

# Sustainability Report

2024



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





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# Introduction

ANEEL GENERAL DIMENSION



# About the Report

## • GRI 2-3 | 2-14 •

State Grid Brazil Holding's (SGBH) 2024 Sustainability Report (24SR), prepared as part of our commitment to transparency, presents the results of the companies wholly controlled by SGBH for the period from January 1 to December 31, 2024. The Company's five joint ventures are not included in the report, but their consolidated financial results, based on the principle of proportionality, are available in SGBH's [Financial Statements](#).

The report, published for the 4th consecutive year, was drawn up on the basis of the main sustainability reporting and management guidelines, such as the Global Reporting Initiative (GRI), the International Integrated Reporting Council (IIRC) guidelines, the Brazilian National Electric Energy Agency (ANEEL) Electrical Sector Accounting Manual and The Green Bond Principles control criteria. As signatories of the Global Compact, we present

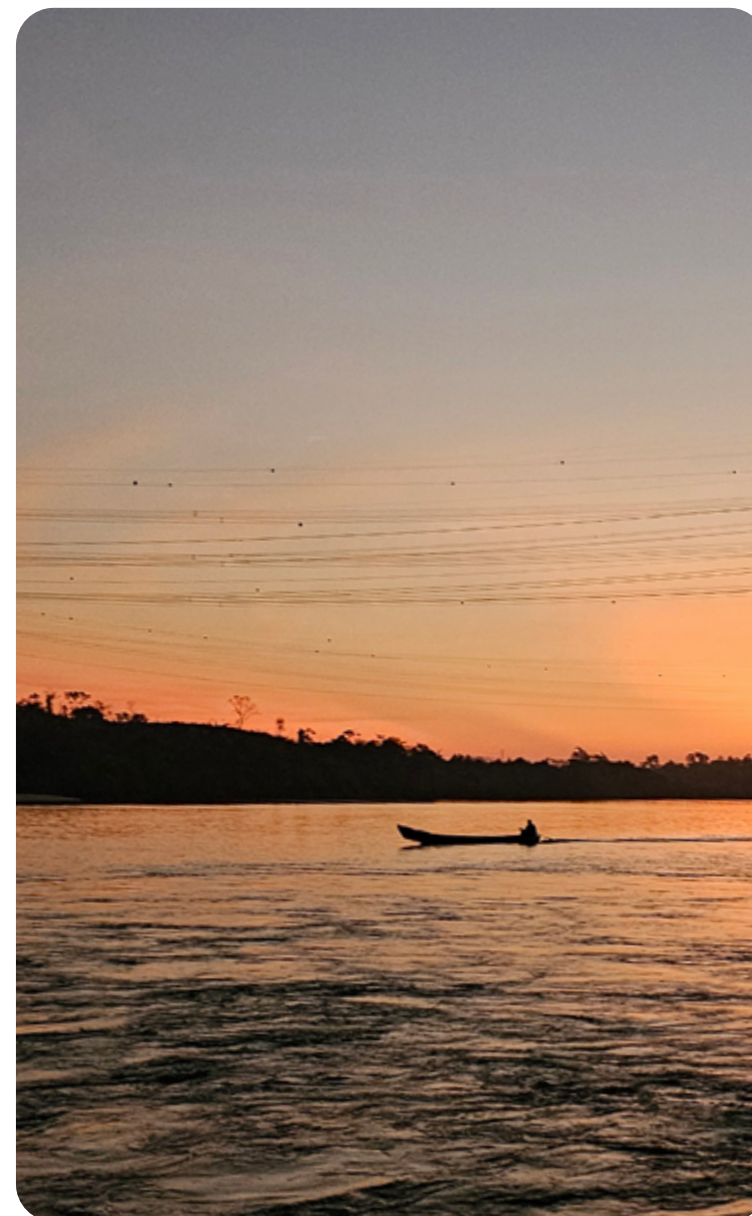
our efforts to achieve the Sustainable Development Goals (SDGs), which make up the United Nations (UN) 2030 Agenda.

The acronyms GRI XXX-X, ANEEL XXXXX and GB X indicate the reporting of indicators along the text and a full list can be found starting on page 87.

The drafting of the 24SR was overseen by SGBH's ESG Division, and the content was checked and approved by SGBH's Executive Board.



Any questions, suggestions, or comments about the Report can be sent to: [esg@stategrid.com.br](mailto:esg@stategrid.com.br)



# Message from Leaders

## • GRI 2-22 •

We are honored to present the **2024 Sustainability Report**, a document that discloses the achievements of this year of transformation in governance, consolidation of several initiatives and evolution of our commitment to **operational excellence, innovation and social and environmental responsibility**.

Our mission of transmitting energy in a quality, safe, and sustainable manner is unwavering; it will help the Brazilian electrical industry grow and create a more resilient and inclusive future. **Every accomplishment is a reflection of our staff's combined efforts, the soundness of our strategy, and the constructive impact we want to have on society as a whole.**

Towards the end of 2023, we won the main lot in ANEEL's Transmission Auction and, in 2024, we started work on GATE, which will be our **third ultra-high voltage direct current transmission line (UATCC)**, a technology that brings efficiency to the National Interconnected System. **GATE** will connect the country's Northeast and Midwest regions and has the potential to create more than 30,000 direct jobs. After signing the concession contract in 2024, we began the Environmental Impact Study (EIS) and held public hearings with the participation of various stakeholders, confirming our practice of transparent dialog and social and environmental responsibility.

In our vision for the future of our business, we have aligned the **Strategic Radar** with long-term planning, organizing guidelines and goals in eight areas that guide our initiatives to act in harmony with the market's needs and society's expectations. The Radar allows us to anticipate challenges and identify opportunities, consolidating our leadership in the sector.

**In asset operations, we kept up our levels of excellence and we highlight XRTE, with an average availability of 99.99%, the best result in SGBH's history for the second year running.** These figures are the result of our non-negotiable pledge to a culture of safety, which prioritizes the lives and well-being of employees and the communities where we operate. In 2024, we achieved **zero fatalities or serious accidents**, with frequency rates (1.22) and severity of injuries (5.7). We further boosted this culture by holding the **Workplace Accident Prevention Week (SIPAT)**, an event geared towards raising awareness and engaging all employees in shared responsibility for safe practices.

We celebrated the **10th anniversary of the System Operations Center (COS)**, which gained a newer, more modern, and spacious room, consolidating its position as a vital cornerstone for the efficient and reliable operation of over 16,000 km of transmission lines.



Looking at our financial results, we achieved a **net revenue** of BRL 4.65 billion in 2024, taking **financial sustainability** measures and adapting to the dynamics of the domestic and international markets. Moreover, we were among the **100 most influential companies, according to Veja magazine, an award that reveals our ability to create a positive impact on the energy sector and Brazilian society, a recognition that has made all SGBH employees proud.**

**ESG principles** have guided our journey towards a more sustainable future, and we continue to invest in clean technologies, energy efficiency and community development, always aiming to **create shared value.**

In terms of **governance**, we have implemented a structure consistent with the best global practices with the creation of the **Directors' Council and the Supervisory Council**, which work in tandem with the Executive Board to strengthen SGBH's transparency and efficiency. To encourage a culture of ethics, integrity and compliance, we promote the **Compliance Week**, an annual initiative dedicated to engagement and discussion on these topics. We have also launched the **Compliance League**, which motivates employees to adopt the guidelines and values set out in the Code of Ethics and internal rules.

For one more year, we have renewed our significant commitment to culture and social responsibility. Using the Culture Incentive Law, we sponsored the restoration of the historic **Casa Pacheco Leão**, in Rio de Janeiro (RJ), a building that was reopened to

the public with the exhibition "Rota do Chá - Botânica, Cultura e Tradição" (Tea Route - Botany, Culture and Tradition), in celebration of the **50th anniversary of diplomatic relations between Brazil and China.** This initiative, as well as the **Maré do Amanhã Orchestra's tour in China** and the **Beijing Opera's performance in Brazil**, were memorable events in our corporate history, as they strengthened both the cultural ties between the two countries and our role as a social transformation agent through our social impact initiatives.

Diversity features are part of our essence, which makes it natural to promote employee **diversity and inclusion** actions. To this end, we implemented an internal diversity diagnosis, discussed the relevance of gender diversity and inclusion in the workplace and created the **diversity group** at SGBH, in an effort to encourage an inclusive and welcoming environment.

To address **climate change**, we launched initiatives to reduce emissions and promote clean energy: we carried out the **Energy Efficiency Campaign**, acquired **11 electric cars** for our fleet and reached the target of 80% ethanol refueling in flex-fuel vehicles in the first month of the **Ethanol Campaign.**

As far as innovation is concerned, we led the creation of the **Electric Innovation and Sharing Alliance (EISA)**, an international alliance uniting companies, universities and research centers in Brazil and China for technological cooperation, and development of innovative solutions in the energy sector.

We express our gratitude to every employee at SGBH, whose hard work and devotion were essential to the year's successes. We also thank our shareholders, suppliers, partners, government agencies, and local communities for inspiring us to move forward responsibly and with purpose.

We will continue to be resolute in 2025 in pursuing new possibilities and conquering obstacles with innovation, openness, and a dedication to sustainability, all while upholding our mission, vision, and corporate values. Together, we will keep creating a legacy with outstanding quality and positive impact, helping to create a more inclusive and sustainable future.

Thank you very much!

**Sun Tao**

SGBH Chairman



**Sun Peng**

SGBH CEO





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# State Grid Brazil Holding

ANEEL GENERAL AND ECONOMIC-FINANCIAL DIMENSION



Manufactured  
Capital



Financial  
Capital

8 DECENT WORK AND  
ECONOMIC GROWTH



9 INDUSTRY, INNOVATION  
AND INFRASTRUCTURE



# About SGBH

• GRI 2-1 | 2-6 •

State Grid Brazil Holding (SGBH) is one of the main energy transmission companies in Brazil. Headquartered in Rio de Janeiro, the company was established in the country in 2010 by its main shareholder, State Grid Corporate of China (SGCC). In its 14-year history, BRL30 billion has been invested in the construction and operation of over 16,000 kilometers in transmission lines in 14 Brazilian states. Our grid transmits around 10% of the country's entire energy supply.

**+ BRL30 billion** invested in Brazil

**14** States

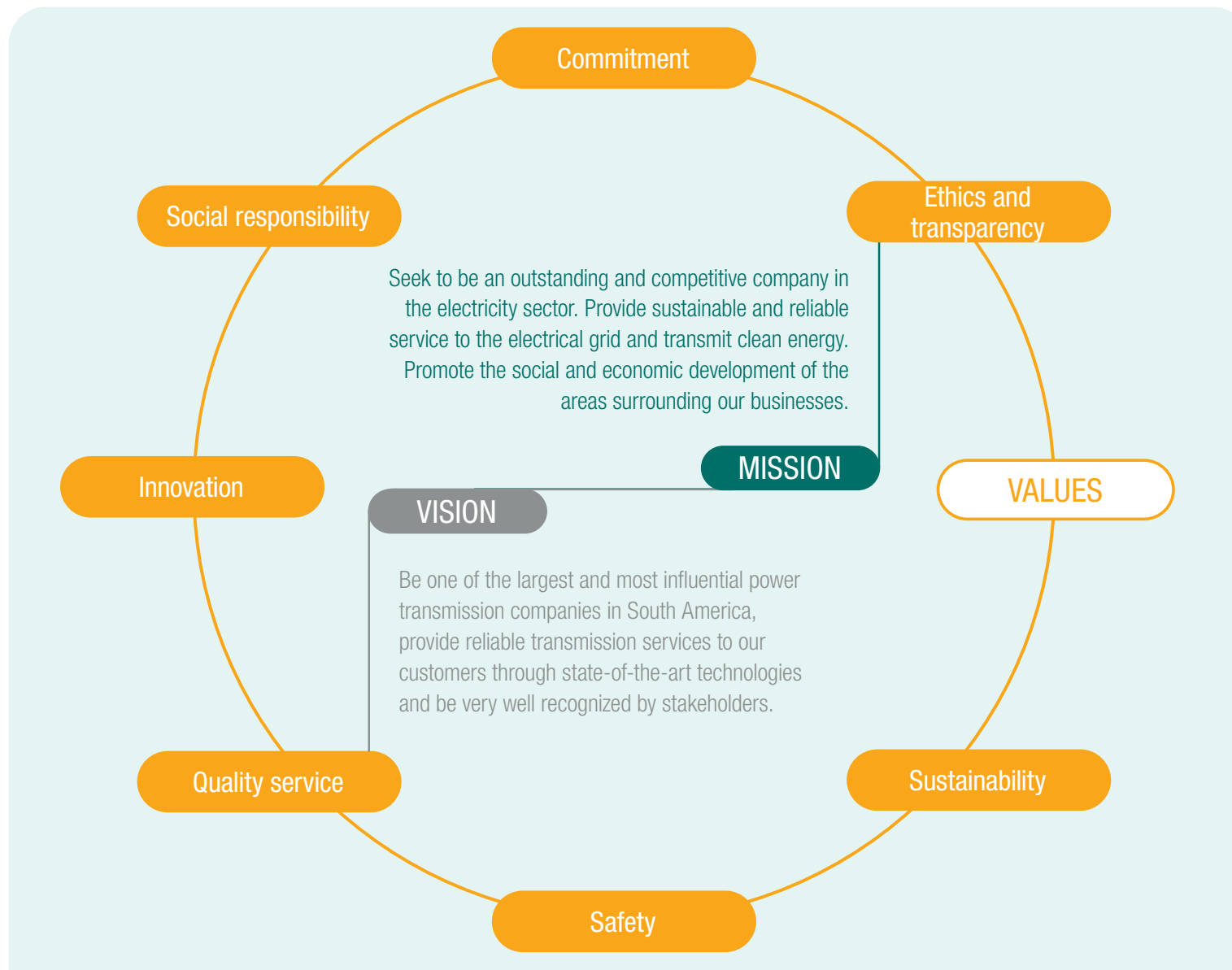
**25** Concessionaires

**7** Regionals

**+16,000 km** in Transmission Lines

**29,000** Towers

**54** Substations

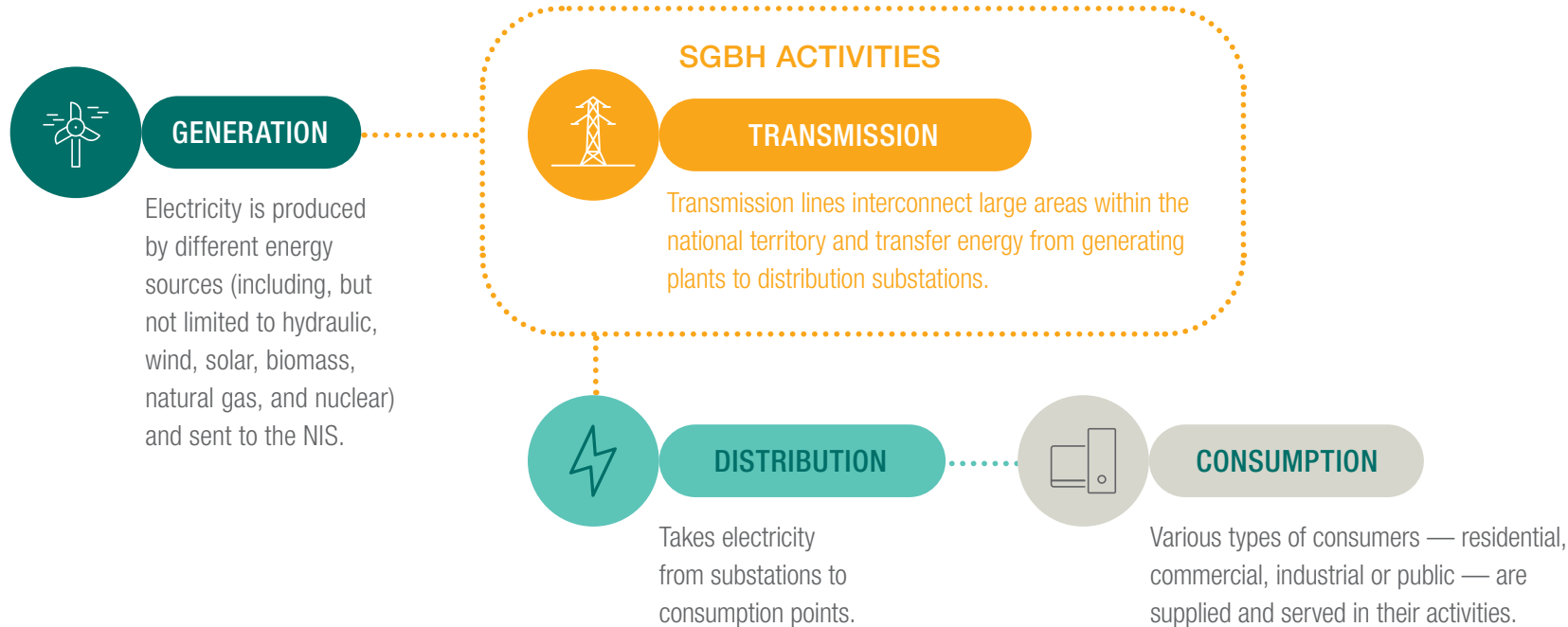


## Operation in the electric sector

The National Interconnected System (SIN) is a network that integrates the generation, transmission and distribution of electricity throughout Brazil, ensuring a continuous and efficient supply to a large part of the country. SGBH is part of this system, working on the construction, operation and maintenance of infrastructures that connect electricity generating plants to distribution points for end consumers.

Thanks to our 10,242 kilometers of installed lines, we make a significant contribution to electricity transmission, serving a significant share of the country. Our services are provided through public concession contracts, granted by the Brazilian National Electric Energy Agency (ANEEL) and managed by the National Electricity System Operator (ONS), the entity responsible for coordinating and controlling the operation of the SIN's power plants and networks, ensuring a balance between energy supply and demand throughout the National Interconnected System (SIN).

Our commitment to the full operation and availability of our transmission assets allows us to make the most of our energy supply and to serve consumers, guaranteeing reliability in the SIN and in our services.



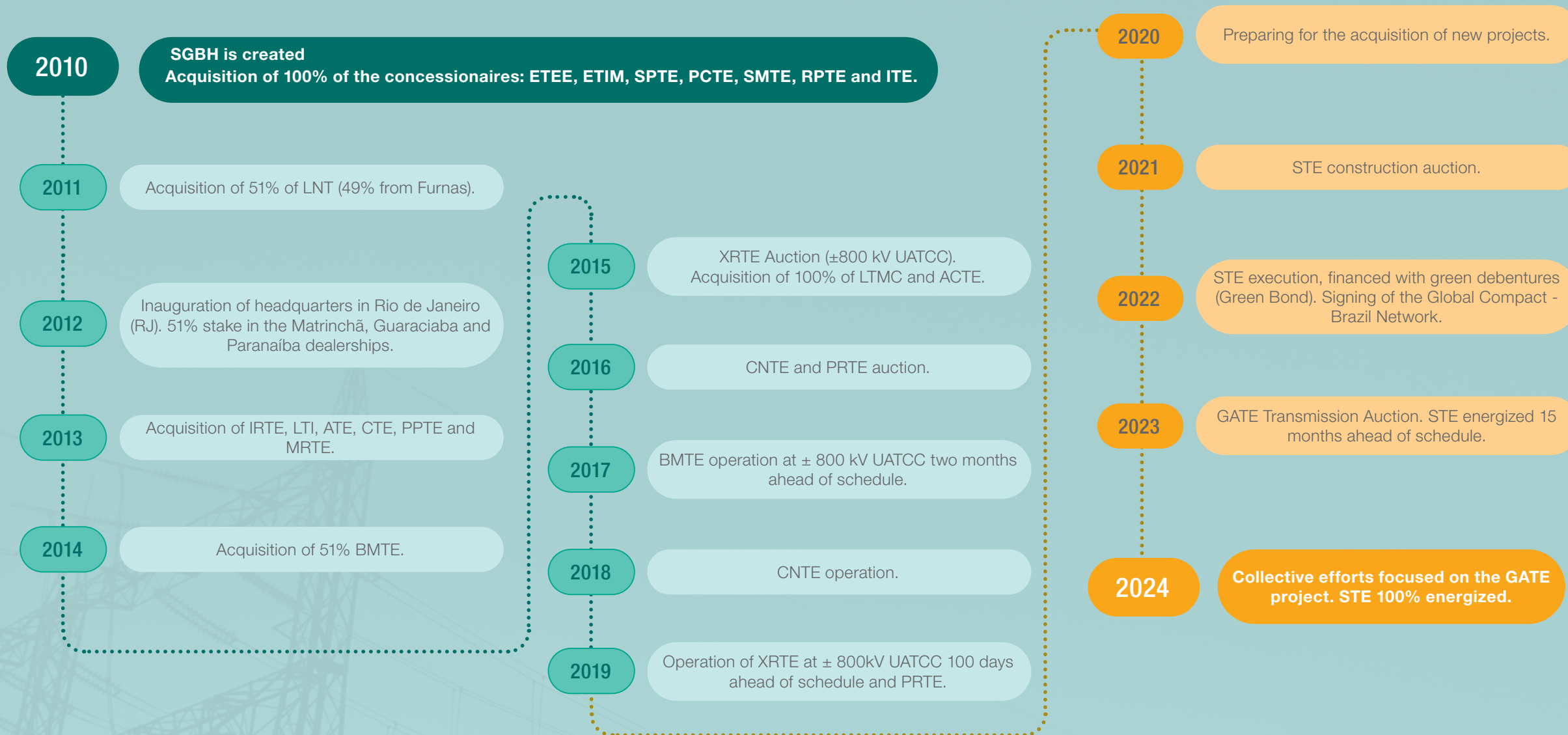
### STATE GRID CORPORATION OF CHINA

State Grid Corporation of China (SGCC) has as its main business the investment, construction and operation of energy networks, operating in the generation, transmission, distribution and commercialization of electricity. Headquartered in China since 2002, it chose Brazil in 2010 for its first major investment outside the Asian continent, starting SGBH.

