

# Eletrobras
# SASB Report 2022





Eletrobras

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2022 SASB REPORT


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Eletrobras (Centrais Elétricas Brasileiras S/A) is the leading generation and transmission company in Brazil and one of the largest in South America, with a direct workforce of 10,020 employees. In 2022, as we celebrated our 60th anniversary, we underwent a capitalization process that diluted the Federal Government's ownership interest in Eletrobras, effectively privatizing the company. This was followed by an extensive organizational transformation.

We closed the year with a 23% share of installed generation capacity in Brazil. Approximately 97% of this capacity is derived from low-emission sources such as hydro, wind, and solar power, helping to make Brazil's energy mix one of the cleanest in the world. We are also the leading transmission company in Brazil, operating 38.49% of backbone transmission lines within the National Grid, or 73,891 kilometers of transmission lines.

Eletrobras publishes an Integrated Report on an annual basis, and in 2022 we published a separate report on Sustainability Accounting Standards Board (SASB) disclosures for the third consecutive year. This report provides a set of SASB standard disclosures for the electric utilities and power generators sector, covering 26 broadly relevant sustainability issues organized under five sustainability dimensions: environment, social capital, human capital, business model and innovation, and leadership and governance.



Eletrobras Chesf transmission lines. Photo: André Schuler.

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# MESSAGE FROM THE CHIEF SUSTAINABILITY OFFFICER

In a year marked by the most significant corporate transformation in our history—the capitalization process and the subsequent privatization of the company—we further cemented the pillars of sustainability at the cornerstone of our strategy. The capitalization made 2022 a watershed year for the company as we expanded our capacity to invest and compete in the global renewable energy market, while contributing to environmental preservation, social development, and economic growth.

In a comprehensive overhaul of our management model, we integrated sustainability responsibilities into all roles across the organization, whilst continuing to link executives' variable compensation to sustainability targets, now for the sixth consecutive year. We also updated our Risk Matrix with a particular focus on ESG risks, and published a new Code of Conduct structured around the four pillars of Eletrobras' sustainability framework.

In this report, we provide a comprehensive overview of our approach to addressing ESG issues. By keeping abreast with the latest international developments in corporate sustainability reporting, we ensure the company remains aligned with the demands and expectations of our key stakeholders. As part of this, we are publishing our third consecutive SASB Report.

Alongside this report, we are also publishing our annual integrated report in accordance with the International Financial Reporting Standards (IFRS)—which incorporated the SASB Standards in 2022—and the Global Reporting Initiative (GRI) Standards. We connect these frameworks with the guidelines of the United Nations Global Compact (UNGC), to which we are signatories, and its Sustainable Development Goals (SDGs). Enhancing our commitment to transparent accountability, we additionally publish an annual report aligned with the recommendations of the Task Force on Climate-Related Financial Disclosures (TCFD).

These combined reports provide a transparent account to our stakeholders of Eletrobras' journey to becoming a sustainability leader in our industry.

A journey driven by internal growth and the continuous development of our employees, as we work to build a company that is poised for the future. To this end, we have made substantial investments in training and development, including a new Sustainability Pathway within our corporate education program, and have implemented efforts to meet the targets agreed with investors.

Our results so far are a source of pride. They have set us on the path of sustainable development, empowering us to pursue new and more ambitious targets to create value for the company and society.

**Luiz Augusto Pereira de Andrade Figueira**
Chief Sustainability Officer



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# RISK MANAGEMENT

## Dimensions: Human Capital, Leadership and Governance

Eletrobras takes an active and preventive approach to risk and emergency management, ensuring we operate safely and deliver positive results while protecting the health and safety of our employees and stakeholders. As part of our risk management process, we constantly monitor the business environment in which we operate to address the concerns of investors and the broader market.

Eletrobras Group's Integrated Risk Management System is designed to prevent events from occurring that could adversely impact the company's objectives. Our risk management approach draws guidance from the COSO 2013 and COSO ERM internal controls frameworks, which are focused on processes to identify key risk events, and ISO 31000, a standard establishing principles and guidance on risk management.

Our Risk Management Policy establishes the roles and responsibilities of each manager for identifying, assessing, addressing, monitoring, reporting on and communicating risks. It also incorporates risk thinking into strategic decision-making. In addition. Eletrobras subsidiaries have individual action and emergency response plans that are appropriate to each business.

The Executive Board and the Board of Directors' Audit & Risk Committee are responsible for monitoring the risk management process for effectiveness. In 2022 we implemented a maturity assessment process for the risk management system that has allowed us to pinpoint areas for improvement. In 2022 we also revisited the Eletrobras Group risk matrix, a structured outline of the risks to which the company is exposed across the three dimensions of ESG—environmental, social and governance.

As a first step in our risk management approach, we identify risks across the three risk categories—business, ESG and financial—to which Group companies are exposed, and compile them into a corporate risk matrix indicating the appropriate procedures for analyzing, addressing and monitoring each risk. Emergency risks are analyzed and addressed using the same approach, but on an expedited basis.

Specifically, integrity is managed through the Eletrobras Group Integrity (Compliance) Program. The program, which is structured into five dimensions, aims to build a culture of corporate integrity within the Group by advancing a management approach focused on preventing and mitigating impacts from misconduct, noncompliance or unlawful acts.

