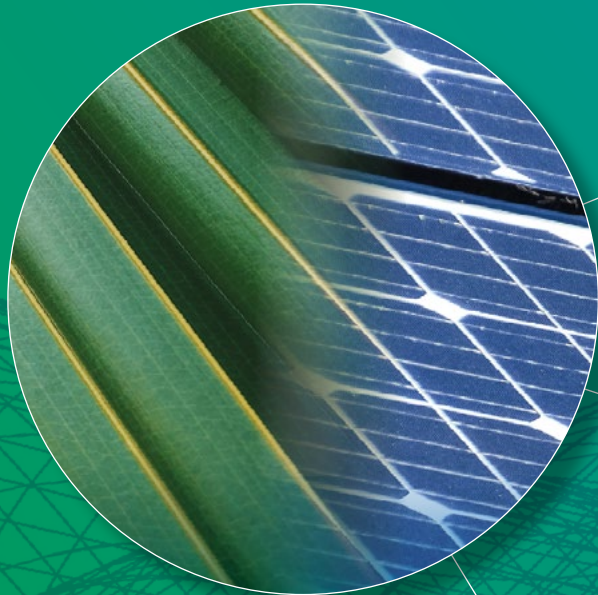


# Furnas Annual Report 2021



**Eletrobras**  
Furnas

# Furnas

## Annual Report 2021

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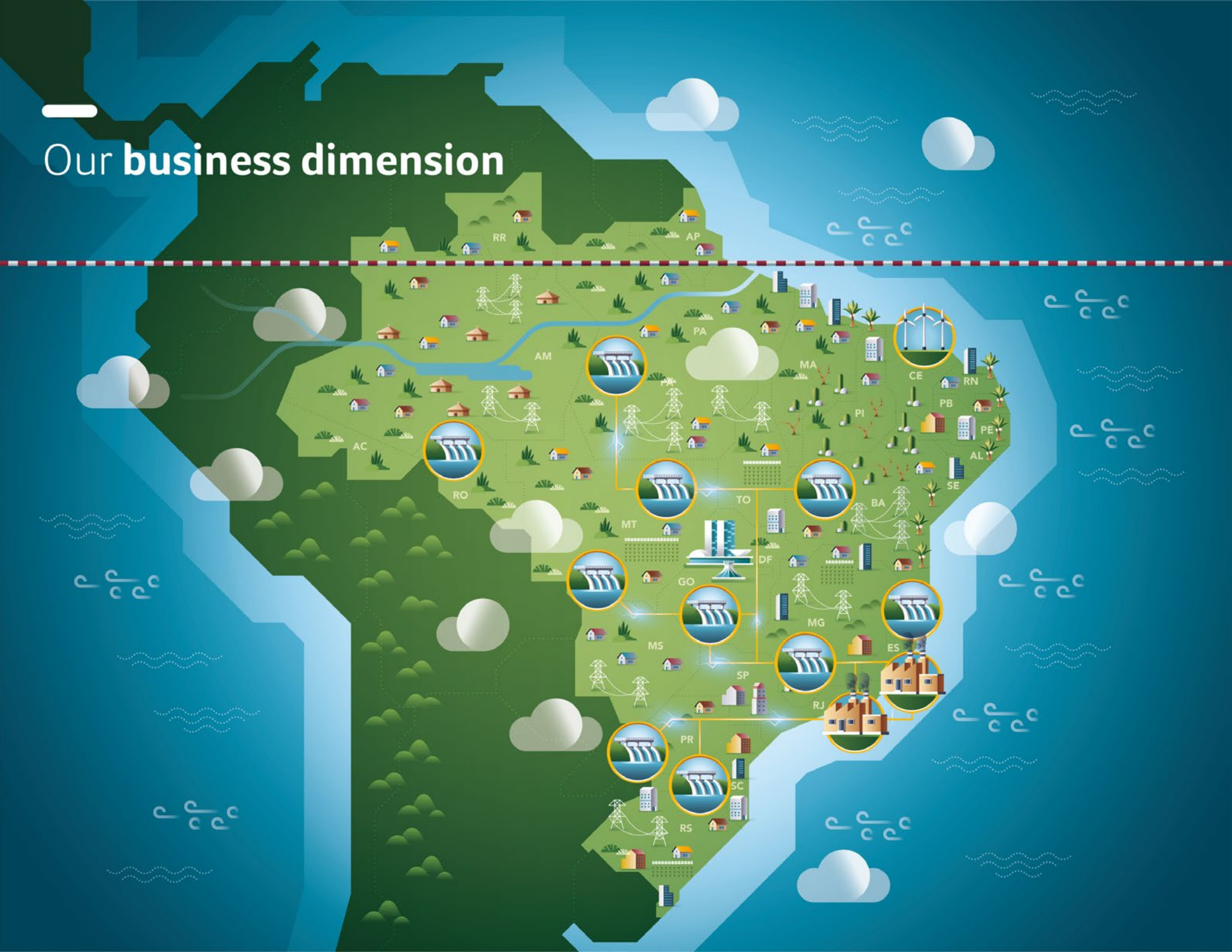
#### Credits



