of rural communities through research, development and transfer of technologies and training, seeking to generate income and preserve the environment;
- Conservation and Development Around Protected Areas in the Caatinga: Communities in the Buffer Zone of the Sete Passagens State Park (BA), which aims to promote the integration of an environmental protection area in the semi-arid region of Bahia for eight rural communities located in its surroundings. The objective of the action is to define an environmental plan through a Participatory Rural Diagnosis aimed at the conservation and management of local water resources;



Project for agricultural producers in Poço Redondo (SE)

- Sowing Resilience in the Chapada Diamantina Territory (BA), which refers to the implementation of agroecological centers for environmental restoration with regenerative biological agriculture in 21 rural communities, eight of which are quilombos.



Working with communities: social transformation, improving quality of life and preserving the environment

In addition to these projects, we actively participated in the Eletrobras Group's cultural and sports programs in 2022. Eletrobras Chesf supported six projects and provided total funding of R\$ 2.79 million.



# PLANET

Sound, responsible environmental management is essential to the continuity of our operations and our value creation model, as our business is directly reliant on natural resources. Recognizing this, we seek to reconcile our business activities with environmental protection at each stage of our projects, going beyond minimum legal requirements whenever possible.

**We have committed to expand our emissions abatement, climate adaptation and climate mitigation efforts.**

## GHG Emissions

| Scope        | 2020           | 2021           | 2022          |
|--------------|----------------|----------------|---------------|
| Scope 1      | 12,360         | 8,607          | 10,407        |
| Scope 2      | 101,412        | 260,438        | 77,681        |
| Scope 3      | 240            | 293            | 1,216         |
| <b>Total</b> | <b>114,012</b> | <b>269,337</b> | <b>89,304</b> |

## Climate change

At Eletrobras Chesf, we are committed to increasingly minimizing negative impacts and advancing the transition to a new development model based on a low-carbon economy.

As part of this commitment, we manage greenhouse gas (GHG) emissions, identify and assess exposure to climate change risks, invest in renewable energy projects, and sponsor energy transition research. Under the Eletrobras Group Environmental Policy, we have committed to expand our emissions abatement, climate adaptation and climate mitigation efforts.

In the area of climate change, our most significant efforts in 2022 include our Solar Microgrid and Net Zero programs, which are advancing initiatives to reduce, offset and abate emissions in our operations, progressively decarbonizing the business.

Cachoeiras em Paulo Afonso (BA): we perform streamflow modeling to assess the impacts from climate change



# NET ZERO

Eletrobras Chesf's Energy transition efforts are governed by the Eletrobras Group Energy Efficiency Policy. We are operating on two complementary fronts to implement best practices in energy savings: our Solar Microgrid and Net Zero programs.