The program's five dimensions are centered around creating an enterprise management environment supporting compliance; periodic risk assessment; development and implementation of policies and procedures; internal communications and training; continuous program monitoring; and remediation action and penalties.

In 2022, the Governance, Risk & Compliance Department underwent a redesign to capture opportunities for increased synergies, quality, agility, efficiency, and process improvement to meet the challenges created by Eletrobras' new corporate structure. The redesigned organizational structure now includes dedicated organizational units for Corporate Governance, Compliance and Risk Management, Internal Controls and Information Security. We have also centralized whistleblowing processes in an independent channel, and have standardized report handling procedures, including response metrics and time frames.

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## IF-EU-320a.1: Total recordable injury rate, fatality rate, and near miss frequency rate

Ensuring the safety and well-being of our employees is among the pillars of our strategy. And respect for people and all forms of life is one of our core values. Initiatives related to this pillar are guided by our People Management and Occupational Health & Safety (OHS) policies.

Eletrobras has invested heavily in occupational health and safety initiatives. These include our Energy Sector Occupational Health & Safety Program and other initiatives implemented by Occupational Health & Safety departments at each of our subsidiaries. Our goal in these initiatives is to help prevent work-related injuries and illnesses from occurring and enhance our occupational safety culture across the Eletrobras Group. As part of this, we have been working to implement a structured HSE System to support a preventive approach and Group companies' operations and strategies.

Among our key initiatives in 2022, we:

- issued a new Occupational Health & Safety Policy, approved by the Executive Board and the Board of Directors in 2022. The Policy establishes principles, guidelines and responsibilities for promoting occupational health and safety within the company. It also establishes a consistent framework of guidelines and targets in support of the performance objectives within our Occupational Health and Safety Management System (OHSMS), which is in the final stages of development for rollout in 2023;

- strengthened Occupational Health and Safety Governance, with structured meetings with senior managers to review data and inform decision-making on accident prevention;

- implemented an incident management module within our ***Segurança e Saúde em Dia*** ("Up to Date with Health and Safety") program, in which employees are encouraged to report any incidents, including accidents, near misses and unsafe conduct. The new module supports effectively and promptly reporting incidents, sharing lessons learned, and following up on actions to mitigate risks and prevent recurrence of similar incidents in the future, through improvements and measures to ensure safer operations;

- implemented preventive behavioral observation practices and a Safe Practices Scorecard that allows managers on the ground to address unsafe behaviors and provide positive reinforcement by recognizing employees demonstrating outstanding safety practices; and

- carried out risk inventories at 15 facilities using a structured risk management methodology, and developed an action plan to improve our management of risks rated as critical.

We also have a Risk Management Program (RMP) that outlines recommendations and requirements to ensure compliance with Brazilian regulations and align our health and safety measures with Eletrobras guidelines, seeking continuous improvement. The RMP recognizes the risks in the work environment, runs qualitative assessments of these risks, as well as technical, administrative, and organizational control approaches. It also governs the use of collective and individual protective equipment, suggests additional mitigating measures, a schedule for quantitative actions by the appointed agents (if identified during the risk recognition phase), as well as follow-up, control, and evaluation.

Employee and workplace health are monitored by the Specialized Workplace Medicine Engineering Service (SESMT), which is responsible for ensuring compliance with applicable legislation, and for implementing best practices in prevention regarding employee and contractor health and safety.

Through our Occupational Health Surveillance Program (PCMSO), we establish procedures for protecting the health of our employees against the occupational risks to which they are exposed. For suppliers and contractors, contract managers are formally designated to monitor these aspects against contractual requirements.

Workplace health and safety topics are addressed at Worker Assemblies, in initiatives sponsored by our Workplace Health, Safety, and Well-Being functions, in Internal Accident Prevention Week (SIPAT) events, and in Internal Accident Prevention Committee (CIPAS) meetings, in which 100% of employees are represented.

In 2022 the Eletrobras Group reported a no-lost-time injury frequency rate (injuries/man-hour worked) of 3.7; a lost time injury frequency rate (lost-time injuries/man-hour worked) of 2.6; three fatalities; and a severity rate (days lost/man hour worked) of 895.

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Eletrobras Chesf's Casa Nova Wind Cluster (BA). Photo: Túlio Trajano.

## IF-EU- 550a.1: Number of incidents of non-compliance with standards or regulations on physical and cyber security

Information Security has been selected as one of the factors in our risk matrix. We work to mitigate and prevent events which could jeopardize information and system availability, integrity and confidentiality, or which could cause damages, information and financial losses, disruption of services, unlawful disclosure, reputational damage, or other harm.

Our cybersecurity practices are governed by the Eletrobras Group Information Security Policy and by supplementary regulations. These policies provide requirements on planning and prioritizing our cybersecurity efforts, drawing guidance from the NIST Cybersecurity Framework, developed by the US National Institute of Standards and Technology. This framework outlines business levers for cybersecurity initiatives, taking account of related risks.

On an annual basis, an evidence-based audit is carried out to validate cybersecurity performance indicators. The auditors issue an independent report with findings on the level of maturity in cybersecurity. In 2022, we received a score of 2.8 (on a scale of 1 to 4), which is higher than the global industry average of 2.10. Cybersecurity performance indicators are also reported on a quarterly basis to the Statutory Audit & Risk Committee.