#### Contact us **GRI 102-53**

For further information about this report and its contents, go to the [Contact Us](#) page on the Furnas website, under the sub-section “Information”. Your question will be forwarded to the appropriate department.

# Our business dimension



# Foreword

You're reading Furnas' **23<sup>rd</sup> Annual Report**. Throughout the following pages, we describe our activities, targets and results in 2021.

We have again developed the report with corporate sustainability at its core, organizing its contents into four integrated pillars: principles of **Governance**, **Prosperity**, **People** and **Planet**, with 12 related material topics. Mapped to each pillar is a set of disclosures that collectively form the sustainability framework used by the Eletrobras Group.

- **Governance:** embed our purpose at the center of our business.
- **Prosperity:** ensure that economic, social and technological progress occurs in harmony with nature.
- **People:** ensure that all employees can fulfill their potential in dignity and a healthy environment.
- **Planet:** protect the planet for future generations.

For further details about the Furnas Annual Report 2021 and its underlying disclosures and guidelines, see the chapter [“About this report”](#).

**We hope you find this report informative and inspiring.**

This report is signposted with icons referencing the methods used in compiling disclosures, including:

- Material topics
- GRI disclosures
- Integrated Reporting capitals\*
- The SDGs within the UN's 2030 Agenda



*\*Formulated by the **International Integrated Reporting Council (IIRC)**, the capitals framework describes a set of resources and competencies that are the basis of an organization's value creation.*



**Natural capital**  
natural resources



**Financial capital**  
financial resources



**Manufactured capital**  
the buildings, equipment and infrastructure used by the business



**Human capital**  
the skills and competencies of people in the organization



**Social and relationship capital**  
relationships within and outside the company



**Intellectual capital**  
knowledge created

# Message from management

GRI 102-14

I begin this message by saying that Furnas has and will remain essential to delivering the energy that drives Brazil. With a sense of pride, in 2021 we continued to lead the power sector as a major player in the industry. Eletrobras is undergoing a capitalization process led by our parent company, to which we have lent our support

and our trust. This year, above all, we devoted our utmost commitment to our human and intellectual capital, Furnas' greatest assets.

Employees returned to work at our head offices in the Barão de Mauá building in downtown Rio de Janeiro, maintaining the enhanced safety measures and protocols implemented at the onset of the COVID-19 pandemic. Just as we succeeded in navigating the public-health crisis responsibly, we also weathered what is being considered the worst water crisis in Brazil in the last 91 years.

But even in the hydroelectric sector, every crisis comes with opportunities. We engaged with governments, trade associations and other power-sector players in important discussions about innovation and environmental and social issues. Together, we developed solutions to address the dropping reservoir levels, and we engaged closely with communities in the Rio Grande Basin in Minas Gerais and other cities directly affected by our reservoirs.

As a cross-cutting business strategy, sustainability and innovation have guided our efforts to improve governance, and have been translated into new initiatives. Some of these initiatives have been launched within the company, building on employee ideas and projects, while others have been developed externally, such as via our call for social and environmental projects, launched in 2021.



*A solar plant along the banks of the Itumbiara dam reservoir*

## Our business strategies and targets are aligned with our priority SDGs, which affect our business decisions and employee compensation.

In 2021 we continued to celebrate the winning initiatives in *Inova Furnas* and the 2<sup>nd</sup> Eletrobras Innovation Olympics. We accelerated the development of solutions for communities and new business, with a primary focus on renewable energy. This included initial sales of renewable energy certificates certified via the RECFY platform and initial production of hydrogen — the fuel of the future — at our Itumbiara hydroelectric plant, straddling the border between Minas Gerais and Goiás.