In 2024, it remained in 3rd place in the Fortune Global 500, being considered the world's highest revenue company in the energy transmission and distribution sector and the largest state-owned company with international influence. In China, it provides services to 88% of the Chinese territory, as well as having branches in Asia (Hong Kong, the Philippines and Oman), Oceania (Australia), Europe (Portugal, Italy and Greece), and South America (Chile and Brazil), serving over 1.1 billion people. It also has operations in the USA, Venezuela, India, Russia and African countries.

For more information access: <http://www.sgcc.com.cn/>

## Our journey





# Material Topics

• GRI 3-1 | 3-2 | 3-3 •

SGBH's materiality study was undertaken in 2021, consulting with stakeholders. Stakeholders such as financial sector agents, employees, community leaders, government authorities (municipal and state), regulatory bodies (environmental and sectoral agencies,

the Public Prosecutor's Office and institutions of the Judicial System) and civil society were heard. Topics were defined based on sector studies of companies in the electricity sector and best practices recommended by initiatives









such as the Global Reporting Initiative (GRI), Sustainability Accounting Standards Board (SASB), Corporate Sustainability Index (ISE - B3), Dow Jones Sustainability Indexes (DJSI). These topics were prioritized in our 2024 initiatives.

## ENVIRONMENTAL

MATERIAL TOPIC	DESCRIPTION/INITIATIVES	RELATED SDG
<b>BIODIVERSITY</b>	We take measures to mitigate the impacts on biodiversity resulting from the installation and operation of our projects, always following the legal requirements and guidelines of the environmental agencies. During implementation, the impacts include the suppression of vegetation and the temporary fragmentation of habitats, mitigated by actions such as forest replacement and germplasm conservation. During operation, we selectively cut down trees to ensure the safety of the transmission lines, offsetting the impacts with forest replacement programs.	   
<b>ENVIRONMENTAL MANAGEMENT</b>	With a dedicated team in the field and office, we deal with issues such as environmental licensing, solid waste, effluents, water resources and forest replacement. Ongoing monitoring of environmental indicators, compensation measures, social communication campaigns and environmental education programs, all ensuring compliance with current legislation and preventing negative impacts on society and the environment.	  
<b>ENERGY TRANSITION</b>	At the forefront of initiatives driving the energy transition in Brazil, we focus on safety and efficiency. We have developed R&D projects on reversible hydroelectric plants and energy storage in batteries, as well as investing in ultra-high voltage technologies. These initiatives aim to expand the energy infrastructure, ensuring that renewable sources are integrated, transmission is reliable and energy resources are optimized throughout the country.	  



## SOCIAL

MATERIAL TOPIC	DESCRIPTION/INITIATIVES	RELATED SDG
OPERATIONAL SAFETY	Safety is a non-negotiable value for us, and we rely on all our employees to safeguard it in our operations. Shared responsibility - where everyone takes care of themselves and others - is one of the basic principles of our organizational safety culture. Risk control in our activities is strict, with a specific work plan and preliminary analyses to identify and validate the effectiveness of control measures. We also provide our employees with the market's best PPE and constantly evaluate new models that may offer even more protection.	 
SOCIAL INVESTMENT	Our social investments reinforce our commitment to long-term benefits for society, integrating efficient management and transparency in each project, backed up by regular meetings and continuous monitoring of results. We are supporting eight initiatives in the areas of culture, sport and health throughout 2024. The 50th anniversary of Brazil-China relations was a highlight and among the projects, we promoted the arrival of the Beijing Opera, the visit of the Maré Orchestra to China and the exhibition "A Rota do Chá", in Rio de Janeiro's Botanical Garden. Regular meetings and monitoring of results ensure effective execution.	  
LOCAL COMMUNITIES	With a view to a good long-term relationship with the communities surrounding our projects, we have adopted environmental education and social communication programs, which are monitored on an ongoing basis. We prioritize local hiring, publicly communicate job openings and maintain channels for dialogue, such as the Emergencies Channel and the Ombudsman's Office. In locations close to traditional community territories, such as indigenous or quilombola communities, we implement specific actions to compensate and encourage the autonomy and sustainable development of these populations.	  

## GOVERNANCE

MATERIAL TOPIC	DESCRIPTION/INITIATIVES	RELATED SDG
TECHNOLOGY AND INNOVATION	We have maintained ISO 56002 certification, which confirms our stringent compliance with the best innovation management practices. The Innovation Committee holds regular meetings to manage risks and monitor the physical, financial and regulatory aspects of R&D projects. To ensure the effective implementation of actions and compliance with defined targets, we use IT tools such as BI, Greendocs and CRIARE to monitor the project portfolio. The Innovation Manual, revised annually, guides our innovation efforts, and the ROOF and MOON indicators are key to managing progress towards the objectives laid out in this manual.	 
ETHICS AND COMPLIANCE	We place a high priority on ethics and compliance, which are key to increasing trust, improving reputation and reducing legal and financial risks. To prevent negative impacts, we carry out training on harassment, fraud, corruption and human rights, and maintain the Ethics Channel for complaints. Leaders are updated on the channel's indicators, and suppliers are given guidance on our values. We also monitor metrics on the effectiveness of training, the time taken to deal with issues and implement continuous improvements.	
INFRAESTRUTURA RESILIENTE	We work hard to prevent failures in the transmission system, especially during high-power periods, guaranteeing the stability of the SIN. We carry out preventive and predictive maintenance, annual inspections and awareness campaigns with landowners. To ensure resilience, we have trained teams, a strategic stock of spare parts and emergency actions to mitigate failures, with a focus on anticipating problems and responding efficiently to contingencies.	

# Strategic Planning

• GRI 2-22 | 2-23 | 2-24 •

Strategic Planning (SP) was redesigned in 2024 to align our actions with long-term goals and thus promote SGBH's sustainable growth and continuous evolution. To this end, we adopted the Strategic Radar to define eight priority themes, which reflect our structured and integrated approach. This methodological change has provided a clear vision of the initiatives that can positively impact all the company's departments.

To achieve the actions efficiently and reach the projected targets, the SP was structured into market and benchmark analysis, financial planning and specific initiatives.

As it is directly connected to the company's sustainable growth and competitiveness, as determined by its leaders, ESG is one of the pillars of this radar. The topic has earned relevance because it is cross-cutting, present in decision-making and investments, and incorporates important actions such as improving the governance structure and internal processes, risk management, compliance and auditing measures.

In 2024 we made progress on important initiatives outlined in our strategic planning, such as leadership in technology and innovation, asset management, operational efficiency and talent development.



Our Strategic Planning guides us in our continuous evolution towards a more efficient operation and governance attuned to global requirements, achieved through the integration of all SGBH sectors in the pursuit of sustainable growth.

# Value Created in 2024

## INPUTS

### MANUFACTURED CAPITAL

- Infrastructure of transmission lines, substations and operational centers;
- Infrastructure expansion and construction projects;
- Technologies to optimize operations.

### NATURAL CAPITAL

- Use of renewable and non-renewable natural resources;
- Change in land use;
- Impact on biodiversity.

### FINANCIAL CAPITAL

- Income and financing;
- Direct participation shareholders and investment fund.

### SOCIAL AND RELATIONSHIP CAPITAL

- Relationship with communities;
- Relationship with government authorities and energy regulatory agencies.

### HUMAN CAPITAL

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

### INTELLECTUAL CAPITAL

- Technical and managerial knowledge of the team;
- Exchange of accumulated knowledge from the headquarters in China.



## VALUE CREATED



### FINANCIAL CAPITAL

- BRL 4.65 billion in net revenue;
- BRL 3.64 billion in distributed added value;
- Investments in employees, infrastructure and innovation;
- Remuneration of third-party capital.



### INTELLECTUAL CAPITAL

- Creation of the Technology, Innovation and Information area;
- We led the creation of the Electric Innovation and Sharing Alliance (EISA);
- BRL 10.5 million invested in 9 R&D and innovation projects;
- Corporate University: State Academy;
- Periodic training;
- Contribution to technological advances and innovative solutions for the transmission sector.



### SOCIAL AND RELATIONSHIP CAPITAL

- Signatories of the UN Global Compact;
- Reformulation of the Governance Structure;
- 50 years of Brazil-China relations;
- Maré do Amanhã Orchestra in China;
- IIA MAY Campaign;
- ISO 31000 for risk management;
- Over 600 direct suppliers;
- Partnerships in research and development;
- Open relationship channel for accident prevention;
- BRL 4.3 million in 8 social investment projects;
- Contribution to communities development.



### MANUFACTURED CAPITAL

- 25 energy transmission concessionaires in 14 Brazilian states;
- 10,242 km of lines and 22 own substations;
- 1,600 km to be built for the new GATE project - 30-year concession;
- Good operational performance, with average availability above 99.7% and a failure rate below 0.3;
- 10 years of the System Operations Center, which gained a new room;
- Development of 11 expansion projects, 3 of which have already started operating;
- Acquisition of 2 robot dogs, improving safety and efficiency in routine operations.



### HUMAN CAPITAL

- 956 employees focused on the same goal;
- Engagement in the One State Grid concept;
- Creation of a diversity group;
- Recognition awards for our professionals;
- Employee training and development;
- Dedication to the safety and well-being of employees and local communities;
- Zero fatalities or serious accidents, frequency rate (1.22) and injury severity rate (5.7).



### NATURAL CAPITAL

- GHG Protocol Gold Seal for 3 consecutive years;
- Use of the LAST Portal, which makes environmental licensing processes faster and more transparent;
- Energy efficiency campaign;
- Ethanol Campaign, reaching an average of 84% of fill-ups;
- Acquisition of 11 electric cars;
- 90,067 tCO<sub>2</sub>e emissions Scopes 1 and 2;
- 242.6 thousand GJ of energy consumed;
- 100.48 tons of hazardous waste and 337.62 tons of non-hazardous;
- Water diagnosis.

# Highlights of the year



## GATE

- Concession contract signed
- Environmental Impact Assessment (EIA)
- Public hearings held



## Casa Pacheco Leão

restoration of the space and inauguration of the exhibition “The Tea Route”



## Strategic Radar

with 8 areas of focus and development



## Directors’ Council and Supervisory Council

established



## Climate change

- Acquisition of the first electric cars
- Giving priority to the use of biofuels
- Purchase of I-RECs



Electric **Innovation** and Sharing **Alliance** (EISA).



## Zero fatalities

or serious accidents



## 10 years

of the System Operation Center (COS)



**BRL 4.65 billion** net operating revenue



**50 years** of Brazil-China relations

## Awards



**100**  
most influential  
companies from VEJA



RECOGNITION BY THE ACADEMY OF MERIT  
AT THE CELEBRATIONS FOR 50 YEARS OF  
BILATERAL RELATIONS BETWEEN CHINA  
AND BRAZIL



CHINA R&D AWARD FINALISTS



# Financial Performance

## • GRI 201-1 •

Assuring openness and business integrity, we place a high importance on truthfulness and ease of access when disclosing our financial and economic performance. We strengthened internal controls and sent our corporate and regulatory balance sheets to an external independent audit\* in 2024.

On December 31, 2024, the distribution of added value from SGBH's regulated concessions totaled BRL3.64 billion, down 0.9% year-on-year. This amount was distributed among Personnel (6%), Fees, taxes and contributions (19%), Compensation on third-party capital (25%) and Compensation on equity (50%). SGBH has no gross debt with third parties, emphasizing its financial strength and commitment to economic sustainability.

**BRL 4.65 BI** Net operating revenue

**BRL 3.64 BI** Distribution of added value

\* Audit conducted by KPMG.



## DISTRIBUTION OF ADDED VALUE (DVA)

		2024 (thousand BRL)	2023 (thousand BRL)	2022 (thousand BRL)	Variation 24-23
TOTAL DVA	Distribution	3,637,888	3,670,422	3,301,752	-0.9%
Personnel	6%	228,647	205,003	191,404	11.5%
Fees, taxes and contributions	19%	676,788	672,316	660,310	0.7%
Compensation on third-party capital	25%	911,704	826,551	903,229	10.3%
Compensation on equity	50%	1,820,749	1,966,552	1,596,809	-7.4%



## Green Bonds

• [GB 1](#) | [GB 2](#) | [GB 3](#) | [GB 4](#) | [GB 5](#) •

One of the practices put in place by SGBH to act more sustainably is green financing, with the issuance of Green Bonds in the amount of BRL235 million. The funds raised were entirely allocated to the construction of Silvânia Transmissora de Energia S.A. (STE), totaling BRL595 million in CAPEX.

The STE project promotes the transmission of non-conventional renewable energies, such as wind, solar, small hydroelectric (SHP) and biomass, in the National Interconnected System (SIN), connecting generation plants to consumer centers. In 2024, an average of 1,297 green users were served per month, representing 79.1% of all users generating revenues of BRL2,979,912, equivalent to 8% of the revenues associated with all users.

The project contributes to system reliability by mitigating contingency risks (N-1) and meets the decarbonization criteria of the European Union’s Sustainable Finance Taxonomy, driving the transition to a sustainable energy matrix and aligning with SDGs 7 and 13.

Transmission service provision indicators for green users are employed to validate the environmental benefit generated by green projects, and are confirmed by the independent opinion reports issued by NINT Natural Intelligence: the first on issuance of the green debenture and the second after 48 months.

One of the eligibility criteria of the Climate Bonds Initiative is to keep the average emission factor below 100 gCO<sub>2</sub>e/kWh for five

consecutive years. In 2024, the SIN was at 54.5 gCO<sub>2</sub>e/kWh, with an average of 64.7 gCO<sub>2</sub>e/kWh in the period from 2020 to 2024.

STE began operating in 2024, when it started recording its regulatory revenue. Therefore, there is no billing data to measure the benefit to green users in previous years.

### ENVIRONMENTAL BENEFIT INDICATORS

	2024	2023	2022	2021	2020
Average monthly number of green users	1,297	1,165	943	795	644
Percentage of green users over total users – monthly averages (%)	79.1	77.7	74.7	71.4	67.3
NIS average greenhouse gas emission factor (gCO <sub>2</sub> /kWh)	54.5	38.5	42.6	126.4	61.7
Green User Turnover (BRL)*	2,979,912	-	-	-	-
Percentage of Green User turnover over total (%)	8.0	-	-	-	-

\* With the start of the concessionaire’s operations in 2024, we began to measure green user turnover.



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3

# Structure & Operations

ANEEL GENERAL, ECONOMIC-FINANCIAL, SOCIAL AND SECTORAL DIMENSIONS



Manufactured  
Capital



Human  
Capital



Financial  
Capital



Intellectual  
Capital



# Business and Assets

• GRI 2-1 | 2-2 | 2-6 | EU 4 •

Playing a strategic role in the interconnection of the Brazilian electricity system, SGBH is active in the operation and maintenance of transmission systems, setting up its own state-of-the-art facilities. Since 2010, we have expanded our activities in Brazil through partnerships and auctions promoted by the National Electric Energy Agency (ANEEL).

With projects in 14 Brazilian states, we control 25 concessionaires, 20 of which are our own and 5 are joint ventures, operating thousands of kilometers of transmission lines.

The XRTE and GATE transmission lines stand out for their cutting-edge ultra-high voltage technology over long distances, connecting strategic points in the system more efficiently and bringing greater energy security to the country.



## 20

**concessionaires controlled by the Holding**



## 05

**concessionaires with 51% share**

Matrinchã  
Guaraciaba  
LNT (Luziânia)  
Paranaíba  
Belo Monte



## 01

**technical services company to the concessionaires**

State Grid Serviços de Engenharia (SGSE)



## Operations network

Our headquarters, the SGCC Rio Tower, located in Rio de Janeiro (RJ), also houses the System Operations Center (COS), which operates 24 hours a day, ensuring the availability of SGBH's assets through uninterrupted monitoring and control, as well as its swift response to outages and real-time handling of identified abnormalities.

The COS is responsible for centrally supervising 64 substations and 77 transmission lines, totaling over 16,000 kilometers, supporting the safety of field teams in carrying out remote shutdown, isolation, and equipment normalization procedures.

### 8TH OPERATIONS WORKSHOP

In October, the 8th Operations Workshop took place in a hybrid format. The event promoted integration between the areas, providing a valuable exchange of ideas and knowledge and strengthening internal collaboration.

We had three external speakers, six talks from companies in the electricity sector and over 140 participants connected simultaneously.



### 10 YEARS OF THE OPERATIONS CENTER

In 2024, to celebrate 10 years of COS, employees were invited to get to know how it works. This was an opportunity for everyone to understand the complex control and operations system, which is crucial to ensuring the uninterrupted supply of energy to communities and companies.

### OPERATIONS CENTER: NEW ROOM

Due to the need for modernization and expansion, a new control room was built and inaugurated in November 2024. It features two additional workstations, totaling six positions, a state-of-the-art LED panel, a simulation and training room, a space to welcome visitors, a changing room, and a cafeteria, providing much more comfort for the team.

Watch our employees talk about the importance of COS in: <https://www.instagram.com/stategrid.brazil/reel/C688oiy0ba4>





	OWN SUBSTATIONS (UNITS)	TRANSMISSION LINES (km)	VOLTAGE (kV)
ACTE - Atlântico Concessionária de Transmissão de Energia do Brasil S.A.	1	72	230
ARTE - Araraquara Transmissora de Energia S.A.	1	45	440 / 500
CNTE - Canarana Transmissora de Energia S.A.	1	262	230
CTX - Catxerê Transmissora de Energia S.A.	-	609	500
ETEE - Expansion Transmissão de Energia Elétrica S.A.	-	630	500
ETIM - Expansion Transmissão Itumbiara Marimbondo S.A.	-	214	500
IRTE - Iracema de Transmissora de Energia S.A.	1	399	500
ITATIM - Linhas de Transmissão do Itatim S.A.	4	912	138 / 230 / 440
ITE - Itumbiara Transmissora de Energia S.A.	3	818	230 / 500
LTMC - Linhas de Transmissão de Montes Claros S.A.	2	151	138 / 345 / 500
MRTE - Marechal Rondon Transmissora de Energia S.A.	1	-	138 / 440
PCTE - Poços de Caldas Transmissora de Energia S.A.	1	300	440 / 500
PPTE - Porto Primavera Transmissora de Energia S.A.	2	539	230 / 440
PRTE - Paranaíta Ribeirãozinho Transmissora de Energia S.A.	-	1,012	500
RPTE - Ribeirão Preto Transmissora de Energia S.A.	-	408	500
SMTE - Serra da Mesa Transmissora de Energia S.A.	2	680	500
SPTE - Serra Paracatu Transmissora de Energia S.A.	1	245	138 / 500
STE - Silvânia Transmissora de Energia S.A.	1	156	500
XRTE - Xingu Rio Transmissora de Energia S.A.	1	2,792	500 / 800

GATE - Graça Aranha Silvânia Transmissora de Energia S.A.



**10,243 km**  
**22 own substations**

# New Projects

## Graça Aranha Silvânia Transmissora de Energia (GATE)

In December 2023, we secured the main lot in ANEEL Auction 002/2023, a milestone for which we prepared with planning and team integration. Since then, several engineering and socio-environmental studies have been undertaken to make the project viable, and it should be operational within 72 months of the auction. The project will contribute to the national energy transition by connecting new plants from renewable sources, strengthening the stability of the National Interconnected System (NIS).

Currently, the northeastern region of Brazil, the largest producer of wind and solar photovoltaic energy, faces challenges in the efficient transmission of electricity due to the absence of a transmission network. The GATE concessionaire will be responsible for transporting this renewable energy, creating an ultra-high voltage direct current corridor that will cross 41 municipalities in four states - Maranhão, Tocantins, Goiás and Minas Gerais.

GATE will make it possible to boost sustainable energy in the country, contributing to the energy transition.