In 2022 we installed and deployed a new cyber attack surveillance system that is now active across all Eletrobras Group companies. In addition, we have recently implemented a Personal Data Privacy Program and regularly perform intrusion tests on our networks to identify and address potential weaknesses in order to prevent unauthorized access. We have also established a partnership with Google to migrate our databases to Google Cloud, enhancing information and operational security.

The Eletrobras Group's Information Security Program, implemented under our Business & Management Master Plan (PDNG), aims to ensure our internal processes are aligned with industry best practices, in order to mitigate the risk of events which could compromise the availability, integrity and confidentiality of information and its storage media. There were no reported breaches of customer privacy or data in 2022.

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# ENVIRONMENTAL MANAGEMENT

## Dimension: Environment

Professional and accountable 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 operations with environmental protection at each stage of our projects, going beyond minimum legal requirements whenever possible.

In developing our projects, we carry out assessments to identify and assess environmental and social impacts. This includes multi-stakeholder social and economic assessments, environmental education, communication and engagement programs, and community forums and interaction with both government and private parties.

These assessments may indicate the need for changes in the project design to mitigate impacts. Where any residual impacts are identified, we work to mitigate and remediate them. For each impact identified in an environmental impact assessment, the resulting basic environmental plan outlines mitigation, offset and remediation measures to be taken before, during and after development of the project. Assessments and programs developed as part of the environmental licensing process are submitted for review by the relevant licensing bodies and presented to affected communities.

During the operation of our assets, we constantly monitor indicators related to water resources and excellence, electricity consumption, greenhouse gas emissions, waste and biodiversity. Collected data may indicate the need to reformulate our procedures and invest in new technology and operational processes.

In 2021*, we invested R$ 264.7 million in socio-environmental actions. To learn more about Environmental Management at Eletrobras Group companies, visit our website.

** The data could not be updated for 2022. For this reason, we have instead reported data for 2021.*



**Eletrobras Eletronorte's Turtles Program at the Balbina Dam (AM). Photo: Eletrobras Eletronorte Archives.**

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# Greenhouse gas (GHG) emissions

The Eletrobras Group has published emissions inventories since 2009 in accordance with the Intergovernmental Panel on Climate Change (IPCC) methodology and the Greenhouse Gas Protocol.



Floating solar panels on Eletrobras Chesf's Sobradinho Dam reservoir (BA). Photo: Túlio Trajano.

## IF-EU-110a.1: Gross global Scope 1 emissions, percentage covered under emissions-limiting regulations, and percentage covered under emissions-reporting regulations

Eletrobras is committed to minimizing negative impacts from our operations on climate change and advancing the transition to a new development model based on a low-carbon economy. Ensuring that GHG emissions management programs are in place, identifying and assessing the vulnerability of the business to climate change, prioritizing renewable energy projects, and advancing research are some of the ways the Eletrobras Group is working to address climate change.

Sustainable Development Goal 13 – ***Climate action*** is prioritized by senior management and addressed in our PDNG through indicators and targets for reducing emissions, electricity consumption, and fossil fuel combustion in our vehicle fleet. Another stand-out initiative is our Sustainability Program 4.0, a set of 12 projects directly related to climate change management in the Group, including the following: Energy Transition, and GHG Emissions Offsets and Environmental Protection.

In 2022 we met the Scope 1 emissions target of 5,884 thousand $tCO_2e$ under our PDNG 2022-2026. Our Scope 1 emissions in the year were 3,958 thousand $tCO_2e$, down 33.3% from 2021.

Brazil has regulatory limits on NOx, SOx and PM (particulate matter) emissions, which are monitored by environmental protection agencies.

## IF-EU-110a.2: Greenhouse gas (GHG) emissions associated with power deliveries

In 2022 we published our first inventory in the Public Emissions Register, run by the Brazilian GHG Protocol Program, receiving Gold reporting status. Our total emissions in the year were 5,640,060 $tCO_2e$, down 31.8% year on year. The bulk of emissions are Scope 1 (70%), followed by Scope 3 (24%) and Scope 2 (6%).

### Emissions ($tCO_2e$)

| | 2021 | 2022 | Change 2021-2022 (%) |
|---|---|---|---|
| Scope 1 | 5,942,678 | 3,958,097 | -33.3 |
| Scope 2 | 948,208 | 313,886 | -66.9 |
| Scope 3 | 1,380,914 | 1,368,077 | -0.8 |
| **Total** | **8,271,799** | **5,640,060** | **-31.8** |

*Figures for 2021 have been restated to exclude data for Eletronuclear, Itaipu Binacional and Cepel. The calculation method used was operational control.*

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## IF-EU-110a.3: Description of long-term and short-term strategy or plan to manage Scope 1 emissions, emission-reduction targets, and an analysis of performance against those targets

The Eletrobras Group Environmental Policy has included specific guidelines on climate change since 2012. Our Business and Management Master Plan (PDNG) 2023-2027 also incorporates specific targets for GHG management. In addition, climate-related indicators, goals and targets have been included in our Sustainability Program 4.0. and its assessments and initiatives to mitigate, offset and adapt to climate change.