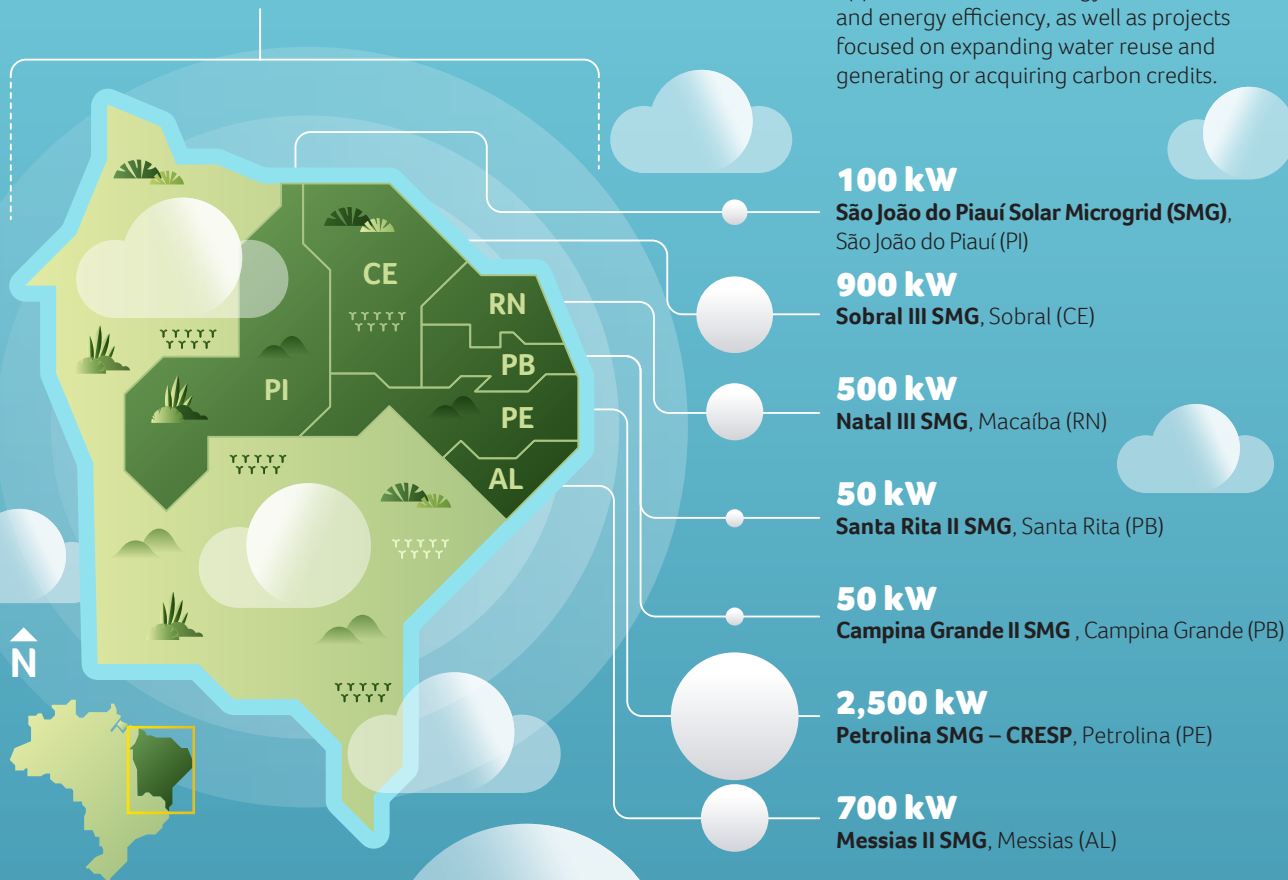
## Solar Microgrids

Chesf's Solar Microgrids program will offset the electricity consumed at our office and operational facilities through seven new distributed generation microgrids in six states, with a total installed capacity of 4,800 kW.



## Net Zero

Our Net Zero program aims to mitigate and offset the greenhouse gas (GHG) emissions from our operations. A review of our GHG inventory identified ways to offset our emissions or generate carbon credits. This initiative is capturing opportunities in the energy transition and energy efficiency, as well as projects focused on expanding water reuse and generating or acquiring carbon credits.



## Learn about some of these initiatives below:



Replacement of emergency diesel generator sets with battery storage systems – **project under consideration**



Replacement of vehicle fleets with more efficient models, including electric vehicles – **project in progress (pilot)**



Replacement of plumbing fixtures with more water-efficient models – **project in progress**



Construction of more efficient wastewater treatment systems – **project in progress**



Implementation of a voluntary reforestation project for emission offsetting – **project under consideration**



Sourcing renewable electricity from the free market – **project under consideration**



Offsets using I-RECs – **project implemented**



# Waste

## Nonhazardous waste disposal (t)

| Type of disposal | 2022        |                           |              |
|------------------|-------------|---------------------------|--------------|
|                  | Generation  | Administrative activities | Transmission |
| Recycling        | 0.18        | 2,570.20                  | 0.00         |
| Composting       | 0.00        | 55.80                     | 0.00         |
| Landfilling      | na          | 627.72                    | na           |
| <b>Total</b>     | <b>0.18</b> | <b>3,253.72</b>           | <b>0.00</b>  |

## Hazardous waste disposal (t)

| Type of disposal    | 2022          |                           |               |
|---------------------|---------------|---------------------------|---------------|
|                     | Generation    | Administrative activities | Transmission  |
| Industrial landfill | 16.39         | 0.77                      | 85.12         |
| Co-processing       | 0.00          | 1.04                      | 0.00          |
| Reverse logistics   | 0.00          | 24.55                     | 0.00          |
| Recycling           | 517.36        | 5.56                      | 57.96         |
| <b>Total</b>        | <b>533.75</b> | <b>31.92</b>              | <b>143.08</b> |



Water stewardship is a crucial part of our approach to environmental management

# Water

Water is our primary environmental asset, in particular the São Francisco River, where most of our hydroelectric plants are located. We are committed to efficiently managing water resources and effluents, ensuring water is available in sufficient quantity and quality for its multiple applications.