Our business strategies and targets, now redefined in our Strategic Plan 2020-2035, are aligned with the Sustainable Development Goals (SDGs) that we have prioritized and which directly affect our business decisions and the compensation received by employees and senior management, as you will learn in the chapter on **Governance**.

In **Prosperity**, we describe our key initiatives in research, development and innovation (R&D+I), and how we have deployed technology to positively impact our business and society. We present our financial performance in the year and developments such as our first auction of renewable energy certificates (I-RECs); our use of artificial intelligence to develop in-house solutions; and our deployment of block chain and other platforms to enhance management and create disruptive business solutions.

In **People**, the core theme is the cultural transformation we are pursuing, including initiatives to equip our employees with future-ready skills and improvements

in people management through programs such as Employee Mentoring and Young Apprentices. We evolved in our management of workplace health, safety and well-being, improving our internal programs and extending them to suppliers.

In **Planet**, we describe how Furnas is aligned with the highest ESG standards and how in 2021, once again, we strengthened our commitment since 2003 to the Global Compact principles and other initiatives in Brazil and internationally to drive solutions to environmental challenges.

We ended 2021 with strong financial results that made a significant contribution to Eletrobras' financial performance in the year. We are well poised for future challenges and, with our vast power-sector expertise and a 97% clean<sup>1</sup> electricity mix, we remain firm in our determination to help advance the energy transition. We would also like to celebrate with you the *Pró-Ética* certification we received from the Office of the Comptroller General, an important recognition of our transparency and excellence in ethics.

We will remain strong in our purpose as we continue to energize Brazil.

**Clovis Torres**  
CEO

<sup>1</sup>Sources with low greenhouse gas (GHG) emissions.



Clovis Torres,  
CEO

# 2021 at a glance

## Prosperity



R\$ 6.8 billion

EBITDA (CVM basis)

\*R\$ 4.6 billion in 2020

R\$ 4.03 billion

net income

\*R\$ 2.57 billion in 2020

R\$ 751 million

capital expenditure

\*R\$ 807 million in 2020

RECFY

a newly launched platform for trading in renewable energy certificates

## People



2,802

employees

\*2,827 employees in 2020

3,889

suppliers

\*3,136 suppliers in 2020

128,934

hours of training

\*279,316 hours in 2020

648

leadership and employee attendances at workshops as part of the Furnas Cultural Development Program

## Planet

R\$ 124.4 million<sup>1</sup>

invested in environmental preservation and conservation

\*10.4 million in 2020

<sup>1</sup> Includes investments in environmental preservation and conservation, land indemnities in connection with projects, and investments in environment-related R&D projects. The figure reported in 2020 included only investments in disturbed land rehabilitation. In 2021 we invested R\$ 15 million in rehabilitation.

192

hectares rehabilitated

\*270 hectares in 2020

100

employees volunteered in social and environmental projects

Green hydrogen

first hydrogen production and storage plant built at the Itumbiara hydroelectric plant



# GOVERNANCE

## MATERIAL TOPICS

- Governance, integrity and ethics
- Risk management

## CAPITALS



# About Furnas

GRI 102-1, 102-2, 102-3, 102-4, 102-5, 102-6, 102-7

Furnas Centrais Elétricas S.A. (“Furnas”) is a privately held, mixed-ownership company controlled by Centrais Elétricas Brasileiras S.A. (Eletrobras). The company was founded under Federal Decree 41 066 on February 28, 1957, and is currently headquartered at Av. Graça Aranha 26, in downtown Rio de Janeiro.

Furnas generates, transmits and sells electricity to electric utilities, trading companies and free consumers across Brazil. We also provide a range of services, including:

- Owner’s engineering: technical management and support for project owners.
- Laboratory services: technical control of construction materials and concrete, and soil testing.
- Transmission line construction and maintenance training, and power plant and substation operator courses.
- Power system performance assessments.
- Administrative, financial, technical and Operation & Maintenance (O&M) services for the Special Purpose Entities (SPEs) in which we have interests.
- General training ([for further information, go to the Services section of the Furnas website](#)).

## Business model

To learn more about our business model, activities and services, and how we create value for our stakeholders, view our [Value Creation Model](#).