Our parent company had set a target to achieve net zero GHG emissions. In 2022 we were unable to meet this target, with net positive emissions of 378 $tCO_2e$.

## IF-EU-120a.1: Air emissions of the following pollutants: $NO_x$ (excluding $N_2O$), SOx, particulate matter (PM), Pb, and Hg**; percentage of each in or near areas of dense population

In 2022 our SOx emissions fell by 24.18% while our particulate matter (PM) emissions decreased by 42.18% year on year. Conversely, NOx emissions increased by 75.09% in the period, reflecting the addition of six generator sets on lease at Eletrobras Eletronorte thermal power plants.

### NOx, SOx and particulate matter emissions

| | 2021 | 2022 |
|---|---|---|
| NOx (t/year) | 12,825 | 22,457 |
| SOx (t/year) | 13,023 | 9,874 |
| Particulate matter (t/year) | 764 | 441.95 |
| HCFC-123 | 0.003 | 0 |
| R-22 | 0.35 | 1.94 |
| R-141b | 0.0001 | 0.21 |

** Figures for 2021 have been restated to exclude data for Eletronuclear, Itaipu Binacional and Cepel.*

*** Pb is not applicable to our business.*

**** Eletrobras CGT Eletrosul performs two annual measurements to determine the concentration of mercury in air emissions from its coal-fired thermal power plants. In 2022 our direct emissions of mercury stood at 0.033299354 metric tons (these are the annual emissions of mercury from the Candiota III Power Station, as measured directly in the stack using isokinetic sampling. Two sampling runs were performed, one in each six-month period of 2022, as in previous years).*

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# Water and wastewater management

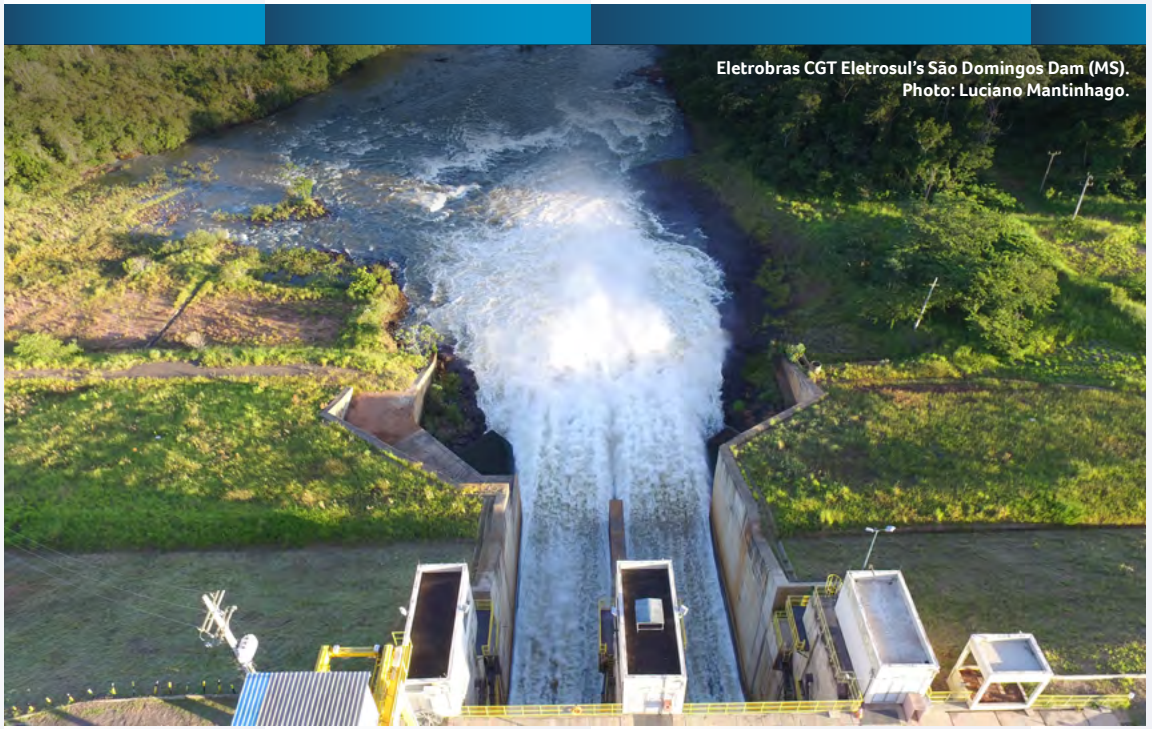
The Eletrobras Group's Water Resources Policy, issued in 2010, lays out guidelines on sustainable water and effluent management, while our Environmental Policy outlines opportunities and initiatives to enhance water efficiency, reduce consumption, and increase reuse and rainwater harvesting.

## IF-EU-140a.1: Total water withdrawn and total water consumed, percentage of each in regions with High or Extremely High Baseline Water Stress

Eletrobras Group companies monitor water withdrawal and discharge in their operations, including hydroelectric power generation (non-consumptive) in areas with water stress.

| | |
|---|---|
| Total water withdrawal in 2022 | 679,580,287.42 m³ |
| Total water discharged in 2022 | 679,568,149.13 m³ |
| Total water consumed in 2022 | 11,768.58 m³ |
| Percentage of water withdrawals in regions with high water stress in 2022 | < 1% |

*Eletrobras Group companies consume no water in areas with water stress.*



Eletrobras CGT Eletrosul's São Domingos Dam (MS). Photo: Luciano Mantinhago.