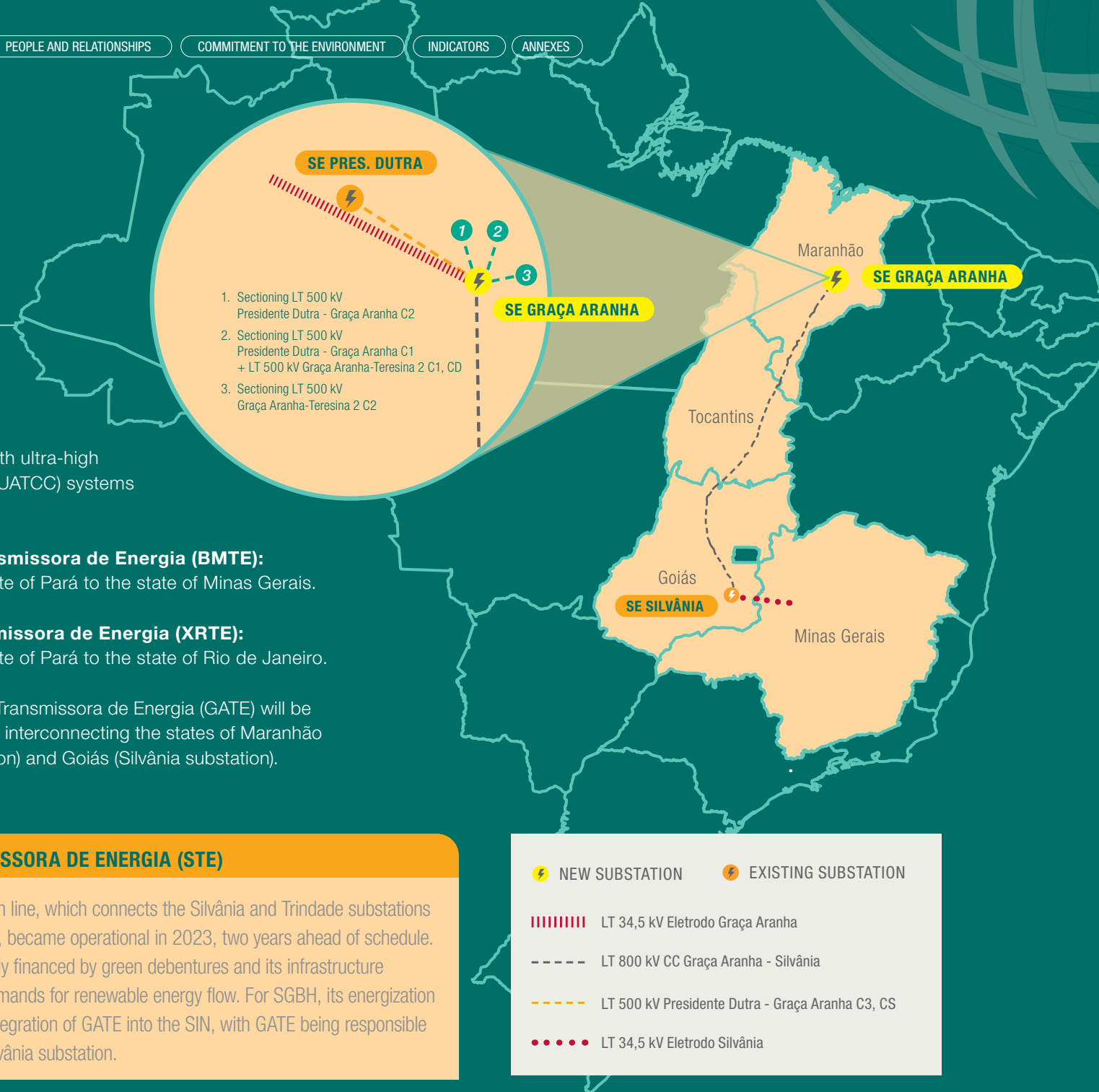
SGBH has two lines with ultra-high voltage direct current (UATCC) systems operating at  $\pm 800$  kV:

- Belo Monte Transmissora de Energia (BMTE):** connecting the state of Pará to the state of Minas Gerais.
- Xingu Rio Transmissora de Energia (XRTE):** connecting the state of Pará to the state of Rio de Janeiro.

Graça Aranha Silvânia Transmissora de Energia (GATE) will be the 3rd UATCC system, interconnecting the states of Maranhão (Graça Aranha substation) and Goiás (Silvânia substation).

### SILVÂNIA TRANSMISSORA DE ENERGIA (STE)

The STE transmission line, which connects the Silvânia and Trindade substations in the state of Goiás, became operational in 2023, two years ahead of schedule. The project was partly financed by green debentures and its infrastructure anticipates future demands for renewable energy flow. For SGBH, its energization is a key link in the integration of GATE into the SIN, with GATE being responsible for expanding the Silvânia substation.



GATE falls under the Special Incentive Regime for Infrastructure Development (REIDI), a Brazilian government program that grants tax incentives to companies that invest in strategic infrastructure projects, considered critical to the country's development. Through this initiative, the project is exempt from paying PIS [Social Integration Program, a tax levied on corporations' total sales] COFINS [Social Security Financing Contribution - an additional mandatory contribution to the financing of social security, based on the gross turnover of corporations] on the purchase of new machinery, devices, instruments and equipment, reducing its implementation and operating costs.

After the concession contract was signed, we began preparing the Environmental Impact Assessment (EIA), which was filed in June 2024. It presents diagnosis of the physical, biotic and socio-economic environments, as well as the expected relationship of these environments with the project to be implemented.

During the course of the studies, through secondary bases and field visits, two quilombola communities were identified in the state

of Maranhão in areas close to the project, requiring a careful look at these communities and a close relationship with the National Institute for Colonization and Agrarian Reform (INCRA).

The public hearings took place in November and December in five in-person locations and seven locations with rebroadcasts, as well as being transmitted virtually, making it possible for a greater number of people to have access to information about the project.

The project will impact around 2,000 landowners, with SGBH registering 16 lawsuits over land issues in 2024. This result reflects the technical and respectful work of our team in the field, which facilitated the release of land for studies and the start of construction.

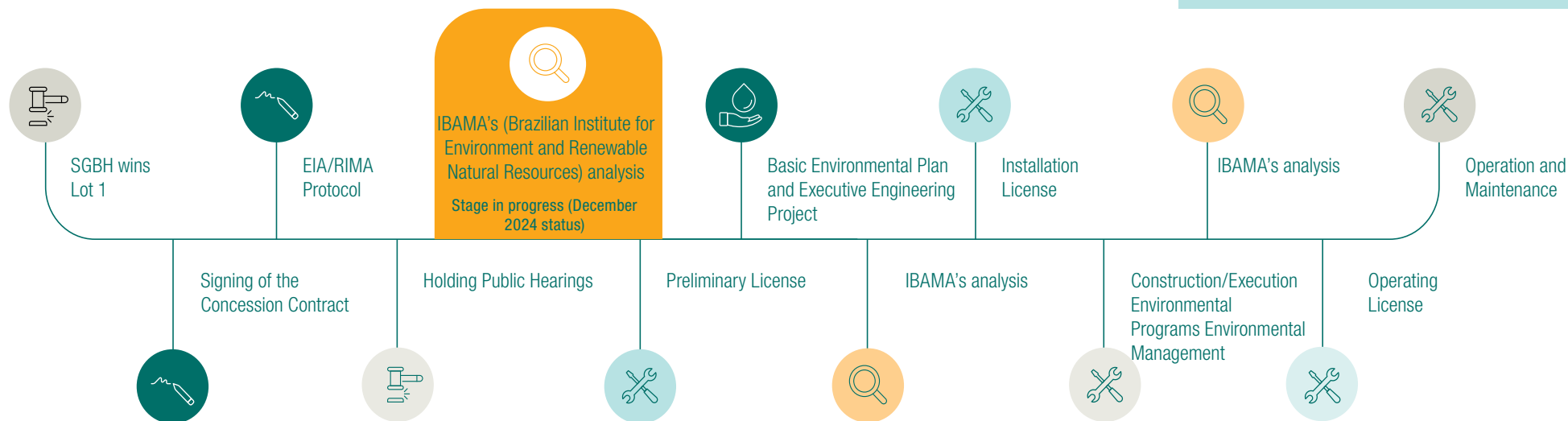
We performed archaeological prospecting on the entire right-of-way, which stretches linearly for 1,600 km, a pioneering approach that will avoid delays and additional costs. This strategy offers flexibility to the project and allows for adjustments to the positioning of the towers with no need for new surveys.

With an investment exceeding BRL18 billion, the GATE project will create up to 20,000 new jobs, both direct and indirect, along its 1,600 km length.

### THE LEGAL DEPARTMENT'S ROLE IN THE GATE PROJECT

The year 2024 was marked by significant work by the Legal Department, especially in supporting the GATE Project, a large and highly complex undertaking. The project entailed drafting and negotiating around 48 contracts, ranging from initial services for the execution of the project to detailing the parties' responsibilities in execution and management, mitigating the project's risks. The Legal Department also assisted in the analysis of the Facility Sharing Agreements (FSAs), involving the ONS and other Transmission Companies, as well as the project's Financing Agreements.

### Project steps



## Expansion projects

We have developed substation expansion projects that enable and strengthen the connections of the Brazilian transmission grid, contributing to the country's energy security. In 2024, 11 projects were in progress and three of them were completed and in operation.

### INAUGURATED/OPERATING

#### Concession

**ATE** Substation: SE ARARAQUARA 2: REA 9.677/2021  
 Scope: Installation of 3rd source for auxiliary services  
 Operational start-up (COD): 09/20/2024

Substation: SE PARACATU 4: REA 12.266/2022 and REA 13.312/2023  
 Scope: Installation of the 3rd 3 X 100 MVA Transformer Bank  
 Operational start-up (COD): 07/15/2024

**SMTE** Substation: SE PARACATU 4: ONS DTA-2021-PA-0085R0  
 Scope: Installation of the 7th 138 kV bay  
 Operational start-up (COD): 07/15/2024

Substation: SE PARACATU 4: ONS DTA-2023-PA-0109-R0  
 Scope: Installation of the 8th 138 kV bay

### IN PROGRESS

#### Concession

Substation: SE ARARAQUARA 2: REA 14.805/2023  
 Scope: Installation of 4th Autotransformer 3 X 416.67 MVA

**ATE** Substation: SE ARARAQUARA 2: REA 4.916/2023  
 Scope: Installation of the 2nd Bank of 3 X 66.7 MVar Bar Reactors

Substation: SE ILHA SOLTEIRA: REA 14.804/2023  
 Scope: Installation of the 3rd Autotransformer Bank - 3 X 150 MVA

**ITATIM** Substation: SE INOCÊNCIA: REA 4.923/2023  
 Scope: 1st Bar Reactor 1 x 50 Mvar

Substation: SE ITABIRITO: REA 15.416/24  
 Scope: Installation of the 1st Reactor Bank (3 +1) X 33.3 Mvar

**LTMC** Substation: SE LUZIÂNIA: REA ANEEL 621/2023  
 Scope: Synchronizer installation

**PCTE** Substation: SE RIBEIRÃO PRETO: REA 1.913/2023 e 4.197/2023  
 Scope: Installation of the 2nd Bank of 3 x 60 Mvar Bar Reactors



# Commitment to Safety

• GRI 403-1 | 403-2 | 403-3 | 403-4 | 403-7 •

Safety is a non-negotiable value for us, and we rely on all our employees to safeguard it in our operations. Shared responsibility - where everyone takes care of themselves and others - is one of the basic principles of our organizational safety culture.

To strengthen this cultural transformation, we have a safety team dedicated to implementing the program's actions and a Safety Committee, which meets periodically to evaluate the company's performance. Our management system ensures high safety efficiency through well-defined policies, rules and procedures, as well as regular training and preventive tools, which are continually audited to ensure their correct application.

Throughout the year, we promote several campaigns to strengthen our health and safety culture, including talks at SIPAT (an internal accident-prevention week), various activities for reflection and awareness during Safety Month, alignments in the workshop with professionals in the area and during Health Week we share knowledge with talks and wellness actions.

## REPORT AND INCIDENT INVESTIGATION

Incidents are reported immediately and recorded in the internal system. Safety technicians and engineers use analytical tools, such as the Ishikawa Diagram and the 5 Whys Method, to identify causes and reassess risks related to working conditions, procedures and human behavior.

## CORRECTIVE MEASURES BASED ON THE CONTROL HIERARCHY

Corrective actions follow the risk control hierarchy, prioritizing:

1. **Elimination:** Whenever possible, the risk is completely removed, either by changing the process, equipment or environment.
2. **Substitution:** When elimination is not feasible, hazardous materials or equipment are replaced by safer alternatives.
3. **Engineering Controls:** Implementation of physical barriers, process automation or other technical solutions to mitigate risk.
4. **Administrative Controls:**
5. **Use of Personal Protective Equipment (PPE):** Use of PPE is reinforced as a last line of defense if the risks cannot be fully eliminated.

Revision of procedures, reinforcement of training and adjustments to the PET (Specific Work Plan) or APR (Preliminary Risk Analysis).

## IMPROVEMENTS TO THE OCCUPATIONAL HEALTH AND SAFETY MANAGEMENT SYSTEM

Lessons learned from incidents result in action plans with responsibilities, deadlines and follow-up metrics. Activities are monitored through audits and inspections, with a review of procedures and employee training. Incident data is analyzed to identify trends and prevent new risks.

## CONTINUOUS IMPROVEMENT CYCLE

The findings of the investigations feed into the PDCA cycle (Plan, Do, Check, Act), strengthening the prevention and safety culture. The aim is to anticipate and mitigate future risks, continually improving the health and safety management system.

Focused on safe behavior, SGBH enforces preventive actions and continually reviews its safety policies and practices, taking into account industry trends and technological advances.

In the event of a work incident, we are prepared to take action using a structured and systematic approach. Regardless of the severity, the planned measures are to identify the root causes, assess the associated risks, apply the appropriate corrective measures and encourage improvements to the Occupational Health and Safety Management System (OHSMS). The lessons learned from incidents are incorporated into training and procedure instructions.

Our goal is always to have zero fatalities, as well as to reduce the number of accidents and maintain high levels of safety compliance and strengthen our mature safety culture. To this end, many actions have already been implemented and many more are planned for the coming years as part of our strategic planning. One of our key safety culture tools is the Behavioral Safety Program (PSC), which encourages safe behavior among employees. Find out more about the PSC on page 63.

Our commitment is to stay one step ahead of unwanted events, reinforcing a culture of care that ensures the protection of everyone involved and business continuity.

## APPLICATION FOR MANAGING DAILY ACTIVITIES

We use an occupational health and safety management system, accessible via cell phone, which allows activities to be monitored remotely and in real time. The app has a pre-mapped risk checklist for each activity, enabling teams to check it daily as part of the routine that precedes its execution.

The integrated dashboard identifies the main operational risks, the risk classification (low, medium or high) and the trend, based on the activity's execution history. By offering standardized and up-to-date data, the app increases speed and precision in operations.



## FIRE OUTBREAK ALERT DASHBOARD

Preventing and fighting fires is one of SGBH's main operational risk mitigation measures. To monitor their occurrence and avoid their effects on communities, ecosystems and transmission line infrastructure, we have developed a dashboard integrated with a GIS (Geographic Information System) platform. When it identifies a fire in the surroundings of our infrastructure, the system sends out automatic alerts to those responsible and mobilizes teams to deal with the emergency immediately to ensure operational continuity.

### The dashboard provides the following information:

- Dynamic information map;
- Transmission lines under SGBH's responsibility;
- Number of fire outbreaks per day, using data from satellites monitored by the National Institute for Space Research (INPE);
- Transmission sections under fire alert;
- Active reforestation projects under fire alert.

# Operational Efficiency

• GRI G4-DMA (FORMER EU 6 | EU 21) •

## Operational challenges

To ensure the quality of our services, in the short and long term, we are committed to combining active system maintenance and team safety. To do this, we face three major challenges with specific approaches:

- 1. Constant training for employees:** training by in-house experts and the use of simulation tools for real world scenarios;
- 2. Continuous improvement of operation and maintenance support resources and systems:** identifying opportunities for improvement, prospecting for solutions and implementing them. The atmosphere that encourages innovation allows employees themselves to propose and develop solutions that optimize activities and processes;
- 3. Compliance with the maintenance plan required by ANEEL (REN [Normative Resolution of the Brazilian Electricity Regulatory Agency] 905/2020), as well as additional predictive and preventive maintenance:** ongoing monitoring of equipment operating conditions and short- and long-term planning of activities.



## Operational performance

Our operation is highly reliable, with maintenance routines performed efficiently, effectively and safely. This continuous effort provides an operational performance of high infrastructure availability and low failure rates, materializing our commitment to the energy security of the SIN (National Interconnected System).

XRTE operated with an average availability of 99.99% in 2024, surpassing the best result in SGBH's history for the second year running.



### NSO PERFORMANCE CRITERIA FOR OPERATION MONITORING\*

Voltage (kV)	2024					2023					2022				
	230	345	440	500	800	230	345	440	500	800	230	345	440	500	800
Average availability (%)	99.68	99.88	99.70	99.31	99.99	99.99	99.77	99.41	99.19	99.12	99.72	100	99.89	99.84	99.90
Average failure rate	0.03	0.06	1.27	0.08	0.00	1.07	0.02	0.04	0.04	0.00	0.56	0.00	0.31	0.14	0.10

\* The annual maintenance shutdown, which is mandatory under ANEEL resolutions, was not taken into account.

## Team routines

To make sure we have optimum operating conditions and achieve excellent transmission results, our teams follow a strict routine.

### ROUTINE MEASURES IN THE CONSTANT SEARCH FOR EXCELLENCE

- Intensive training in Operation and Maintenance, centered on solving emergencies and preventing failures, ensuring ongoing training to deal with critical situations;
- Preventive and predictive equipment maintenance, in line with ANEEL regulations, to ensure reliable and efficient operation of transmission systems;
- Periodic overflight along critical lines to identify potential risks, such as changes in cultivation under the line, the presence of mining sites, new housing or erosion, as well as failure points, such as problems with insulators;
- Emergency Action Group, prepared to handle emergency situations such as tower collapses and essential equipment failures, ensuring service continuity;
- Study group on equipment hidden failures, promoting the exchange of experiences between professionals with experience in the Brazilian and Chinese electricity markets, allowing actions to be brought forward and avoiding potential impacts on installations;
- Immediate availability of spare parts at substations and along transmission lines, for quick action in the event of unforeseen failures;
- Substation monitoring and control, with a focus on maintaining rainwater drainage systems to cope with critical rainfall events and ensure continuous operation, regardless of weather conditions.



# The Future of Energy

## • GRI 3-3 | G4-DMA (FORMER EU 8) •

We are fully committed to innovation and upgrading power transmission in Brazil, which has helped to establish us as a benchmark company in the segment. The combination of the team's technical knowledge and the technological advances offered by the State Grid Corporation of China has generated solutions that boost our operational efficiency and the modernization of the National Interconnected System (SIN).

To achieve successful results, our innovation strategy focuses on investing in the continued training of our dedicated team, as well as evolving products, services and processes designed by our teams and partners.

In 2024, efforts were made to manage advances in technology and innovation at the company, in particular maintaining the certificate of compliance with ISO 56002 - Innovation Governance, which demonstrates strict compliance with the standard's requirements. Moreover, the senior management attended critical analyses and demonstrated their commitment to structured innovation governance.

The management of SGBH's R&D project portfolio follows the guidelines of the corporate Innovation Manual, which lays down clear goals, targets and indicators. The manual undergoes an annual review to incorporate lessons learned and fine-tune internal processes to integrate best practices.

The Innovation Committee tracks specific indicators, evaluating targets - realistic, achievable, ambitious and challenging - to monitor projects' progress and ensure that the expected results are achieved and aligned with our strategic objectives. The Committee holds regular meetings to oversee the development of ongoing projects.

Innovative projects and processes developed by SGBH are designed to increase operational efficiency, optimize project management and enhance the company's competitiveness, in order to contribute to the strengthening and security of the entire national electricity system.

## TECHNOLOGY, INNOVATION AND INFORMATION DEPARTMENT

An integrated Technology, Innovation and Information department was set up in 2024, bringing together engineering resources with a focus on technical innovation and boosting business through new technologies. The use of artificial intelligence, which has globally stood out as an innovative technology, is one of the approaches being analyzed by the team.





## ALLIANCE FOR INNOVATION AND COOPERATION IN THE ELECTRICITY SECTOR

We led the creation of the Electric Innovation and Sharing Alliance (EISA), an international alliance to promote innovation and technological sharing between Brazil and China. The signing ceremony took place in Rio de Janeiro (RJ), as part of the G20 summit, and brought together over 100 representatives from the energy sector, including companies, universities and research centers from both countries.

EISA was conceived as a platform for technological cooperation and knowledge exchange, aimed at developing innovative solutions to the challenges facing the electricity sector, particularly in the context of the energy transition and global decarbonization. The initiative has the participation of 16 founding entities, including the National Electricity System Operator (ONS), the Energy Research Company (EPE), the Electricity

Research Center (CEPEL), Brazilian universities such as USP (University of São Paulo), UFRJ (Federal University of Rio de Janeiro) and UFF (Fluminense Federal University), and Chinese institutions such as Tsinghua University and the China Electric Power Research Institute.