## Learn more

For detailed company information, go to [SIEST](#) (State-Owned Enterprise Information System) and type Furnas in the search box.



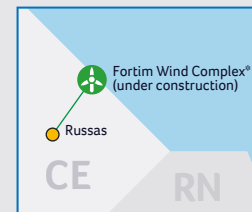
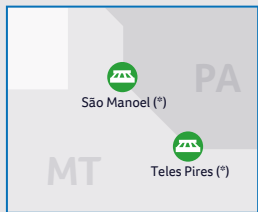
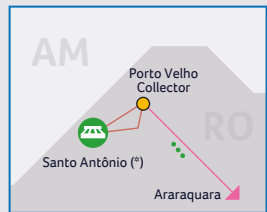
Funil Dam

## SHARE OWNERSHIP

Shareholder	Common shares		Preferred shares	
	Number	%	Number	%
<b>Eletrobras</b>	52,647,326,561	99.83	14,659,406,538	98.62
<b>Other</b>	91,699,606	0.17	205,277,973	1.38

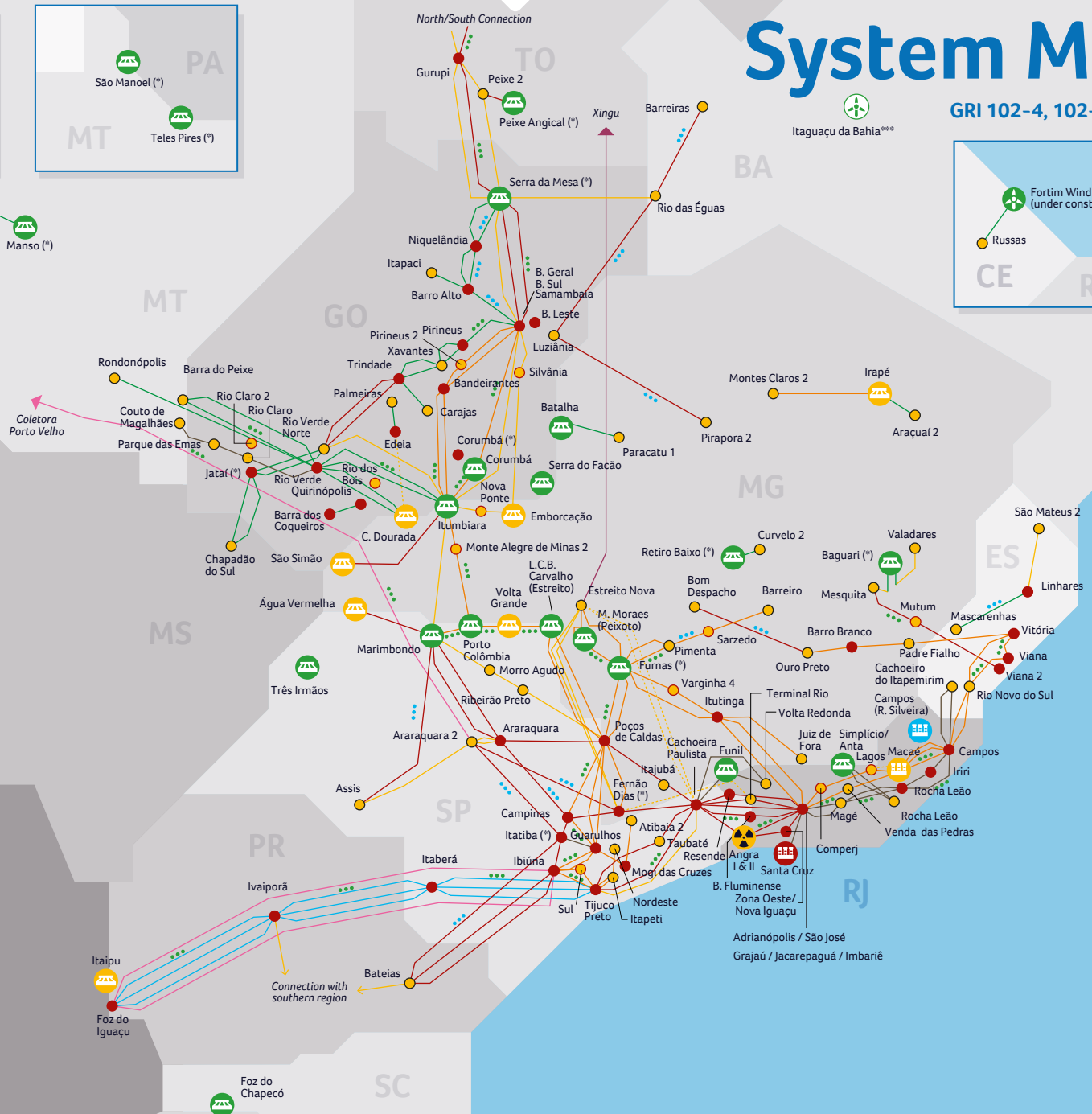
# System Map

GRI 102-4, 102-6, 102-7



## Legend

- Furnas HPP/SPC (in operation)
- HPP of other companies (points of connection with the Furnas system)
- Furnas Wind Farm (in operation)
- Furnas wind farm/SPE (planned)\*\*\*\*
- Furnas TPP (in operation)
- Furnas TPP (not in operation)
- TPP of other companies (points of connection with the Furnas system)
- Nuclear power plant of other companies (points of connection with the Furnas system)
- Furnas Substation/SPC (in operation)
- Substation of other companies (points of connection with the Furnas system)
- Substation of another company (under construction or planned)
- Existing fiber optics
- Planned fiber optics
- 800 kV CC de Furnas
- 600 kV CC de Furnas
- 750 kV CA de Furnas
- 500 kV CA de Furnas
- 345 kV CA de Furnas
- 230 kV CA de Furnas
- 138 kV CA de Furnas
- Line of another company. Connection with the Furnas system
- In operation
- Under construction



## Power plants in operation

HPPs	MW
Simplicio	306
Itumbiara	2,082
Marimbondo	1,440
Furnas	1,216
L.C.B. Carvalho (Estreito)	1,050
Batalha	52
M. de Moraes (Peixoto)	476
Corumbá	375
Porto Colômbia	320
Funil	216
Anta	28
Jaguari****	28
<b>TPPs</b>	<b>MW</b>
Santa Cruz	350
<b>Furnas Total:</b>	<b>7,939</b>

## Partnerships/SPCs in Operation

HPPs	MW