## IF-EU-140a.3: Discussion of water management risks and description of strategies and practices to mitigate those risks

Our Water Resource Policy draws guidance from Law no. 9 433/97, which introduced the National Policy on Water Resources (PNRH), and is based on the principle that water is a shared, limited and precious resource. Water is also an essential input for our hydropower operations.

Eletrobras has a Water Resource Working Group (WRWG), composed of technicians from our parent company and each subsidiary, that addresses matters such as hydrological studies, water resource management, and regulatory issues. On an annual basis, the working group assesses streamflow and water stress indicators at our plant sites.

We have also joined several initiatives to further improve our water management practices: Water and Sanitation Agency (ANA) situation rooms; river basin committees (CBHs); water resource boards; National Water Resource Council (CNRH) chambers; water resource working groups; and important technical forums on the topic.

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In 2022 we renewed our commitment to the Brazilian Business Pledge for Water Security, led by the Brazilian Business Council for Sustainable Development (CEBDS), and to its six targets. All signatories pledge to publicly disclose information about their initiatives and projects in support of these targets. Comprehensive information about the Pledge can be found here.

Eletrobras's generation assets are primarily hydroelectric plants. For the company as a whole, the most important risk related to hydropower is hydrological risk, or the risk that the electricity generated by hydroelectric assets operating within the regulated market could fall below their guaranteed capacity. We work to mitigate this risk by renegotiating hydrological risk and through "electricity hedges".

Dam safety risk is managed and monitored locally by our subsidiaries. Dams undergo Periodic Safety Reviews (RPS) in accordance with applicable laws and regulations. In addition, as a requirement established by the Board of Directors, Periodic Safety Reviews of our assets are also being conducted by independent external appraisers.

Our procedures to ensure compliance at our facilities may include observations made by water resource users (self-monitoring) in accordance with the relevant regulatory frameworks (CONAMA Resolution 357), environmental license conditions and permit requirements. Both the frequency of monitoring and the parameters monitored are established by the relevant authorities.

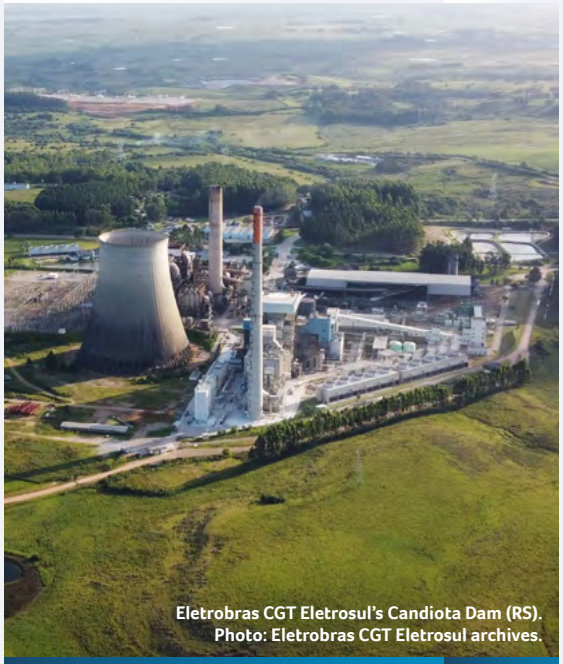
The water flowing through our hydropower plants is not consumed and is returned in its entirety to the downstream water body with the same level of quality as at the intake. The Eletrobras Group operates hydroelectric plants in all regions of Brazil, largely in the São Francisco, Tocantins, Paraná, Paraíba do Sul and Grande river basins, where most of our installed capacity is located.

Eletrobras Chesf's Curemas and Pedra hydropower plants, and Eletrobras Furnas' Batalha hydropower plant are located on water-stressed rivers. The total volume of turbined water in operations on rivers experiencing critical or very critical water stress was 3,001,899.74 $m^3$ in 2022, as measured using the methodology established by the Water and Sanitation Agency (ANA).

Our thermal power plants withdraw water from surface water bodies for cooling and to generate steam. This water is returned to the source water body at the temperature and with the quality required by applicable regulations, minimizing impacts on ecosystems and habitats.

## IF-EU-150a.1: Amount of coal combustion residuals (CCR), percentage recycled

Our only subsidiary with coal-fired thermal power plants is Eletrobras CGT Eletrosul. Ashes produced by thermal power plants account for approximately 99% of total coal combustion residuals, of which approximately 18.14% are sold and reused in other production processes (311,608.13 t). The remaining 81.86%, or 1,406,077.96 t, are reused in mine land reclamation.



**Eletrobras CGT Eletrosul's Candiota Dam (RS). Photo: Eletrobras CGT Eletrosul archives.**

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# INSTALLED CAPACITY AND ELECTRICITY GENERATED AND TRANSMITTED

## Dimensions: Social Capital, Business Model & Innovation, Leadership & Governance

Eletrobras has a nation-wide presence and supplies 23% of Brazil's installed generation capacity—with 97% of that capacity, or 42,559.35 MW, coming from low-emission sources (hydro, wind and solar). We have helped to make Brazil's energy mix one of the cleanest in the world, with coal, natural gas and diesel power plants accounting for just 3% of our installed capacity. We also operate approximately 40% of Brazil's total transmission lines.