### ROBOT DOGS

In 2024, two robot dogs were acquired by SGBH and have been undergoing tests to monitor substations. Capable of carrying out automatic inspections on equipment, these devices send data in real time and complement human work by identifying malfunctions that might otherwise go unnoticed. A technology with vast application potential, robot dogs can contribute to safety and efficiency in our operating routine.



### MAINTENANCE DRONES

Drones are used for routine inspections to make maintenance more efficient and guarantee the good performance of transmission lines. With them, it is possible to accurately identify wear and faults in the lines and monitor the structures more swiftly and thoroughly, avoiding power supply interruptions, the need to work at height and risky displacements.

### LIVE LINE MAINTENANCE

We continue to apply and develop the live line maintenance technique for replacing insulators on 800 kV transmission lines. This technique allows us to carry out repairs with no need to interrupt the power supply, resulting in greater operational reliability and contributing to energy security.

### LAST PORTAL

The Portal de Referência para o Licenciamento de Sistemas de Transmissão (LAST Portal) was developed to speed up and bring better transparency to environmental licensing processes for electricity transmission projects. The platform centralizes and makes available a broad database of standardized and georeferenced data, allowing for the collection and systematization of data and processes related to socio-environmental impacts. The Portal helps to minimize risks to project deadlines and costs.

We took part in the seventh “Youth Innovation and Creativity” Conference, held in China, with the LAST Portal project, which came 4th in the second round of the competition. We were the first innovative project from another continent to advance to the competition final.

**Apart from the highlighted projects, SGBH’s Research, Development and Innovation department has achieved a number of milestones in recent years:**

**35 projects**

**BRL 68 million** invested

**10 training** courses

**1 software** registration

**3 books** published and distributed free of charge

## R&D investments

Our research and development (R&D) projects follow ANEEL's guidelines for the electricity sector, focusing on: operational efficiency, generation costs and affordable tariffs, expansion of energy supply and sustainable development.

These activities are closely linked to increasing access to electricity by improving the infrastructure and grid efficiency, thereby contributing to service quality, reliability and extension. In 2024, we invested BRL418,564.76 in managing the R&D project portfolio.

Learn more about the R&D projects in [Annex 7](#).

### INVESTMENTS IN R&D BY ANEEL CATEGORY

Electrical energy systems planning (PL)	Amount (BRL)
Reference Manual for Pumped Storage Hydropower (PSHs)	1,225,336.02
Insertion of an ultra-high voltage Alternating Current (AC) transmission system in Brazil	20,400.00
Analytical Intelligence System for the Electrical Sector, Transmission module (SIASE-T)	11,820.00
<b>Operation of electrical energy systems (OP)</b>	
Research on the application of Battery Energy Storage Systems (BESS) in the transmission system	2,611,232.30
Research into VSC (Voltage Sourced Converter) converters for HVDC transmission using overhead lines	135,026.64
<b>Supervision, control and protection of electrical energy systems (SC)</b>	
Implementation of a SEP pilot project in a hybrid electrical network, HVDC/HVAC, based on PMU	4,626,199.25
Smart sensor and series capacitor bank monitoring software	395,914.95
<b>Environment (MA)</b>	
Development of a solution for remote monitoring of bird collisions on transmission lines via computer vision	1,505,024.76
LAST Portal - Development of a Reference Portal on Environmental Licensing of Transmission Systems - phase 2 (Project closed, tool produced and in use at SGBH)	7,200.00
<b>Total invested</b>	<b>10,538,153.92</b>



## Projects with partners



### RESEARCH INTO THE APPLICATION OF BATTERY ENERGY STORAGE SYSTEMS (BESS) IN THE TRANSMISSION SYSTEM

Project dedicated to the development and application of battery energy storage systems for the National Interconnected System. The BESS system comprises a set of batteries stored in containers, which discharge the stored energy during consumption peaks, contributing to the stability of the electricity grid. The project's objective is to study and select the best application for energy storage, considering technical, regulatory, economic and methodological aspects for system planning, bringing greater efficiency and flexibility to the electricity sector.

**Partners: Techne-Gesel and EPPEI Brasil**

### INTELLIGENT SENSOR AND SOFTWARE FOR MONITORING SERIES CAPACITOR BANKS

Developed by State Grid in partnership with the Paranaíba, Guaraciaba and Matrinchã transmission companies, the project seeks to create a comprehensive solution for the online monitoring and management of series capacitors. Using intelligent sensors and AI-based software, the project facilitates the measurement and diagnosis of faults, current, frequency, and conservation of capacitors, the devices which store energy. To improve system efficiency, the sensors are installed directly on the capacitors, enabling continuous monitoring and data analysis in real time. The solution offers a more effective and innovative approach for the electricity sector, using cutting-edge technology to optimize system operation and maintenance.

**Partners: Radice Tecnologia and Paranaíba Transmissora de Energia**

## Projects with partners

### DEVELOPMENT OF A SOLUTION FOR REMOTE MONITORING OF BIRD COLLISIONS ON TRANSMISSION LINES VIA COMPUTER VISION



The project intends to develop an advanced monitoring system to detect and quantify bird collisions with electricity transmission lines, using technologies such as computer vision and data analysis. The system will be autonomous and efficient in a variety of conditions, helping to conserve biodiversity and reduce bird mortality. It will also help the electricity sector to reduce maintenance costs and power supply outages, promoting sustainability.

The project comprises developing prototypes for capturing, storing and transmitting collision data, as well as providing information for environmental regulatory bodies. With deliverables such as technology benchmarking, prototype development and validation and environmental analysis, the project will be tested in laboratory, operational and real environments, with completion scheduled for 2025.

**Partner: Serviço Nacional de Aprendizagem Industrial - SENAI/CIMATEC is one of the most advanced education, science, technology and innovation institutions in Brazil**

### IMPLEMENTATION OF SEP PILOT PROJECT IN HYBRID POWER GRID, HVDC/HVAC BASED ON PMU

Pilot project proposing the creation of an innovative Special Protection System (SEP) for the 800 kV HVDC system associated with the Belo Monte HPP, covering the Xingu - Estreito and Estreito - Terminal Rio bipoles. Using synchrophasor data obtained from Phasor Measurement Units (PMUs) and RSCAD/RTDS simulations, the project is designed to improve the monitoring, control and protection of the National Interconnected System.

The initiative stands out for its advanced infrastructure of PMUs and Synchrophasor Data Processors (PDCs), which allows for high frequency data collection (60/120 fps), low latency (max. 50 ms) and local storage, even in the event of communication failures. Scheduled for completion in 2026, the project aims to strengthen the SIN's resilience in the face of its growing complexity.

**Partner: INESC P&D Brasil**



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

4

# Corporate Governance

ANEEL CORPORATE GOVERNANCE DIMENSION



Social  
Capital



Human  
Capital





# Governance Structure



Learn more about our governance at:

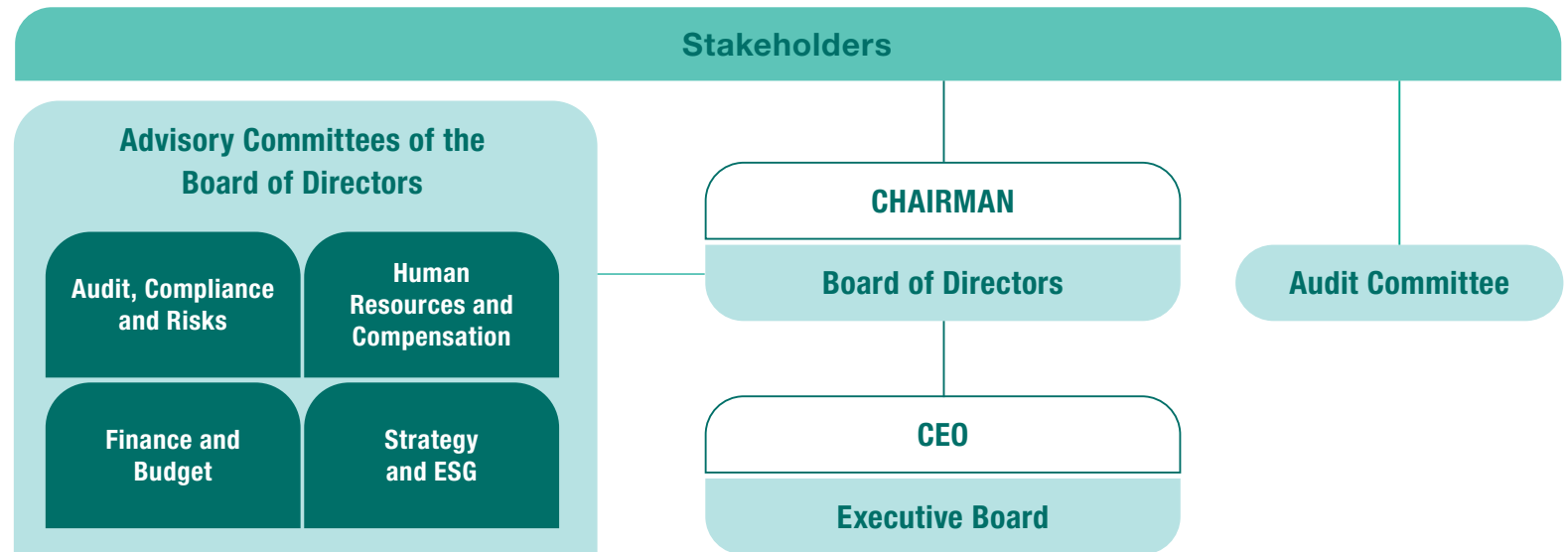
[https://stategrid.com.br/pt\\_br/estrutura-organizacional](https://stategrid.com.br/pt_br/estrutura-organizacional)

• GRI 2-9 | 2-10 | 2-11 | 2-12 | 405-1 •

We have implemented ongoing improvements in recent years and continue to evolve, embracing the best governance practices approved and published by representative institutions such as the Brazilian Institute of Corporate Governance (IBGC). We are gradually integrating the new structure into the company's processes, targeting even more significant advances in the future. In April 2024, the Directors' Council and the Audit Committee were created, changing the governance structure, which is now composed of:

- **Directors' Council or Board of Directors (BoD):** the company's highest decision-making body;
- **Executive Board:** the committee responsible for running the day-to-day business and executing the strategies defined by the shareholders and the Directors' Council;
- **Audit Committee:** responsible for supervising the company's management.

The Directors' Council, the Executive Board and the Audit Committee are made up of executives with recognized experience in the electricity sector.



## ATLAS SYSTEM

The Atlas System was deployed to improve governance processes and support SGBH's strategic decision-making. The tool makes it possible to organize meetings more efficiently and monitor the implementation of Executive Board resolutions, ensuring greater effectiveness in actions. From 2025, Atlas will be integrated with routine software, expanding its features and offering more resources to users.

## Directors' Council

The Directors' Council, also known as the Board of Directors (BoD), has the mission of preserving the Company's value, optimizing the return on its shareholders' investment and creating long-term value, with the goal of perpetuating SGBH's business. To this end, the BoD is responsible for making strategic decisions, defining general guidelines and establishing the company's business policies.

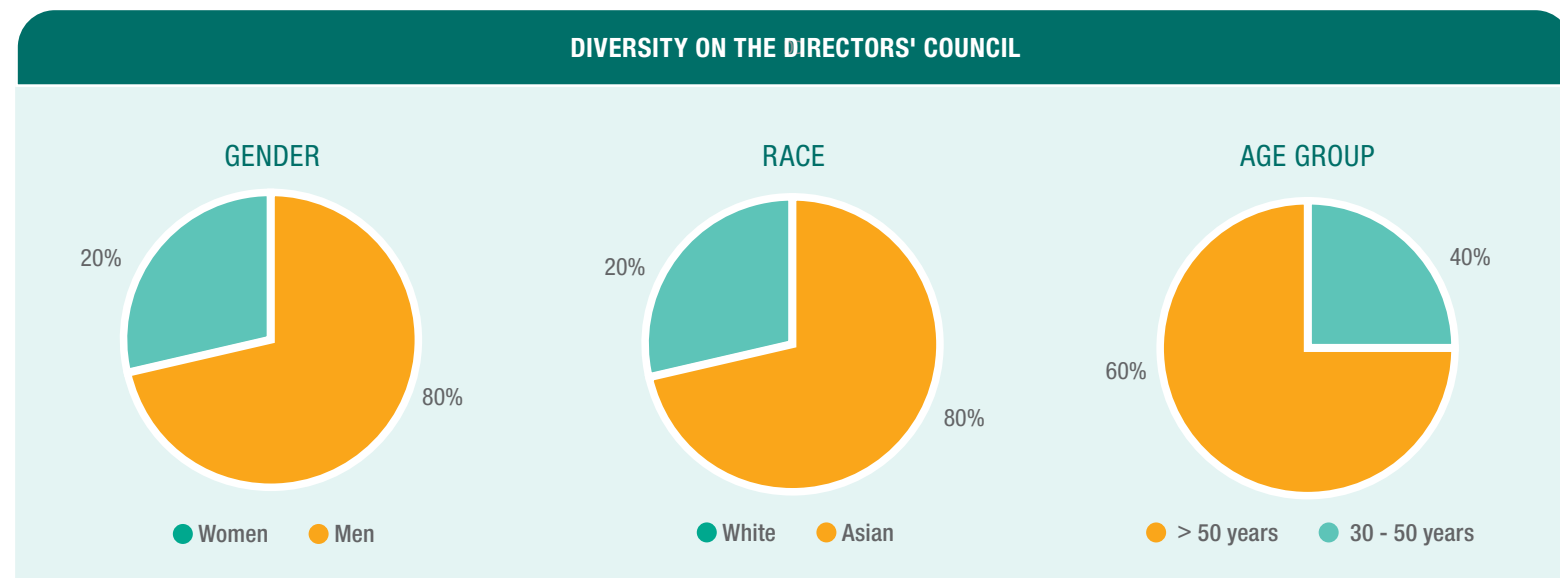
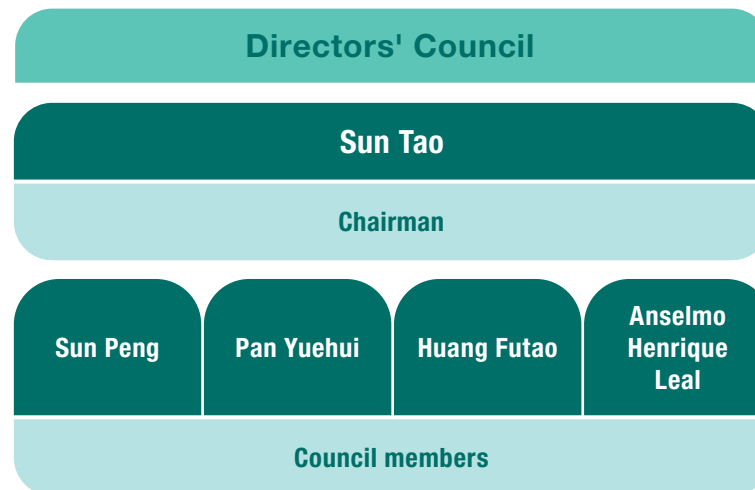
The BoD guides business in accordance with the corporate responsibility and ethics principles set out in SGBH's Code of Ethics and Business Conduct and is also dedicated to protecting the corporate purpose and governance system, ensuring compliance with stated corporate policies.

Its duties include drawing up a monitoring and evaluation method for SGBH and its Management Bodies, which is developed into strategic plans and risk maps for implementation by the Executive Board. It routinely monitors corporate risks, tracks institutional commitments and supervises concession contracts.

This board is made up of five members, a chairman and four directors, all appointed by SGBH's controlling shareholder and appointed by shareholder resolution for two-year terms, with re-election permitted.

The BoD is supported by four specialized committees on strategic issues, made up of members appointed by resolution of its own members:

1. Audit, Compliance and Risks Committee;
2. Human Resources and Compensation Committee;
3. Finance and Budget Committee;
4. Strategy and ESG Committee.



## Executive Board

The Executive Board is SGBH's primary executive management body. The six members are appointed by BoD resolutions and serve two-year terms, with re-election permitted.

Its mission is to preserve and enhance the company's value, assuring the execution of the strategies defined by the BoD and the efficient running of daily operations. The Executive Board also liaises with the other governance agents, subsidiaries and affiliated companies, boosting the integration of the entire corporate structure.

Among its main responsibilities is the definition of SGBH's strategic planning, supported by the identification of opportunities for organic growth, innovation in new businesses and the deepening of ESG practices, with a focus on sustainable development.

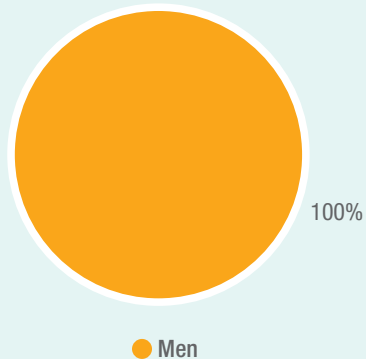
The Executive Board is supported by eight Specialized Committees, whose members are appointed by deliberation of the members themselves:

1. Health and Safety;
2. Risks, Controls, Compliance and Internal Audit;
3. Budget and Planning;
4. Technical;
5. Confidentiality;
6. Human Resources;
7. Ethics;
8. ESG.

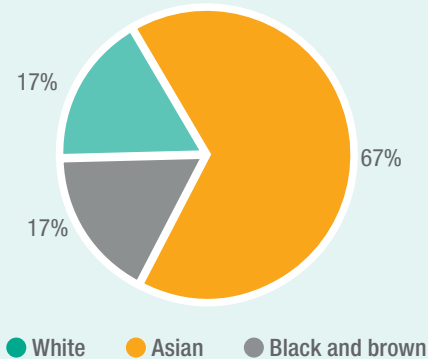
<p><b>SUN PENG</b></p> <p><b>CEO</b></p>	<p><b>RAMON HADDAD</b></p> <p><b>Vice-President</b></p>
<p>Responsible for managing the Executive Board and the Corporate Governance, Finance, Legal, Project Management, Risk Control and Internal Audit, Business Development and Administration departments, as well as assisting the Chairman of the Executive Board in running the office.</p>	<p>Responsible for assisting in regulatory matters, institutional relations, external communication, corporate culture and compliance management. He also assists the CEO in managing the Corporate Governance Department.</p>
<p><b>WANG YUSHENG</b></p> <p><b>Vice-President</b></p>	<p><b>JORGE BAUER</b></p> <p><b>Vice-President</b></p>
<p>In charge of managing the operation and maintenance of UHV DC converter stations, R&amp;D management, non-regulatory business and joint venture intermediation, as well as the day-to-day management of BMTE. He assists the CEO in managing safety and overall administration, and is responsible for the UHV, Engineering and Technology departments, and the Engineering Services company (SGSE).</p>	<p>He is responsible for managing the operation and maintenance of conventional AC transmission assets and ultra-high voltage DC lines, as well as safety and environmental management, under the responsibility of the Operation and Maintenance Department and the Health, Safety and Environment Department.</p>
<p><b>ZONGYUE XI</b></p> <p><b>Assistant Director to CEO</b></p>	<p><b>WANG XIAOGANG</b></p> <p><b>CTO</b></p>
<p>Responsible for assisting the CEO in the construction of the company's greenfield projects and for the corresponding safety management.</p>	<p>Responsible for assisting the CEO in managing the company's information technology and purchasing, as well as supporting Vice President Wang Yusheng in managing R&amp;D projects and corresponding safety management.</p>

## DIVERSITY ON THE EXECUTIVE BOARD

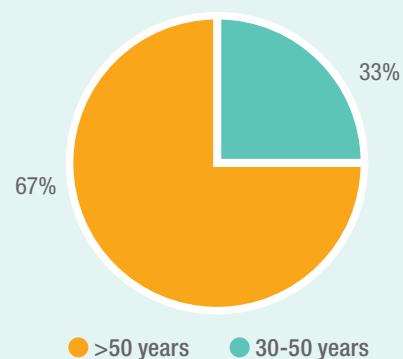
### GENDER



### RACE



### AGE GROUP



## Shareholders

In 2023, SGBH's shareholder structure was changed, but SGCC remained SGBH's parent company. The investments received helped to reduce debt and optimize the capital structure, enhancing credit risk perception and the soundness of the business.

Shareholders can attend meetings, but do not have the right to vote on decisions. Apart from formal interactions, we have a close and ongoing relationship with investors through regular visits and meetings.

Reporting to shareholders is carried out periodically, providing access to information and the necessary technical and financial approvals. Operating information on our assets is transmitted to shareholders in monthly or half-yearly reports, depending on the content. Financial information is communicated comprehensively using the following channels:

- Annual budget, drawn up with data from all controlled companies;
- Detailed annual budget, with specific data for each company and department;
- Individual and consolidated financial statements, monthly and yearly, following the Financial Reporting Standards (IFRS), with the annual statements audited by an independent auditor;
- Reports with the minutes of Shareholders' Meetings and Board Meetings.