Serra da Mesa**	1,275
Manso**	210
Peixe Angical	499
Baguari	140
Retiro Baixo	82
Serra do Fação	213
Foz do Chapecô	855
Santo Antônio	3,568
Três Irmãos	808
Teles Pires	1,820
São Manoel	735
<b>Wind farm</b>	<b>MW</b>
Fortim Wind Complex	123
<b>Total partnerships/SPCs****:</b>	<b>10,328</b>

## Under construction/expansion

TPPs	MW
Santa Cruz	150

## Transmission lines in operation

Furnas	
Less than 138 kV	165 km
138 kV	2,311 km
230 kV	2,074 km
345 kV	6,337 km
500 kV	4,893 km
600 kV CC	3,224 km
750 kV	2,698 km
<b>TOTAL:</b>	<b>21,702 km</b>

## Partnership/SPE\*\*\*\*\*

Less than 138 kV	203 km
138 kV	433 km
230 kV	877 km
345 kV	29 km
500 kV	3,037 km
600 kV CC	4,769 km
750 kV	4,152 km
<b>TOTAL:</b>	<b>13,499 km</b>

## Transformer capacity

Furnas	
Operational	112,188 MVA
<b>Partnership/SPE*****</b>	
Operational	35,195 MVA <sup>1</sup>
<b>TOTAL:</b>	<b>147,383 MVA</b>

\* Power plants, transmission lines and substation in partnership/Map of Furnas system for illustration purpose only.

\*\* Power plants with shared property (partnership).

\*\*\* The numbers shown refer to the total installed capacity of the power plants and not only to Furnas' share. The total of partnership/SPC that corresponds to Furnas is 4,236 MW.

\*\*\*\* Temporarily designated.

\*\*\*\*\* The figures shown refer to the total length of the transmission lines and are not in proportion to Furnas' stake. The total length in proportion to Furnas' stake in partnerships/SPEs is 4,252.04 km.

The figures shown refer to total substation MVA capacity and are not in proportion to Furnas' stake. The total capacity in proportion to Furnas' stake in partnerships/SPEs is 12,214.43 MVA.

<sup>1</sup> The figure includes Transmission Substations and Step-Up Substations.