### IF-EU-240a.4: Discussion of impact of external factors on customer affordability of electricity, including the economic conditions of the service territory

### IF-EU-420a.3: Customer electricity savings from efficiency measures, by market

The National Program for Universalization of Access and Use of Electricity, or "Light for All Program" (*Programa Luz para Todos—LPT*), created in 2003, aims to provide electricity supply to all unserved rural communities by 2026. The Program is supervised by the Ministry of Mining & Energy (MME) and executed by Eletrobras, which manages execution contracts and monitors rural electrification works within the Program.

LPT also provides solutions for using electricity as a driver of social and economic development in low-income communities, supporting poverty reduction and better living standards. Access to electricity also supports access to healthcare, education, water supply and sanitation, and other federal government programs and services. These initiatives improve quality of life for smallholders and help to avoid rural flight.

Program funding is sourced from electric power sector players, the Energy Development Account (CDE), an industry fund managed by the Electric Power Trading Chamber (CCEE), and other sources managed by the MME jointly with other government agencies.

From 2004 to 2022, over 3.6 million new connections were made, benefiting approximately 17.1 million people in rural areas of Brazil. During this period, funding for the LPT Program totaled R$ 30.33 billion, with R$ 22.02 billion (73%) coming from sectoral funds: the Energy Development Account (CDE) and the Global Reversion Reserve (RGR). Out of available funding, R$ 18.46 billion (84%) were disbursed from the CDE and RGR, including R$ 800 million in 2022 specifically from the CDE.

Another related initiative is the National Program for Universalization of Access and Use of Electricity in the Brazilian Amazon, or "More Light for the Amazon" (***Mais Luz para a Amazônia, MLA***), launched in 2020 with a planned duration extending to 2030. The program, led by MME, benefits families in remote Amazon areas without access to electricity or who generate electricity using nonrenewable sources.

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The LPT Program is operated by Eletrobras, which manages execution contracts and monitors rural electrification works within the Program. The Federal Government expects the program to reach 223,826 families. Since launching the initiative, 11,230 new customers have benefited from electricity services, with 9,674 customer units served in 2022. A total of R$ 529.36 million has been disbursed so far (54% of the available funding), with R$ 405.25 million disbursed in the current year.

In addition to these initiatives, Eletrobras operates and manages the funding of the National Energy Conservation Program (PROCEL), a Federal Government program that aims to improve energy efficiency, reduce waste and increase cost efficiency in industry. The program comprises a set of sectoral initiatives throughout Brazil in the areas of education, knowledge dissemination, buildings and facilities, environmental sanitation, municipal energy management, public lighting, and industry.

## Eletrobras will continue to operate the “Light for All”, “More Light for the Amazon” and PROCEL programs until handover to ENBPar

Eletrobras will continue to run the "Light for All “and “More Light for the Amazon” programs until they are taken over by Empresa Brasileira de Participações em Energia Nuclear e Binacional S.A. (ENBPar), which began operation on January 4, 2022 under the purview of the Ministry of Mining & Energy (MME).

Following the privatization, some government assets and programs will be operated by ENBPar. ENBPar will incrementally take over operations that cannot be privatized, including Itaipu Binacional and the Almirante Álvaro Alberto Nuclear Power Plants in Angra dos Reis, as well as programs such Light for All, More Light for the Amazon, contracts within the Alternative Source Incentive Program (PROINFA), and initiatives within the PROCEL program.

Resolution No. 203/2021 of the Investment Partnership Program Board (CPPI), which approved the operating model, adjustments and additional conditions precedent for the privatization of Eletrobras, established that the company would continue to manage these programs for up to 12 months from the completion of the capitalization process.

A Sectoral Program Handover Agreement was signed on April 22, 2022, outlining rules for the transition period until the Sectoral Programs have been fully transferred to ENBPar.

## IF-EU-000.C - Length of transmission and distribution lines

We are the leading transmission company in Brazil, operating 38.49% of backbone transmission lines within the National Grid. We ended 2022 with a total of 73,891 kilometers (km) of transmission lines, including 8,809.41 corporate km not renewed; 1,498.65 not eligible to Permitted Annual Revenue (RAP); 56,634.32 corporate km under Operation & Maintenance agreements, renewed pursuant to Law No. 12 783/13; and 6,948.64 km corresponding to our stakes in projects developed by the Eletrobras Group via Special Purpose Entities (SPEs). The Permitted Annual Revenue (PAR) of our corporate transmission lines (a total of 66,942.37 km) was R$ 13,768 million.

Including only transmission systems with a voltage level equal to or greater than 230 kV—i.e. only ±800, 750, ±600, 525/500, 345 and 230 kV transmission lines—Eletrobras operates a total 68,808 km, or 38.49% of transmission lines in Brazil at these voltage levels. In 2022, we successfully bid in auctions for 11 kilometers of transmission lines with 80 MVA (corporate) substation capacity.