## Audit Committee

The Audit Committee is the body responsible for overseeing the company's management, issuing opinions on management reports and proposals, as well as monitoring external audits. Its members are appointed by the shareholders for a one-year term, re-election being permitted.

EFFECTIVE MEMBERS	ALTERNATE MEMBERS
Fu Zhangyan	Li De
Han Mingzhi	Chen Xie
Li Yi	Sun Wei

# Ethics, Transparency and Compliance

• GRI 2-9 | 2-10 | 2-12 | 205-2 | 205-3 •

Ethics, transparency and compliance lie at the heart of our governance practices and guide all decisions and relationships with stakeholders. We act to ensure that the integrity principles are consistently embedded in the company's practices and routines.

Our Code of Ethics and Conduct contains clear guidelines for compliance with national and international laws, as well as promoting the institutional values of safety, commitment, dedication, professionalism, communication and continuous improvement. The Code provides practical examples of expected behavior, serving as a guide accessible to all. To enforce it, we offer online training with knowledge tests and require all employees to formally sign a commitment to adhere to its principles upon joining SGBH.

Available to both internal and external audiences, the Ethics Channel is a safe, anonymous and independent way of registering complaints. Complaints are investigated and monitored by SGBH's Compliance and Privacy Division which, after an initial assessment, forwards them to the Ethics Committee when irregularities have been proven. The process is closed after the presentation of relevant evidence and after the implementation of suggested disciplinary actions, with the final approval of the compliance report.

## COMPLIANCE WEEK

Compliance Week is an annual SGBH initiative dedicated to engagement, discussion and learning about ethics, integrity and compliance.

In 2024, we promoted the following activities during the week:

- Daily communication to employees via e-mail on ethics and integrity, such as preventing harassment, fighting corruption, gender equity and ethnic-racial diversity;
- Executive videos on ethical culture, prevention of harassment and gender equity, with reports from female employees sharing their perspectives on gender in the labor market;
- Themed games on the communications sent to employees, with giveaways for engagement; and
- A talk by an external consultant on harassment in the corporate environment, addressing challenges and measures to tackle them.

## COMPLIANCE LEAGUE

Within the culture of ethics and integrity at SGBH, the Compliance League is designed to engage employees in compliance practices by promoting the guidelines and values set out in the Code of Ethics and internal rules.

At the league's periodic meetings, each department is represented by at least one member in the training sessions offered. The meetings cover ethics and corporate integrity topics to prepare internal multipliers and communication facilitators who can answer questions from their colleagues, cementing the bond among the teams and bringing the Compliance Division's departments closer together.

The Compliance League encourages preventive, collaborative and transparent action, serving as a support channel for employees on issues that may involve the Compliance department.



Ethics Channel - 24 hours a day, Available in Portuguese and English

0800 800 8068 - [www.contatoseguro.com.br/stategrid](http://www.contatoseguro.com.br/stategrid)

We guarantee the secrecy and confidentiality of information about the complainant, the accused and witnesses.

Communications and training on anti-corruption policies and procedures were organized for all employees. The courses have become part of the onboarding process and, among active employees, 100% of leaders and 96% of non-leaders have completed the training, with some absences, such as leave, vacations and hirings close to the end of 2024.

For business partners, we use an instructional video and the Code of Ethics for suppliers, available on our website.

In 2024, SGBH was not involved in any corruption cases, and no penalties or disciplinary measures related to this topic were imposed.

Best practices enhance our mission to protect and improve the company's value, guaranteeing effective processes, correcting identified problems and mitigating risks.

## GATE COMPLIANCE COMMITMENT

In October 2024, we held a ceremony with GATE employees to sign the Corporate Compliance Declaration. The document declares our commitment to ethical behavior, integrity, transparency and compliance with applicable laws in all aspects of our business.



## Institutional relations

• GRI 2-23 | 2-28 •

We rely on the Regulatory Management Rule, an internal standard that unifies the flow of information between SGBH and external regulatory agencies, such as the Ministry of Mines and Energy (MME), ANEEL and the Energy Research Company (EPE). The Relationships and Regulatory (RR) department manages this communication, with a specific e-mail channel for ANEEL. The company is also a member of several energy sector associations, such as:

- Utilities Telecom & Technology Council America Latina (UTCAL);
- Brazilian Investor Relations Institute (IBRI);
- Brazilian Center for International Relations (CEBRI);
- Brazilian Association for Business Communication (ABERJE);
- Brazilian Association of Electric Energy Transmission Companies (ABRATE), where SGBH participates in the General Assembly and the Board of Directors, with the Vice-President also serving on the Board and specific committees.;
- Brazilian Association of Infrastructure and Basic Industries (ABDIB), participating in the Transmission Committee.

We are part of the United Nations (UN) Global Compact Network Brazil, with active participation in the Human Rights, Climate, Anti-Corruption and Communicate and Engage Action Platforms.



# Risk Management

• GRI 2-12 | 2-13 | 413-2 •

Risk management pervades all stages of projects and processes in the pursuit of efficiency, effectiveness and integrated action. In a bid to intensify our management and build a robust internal control framework, we have a dedicated department that supports the whole of SGBH in adopting strict standards and the best market practices. Mitigation is carried out through a continuous process of identifying, assessing, handling and monitoring corporate and operational risks.

In 2024, we began migrating from the COSO ERM - Enterprise Risk Management model (framework) to ISO 31000, which brings a more systematic approach that is aligned with the company's current challenges, representing significant maturity for our risk management.

To classify risks, we follow the internal Risk Management Rule, which classifies them as financial (market, credit and liquidity) and non-financial (operational, image, strategic, regulatory, socio-environmental and technological). The impact is assessed in five dimensions: health and safety, financial, compliance, operational and image. Risk management and the implementation of control and mitigation plans are the responsibility of the administrative and operational departments. To guarantee the effectiveness of the actions, the Risks and Internal Controls Division monitors the indicators, which are also regularly monitored by the Executive Board in meetings between leaders and managers.

The risk matrix directly affects corporate policies and strategic decisions, especially in large acquisitions, reinforcing the growing demand for a structured analysis. Around 60 corporate and key risk indicators (KRIs) have been mapped. Risks assessed as critical or high are monitored on a monthly basis, with mitigation plans developed to minimize negative impacts; intermediate-priority risks are given attention with specific action plans to control them.

Moving beyond the corporate approach, for the first time we embraced a specific vision of risk management for projects. This model was applied to the GATE project, one of the largest infrastructure projects in Brazil's electricity sector, which calls for a solid capacity to anticipate and mitigate risks throughout the different project phases. This approach aims to ensure the delivery of the 1,600 km of transmission lines within the deadlines agreed with safety and quality, achieving favorable economic results.

Such structured risk management was driven by the senior management's strategic vision, especially the CEO, who encouraged its introduction with a view to business sustainability. The methodology developed for GATE has been adjusted for other company projects and reflects our commitment to expanding it as a practice to maximize excellence in our projects.



## Internal audit

Playing a pivotal role in verifying the compliance of corporate processes, the internal audit department has been working to improve efficiency in all our internal processes.

We have implemented a structured follow-up process aimed at increasing the effectiveness of audit recommendations. In this process, the departments involved discuss action plans that include means of implementation, deadlines and those responsible for each activity. When the plan is considered mature, its execution is monitored by the Internal Controls team. Progress is presented to the board of directors in bimonthly reports, reinforcing the transparency and governance of the initiatives.

In 2024, we implemented continuous auditing, which uses data analysis and test automation to promote an integrated and efficient assessment. An outstanding project of the year at GATE, Internal Audit has been involved since its inception, participating strategically and preventively to achieve greater assertiveness and timeliness in the recommendations and, consequently, in the actions of the audited areas.

In celebration of International Internal Audit Awareness Month, we ran the IIA MAY campaign, organized by the Institute of Internal Auditors of Brazil in partnership with our Culture and Communications team. The initiative highlighted the role of Internal Audit as an independent and objective department that adds value and encourages best practices in SGBH's operations. The campaign included the dissemination of educational content and a special training session, restating our commitment to excellence and the ongoing improvement of internal processes.





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

5

# People and Relationships

ANEEL SOCIAL AND SECTORAL DIMENSION



Social  
Capital



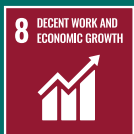
Human  
Capital



Financial  
Capital



Intellectual  
Capital



# Our employees

• GRI 2-7 | 403-3 | 403-6 | 405-1 •

The union of our professionals from different backgrounds and positions in the One State Grid culture allows us to overcome challenges and achieve excellence in energy transmission.

SGBH is made up of 956 professionals, mostly permanent hires (91%) and full-time employees (97%), which reflects our commitment to ensuring the services we provide, the care we take to retain people and the benefits we achieve with their training.

Our people are mainly located in the Southeast, where our corporate headquarters are based, and in the Midwest, due to the strong presence of transmission lines connecting power plants in this region and in the North of the country.

Check the internal social indicators in [Annex 8](#) and the concessionaires' Social Balance Sheet in [Annex 9](#).

## EMPLOYEE PROFILE

### EMPLOYMENT CONTRACT

#### PERMANENT



#### TEMPORARY



### EMPLOYMENT TYPE

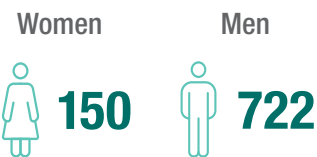
#### FULL-TIME



#### PART-TIME



### GENDER



### GENDER



### REGION

Midwest	North	Northeast	Southeast
216	76	34	546

13	2	1	68
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### REGION

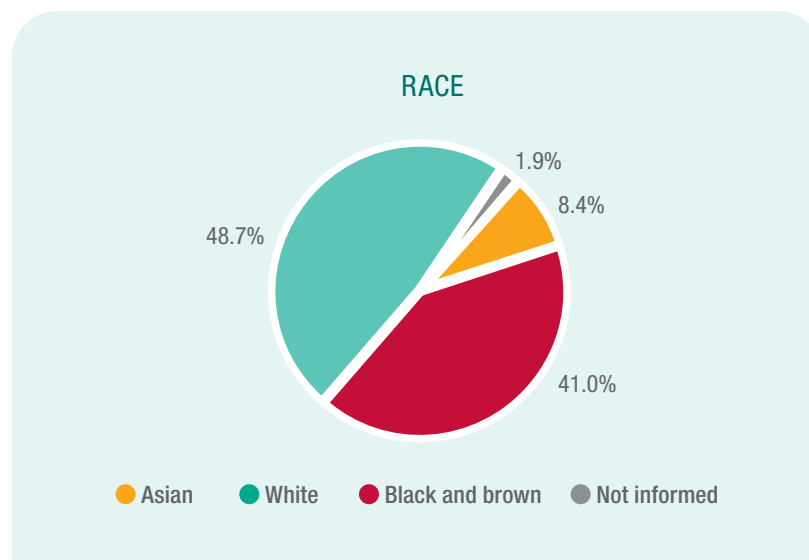
Midwest	North	Northeast	Southeast
229	78	35	588

0	0	0	26
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## DIVERSITY BY POSITION

	Gender		Age Group		
	Women	Men	< 30 years	Between 30 and 50	> 50 years
Executive Leadership	3.8%	96.2%	0.0%	80.8%	19.2%
Leadership	32.4%	67.6%	6.6%	84.6%	8.8%
Specialist	34.1%	65.9%	18.7%	77.9%	3.4%
Operational	2.0%	98.0%	17.8%	76.5%	5.7%
Administrative	52.1%	47.9%	35.4%	58.3%	6.3%
Apprentice	48.0%	52.0%	100.0%	0.0%	0.0%
<b>Average Total</b>	<b>19.0%</b>	<b>81.0%</b>	<b>19.0%</b>	<b>75.2%</b>	<b>5.8%</b>

With 75.2% of employees aged between 30 and 50, the gender distribution averages 81% men and 19% women, mainly due to the participation of men in operational and executive leadership positions. Administrative, leadership and specialist roles bring greater gender balance.



## Retaining and attracting talent

• GRI 401-1 •

In 2024, we evaluated our professionals' performance and development, with 82% of men and 70% of women participating among all employees; in the job category segment, 82% of managers and 81% of senior managers were evaluated. Apprentices and new hires are not eligible for the performance evaluation program.

In an effort to align ourselves with best practices and to boost employee retention, we revised our salary structure based on market research. We also undertook studies to expand early career opportunities, as well as the current apprentice program.

Our commitment to valuing our professionals includes placing them in positions suited to their skills and nurturing their talents.

### HIRES

GENDER	Total hires	Hiring rate (%)
Women	32	17,6
Men	111	14,3

REGION	Total hires	Hiring rate (%)
Midwest	42	18,3
North	11	14,1
Northeast	5	14,3
Southeast	85	13,8

Age Group	Total hires	Hiring rate (%)
Up to 30 years old	45	24,7
30 to 50 years old	94	13,1
Over 50 years old	4	7,3

### TURNOVER

GENDER	Total terminations	Turnover rate (%)
Women	32	17,6
Men	71	11,8

REGION	Total terminations	Turnover rate (%)
Midwest	26	14,8
North	7	11,5
Northeast	3	11,4
Southeast	67	12,4

Age Group	Total terminations	Turnover rate (%)
Up to 30 years old	17	17,0
30 to 50 years old	81	12,2
Over 50 years old	5	8,2

### GATE

For the GATE project, we have drawn up a job description and performance indicators, which will guide all those involved in implementing the activities and development of this important project over the five years planned for its deployment. To date, 28 positions have been opened for the project, 14 of which have been filled by external candidates and 14 by internal candidates.

Note: Hiring and termination rates are calculated based on the ratio between the number of employees hired/terminated and the total number of company employees in each category.

## Development and Training

• GRI 404-1 | 404-3 •

We provide training to prepare employees to face the main technical challenges in maintaining transmission lines and to absorb technological innovations into our operations.

### TRAINING (AVERAGE HOURS PER EMPLOYEE TRAINED)



17h



52h

#### SENIOR LEADERSHIP



9h

#### LEADERSHIP



24h

#### NON-LEADERSHIP



42h



### STATE ACADEMY



SGBH's corporate university, the State Academy is a digital platform aimed at the constant development of employees. Powered by AI-based technology, it offers personalized content to enhance knowledge and support professional growth.

Over 90 courses are available in the following categories:

- Rules, Policies & Procedure;
- Self-development;
- Management & Leadership;
- Tooling;
- SGBH & Electrical Sector;
- Compliance & Internal Controls;
- Others (ESG, Business, Data, etc.)

We launched specific training on Transmission in the Electricity Sector, developed internally with some employees.

## Benefits and professional appreciation

In 2024, we stepped up ongoing initiatives and prioritized people’s well-being. We widely publicized the benefits offered to employees and kept the focus on preventive health, promoting awareness-raising activities on subjects such as mental health, women’s and men’s health, suicide prevention and skin cancer, among others, through the “Colorful Months” campaign. Within the campaign, we offered practical wellness activities, such as shiatsu, auriculotherapy, reflexology and aromatherapy, emphasizing our concern for and encouragement of individual care.

### Parental leave • GRI 401-3 •

PARENTAL LEAVE		
	Women	Men
Employees entitled to parental leave	182	774
Employees who have taken parental leave and should return to work after their leave	5	19
Employees who returned to work after parental leave	5	19
Return to work rate	1.0	1.0
Employees who returned to work after parental leave in the previous year	5	37
Employees who continued to be employed 12 months after returning from parental leave	2	31
Retention rate	0.40	0.84

To ensure access to health care in all locations, we have facilitated the provision of telemedicine to employees in remote areas and expanded the health and dental insurance network.

### ReconheSer Program

Employees’ projects and ideas drive our evolution and, to solidify our recognition efforts, we hold annual awards in different categories.

#### VITAL AWARD

Recognizes employees who have stood out during the year for their attitudes, projects and best practices in health and safety, inspiring and promoting a proactive, efficient and sustainable culture.

#### HIGHLIGHTS OF THE YEAR

Recognizing professionals who have demonstrated exceptional behavior and excellence throughout the year, stimulating a corporate culture of competence and performance.

#### ONE STATE GRID AWARD

Recognizes employees who stood out for their high performance, aligned with One State Grid concepts.

#### BEST PROPOSAL AWARD

Aims to encourage direct communication and collaboration between employees and senior leadership by proposing and valuing ideas.

#### INOVA A AÇÃO

Seeks to encourage the integration of scientific research and technological development, encouraging safety production, projects construction and SGBH’s strategic development.

## Ideal Program

Employees' quality of life and the promotion of a healthy and productive working environment drive this initiative's well-being and continuous care actions.

**Baby Care:** The program provides support to employees with questions about the pregnancy period, postpartum period and breastfeeding, with a team of obstetric nurses who regularly monitor pregnancies, providing guidance on prenatal care, vaccinations, newborn care and more. We also send a first care kit for newborns.

**Golden August:** In the month dedicated to raising awareness about the benefits of breastfeeding, we organized actions to highlight the importance of this practice for children's health and development.

**Yellow September:** During suicide prevention awareness month, we held events that deal with the importance of caring for the mind and body in order to maintain our employees' health.

**Pink October:** During breast and cervical cancer awareness month, we held talks and offered content on the importance of self-examination.

**Blue November:** In Prostate Cancer Awareness Month, we warned employees of the importance of prevention.

**Orange December:** During skin cancer prevention month, we posted tips on social media to help you enjoy the summer more safely.



## Employee Support Program (PAE)

The Employee Support Program (PAE) is offered free of charge to all employees and their dependents, with the goal of providing support in everyday situations. Specialized professionals in the psychological, legal, financial and social fields are available for confidential and unrestricted assistance, in person or remotely. The service is available 24 hours a day, seven days a week by calling 0800 282 6666.

### HEALTH WEEK

With content on well-being and awareness of the importance of taking up healthy habits, this year's program was full of new activities:

- Auriculotherapy sessions;
- Basic first aid course for adults and children;
- Lecture on mental health;
- Lecture on hearing health;
- Workplace exercise class.



## Diversity and Inclusion (D&I)

• GRI 405-2 •

Cultural diversity is a cornerstone of our identity, reflecting both our Brazilian roots and the influence of Chinese culture on our organization. To make progress on the different dimensions of the Diversity and Inclusion (D&I) theme, in 2024 we reaffirmed our commitment to respecting different cultures, promoting gender diversity and maintaining a welcoming environment for everyone.

We performed an internal diversity diagnosis, based on HR data and the results of the Women in the Electricity Sector survey, published by the National Electric Energy Agency (ANEEL) in 2023. Based on these inputs, we understood our current position and defined initiatives and targets to advance our diversity strategy.

 **32.4% of women in leadership positions**



To address the importance of workplace gender diversity and inclusion, we created a dedicated working group and carried out two awareness training sessions, one focusing on leaders and the other involving all employees. We will continue with training and awareness initiatives in the coming years and, by 2025, we have concrete actions planned to increase female participation in operational and leadership positions, with special attention to the engineering and operations departments.



### WOMEN ENTREPRENEUR FORUM

Our legal director, Denise Albuquerque, represented State Grid on the panel on innovation and technology at the Women Entrepreneur Forum - WE Forum, an event that brought together leaders and professionals in Brasilia (DF) in March 2024.



### RATIO BETWEEN WOMEN'S AND MEN'S PAY

Position Category	Base salary	Compensation
Administrative	1.12	1.12
Executives	0.85	0.99
Leadership	1.07	1.01
Operational	1.01	0.95
Specialist	0.78	0.72

# Brazil-China Connection

In 2024, we celebrated 50 years of friendship and cooperation between Brazil and China. The festivities held during the year became moments to recognize the benefits of our multicultural profile and value the importance of mutual trust.

The main event was held at Casa de Cultura Laura Alvim, in Rio de Janeiro (RJ), and was opened by our chairman, Sun Tao, with the participation of Luiz Augusto Castro Neves, president of the Brazil-China Business Council (CEBC) and former Brazilian ambassador to Beijing. The #OneStateGrid spirit was emphasized by the song “A Energia da Amizade” (The Energy of Friendship), composed by employees Francisco Renato Ribeiro and Felipe Oliveira. An exhibition of SGBH’s exclusive collection of paintings and porcelain provided an immersion in Chinese culture. The celebration also included performances by the Maré do Amanhã Orchestra, a social impact initiative supported by the company, the traditional Chinese dance of Ding Qinian and a kite performance by Wang Jie.

Throughout the year, to enhance coexistence and integration between SGBH’s Brazilian and Chinese employees, we organized activities for cultural and technical exchanges.



1974-2024

中国巴西50年

BRASIL-CHINA 50 ANOS

The 50-year celebration of the Brazil-China relationship stimulated cultural exchange and the creation of personal connections, creating the necessary environment to drive forward transformative projects.