# Our presence in Brazil

GRI G4-EU4

Furnas' hydroelectric plants, thermal power plants, wind farms and substations—including wholly-owned assets and our weighted average ownership of Special Purpose Entities (SPEs) and one designated hydropower plant—comprise



15 states + Federal District



28 plants in operation (Hydro, Thermal and Wind)



72 substations<sup>1</sup>

<sup>1</sup>Includes corporate assets and SPEs.

## Generation capacity

97% of our operational generation capacity is renewable<sup>2</sup>

12,174.56 MW<sup>3</sup> operational installed capacity:



96% hydro (renewable)



3% thermal (non-renewable)



1% wind (renewable)

<sup>2</sup> Sources with low greenhouse gas (GHG) emissions.  
<sup>3</sup> Corporate, co-owned and SPE-owned plants in which Furnas has a weighted interest. The figure excludes the 25 MW Campos thermal power plant, which is currently not operational.

## Transmission



124,402.60 MVA total transformer capacity\*\*



25,954.04 km of operational transmission lines (across all voltage levels)\*\*\*

<sup>4</sup>In 2021 no transmission lines were acquired in auctions.  
<sup>\*\*</sup>Includes corporate assets and SPEs.  
<sup>\*\*\*</sup>Includes corporate and SPE transmission lines.

# Purpose, vision and values

GRI 102-16

## Purpose

We put all our energy into the sustainable development of society.

## Future vision

To be an innovative, clean energy company, recognized for excellence and sustainability.

## Values

- **Respect for people and life:** we respect differences, diversity, individual and collective rights, and life in all its forms, and we operate safely and equitably.
- **Ethics and transparency:** we operate with integrity and honesty, we keep our commitments, aware of our

responsibilities, and we are transparent in our actions and our results at all times.

- **Excellence:** we pursue excellence, efficient resource allocation, discipline in execution, a high-performance culture and value creation for our stakeholders.
- **Innovation:** we encourage a culture of innovation to create new ideas and solutions that can shape the future of energy and its applications within the organization.
- **Collaboration and recognition:** we value merit, commitment and collaboration; support lifelong learning and work to create conditions that foster personal and professional development, thereby improving our competitiveness as an organization.

**“Our essence is Brazil, its rivers, winds, soil, and sun; we are a part of all this energy that keeps life going all around the country. We are and will remain a pioneering, connected, caring and courageous company, respecting people and all forms of life, and delivering clean energy and development to the next generations—We’re Furnas!”**

*Furnas Manifesto*



The Fortim wind cluster

# Governance, integrity and ethics

GRI 103-2, 103-3, 102-17

At the Eletrobras Group, Governance is an enabling and cross-cutting pillar that is integral to our sustainability framework. It has also been selected as a material topic, alongside integrity and ethics. Corporate ethics and integrity play a crucial role in value creation at Furnas.

We have a well-established governance system that is continuously revised and perfected. In 2021 we further enhanced our alignment with the parent-company policies that apply Group-wide in order to disseminate and ensure adherence to Group strategy and common initiatives, while accommodating each subsidiary's differences and independence.

One example of these policies is the [Eletrobras Group Code of Ethical Conduct & Integrity](#), the most recent version of which was approved in October 2020. The Code is a core Group policy that articulates a set of values, ethics principles, standards of conduct, and roles and responsibilities, applying both to the company and to our employees. The Code is applicable Group-wide and is periodically revised jointly by the Corporate Integrity and Compliance functions and each subsidiary's Ethics Committee.



## Eletrobras Group Ethics Principles

- Human dignity and respect for people
- Integrity
- Sustainability
- Transparency
- Impartiality
- Compliance and professionalism