Our parent company's Water Resource Policy guides our water stewardship practices, and is based on two core concepts: water is a shared, limited and precious resource; and water is an essential natural resource.

Water consumption data is derived from direct measurements at our operational facilities that are compiled and submitted to the Facilities and Regional Management (SGR) department, which consolidates the information and generates water use performance indicators and disclosures. In 2022 our total water consumption was 30.58 ML.

**Eletrobras Chesf assesses  
and monitors water quality  
in the reservoirs and  
adjacent stretches of the  
rivers under our concession.**

## Water withdrawal, by source (ML)

|  |                       |
|--|-----------------------|
| <b>Administrative activities</b>   | <b>598.22</b>         |
| Groundwater  | 22.17                 |
| Rainwater  | 448.48                |
| Utility water  | 87.77                 |
| <b>Situations where there is no hydrometer<br/>(estimated consumption)</b> | <b>39.80</b>          |
| Hydropower   | 215,461,123.20        |
| Surface (turbined water)   | 215,461,123.20        |
| <b>Total water withdrawals <sup>1</sup></b>                                | <b>215,461,272.95</b> |
| <b>Total water discharged<sup>2</sup></b>                                  | <b>215,461,211.16</b> |
| <b>Total water consumed<sup>3</sup></b>                                    | <b>21.99</b>          |

## Turbined water (hydroelectric plants in water-stressed areas)

**510,555,744.00**

<sup>1</sup> Consumption estimates where no water meter is present are included in the total water withdrawals figures, but are not included in the calculations of water discharge and consumption.

<sup>2</sup> Total water discharge is the sum of effluents, used water, and unused water released to surface water, groundwater, seawater, or a third party, for which the organization has no further use, over the course of the reporting period.

<sup>3</sup> Total water consumed is the sum of all water that has been withdrawn and incorporated into products, used in the production of crops or generated as waste, has evaporated, transpired, or been consumed by humans or livestock, or is polluted to the point of being unusable by other users, and is therefore not released back to surface water, groundwater, seawater, or a third party over the course of the reporting period.





# LONG-STANDING STEWARDSHIP OF BIODIVERSITY

Our track record with biodiversity conservation begins in 1988 with our leadership of the Power Sector Environment Committee (COMASE)



## Our targets

Our goals focus on four pillars

-  Zero loss of vegetated and/or forested area caused by business activities
-  Include new threatened species in conservation programs
-  Expand biomass carbon stocks (t)
-  Increased investment in projects supporting biodiversity management

## Our protection network



We support protected areas, Indian reservations and archaeological sites across Brazil's main biomes.



Protected areas managed by Eletrobras Group companies, created to contribute to regional biodiversity conservation, scientific research and environmental education.



Public Calls for Social and Environmental Projects to support biodiversity conservation and value creation initiatives in the areas where we operate.



<sup>1</sup> Corporate Sustainability Disclosures System

<sup>2</sup> Brazilian Business Council for Sustainable Development



# CREDITS

## OVERALL COORDINATION

Corporate Sustainability Management  
Department, Head of Business Strategy and  
Equity Management

## WRITING AND EDITING

grupo report – rpt.sustentabilidade

### Management

Beatriz Miranda

### GRI Consulting

Luciana Oliveira  
Camila Freire

### Writing and editing

Alisson Coutinho  
Daniela Kapitzky  
Patrícia Berton

### Translation

América Latina Traduções – latamtran.com.br

### Design

Graphic design: Sergio Almeida  
Layout: Rubem Hojo  
Infographics: Luciano Veronezi, Henrique Assale  
and Cássio Bittencourt

## CONTACT US VIA OUR COMMUNICATIONS CHANNELS:

**Website:** [www.chesf.com.br](http://www.chesf.com.br)

**Facebook:** [www.facebook.com/ChesfOficial](https://www.facebook.com/ChesfOficial)

**YouTube:** [www.youtube.com/user/tvchesf](https://www.youtube.com/user/tvchesf)

**Twitter:** [www.twitter.com/chesfoficial](https://www.twitter.com/chesfoficial)

**Instagram:** [@chesfoficial](https://www.instagram.com/chesfoficial)

**LinkedIn:** <https://br.linkedin.com/company/chesf>

Channel for communications relating to this  
Report, Sustainability and ESG:  
[sustentabilidade@chesf.com.br](mailto:sustentabilidade@chesf.com.br).

Click [here](#) to view the complete 2022 Eletrobras  
Chesf Annual Report.