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At year-end 2022, we had 149 major projects in progress (15 TL and 134 substation projects), with an associated RAP of R$ 784.892 million, adding 3,507 MVA to our substation capacity. In 2021 we had a substation capacity of 297,796 MVA, including 92.78% (276,299 MVA) in corporate substations and 7.22% (21,498 MVA) operated by SPEs. Including our stakes in SPEs at year-end 2022, 2,471 MVA of substation capacity were added in the year.

## IF-EU-000.D: Total electricity generated, percentage by major energy source, percentage in regulated markets

In 2022, electricity sold in regulated markets (ACR and Guaranteed Capacity Quotas) amounted to 64% of total electricity generated. The calculations include SPEs consolidated in Eletrobras. Other SPEs and nuclear power facilities were not included.

The following calculation was used to determine the percentage in regulated markets: after determining the percentage of electricity sold in the Regulated Contracting Environment (ACR)—not including Physical Capacity Quotas—and in the Free Contracting Environment (ACL), this proportion was used to calculate the electricity generated in each environment. This yielded the estimated percentage of electricity generated in the regulated market out of total generated electricity.

Total electricity generated in 2022 was 4.8% higher than in 2021. Of this total, 94.8% was hydropower, 1.7% was wind power, less than 1% was solar power and the remaining 3% was thermal power, across wholly owned, jointly owned and SPE-owned plants. Total generated electricity also includes generation by plants that were operational throughout the year but at year-end were no longer owned by Eletrobras and no longer included in our installed capacity.

### Net generation by source (GWh)[1]

| | 2020 | 2021 | 2022 |
|---|---|---|---|
| Solar | 1.0 | 1.0 | 1.1 |
| Wind | 3,404.0 | 2,365.2 | 2,196.9 |
| Hydro | 172,074.0 | 154,090.0 | 155,655.2 |
| Natural gas | 5,726.0 | 6,677.6 | 3,668.3[2] |
| Uranium | 12,866.0 | 13,461.7 | 7,155.2[3] |
| Coal | 1,100.0 | 2,215.6 | 1,591.5 |
| Oil | 12.0 | 0.4 | - |
| **Total** | **195,183.0** | **178,811.7** | **170,268.2** |

[1] *Refers to corporate, jointly owned and SPE assets.*

[2] *Refers to our stake in the Itaipu hydroelectric dam up to the end of the first quarter of 2022.*

[3] *Refers to the Angra I and II nuclear power plants up to the end of the second quarter of 2022.*

## IF-EU-000.E: Total wholesale electricity purchased

The Eletrobras Group purchased a total of 14 TWh of electricity in 2022. This includes pass-through contracts, which do not involve an economic impact. Of the total amount, 31% was purchased from trading companies, 65% from primarily hydroelectric generators, and 4% from primarily wind-based generators.

It is important to note that when purchasing electricity from generators, even though their portfolio largely consists of power plants generating electricity from a given source, there can be no assurance that the electricity we purchase is derived from that source, as generators can also generate electricity from other sources or purchase electricity in the market for resale. When electricity is purchased from trading companies, the source of the electricity cannot be determined.

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## IF-EU-550a.2: (1) System Average Interruption Duration Index (SAIDI), (2) System Average Interruption Frequency Index (SAIDI), (3) Customer Average Interruption Duration Index (CAIDI), inclusive of major event days

SAIDI is the only indicator applicable to our business. SAIFI and CAIDI are not applicable to the regulation of the transmission industry in Brazil as they specifically relate to distribution operations. We therefore have no data available within our transmission business that can be used to calculate the above disclosures.

The Eletrobras Group's Robustness Index measures the ability of the backbone grid to withstand contingencies without interrupting power supply to consumers, considering only those disruptions originating within the Eletrobras Group's transmission system.

The Eletrobras System has maintained strong performance in recent years, with the number of disruptions causing load disconnections stabilizing in 2022. In relation to the transmission system, technical losses have been reduced in the last few years, reflecting the dispatching policy of the National Grid Operator (ONS) and grid topology improvements orchestrated by the Ministry of Mining & Energy (MME) and the Brazilian Energy Research Corporation (EPE).

### Transmission Performance (Reliability)

| | 2020 | 2021 | 2022 |
|---|---|---|---|
| System Average Interruption Duration Index (SAIDI) (hours) | 4.89% | 5.77% | 3.46% |
| Interruptions per 100 km/TL | 1.57% | 1.46% | 1.16% |
| Systemic Robustness[1] | 96.42% | 96.61% | 97.23% |
| Transmission Losses | 1.16% | 0.81% | 0.53%[2] |
| Average Service Availability Index (ASAI) | 99.94% | 99.93% | 99.96% |

*[1] System Robustness against any load disconnections.*

*[2] The result of an agreement to a new calculation methodology approved by the Operation Committee (COP).*

## IF-EU-000.B: Total electricity delivered to: personal, residential and other customers, and to wholesale consumers

The Eletrobras Group sold a total of 137 TWh of electricity in 2022, across corporate assets and quota system contracts. Not including contracts under the quota system, the figure would have been 72 TWh. Electricity sold by Itaipu, Eletronuclear and sales under pass-through contracts, which do not involve an economic impact, are not included. The calculation includes SPEs consolidated in Eletrobras, but excludes other SPEs. The figures are shown in the following table:

| Customer | TWh |
|---|---|
| Distribution Companies | 89 |
| Free Consumers | 19 |
| Generators | 7 |
| Trading Companies | 22 |
| **Total** | **137** |

Out of the 89 TWh of electricity sold to Distributors, 88% were from hydropower, 9% from gas-fired, 2% from coal-fired and 1% from wind power plants.