Performing maintenance work on a transmission tower

# Governance structure

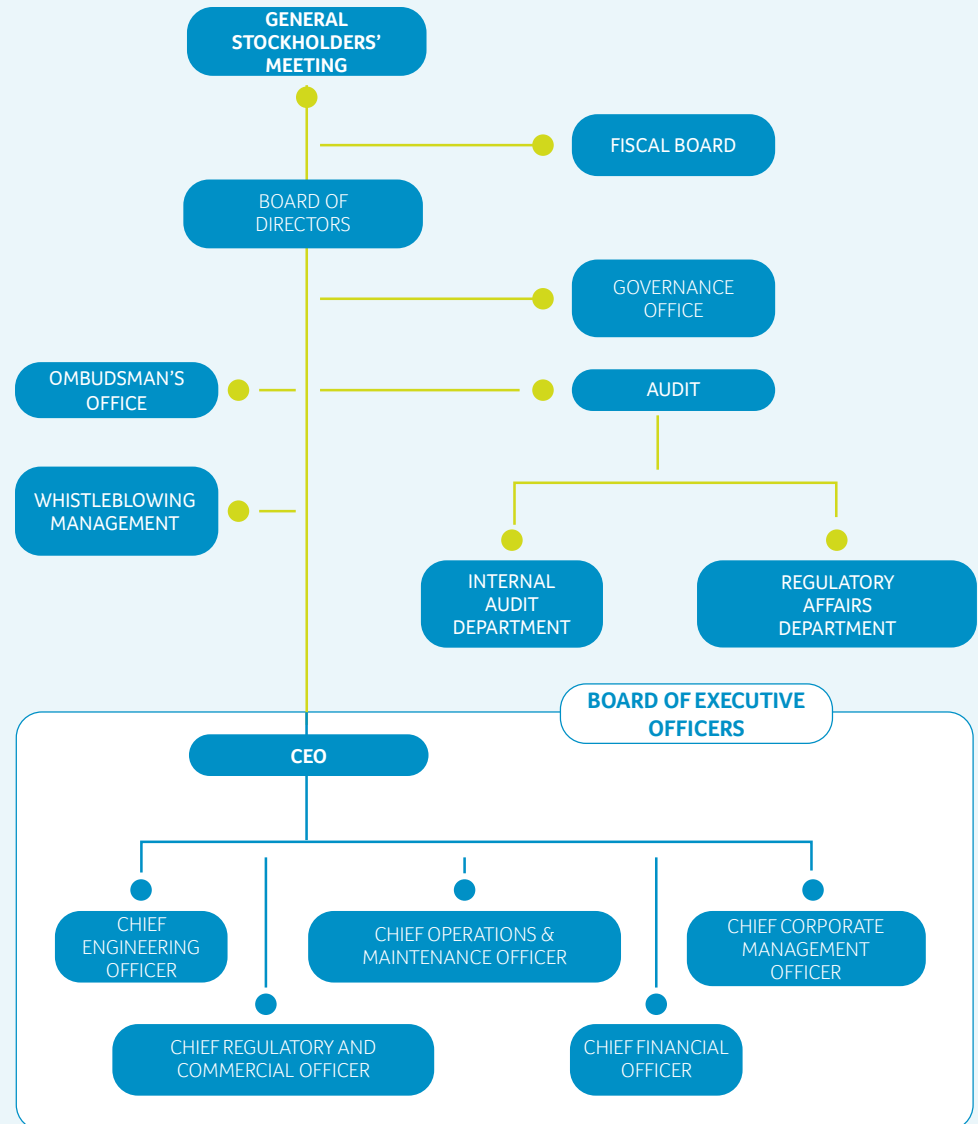
GRI 102-18, 102-19, 102-22

With ethics, transparency and accountability as guiding principles, Furnas operates in compliance with the Brazilian Corporations Act (Law no. 6 404/1976) and the Sarbanes-Oxley Act (SOx).

Our governance has a solid foundation that is underpinned by internal processes and regular interaction with senior management. Furnas’ governance structure includes the General Stockholders’ Meeting, the Board of Directors (BoD), the Executive Board, the Fiscal Board and the Internal Audit (see the organizational chart opposite for further details).

Our governance practices are orchestrated by an Executive Decision Support System and a highly qualified team that undergoes periodic training on governance, integrity and ethics, ensuring continuous improvement.

## Corporate governance



Note: our Governance Structure also includes a Statutory Audit & Risk Committee (ARC) that advises the Eletrobras Group Board of Directors on strategic matters.

### Learn more

Visit the [Furnas website](#) to learn more about the composition of each [governance body](#) and to read the annual reports of the [Internal Audit](#).

You can also view our [Governance Structure and Management Roles and Responsibilities](#) on the [Transparency & Accountability Portal](#).

## Board of Directors

**GRI 102-18, 102-20, 102-24, 102-26, 102-27, 102-30, 102-31, 102-32, 102-33**

The Board of Directors (BoD) is our highest governance body. Its chief responsibilities are to approve strategic and business plans and oversee risk management, in line with our purpose and values and our approach to EESG (economic, environmental, social and governance).