We launched a campaign on social media with the hashtag #ConexãoBrasilChina to encourage people to share curiosities about the relationship between these two countries.

To celebrate Chinese New Year, we set aside a special morning dedicated to the celebration, bringing together Brazilian and Chinese colleagues at the company's headquarters. The event included a number of activities, such as an ideogram workshop, where Brazilians learned how to write their own names and words that symbolize their wishes for the new cycle. There was also an explanation of the animal symbols for each year of the lunar calendar and a tasting of typical Chinese cuisine. It was an opportunity to gain a deeper understanding of Chinese culture and strengthen relationships among employees.



## BRAZIL-CHINA EXCHANGE

Five employees had the opportunity to travel to Beijing in 2024 and visit SGID's headquarters and SGCC's facilities, where they learned about a hybrid renewable generation pilot plant, the simulation center and the UHV test center of the China Electric Power Research Institute (CEPRI), SGCC's research institute. In addition to exploring millennial traditions, the visit provided a rich exchange of ideas and learning that transcends borders.



Watch the testimonials of the employees who took part in the experience



## Maré do Amanhã Orchestra in China

As part of the events celebrating the 50th anniversary of the Brazil-China relationship, the Maré do Amanhã Orchestra made an unprecedented tour of China, represented by 17 musicians. The group performed on the Great Wall and was invited to play at the Chinese National Library, attended by Chinese artists, bringing Brazilian culture to an international audience. Apart from the artistic audience, the orchestra also performed for political authorities, including the Brazilian embassy in the country.



# Health, safety and well-being

• GRI 403-1 | 403-5 | 403-9 | 403-10 | EU 25 •

Thanks to a qualified and integrated team, our Occupational Health and Safety Management System assures a safe and healthy environment through continuous monitoring, data-based decisions and alignment at all levels. We have clear mechanisms for employees to report risk situations and refuse unsafe activities, including:

- **Proactive Communication:** Employees may interrupt activities that they consider unsafe using the Safety Stop, formalized in the Preliminary Risk Analysis (APR) or by informing the manager. To protect against reprisals, we ensure unconditional support for this practice, promoting an environment of trust and psychological safety. Our leaders and managers are instructed to encourage and protect employees who use this tool.
- **Reactive Communication:** Employees may use a whistleblowing channel to report risk situations or other concerns, such as harassment or inappropriate conduct. The company assures absolute confidentiality of the whistleblower's identity, should they choose to remain anonymous, and prohibits any form of retaliation, with strict sanctions.

All reported situations are tracked by the Occupational Health and Safety (OHS) team, which analyzes the records, carries out audits and implements continuous improvements to the safety management system.

We have a digital health and safety management system, where all activities in the area are integrated, including checklists, incident records, audits, inspections and program monitoring. The system provides quick access to information and uses BI to identify trends, speeding up preventive and corrective actions.

On Greenfield projects, we hire external OSH inspectors to monitor the EPCista, ensuring compliance with legal requirements and our internal policies, even in temporary environments.



Among the main risks of our activities are:

### Electrical Risks

Hazard: Exposure to high voltages in substations, transmission lines and equipment. Prevention: Electrical safety training (NR-10), use of PPE and CPE, and lockout/tagout systems.

### Falls from Height

Hazard: Activities at height during maintenance of lines and towers. Prevention: Training (NR-35), use of fall prevention equipment (safety belts, lifelines), and carrying out Preliminary Risk Analyses (APR).

### Mechanical risks

Hazard: Operation and maintenance of heavy machinery and equipment. Prevention: Regular inspections, operator training and preventive maintenance.

### Ergonomic risks

Hazard: Administrative activities in offices. Prevention: Ergonomic assessments, adjustments to workstations and workplace gymnastics.

### Exposure to Environmental Factors

Hazard: Working in adverse weather conditions. Prevention: Climate monitoring, regular breaks, appropriate clothing and hydration.

### Transit Risks

Hazard: Frequent commuting between workplaces. Prevention: Training in defensive driving, preventive vehicle maintenance and route monitoring.

### Venomous animals

Hazard: Presence of snakes, spiders and scorpions in work areas. Prevention: Prior inspections, use of appropriate PPE and training on how to react to incidents.

### Psychosocial risks

Hazard: Occupational stress in critical operations and the corporate environment. Prevention: Psychological support programs, mental health campaigns and promotion of a balanced environment.

Over the course of 2024, the following training courses were held: Corporate Health and Safety Integration; NR5; NR10 BASIC AND SEP; NR11, NR12, NR18, NR34; NR20; NR31; NR33; NR35; Emergency Brigade; Defensive Driving; Off Road; Rigging Planning; Rigging for Safety Technicians; Accident Investigation Techniques; Fauna Management (venomous animals, harmful insects, birds and nests); Behavioral Safety Program, annual SIPAT (Workplace Accident Prevention Week) with lectures always focusing on health and safety.

Training is offered according to the job and activities performed, based on a training matrix regularly updated by the team of occupational safety engineers, who define the course-function ratio and the periodicity required.

## HEALTH AND SAFETY INDICATORS IN 2024

	Employees	Third parties
Deaths resulting from injuries	0	0
Rate of deaths resulting from injuries	0	0
Acidentes com consequências graves (excluindo mortes)	0	0
Accidents with serious consequences (excluding deaths)	0	0
Reportable accidents recorded (including deaths)	3	0
Rate of reportable accidents recorded (including deaths)	1.22	0
Court cases (resolved and pending), including illnesses and trials involving the general public and potential risks	0	0

## Promoting physical and mental health

### Behavioral Safety Program (PSC)

The PSC encourages employee reflection and autonomy through the concepts “FOUR NO HARM” and “3P’s: Life First, People First, Safety First”. Based on these principles, employees record and indicate the origin of safe and unsafe behavior. This fosters a culture of self-awareness and dialog in the search for continuous improvement in routine operational activities. Analysis of these findings results in action plans, technical-behavioral training and organizational awareness programs.

### Responsible driver conduct

Since 2021, the telemetry system has been monitoring the company’s own and outsourced fleet in real time, tracking speed, acceleration, braking and inappropriate curves. It generates alerts for non-standard behavior and provides immediate feedback to drivers, promoting safer driving.

In 2024, we recorded 19 traffic incidents, a figure considered low in relation to the total mileage traveled in the year. However, this result motivates us to set reduction targets for next year, as well as reinforcing the importance of learning from incidents and implementing corrective and preventive actions to minimize traffic risks.

The system identifies behavioral trends and critical hotspots, helping to set individual targets, such as speed limits, and improve defensive driving training. Constant monitoring and feedback to drivers has been instrumental in reducing risks and promoting a safety culture.

### INTERNAL OCCUPATIONAL ACCIDENT PREVENTION WEEK (SIPAT)

An opportunity to reinforce our commitment to employee safety and well-being, at SIPAT 2024 we held talks, integration activities, a medical check-up for employees and a special relaxing moment with Shiatsu. SIPAT is an annual milestone at SGBH because it reinforces the safety culture, which is vital in our operation and maintenance routine, and highlights the importance of everyone in this goal.

Led by vice-president Jorge Bauer, our Operations & Maintenance team gathered at State Grid’s headquarters in SIPAT colors to reinforce the importance of safety in all our operations.



# Value Chain

• GRI 2-6 •


We keep in constant touch with our domestic and international partners in order to promote long-lasting collaborations that foster innovation and technical development excellence. Our Code of Ethics and Business Conduct sets standards for the relationship between SGBH employees and suppliers, focused on our values, anti-corruption practices and the prevention of conflicts of interest. These standards are mirrored in the Compliance Rule, which provides for background checks to identify image, legal and financial risks when hiring suppliers.

In conjunction with the Brazilian electricity sector, we work with the Brazilian Association of Electricity Transmission Companies (Abrate) with the aim of offering specialized training and contributing to the qualification of suppliers in the transmission segment.

## Responsibility to Stakeholders

• GRI 2-26 | 2-29 •

We are part of a value chain that delivers an essential public service to society as a whole. Aware of our role, we strive for excellence in the services we provide and take care of our relations with all our stakeholders. We take a stance of dialog, transparency and effective communication with our various stakeholders.


 More details on stakeholder relations can be found in the [Annexes](#).


 **609** direct suppliers\*


 **BRL 1,155** million\*\* in expenses with direct suppliers\*


\* Excludes specific and emergency purchases made directly by the requesting departments.  
 \*\* Amount contracted in the year, with payment upon delivery of the product or service.

### COMMUNICATION CHANNELS

 **E-MAIL**  
[sgbh.emergencias@stategrid.com.br](mailto:sgbh.emergencias@stategrid.com.br)

 **WEBSITE**  
[www.stategrid.com.br](http://www.stategrid.com.br)

 **TELEPHONES**  
 0800 942 0142 (toll-free)

 **SOCIAL NETWORKS**  
[www.linkedin.com/company/stategridbrazil](https://www.linkedin.com/company/stategridbrazil)  
[www.instagram.com/stategrid.brazil](https://www.instagram.com/stategrid.brazil)  
[www.facebook.com/stategridbrazil](https://www.facebook.com/stategridbrazil)

# Caring for the Community

• GRI I 2-25 | 413-1 | 413-2 | G4-DMA (FORMER EU 21) •

The implementation and maintenance stages of the electricity infrastructure require interference in public and private property, for which we adopt a careful approach with the communities involved right from the licensing stage. Our attitude is one of respect for culture and heritage and of dialog with the population, in order to build a relationship of collaboration and trust in the different locations where we operate.

When substations and transmission lines are set up, properties are mapped and assessed, with an active effort to establish conciliatory agreements with the populations directly affected. The land regularization agreements are intended to guarantee the proper definition of compensation for administrative rights of way.

In the operation phase, we interact continuously with the population and landowners involved, always considering the community's needs and seeking to minimize the local impacts of transmission line maintenance. Safety practices for communities are rigorously maintained by all our concessionaires.

To safeguard dialogue and transparency, we maintain social communication programs that address issues such as electrical discharges, electromagnetic fields, grounding of fences, permitted uses and prohibited activities in the administrative right-of-way, as well as highlighting the benefits of our activities in ensuring power supply. The awareness channels provide information on accident prevention, fire precautions and warnings about the risks surrounding transmission lines.

We have made communication and ombudsman channels available to the population, with a trained team that receives, addresses and deals with complaints. In 2024, we received 32 complaints.

The Forest Fire Prevention Program remotely monitors the occurrence of fire outbreaks in the search for a swift response that minimizes the impact on transmission lines. Fires represent a major threat to energy services and climate change has worsened the incidence of these events, increasing the potential risk of power supply interruptions.



More info:

[https://stategrid.com.br/pt\\_br/previna-incendios](https://stategrid.com.br/pt_br/previna-incendios)

## COMMUNITY COMMUNICATION CHANNELS



Contacts for emergencies, questions, suggestions, requests, complaints and compliments:

0800 942 0142 (toll-free)

[sgbh.emergencias@stategrid.com.br](mailto:sgbh.emergencias@stategrid.com.br)

## Community safety

### Rights of way

These safety corridors are designed to delimit and protect the transmission lines and are crucial to ensuring efficient and safe operation, facilitating maintenance and preventing risks to the population and the environment. Although the owner retains possession of the land, its use is restricted, requiring the area to be kept free of buildings and permanent crops.

In 2024, we will continue to raise awareness, seeking to highlight the shared responsibility of landowners and the community in ensuring the integrity of the lines and the continuity of the energy supply.

### Border fences

To prevent accidents related to capacitive electrical inductions, we periodically carry out maintenance on grounding, insulation and fence sectioning, as well as inspections of the rights-of-way and properties crossed by the transmission lines.

Besides instructing property owners on how to care for SGBH installations, we also warn them about the importance of periodically inspecting their fences. We offer support for assessing and adjusting the grounding and sectioning of fences in order to minimize the risk of electric shocks.

## Projects with communities

### Malhadinha Quilombola Community

Since 2015, we have been collaborating with the Malhadinha Community to boost the local economy and create income, as part of the Quilombola Basic Environmental Program (PBAQ), included in the environmental licensing of the XRTE concessionaire. XRTE continues to offer technical support to the community and, in 2024, a food engineer was hired who plays a key role in the management of the Fruit Pulp Processing Unit and continuously monitors product quality.

A Hybrid Photovoltaic System (HPS) meets the energy demand of the Processing Unit, supplying an average consumption of 500 kWh/month with sustainable energy.

The initiative contributes to the mitigation of greenhouse gas emissions, as well as reducing energy costs, and the resources saved are earmarked for other community needs. Over the years we have invested in actions that have resulted in direct benefits for the community, such as:

- Renovation of the community shed;
- Construction of the Fruit Pulp Processing Unit;
- Supply of materials and inputs for production;
- Registration of the unit with the Ministry of Agriculture and Livestock (MAPA);
- Technical support in making the unit operational;
- Training of community members.



 **7.3** tons of pulp

 **79** hours of technical visits

 **BRL 108,420**  
potential community revenue\*

 **BRL 106,435**  
amount invested by XRTE

\* Considers the sales value of each pulp multiplied by the quantity produced, but the products were also consumed by the community itself.

## PEAMP project

The Altamiro de Moura Pacheco State Park (PEAMP) is an ecologically important area that preserves biodiversity, water resources and archaeological sites, and is an option for leisure and ecological tourism in the region. The project involves renovating the park's infrastructure, improving visitors' experience and benefiting the local community. Investment of BRL 11,800.00.

## CASA DE CIÊNCIAS DE MINDURI (MINDURI SCIENCE HOUSE)

After collaborating on the renovation and adaptation of the Minduri Science House (MG), located at the Center for Ecological Studies and Research (CEPEM), the facility, equipped with a laboratory and computers, is now being used to offer vocational courses for local residents. Investment of BRL 48,596.99.



## VISIT TO CAIS DO VALONGO

During Black Awareness Month, we took our employees on three guided tours of Little Africa, in downtown Rio de Janeiro (RJ), with the aim of bringing them closer to the cause and promoting awareness of Afro-Brazilian history and culture. With a personalized tour created by the Pretos Novos Institute, the groups visited the Cais do Valongo and the Pretos Novos Memorial Museum.

In 2023, we were proud to inaugurate the Valongo Quay valorization project, which received a total contribution of BRL2.1 million from the BNDES' Corporate Social Investment (ISE) line. In 2024, the last payments were made to the project's partners, totaling BRL250,322.61.





# Social Investments

• GRI 203-1 | 203-2 •

Our commitment to local communities is to have a positive impact on people's lives. With investments in projects aimed at employment, income, culture, sports and health, in 2024 we sponsored eight social projects aligned with SGBH's mission. We also encourage volunteering with internal engagement actions, such as collecting donations for the victims of the floods in the state of Rio Grande do Sul.

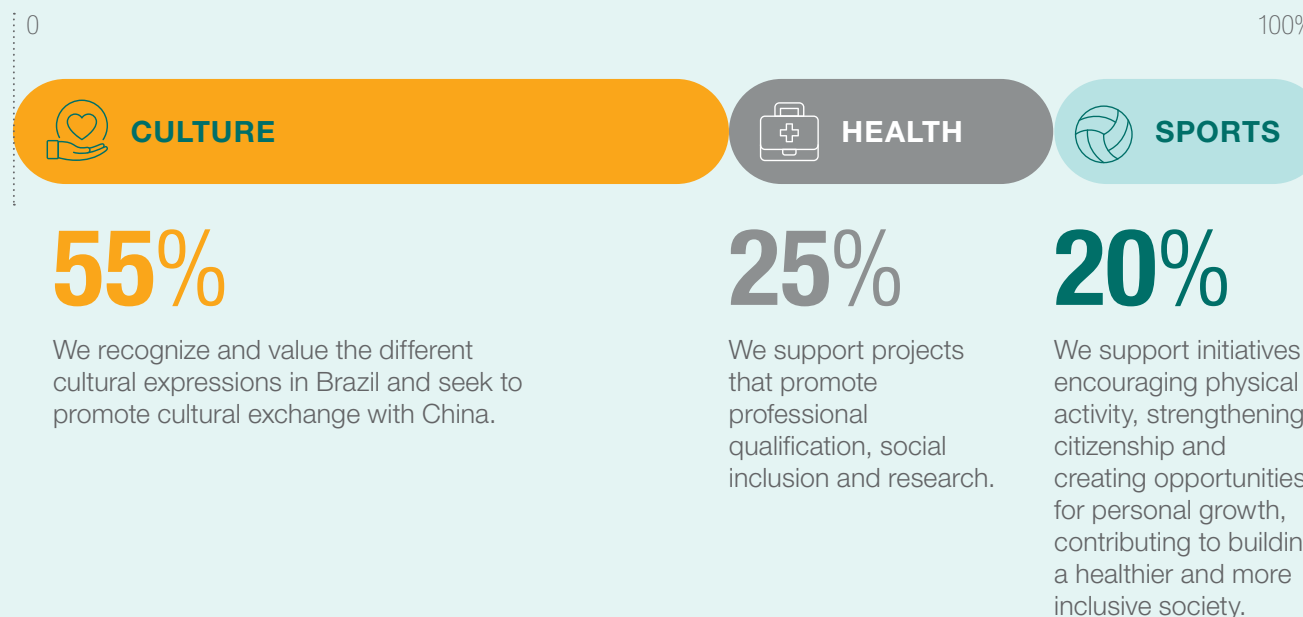
**BRL 4.3** million in social investments

**8** culture, sport and health projects



See our project and social action indicators in the [Annex 10](#).

## SOCIAL INVESTMENTS BY CATEGORY



## Culture

### Maré do Amanhã Orchestra

As supporters of the Maré do Amanhã Orchestra, we support this project which promotes music learning for socially vulnerable children and teenagers. Recognized as an Intangible Cultural Heritage of Rio, the group performs nationally and internationally and is a reference in music education. Over 4,000 young people aged between 4 and 19 from the Maré community have had their lives transformed by the initiative. In 2024, in celebration of the 50th anniversary of Brazil-China relations, the Orchestra was invited to perform in China, find out more on page 60.

**BRL 1,000,000,000.00**



### Beijing Opera

Considered one of China's cultural treasures and recognized as an Intangible Cultural Heritage of Humanity by UNESCO, the Beijing Opera integrates theater, music, singing, dancing, mime, acrobatics and martial arts into this traditional form of expression, offering a rich and multifaceted artistic experience. Created in the 18th century, it is known for its symbolic and evocative nature, in which the actors use imaginative techniques to represent scenes and objects with no need for realism.

**BRL 320,000,000.00**





### Pacheco Leão House

The historic Casa Pacheco Leão, in the Botanical Garden of Rio de Janeiro (RJ), was reopened to the public in November 2024, after being closed for eight years.

The renovation recovered original colors, artistic paintings, floors and stairs, as well as including an elevator and accessible bathrooms. The process was supervised by IPHAN (Institute of National Historic and Artistic Heritage), due to the historical value of the property, which was the residence of doctor Antônio Pacheco Leão, director of the Botanical Garden between 1915 and 1931.

The inauguration ceremony was attended by authorities such as the Minister of Culture, Margareth Menezes, the Chinese ambassador to Brazil, Zhu Qing Qiao and the vice-president of the SGCC, Jin Wei. The main attraction of the opening was the first-ever exhibition “Tea Route - Botany, Culture and Tradition”, an immersive and sensory exhibition exploring the trajectory of tea from its origins in China to its global dissemination.

For the SGBH, the reopening symbolizes the historic partnership between Brazil and China and underlines its commitment to cultural preservation.

**BRL 1,052,653.00**



“This is another important milestone in our contribution to celebrating 50 years of friendship and partnership between Brazil and China. The handover of the fully restored Casa Pacheco Leão is a sign of the importance we attach to preserving the country’s History and culture. We are proud to offer this experience to all Botanical Garden visitors.”

– Sun Tao, State Grid Brazil Holding Chairman



## Sport

### “Craque do Amanhã” (Tomorrow’s star)

Founded in 2012, the Craque do Amanhã project takes soccer as a tool to promote citizenship, combat violence, build respect for human rights and encourage social inclusion. The project is aimed at the all-round development of young people aged 8 to 17, covering physical, social and psychological aspects. Since 2019, SGBH has been supporting this initiative, benefiting over 400 children and their families in the city of São Gonçalo (state of Rio de Janeiro).

**BRL 104,256.00**



### “Circuito das Estações” (Seasons Circuit)

The Seasons Circuit is a project which emphasizes the importance of physical exercise for physical and mental health. SGBH actively supports and takes part in this initiative, fostering interaction, fun and well-being among its employees. Held at Aterro do Flamengo (Rio de Janeiro - RJ), the circuit included 5, 10 and 15 km races throughout the four seasons of the year, bringing together over 250 employees in each stage. We held an internal award ceremony for the top three finishers in the male and female categories, within each of the distances covered, recognizing the performance and dedication of the participants.