Electricity supplied to commercial customers cannot be broken down by type of source as they are served from the Eletrobras Group's broader pool of generation assets, which include hydro, thermal, gas and wind power plants.

It is also important to note that the local distribution utility is responsible for delivering electricity to captive residential, commercial and industrial consumers.

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## IF-EU-420a.1: Percentage of electric utility revenues from rate structures that are decoupled and contain a lost revenue adjustment mechanism

In 2022, 35% of electric utility revenues from rate structures were decoupled and contained a lost revenue adjustment mechanism. Among the contract types available in the Brazilian power sector (ACR and ACL), Guaranteed Capacity Quota Agreements in the regulated contracting environment are responsive to this disclosure. Revenue from nuclear power facilities is excluded from the calculations.

**Physical Capacity Quota Agreements** are executed between hydropower generators and distribution companies. This framework was created by Law no. 12 783 (January 11, 2013) specifically for generators whose concessions had expired. Generators renewing their concessions are entitled under this law to an Annual Generation Revenue (RAG) calculated based on a plant's operation and maintenance costs. The Brazilian power sector regulator, ANEEL, annually apportions generators' guaranteed capacity among distribution companies, and these capacity allotments are known as quotas. These quotas, in turn, are used to determine the RAG revenue of each generator.

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| IF-EU-110a.2: Greenhouse gas (GHG) emissions associated with power deliveries | 9 | 305-2 |
| IF-EU-110a.3: Description of long-term and short-term strategy or plan to manage Scope 1 emissions, emission-reduction targets, and an analysis of performance against those targets | 10 | 305-4<br>305-5 |
| IF-EU-110a.4 (1) Number of customers served in markets subject to renewable portfolio standards (RPS) and (2) percentage fulfillment of RPS target by market | Under the current institutional model, the expansion of the national power system is primarily tasked to industry agents, who are responsible for making investments sufficiently in advance in implementing new projects. The Brazilian Energy Research Corporation (EPE) develops plans that guide and inform future auctions for new generation projects, and determine what technical and economic feasibility and social and environmental assessments are required for new generation projects, including renewables projects. The EPE develops these plans under guidelines issued by and with support from the Brazilian Ministry of Mining and Energy (MME).<br><br>However, we believe Brazil's market has no specific regulations on renewable portfolio standards (RPS) for generation companies. | 305-3 |

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| IF-EU-120a.1: Air emissions of the following pollutants: $NO_x$ (excluding $N_2O$), SOx, particulate matter (PMxx), Pb, and Hg; percentage of each in or near areas of dense population | 10. No information is available on the percentage of each in or near areas of dense population. | 305-7 |
| IF-EU-140a.1: Total water withdrawn and total water consumed, percentage of each in regions with High or Extremely High Baseline Water Stress | 11 | 303-1, 303-3, 303-5 |
| IF-EU-140a.2: Number of incidents of non-compliance associated with water quantity, quality permits, standards, and regulations | No information available. | 307-1 |
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| IF-EU-000.B: Total electricity delivered to: personal, residential and other customers, and to wholesale consumers | 16 | - |
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| IF-EU-000.D: Total electricity generated, percentage by major energy source, percentage in regulated markets | 15 | G4-EU2 |
| IF-EU-000.E: Total wholesale electricity purchased | 15 | - |
| IF-EU-240a.1: Average retail electric rate for (1) residential, (2) commercial, and (3) industrial customers | No information available. | |
| IF-EU-240a.4: Discussion of impact of external factors on customer affordability of electricity, including the economic conditions of the service territory | 13 | G4-EU23 |
| IF-EU-420a.1: Percentage of electric utility revenues from rate structures that are decoupled and contain a lost revenue adjustment mechanism | 17 | - |
| IF-EU-420a.2: Percentage of electric load served by smart grid technology. | No information available. | |
| IF-EU-420a.3: Customer electricity savings from efficiency measures, by market | 13 | G4-EU27 |
| IF-EU-550a.2: (1) System Average Interruption Duration Index (SAIDI), (2) System Average Interruption Frequency Index (SAIFI), (3) Customer Average Interruption Duration Index (CAIDI), inclusive of major event days | 16 | G4-EU28, EU29, EU30 |

# SASB REPORTING STATUS

Our SASB reporting status is presented below based on the level of coverage of the different dimensions. Percentages have been calculated based on the extent to which information is responsive to sector-specific disclosure requirements for Electric Utilities & Power Generators.




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# CREDITS

**This SASB Report has been prepared as a collaborative effort by teams across the Eletrobras Group. We wish to thank all collaborators for their participation and dedication.**

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GENERAL COORDINATION
Sustainability Office
Sustainability Management Department

SUSTAINABILITY DISCLOSURES GROUP
Eletrobras Group Sustainability Management Committee

WRITING, SASB CONSULTING AND DESIGN
grupo report - rpt.sustentabilidade


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