**BRL 770,070.00**



## Health

### “Instituto Primeira Infância (IPREDE)”

#### (Early Childhood Institute)

Since 2022, SGBH has supported the Institute, responsible for promoting early childhood development based on neuroscience. The initiative offers art and culture as tools for children and their families to grow, strengthening family ties and shaping better citizens. The project also welcomes children with autism and trains women in vulnerable situations, creating productive and social inclusion through educational activities.

**BRL 201,110.50**



### Hospital de Amor

Founded in 1962, Hospital de Amor is an international benchmark in the treatment and fight against cancer, and is the largest free cancer care center in Latin America. Located in the city of Barretos (state of São Paulo), it performs over 3,500 free consultations a day, serving patients from all over Brazil with technological excellence and humanized care. As well as São Paulo, the hospital operates in nine other Brazilian states: Acre, Amapá, Bahia, Rondônia, Tocantins, Sergipe, Roraima, Mato Grosso and Maranhão.

Due to underfunding by the SUS (Unified Health System), the institution relies on incentive laws to maintain its activities, purchase equipment and pay for specialized professionals. SGBH has been supporting this important initiative since 2014, helping thousands of people to enjoy quality cancer treatment.

**BRL 538,276.00**

### Hospital Pequeno Príncipe

Since 2015, SGBH has been supporting the Pequeno Príncipe Hospital, the largest pediatric hospital in Brazil and a national reference in specialized care. Located in Curitiba (PR), the hospital dedicates up to 70% of its capacity to SUS, carrying out over 300,000 medical consultations, 900,000 tests, 21,000 surgeries and 250 transplants per year. The institution cares for children and adolescents from all regions of the country, standing out for its excellence in care and social impact.

**BRL 337,165.50**



# Commitment to the Environment

ANEEL ENVIRONMENTAL, SOCIAL AND SECTORAL DIMENSION



Manufactured  
Capital



Natural  
Capital



Financial  
Capital



# Environmental Governance and Biodiversity Protection

## Environmental licensing

• GRI 2-25 | 304-1 | 304-2 | 304-3 | G4-EN 12 •

Environmental licensing is a very important matter for SGBH, reflecting our commitment to the environmental and operational viability of all projects. From project conception and pre-auction studies, we have a specialized team working in the field and in the office, responsible for managing over 30 environmental licenses. This process officializes the socio-environmental obligations of each project, assuring compliance with legal standards and specific conditions for mitigating impacts and preserving ecosystems.

In 2024, we invested in initiatives such as environmental education, communication with local communities and landowners and monitoring areas of high biodiversity. Our actions are guided by the guidelines laid down in each project's license, aimed at preventing, mitigating and compensating for possible negative effects on the environment and local populations, as well as enhancing positive effects.

The conditions include monitoring fauna and flora, erosion and noise levels, as well as reforestation and waste and effluent management

We have mainly adopted the following measures:

- 1. Environmental monitoring:** the Erosion Processes and Degraded Areas Recovery Program includes periodic monitoring, correction and containment of erosion, as well as Bird Monitoring, Water Quality Monitoring and Noise Monitoring, ensuring operational safety and appropriate environmental conditions;
- 2. Social communication and environmental education:** local landowners are given advice on the impacts of operating and maintaining the lines, on preventing fires and accidents, as well as an assessment of grounding and sectioning in newly built fences;
- 3. Forest replacement:** implementing projects and access to infrastructure during operations demands selective suppression of vegetation, based on an assessment from the areas and as defined in prior authorization. The practices employed aim to prevent habitat fragmentation and promote natural regeneration.

## JUNTOS PELO ARAGUAIA (TOGETHER FOR ARAGUAIA)

Juntos Pelo Araguaia (JPA), launched in 2019, is the largest river basin recovery program currently underway in Brazil. Besides recovering the Upper Araguaia River Basin, it seeks to transform people's relationship with nature, promoting ecological, economic and social balance through actions such as restoring native vegetation, soil and water conservation, and environmental education. It has innovative governance and does not use government funds, but is financed by sponsoring companies that make environmental commitments. The actions are carried out by institutions appointed by the donors, under the supervision of Semad, ensuring efficiency and transparency

In 2024, the JPA was given the Green Apple Environment Awards 2024 trophy, being recognized as one of the most relevant environmental initiatives in the world. Laureate in the "Water Management" category, it stood out among projects from 14 countries, and was one of two Brazilian representatives.

SGBH has been supporting the program since 2023 and, by 2024, 60.17 hectares had been reforested, indirectly benefiting around 15,000 people. Maintenance and monitoring of these areas is scheduled to continue until 2026.

## Forest Replacement

• GRI 304-3 •

When mitigating the impact of vegetation suppression, we prioritize areas located in conservation units and the planting of native species to restore deforested areas. Forest Restoration Projects are managed by SGBH's Environment Division and depend on the approval and supervision of the responsible federal, state or municipal environmental agencies.

Throughout the year, 364.87 hectares were maintained and monitored in the biomes: Amazon, Cerrado and Atlantic Rainforest.



### ONGOING FOREST REPLACEMENT PROJECTS

Concessionaire	Biome	Location	City (State)	Area (ha)
ATE	Cerrado	Sítio Haras de São Pedro	Araraquara (SP)	0.40
CTE	Cerrado	João Leite State Park	Goiânia (GO)	51.79
ITE	Cerrado	João Leite State Park	Goianópolis (GO)	3.00
PPTC			Costa Rica (MS)	4.40
CTE				1.00
ETEE	Cerrado	Emas State Park	Mineiros (GO)	10.0
ITE				10.0
ATE				0.10
RPTE				2.00
SPTE	Cerrado	Lapa Nova State Natural Monument	Vazante (MG)	3.90
PCTE				2.00
STE	Cerrado	Juntos pelo Araguaia	Baliza (GO)	60.17
	Amazon	Xingu Ground Electrode	Anapu (PA)	25.00
	Cerrado	Paracatu State Park	Paracatu (MG)	92.00
XRTE		João Leite State Park	Terezópolis de Goiás (GO)	22.09
		Terminal Rio Ground Electrode	Minduri (MG)	47.00
	Atlantic Rainforest	Mário Xavier National Forest	Seropédica (RJ)	15.90
		Tinguá Biological Reserve	Nova Iguaçu (RJ)	14.12
<b>Total</b>				<b>364.87</b>

## Environmental Compensation Program

It defines the legal procedures for financial compensation for non-mitigable impacts, such as vegetation suppression and habitat loss, applied in conservation units linked to the environmental licensing of projects.

Environmental Compensation is defined by Article 36 of Federal Law No. 9.985/2000 (National System of Conservation Units - SNUC), regulated by Federal Decree No. 4.340/2002 and Federal Decree No. 6.848/2009. Over BRL4.7 million has been earmarked for projects maintained by the SGBH in 2024.

### ENVIRONMENTAL COMPENSATION FUNDS

Concessionaire	Unit Description	Management	Amount (BRL)
CTE	Águas Quentes State Park	Secretariat for Environment of the state of Mato Grosso	408,758.72
LTI	Mato Grosso do Sul Environment Institute	IMASUL	322,746.92
ITE	Geodesic Center of Latin America Natural Monument - Recovery of Degraded Areas	SEMA/MT	391,860.00
PRTE	Igarapés do Juruena and Massairo Okamura State Parks and Riberãozinho and Alcantilados do Araguaia Environmental Protection Area	SEMA/MT and City Hall	2,382,468.37
	Creation of an Integral Protection Conservation Unit in São Vicente de Minas - Preliminary Feasibility Studies phase	City Hall	95,000.00
XRTE	Curió Municipal Nature Park - Recovery of Trails and Acquisition of Equipment	City Hall	739,778.10
	Municipal Conservation Units in Rio de Janeiro/RJ	City Hall	364,759.07
<b>Total</b>			<b>4,705,371.18</b>



## Environmental protection and biodiversity

We give priority to the creation of protected areas associated with existing conservation units with high biodiversity value, which we monitor to mitigate any negative impacts on their fauna and flora.

### UNITS LOCATED WITHIN OR ADJACENT TO PROTECTED AREAS WITH HIGH BIODIVERSITY INDEX

Geographic location	Area (km <sup>2</sup> )	SNUC Category	Conservation Unit	Number of APCBs*	Biodiversity value		
					Extremely High	Very High	High
Goiás, Minas Gerais and Distrito Federal	583	Sustainable Use Unit	Planalto Central Environmental Protection Area: overlap of 29.04 km and total area of 504.16 ha	6	Corumbá River São Bartolomeu River	Corumbá II River Santa Cruz de Goiás MA229	Veríssimo River
Minas Gerais	210		-	2	-	MA213 Ituiutaba	-
Goiás, Minas Gerais and Mato Grosso	810	Sustainable Use Unit	Panamá Environmental Protection Area: overlap of 11.09 km and total area of 15,861.00 ha Ariacá-Açu Municipal Environmental Protection Area: overlap of 3.63 km and total area of 74,996.69 ha	6	Areial River Prata River	Caiaipônia Doverlândia Ribeirão Mutum Rio Cuiabá-Mirim	-
Mato Grosso do Sul and São Paulo	500	Sustainable Use Unit	Ilhas e Várzeas do Rio Panamá Environmental Protection Area: overlap of 79,99 km and total area of 1,005,188.39 ha	2	Ribeirão Cachoeira	-	MA277
Goiás, Minas Gerais and Distrito Federal	681	Sustainable Use Unit	Planalto Central Environmental Protection Area: overlap of 80.88 km and total area of 504.16 ha Pouso Alto Environmental Protection Area 56.06 km extension and total area of 872.000 ha	6	Cristalina Corumbá River São Bartolomeu River	Niquelândia Surroundings PN Chapada dos Veadeiros	Vazante
Minas Gerais and São Paulo	303		-	5	MA159	Pardo River Sacramento Pardo River	Rio Sapucaí
Minas Gerais and São Paulo	407		-	12	Teles Pires River AMZ-816 AMZ-802	Culuene River and Ronuro River Surroundings TI Sangradouro/ Volta Grande AMZ-307, AMZ-338 Barra do Garças	AMZ-089 AMZ-529 AMZ-640
Minas Gerais	246		Paracatu State Park: overlap of 7,03 km - total area of 6,400.34 ha	4	-	Velhas River	Paracatu River São Pedro João Pinheiro
Piauí, Ceará and Pernambuco	394	Sustainable Use Unit	Área de Proteção Ambiental Chapada do Araripe: extensão de 39,55 km – área total de 972.605,18 ha	2	-	Araripe Serra da Capivara	-
Mato Grosso and Goiás	606	Sustainable Use Unit	Chapada do Araripe Environmental Protection Area: 39.55 km extension – total area of 972,605.18 ha	7	Prata River Areial River	Aricá-Açu River Doverlândia Caiaipônia Ribeirão Mutum Cuiabá-Mirim River	-

\* APCB - Priority Areas for Biodiversity Conservation



## UNITS LOCATED WITHIN OR ADJACENT TO PROTECTED AREAS WITH HIGH BIODIVERSITY INDEX

Geographic location	Area (km <sup>2</sup> )	SNUC Category	Conservation Unit	Number of APCBs*	Biodiversity value		
					Extremely High	Very High	High
São Paulo	30		-	1	-	Jacaré-Pepira River	-
Mato Grosso do Sul and Goiás	489		-	3	MA193 Três Lagoas	Prata River	-
Minas Gerais	151	Full Protection Conservation Unit	Lapa Grande State Park: overlap of 2.45 km – total area of 15,360 ha	1	Montes Claros	-	-
Pará	72	Sustainable Use Unit	-	3	AMZ-426 AMZ-845	AMZ-846	-
Mato Grosso	262		-	7	-	Ronuro River Surroundings TI Marechal Rondon Sete de Setembro River	AMZ-332 AMZ-414 AMZ-412
Mato Grosso	1.011		-	13	Teles Pires River AMZ-816 AMZ-80	Culuene River and Ronuro River Surroundings TI Sangradouro/ Volta Grande Barra do Garças AMZ-307 AMZ-338	AMZ-089 AMZ-529 AMZ-640
Minas Gerais, Rio de Janeiro, Pará and Tocantins	2.543	Sustainable Use Unit	Rio Guandu Environmental Protection Area: overlap of 19,88 km – total area of 74.271,97ha Boqueirão da Mira Environmental Protection Area: overlap of 8,18 km – total area of 8.515,00 ha Guandú-Açu Environmental Protection Area: overlap of 0,31 km Serra da Cambraia Environmental Protection Area: overlap of 3,72 km – total area of 2.433,02 ha	35	-	AMZ-114 Unai II Formoso Santuário São Miguel Carste Arcos and Pains AMZ-118 Serra da Prata Rio Urucuia, Unai and Rio Corrente	AMZ-154 AMZ-119 Porto Nacional Borrachudo River Presidente Olegário São Valério River Córrego São Felipe Rio Paracatu MA173

\* APCB - Priority Areas for Biodiversity Conservation

# Climate Change

•GRI 305-1 | 305-2 | 305-3 | 305-4 | 305-5 | 305-6•

Drawing up a greenhouse gas (GHG) inventory<sup>1</sup> has been part of SGBH’s routine since 2021. In 2024, we adopted the market-based approach to calculating emissions, following international best practices. Covering 100% of our subsidiaries and using an operational control approach, we submitted the inventory for verification by an independent third party<sup>2</sup>, with a reasonable level of reliability, ensuring greater accuracy and comprehensiveness.

Most of our GHG emissions are classified as Scope 2 given the type of transmission activity and losses intrinsic to the system. In 2024, emissions in this category rose by 49.4% to 86,354 tCO<sub>2</sub>e, a growth caused by the increase in the emission factor of the National Interconnected System (SIN), which was lower in 2023.

Scope 1 emissions were 3,986 tCO<sub>2</sub>e (+39.2%), as a result of fugitive emissions from the maintenance of air conditioning systems and a 51.1% increase in the consumption of sulphur hexafluoride (SF6). Scope 3 emissions fell by 65.7%, from 11,934 tCO<sub>2</sub>e to 4,099 tCO<sub>2</sub>e. HCFC-22 emissions totaled 0.000165 tCO<sub>2</sub>e.

<sup>1</sup> In compliance with NBR ISO 14064, the Brazilian GHG Protocol Program and the Intergovernmental Panel on Climate Change (IPCC).

<sup>2</sup> Verification performed by Instituto Totum.

GHG emissions intensity in 2024 resulted in 9.2 tCO<sub>2</sub>e/km of lines in operation.

A prominent mitigation measure is the treatment of sulfur hexafluoride (SF6), which is intended to improve purity and make the gas available for reuse by removing particles, moisture and products of its decomposition. In 2024, 938.7 kg of the gas were treated.

## RENEWABLE ENERGY CERTIFICATES (I-RECS)

In 2024, we acquired 5,000 I-RECs, renewable energy certificates from wind sources, which led to a reduction of 272.18 tCO<sub>2</sub>e in reported emissions.

For more information on the initiatives taken to manage emissions, see the following page.

## ANNUAL GREENHOUSE GAS EMISSIONS (TCO<sub>2</sub>E)

	Distribution	2024 <sup>3</sup>	2023	2022
Scope 1	4%	3,986	2,864	3,780
Scope 2	91%	86,081	57,805	73,747
Electricity acquisition (location-based)	92%	86,354	57,805	73,747
Electricity acquisition (market-based)	0%	272	-	-
Scope 3	4%	4,099	11,934	8,148
<b>TOTAL</b>	<b>100%</b>	<b>94,166</b>	<b>72,603</b>	<b>85,675</b>

<sup>3</sup> Biogenic emissions of 152 tCO<sub>2</sub>e Scope 1 and 4,360 tCO<sub>2</sub>e Scope 3.

## ENERGY EFFICIENCY CAMPAIGN

We have identified the key energy efficiency opportunities and drawn up a multi-year plan with measurable objectives and targets for the coming years. The actions include installing automated systems and replacing lighting with LED bulbs.

To enhance internal engagement, we launched a campaign to make employees aware of the positive impact of small attitudes in everyday life, such as switching off lights and using the air conditioning consciously.

Besides promoting a sustainable culture, the campaign also aims to reduce energy consumption, helping to cut costs and greenhouse gas emissions.



## ETHANOL CAMPAIGN

We give priority to using ethanol in our fleet of flex-fuel vehicles, setting a target of achieving at least 80% of fill-ups with this fuel. To achieve this goal, we ran awareness campaigns with our employees and monitored this indicator on a monthly basis. The target was achieved in the first month of the campaign and, at the end of the year, we had an average of 84% of flex-fuel vehicles being refueled with ethanol.



## ELECTRIC VEHICLES

In 2024, we purchased 11 electric cars, bringing environmental and operational benefits, such as easy maintenance, reduced fuel costs and mitigation of GHG emissions in team transportation. This initiative is part of the company's strategic planning, and we plan to expand the fleet with more electric vehicles in the coming years.



Ao sair da sala,  
**desligue o interruptor.**  
Se ligue com a SGBH nesse movimento!

离开房间时，请关闭电源。  
加入SGBH的这项行动。  
节约能源  
#气候变化承诺





# Eco-efficiency

We continually strive for efficiency in the use of natural resources and for reducing environmental impacts. Our operations are geared towards the rational use of energy, water and materials, with investments in control technologies, innovation and team qualifications.

In 2024, we performed diagnostics and implemented strategic initiatives in the topics of water, waste and energy, aiming to make our operations even more efficient and sustainable. These actions include air conditioning water reuse pilot project, the replacement of conventional light bulbs with LEDs and the waste disposal optimization, with a focus on increasing recycling and reuse.

We employ practices that optimize processes, reduce waste and ensure compliance with environmental legislation. These initiatives bolster our commitment to eco-efficiency and the preservation of the biomes where we operate.



## Energy

• GRI 302-1 | 302-2 •

Mainly used for transmission line maintenance activities, such as team displacement and burning fuel in equipment, energy consumption within the organization amounted to 195,300 GJ in 2024, equivalent to 3.5% of 2023 consumption.

Consumption of purchased electricity (Scope 2) fell from 5.5 million GJ in 2023 to 169.2 thousand GJ in 2024, driven by the energy efficiency measures implemented by the company.

With the Ethanol campaign, gasoline consumption was reduced by 64%, from 7.0 thousand GJ to 2.5 thousand GJ in 2024, replaced by ethanol, which reached 4.5 thousand GJ in 2024 (17% of direct consumption), compared to 51 GJ the previous year.

Consumption outside the organization was 47,300 GJ, down 62% over the year, with diesel (34%), aviation kerosene (30%), aluminum (20%) and concrete (9%) being the main energy sources.

In 2024, 100% of the energy used at our headquarters, the State Grid Rio Tower, came from renewable sources.

### ENERGY CONSUMPTION WITHIN THE ORGANIZATION (GJ)

	Distribution	2024	2023	2022
Non-renewable fuels	Acetylene	-	0.00	0.04
	Diesel	10%	19,143	15,612
	Gasoline	1%	2,485	7,002
	Liquefied petroleum gas (LPG)	0.001%	1	17
Renewable fuels	Ethanol	2%	4,474	51
Purchased electrical energy	Electricity	87%	169,201	5,486,546
<b>TOTAL</b>	<b>100%</b>	<b>195,304</b>	<b>5,509,223</b>	<b>6,227,566</b>

### ENERGY CONSUMPTION OUTSIDE THE ORGANIZATION (GJ)

	Distribution	2024	2023	2022
Combustíveis não-renováveis	Diesel	34%	16,228	55,093
	Gasoline	6%	2,706	5,236
	Aviation kerosene	30%	13,995	16,787
Energia elétrica adquirida	Electricity	-	384	378
Insumos e produtos da indústria petroquímica	Lubricant	0%	0,2	5
	Aluminium	20%	9,536	9,614
	Asphalt (ICE)	-	-	666
Insumos para construção civil	Cement CP V	1%	414	5,626
	White cement	-	-	4
	Concrete	9%	4,419	30,833
<b>TOTAL</b>	<b>100%</b>	<b>47,298</b>	<b>124,247</b>	<b>69,700</b>

## Water and effluents

• GRI 303-1 | 303-2 | 303-3 | 303-4 | 303-5 •

Water withdrawal from artesian wells, authorized by the responsible agencies, is the main source of water for most of the operating units, located in areas with no access to the public supply network.

The use of the public network for water supply and effluent disposal is prioritized in units where the sanitation system is available, such as our corporate headquarters, where it is used for cooling internal premises, human

consumption, cleaning technical and common areas and equipment maintenance.

In 2024, 30.6 million liters were consumed in our activities, 53% of which came from underground withdrawal and 47% from supply networks; 12.6 ML were disposed of as effluents.

### WATER RESOURCES DIAGNOSIS

In 2024, we performed a water resources diagnosis at our operating units to create an action plan focused on improving water management, with initiatives geared towards monitoring quality, reducing consumption and implementing technologies such as water meters and rainwater reuse systems.

### WATER WITHDRAWAL BY SOURCE (MEGALITERS)

	Variation	2024*	2023*	2022
Underground (artesian wells)	-9%	16.2	17.7	18.3
Third-party water (public supply and water trucks)	+16%	14.5	12.5	5.9
Superficial (watercourses)	0	0	0	0.2
<b>Total</b>	<b>+1.4%</b>	<b>30.6</b>	<b>30.2</b>	<b>24.4</b>
Effluents	+8%	12.6	11.6	0.2
<b>Actual consumption</b>	<b>-3%</b>	<b>18.0</b>	<b>18.6</b>	<b>24.1</b>

\* From 2023, we started reporting on the water consumption of the SGCC Tower.



## Waste

• GRI 306-1 | 306-2 | 306-3 | 306-4 | 306-5 •

In our operational routines, we plan our activities with a view to preventing soil, air and water pollution, as well as mitigating potential risks to human health and the population's quality of life. To this end, we strictly follow the relevant environmental legislation and the guidelines of the Solid Waste and Effluent Management Program (PGRSE).

Waste generation at each operating unit is monitored through the Waste Generation and Disposal Inventory, with records from the generating process to final disposal. During waste transportation, we ensure document control, including classification and compliance with applicable standards and legislation.

### OIL REGENERATION

In 2023, we acquired an oil regeneration machine that extends oil's useful life as equipment insulation material. Through filtration, the system removes solids, reduces incorporated water and eliminates dissolved gases, which reduces their degradation and prevents them from being disposed of as waste. Besides preserving the efficiency of the equipment, the initiative contributes to reducing GHG emissions.

**We regenerated 98,700 liters of oil in 2024.**

### TYPES OF WASTE GENERATED (T)

	2024	2023	2022
Hazardous waste	108.38	115.78	4.64
Non-hazardous waste	337.62	229.69	135.41
<b>TOTAL</b>	<b>446.00</b>	<b>345.47</b>	<b>140.05</b>

### WASTE DIVERTED FROM DISPOSAL (T)

	2024	2023	2022
Hazardous waste for reuse	98.71	0.00	3.74
Hazardous waste for recycling	1.10	30.90	-
Hazardous waste for other recovery operations	5.37	70.18	0.00
Non-hazardous waste for reuse	-	0.00	-
Non-hazardous waste for recycling	29.50	7.19	15.88
Non-hazardous waste for other recovery operations	7.18	0.00	0.00
<b>TOTAL</b>	<b>141.86</b>	<b>108.27</b>	<b>19.42</b>

### WASTE SENT FOR DISPOSAL (T)

	2024	2023	2022
Hazardous waste incinerated (with energy recovery)	0.00	4.56	0.51
Hazardous waste sent to landfills	1.80	10.12	0.26
Hazardous waste destined for other disposal operations	1.40	0.02	0.12
Non-hazardous waste incinerated (with energy recovery)	91.80	16.25	21.02
Non-hazardous waste incinerated (no energy recovery)	0.00	9.32	7.68
Non-hazardous waste sent to landfills	209.14	196.93	83.15
Non-hazardous waste intended for other disposal operations	0.00	0.00	7.89
<b>TOTAL</b>	<b>304.14</b>	<b>237.20</b>	<b>120.63</b>

<sup>2</sup> The data above represents re-refining, co-processing and recycling activities, allowing for reinsertion into the production chain.

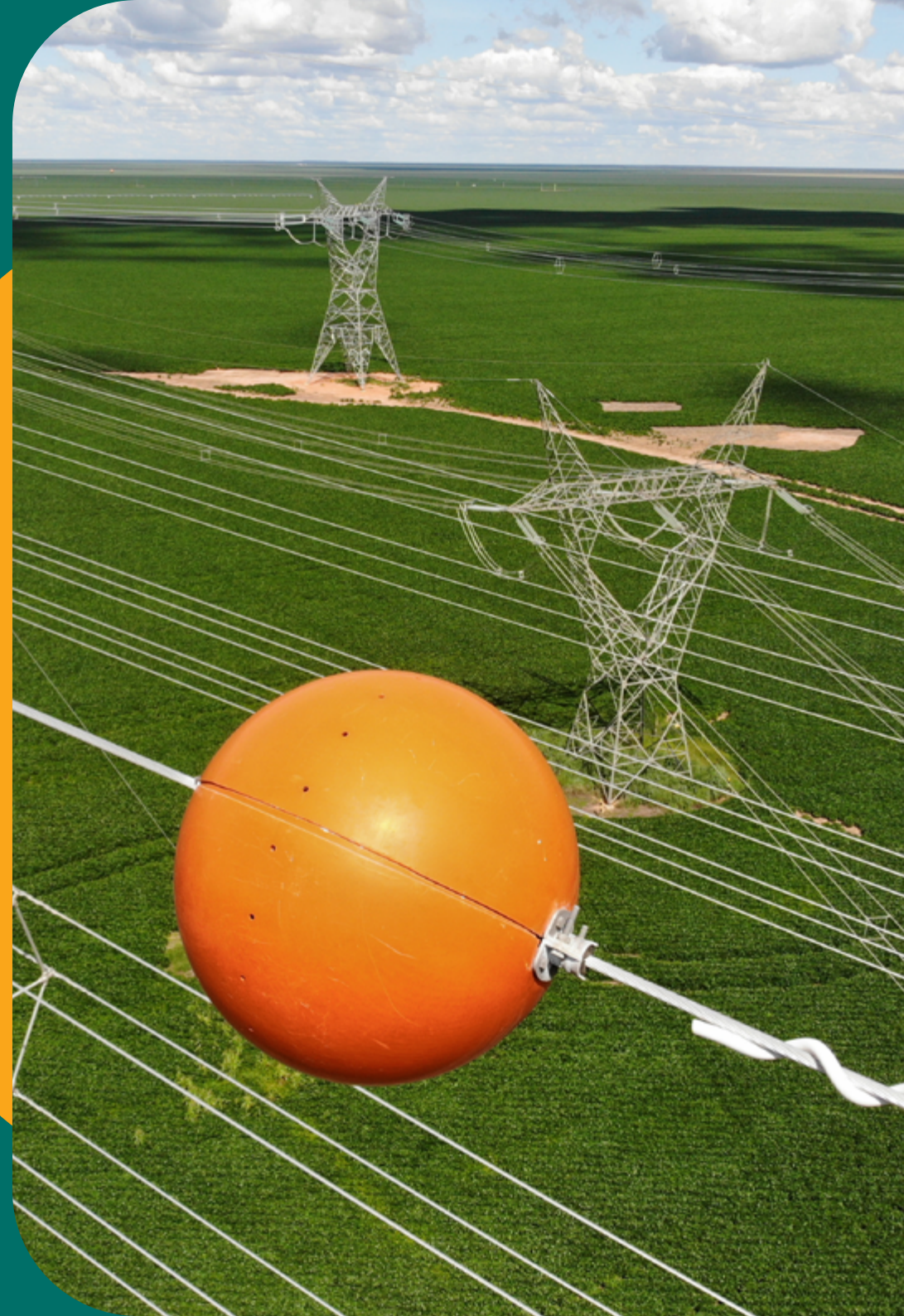


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7

# Indicators

ANEEL GENERAL DIMENSION





# GRI Standards Index

## UNIVERSAL STANDARDS

## REFERENCE (PAGE) / DIRECT ANSWER

### GENERAL CONTENT

#### The organization and its reporting practices

2-1	Organization details	State Grid Brazil Holding S.A. is a private company based in Rio de Janeiro - RJ. Further information is available on pages 9, 10 and 23.
2-2	Entities included in the organization's sustainability reports (Scope of Controlled Companies)	Page 23.
2-3	Reporting period, frequency and point of contact	Page 5.
2-4	Restatement of information	There were no restatements.
2-5	External verification	The report has not been externally verified.

#### Activities and employees

2-6	Activities, value chain and other business relationships	Pages 9, 23 and 64.
2-7	Employees	Page 51.
2-8	Employees who are not employees	Outsourced workers are managed directly by the departments responsible, and at the moment we don't have consolidated data to report.

#### Governance

2-9	Governance structure and composition	Pages 41 and 45.
2-10	Nomination and selection of the highest governance body	Pages 41 and 45.



## REFERENCE (PAGE) / DIRECT ANSWER

2-11	Chair of the highest governance body	Page 41.
2-12	Role of the highest governance body in overseeing the management of impacts	Pages 41, 45 and 48.
2-13	Delegation of responsibility for managing impacts	Page 48.
2-14	Role of the highest governance body in sustainability reporting	Page 5.
2-15	Conflicts of interest	It is the duty of the Company's executives to prevent and manage situations of conflicts of interest or divergence of opinions, aiming to prevail the interest of the Company, its subsidiaries and affiliates over any other interests. The existence of an actual or potential conflict of interest by any member of the Executive Board must be disclosed, and that member must refrain from participating in that part of the meeting in which the issue causing a conflict of interest is addressed.
2-16	Communication of critical concerns	During the reporting period, the Executive Board approved 308 resolutions related to the operational governance and administrative oversight of SGBH, its subsidiaries, and affiliated companies. The Board of Directors reviewed 37 matters concerning the Company's strategic direction, 24 of which were critical decisions of a deliberative or informative nature, addressing key financial, strategic, and operational issues.
2-17	Collective knowledge of the highest governance body	The HSE Department and the ESG Committee are responsible for reinforcing and disseminating knowledge about aspects related to sustainable development and ESG within the Company, especially to the Company's Executive Board, through periodic communications and meetings.
2-18	Evaluation of the performance of the highest governance body	The Shareholder carries out an audit of the Company at the end of each Chairman's cycle for the period of his mandate.
2-19	Remuneration policies	Not reported as it is strategic information for the Company.
2-20	Process to determine remuneration	Executive compensation complies with practices approved in SGBH's internal rules, which are constantly reviewed and updated by HR to keep up with best market practices. The rules refer to basic salary, benefits and variable compensation, the latter two being linked to performance evaluation. Compensation proposals are analyzed by HR (Compensation, Management and Board) and submitted for approval by the members of the Executive Board, the body responsible for people management.
2-21	Annual total compensation ratio	1,640%
<b>Strategy, policies and practices</b>		
2-22	Statement on sustainable development strategy	Pages 6 and 14.
2-23	Policy commitments	Pages 14 and 47.



## REFERENCE (PAGE) / DIRECT ANSWER

2-24	Embedding policy commitments	Page 14.
2-25	Processes to remediate negative impacts	Pages 65 and 75.
2-26	Mechanisms for seeking advice and raising concerns	Page 64.
2-27	Compliance with laws and regulations	We have not recorded any significant cases of non-compliance with laws and regulations, considering fines and non-monetary sanctions. We define significant cases as the impact resulting from the occurrence with a mitigation value exceeding R\$5 million.
2-28	Membership associations	Page 47.
<b>Stakeholder engagement</b>		
2-29	Approach to stakeholder engagement	Page 64.
2-30	Collective bargaining agreements	100% of CLT (employees governed by the Consolidation of Labor Laws) employees are covered by collective bargaining agreements. 4.39% of employees are not CLT (pro-labore) and work under the rules of this system and criteria defined for expatriate workers in Brazil.
<b>Material Topics</b>		
3-1	Process to determine material topics	Page 12.
3-2	List of material topics	Page 12.
3-3	Management of material topics - biodiversity	Page 12.
<b>ECONOMIC CONTENT</b>		
<b>Economic Performance</b>		
201-1	Direct economic value generated and distributed	Page 19.
<b>Indirect Economic Impacts</b>		
203-1	Infrastructure investments and services supported	Page 68.



## REFERENCE (PAGE) / DIRECT ANSWER

203-2	Significant indirect economic impacts	Page 68.
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## Anti-Corruption

205-2	Communication and training about anti-corruption policies and procedures	Page 45.
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205-3	Confirmed incidents of corruption and actions taken	Page 45.
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## Anti-competitive Behavior

206-1	Legal actions for anti-competitive behavior, anti-trust, and monopoly	There weren't any.
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## ENVIRONMENTAL CONTENT

## Energy

302-1	Energy consumption within the organization	Page 83.
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302-2	Energy consumption outside of the organization	Page 83.
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## Water

303-1	Interactions with water as a shared resource	Page 84.
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303-2	Management of water discharge related impacts	Page 84.
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303-3	Total water withdrawal	Page 84.
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303-4	Total water discharge	Page 84.
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303-5	Total water consumption	Page 84.
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## Biodiversity

304-1	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	Page 75.
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304-2	Significant direct and indirect impacts on biodiversity from activities, products and services	Page 75.
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## REFERENCE (PAGE) / DIRECT ANSWER

304-3	Habitats protected or restored	Page 75.
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## Emissions

305-1	Direct (Scope 1) GHG emissions	Page 80.
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305-2	Energy indirect (Scope 2) GHG emissions	Page 80.
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305-3	Other indirect (Scope 3) GHG emissions	Page 80.
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305-4	GHG emissions intensity	Page 80.
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305-5	Reduction of GHG emissions	Page 80.
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305-6	Emissions of ozone-depleting substances (ODS)	Page 80.
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## Waste

306-1	Waste generation and significant waste-related impacts	Page 85.
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306-2	Management of significant waste-related impacts	Page 85.
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306-3	Total weight of waste generated	Page 85.
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306-4	Total weight of waste diverted from disposal	Page 85.
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306-5	Total weight of waste directed to disposal	Page 85.
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## SOCIAL CONTENT

## Employment

401-1	Total number and rate of new employee hires and rate of employee turnover	Page 53.
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401-3	Return to work and retention rates of employees that took parental leave	Page 55.
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## Occupational Health and Safety

403-1	Occupational health and safety management system	Pages 29 and 55.
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403-2	Hazard identification, risk assessment, and incident investigation	Page 29.
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## REFERENCE (PAGE) / DIRECT ANSWER

403-3	Occupational health services	Pages 29 and 55.
403-4	Worker participation, consultation, and communication on occupational health and safety	Page 29.
403-5	Worker training on occupational health and safety	Page 61.
403-6	Promotion of worker health	Page 51.
403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	Page 57.
403-8	Workers covered by an occupational health and safety management system	100% of employees and third-party contractors are covered by the occupational health and safety management system, which includes internal audits for monitoring and continuous improvement.
403-9	Work-related injuries	Page 61.
403-10	Work-related ill health	Page 61.

## Training and Education

404-1	Average hours of training per year per employee	Page 54.
404-3	Percentage of employees receiving regular performance and career development reviews	Page 54.

## Diversity and Equal Opportunity

405-1	Diversity of governance bodies and employees	Pages 41 and 51.
405-2	Ratio of basic salary and remuneration of women to men	Page 57.

## Child Labor

408-1	Operations and suppliers at significant risk for incidents of child labor	We have a chapter on human rights in our Code of Ethics, and carry out internal communications and supplier verification.
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## Forced or Compulsory Labor

409-1	Operations and suppliers at significant risk for incidents of forced or compulsory labor	No cases were identified during the reporting period. To advance the topic, we plan to map this slave risk in our value chain and establish a verification process and carry out due diligence on suppliers considered to be high risk.
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## Rights of Indigenous Peoples

411-1	Incidents of violations involving rights of indigenous peoples	No cases of violations of the rights of indigenous peoples were identified during the period covered by the report.
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## REFERENCE (PAGE) / DIRECT ANSWER

## Local Communities

413-1	Operations with local community engagement, impact assessments, and development programs	Page 65.
413-2	Operations with significant actual and potential negative impacts on local communities	Pages 48 and 65.

## Public Policy

415-1	Total monetary value of financial and in-kind political contributions made by the organization	No direct or indirect political contributions were made by the Company during the reporting period.
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## SECTOR GRI - ELECTRICITY

## Organization Profile

EU 4	Length of overhead and underground transmission and distribution lines, by regulatory regime	Page 23.
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## Research and Development

G4-DMA (former EU 8)	Research and development activities and financial resources aimed at providing reliable electricity and promoting sustainable development	Page 34.
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## Availability and Reliability

G4-DMA (former EU 6)	Management to guarantee electricity availability and reliability in the short and long term	Page 31.
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## Biodiversity

G4-EN 12	Significant impacts of activities, products and services on biodiversity in protected areas and areas of high biodiversity value outside protected areas	Page 75.
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## Planning and Response to Disasters or Emergencies

G4-DMA (former EU 21)	Contingency planning measures, disaster or emergency management and training plan, and recovery or restoration plans	Pages 31 and 65.
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## Health and safety

EU 25	Number of accidents and deaths of service users involving company assets, including decisions, agreements and ongoing legal cases relating to illnesses	Page 61.
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# Green Bond Index (STE)

## REFERENCE (PAGE) / DIRECT ANSWER

### FINANCIAL

GB 1	Allocation of future resources, by project (BRL)	Page 21.
GB 2	Resources temporarily allocated to instruments other than the project (BRL)	Page 21.

### ENVIRONMENTAL

GB 3	Provision of transmission services to Green Users	Page 21.
GB 4	Monitoring and reporting of socio-environmental controversies associated with the chosen projects, with adverse impacts on preservation areas, people resettlement, accidents, among others	Page 21.
GB 5	NIS average emission factor over the last 5 years (tCO <sub>2</sub> e/MWh)	Page 21.

# Global compact

## Human Rights

01 - Companies must support and respect the protection of internationally recognized human rights.

02 - Ensure that you do not take part in violations of these rights.

03 - Companies must support freedom of association and effective recognition of the right to collective bargaining.

## Employment

04 - Elimination of all forms of forced or compulsory labor.

05 - Effective abolition of child labor.

06 - Eliminate employment discrimination.

## Environment

07 - Companies must support a preventative approach to environmental challenges.

08 - Develop initiatives to promote greater environmental responsibility.

09 - Encourage the development and dissemination of environmentally friendly technologies.

## Anti-corruption

10 - Companies must combat corruption in all its forms, including extortion and bribery.

## Material topics (Pages 12 and 13)

Social investment; Local communities; Ethics and Compliance.

Ethics and Compliance.

Ethics and Compliance.

Operational safety; Local communities; Ethics and Compliance.

Local communities; Ethics and Compliance.

Ethics and Compliance.

Biodiversity; Environmental management; Energy transition; Local communities.


Environmental management.

Energy transition; Technology and innovation; Resilient infrastructure.

Ethics and Compliance


# Map of the Sustainable Development Goals (SDGs)

**3** GOOD HEALTH AND WELL-BEING




Pages 22, 50 and 74.

**4** QUALITY EDUCATION




Page 50.

**5** GENDER EQUALITY



Page 50.

**7** AFFORDABLE AND CLEAN ENERGY



Pages 22 and 74.

**8** DECENT WORK AND ECONOMIC GROWTH




Pages 8, 22 and 50.

**9** INDUSTRY, INNOVATION AND INFRASTRUCTURE



Pages 8 and 22.

**10** REDUCED INEQUALITIES




Page 50.

**11** SUSTAINABLE CITIES AND COMMUNITIES



Pages 50 and 74.

**12** RESPONSIBLE CONSUMPTION AND PRODUCTION



Page 74.

**13** CLIMATE ACTION



Pages 22 and 74.

**15** LIFE ON LAND

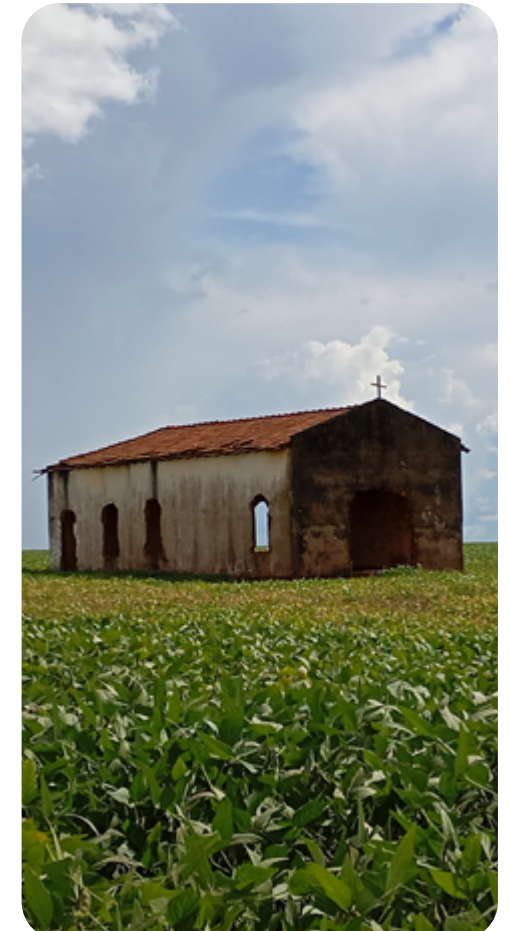


Page 74.

**16** PEACE, JUSTICE AND STRONG INSTITUTIONS



Pages 40 and 50.



# Annexes

As a concessionaire in the electric energy sector, State Grid Brazil Holding S.A. presents, in the Annexes to the 2024 Sustainability Report, complementary information to the Annual Socio-Environmental and Economic-Financial Responsibility Report of its 100% controlled energy transmission concessionaires, in compliance with ANEEL Electric Sector Accounting Manual.



**Access the annexes  
to the Sustainability  
Report\***

\*Annexes available only in Portuguese.



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