Risk management oversight is supported by regular reporting that ensures an effective understanding of and response to key risks. As part of this, we issue Risk Monitoring Reports on a quarterly basis or on demand.

The BoD is also responsible for approving strategic documents such as our Business Performance Goals Contract (CMDE) and Management Variable Compensation program, as well as our corporate reporting, including the Annual Report (which is also reviewed by the Fiscal Board) and Management Report. In addition, it agrees our Business & Management Plan (PNG), containing guidance on business management, with the Executive Board.

Members of the Board of Directors are appointed in a selection and nomination process that takes account of diversity criteria and involves stakeholders such as the Brazilian government (Ministry of the Economy), employees and shareholders. Our Bylaws outline the roles and responsibilities of members of the Board of Directors and how they are assessed on performance, in a process overseen by Eletrobras and carried out by an independent organization.

To support them in performing their duties, the members of the Board of Directors receive inputs in the form of technical and expert presentations, as well as regular training. The Statutory Audit & Risk Committee (CAE) advises each Group company’s BoD.

### Remuneration policies

**GRI 102-28, 102-35, 102-36, 102-37**

The remuneration received by members of the Board of Directors and Fiscal Board may not exceed 10% of the average monthly remuneration received by executive officers, pursuant to Brazilian regulations on Federal Government-owned and mixed-ownership corporations. The monthly remuneration received by the Executive Board is approved by the General Shareholders’ Meeting.

Directors receive no bonus compensation for participation in Board advisory committees; members of the Fiscal Board may receive bonus remuneration in proportion to time dedicated to discharging their duties.

Our Annual Variable Compensation Program, as effective in 2021, provides for up to 8 additional fees linked to financial performance targets agreed between Furnas and our parent company.

## Integrity program

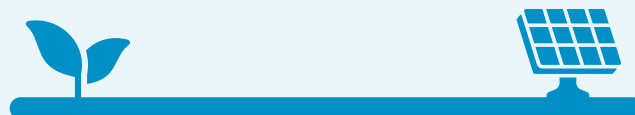
**GRI 103-2, 103-3, 205-1, 205-3**

16

The Eletrobras Group Integrity (Compliance) Program—called Eletrobras 5 Dimensions—is our primary tool supporting compliance with the laws and regulations applicable to the power sector, and helps us to build a culture of integrity within the company.

The program conforms to the Brazilian Anti-Bribery Act, and is aligned with the Eletrobras Group Business & Management Master Plan (PDNG).

Our compliance program is monitored against performance indicators, and program decisions are submitted for approval by the Executive Board and the Board of Directors.



### Policies, codes and Bylaws

To learn more about the Furnas Bylaws, Rules of Procedure and other policies, go to the [Furnas website](#). You can also view the [Eletrobras Code of Ethical Conduct and Integrity](#) and other corporate documents on the website.

# The five dimensions of the Eletrobras Group Integrity Program

GRI 103-2, 103-3





A substation in Mogi das Cruzes

## Managing risks and opportunities

GRI 103-2, 103-3

16

Furnas recognizes that risk management is directly linked to sustainable growth, profitability and value creation for stakeholders, as it allows us to identify not only threats, but also business opportunities.

Risk-based decision-making is made within an integrated risk management process led by our parent company with support from Furnas' risk management function. The primary goal in risk management is to prevent events from materializing which could cause

material, permanent adverse effects on our ability to achieve strategic goals. The risk management process is governed by the Eletrobras Group Risk Management Policy, which ensures we embed risk considerations in strategic decision-making.

The risk management workflow is as follows: each risk owner assesses a risk's likelihood of occurrence and risk factors; evaluates the impacts in the event that the risk materializes; identifies mitigation controls and activities; and develops action plans describing the appropriate risk response.

Reports on risk management activities are submitted to our management and governance bodies, which have the authority and responsibility for taking appropriate action. Action plans are implemented to address weaknesses identified in risk monitoring, in order to improve risk management performance.

Risk assessments consist of quantitative or qualitative analyses, or both. The levels of exposure to each risk are classified by the relevant risk owner on the following scale: tolerate (accept and monitor), mitigate (reduce and/or transfer), or avoid (eliminate/not tolerate).

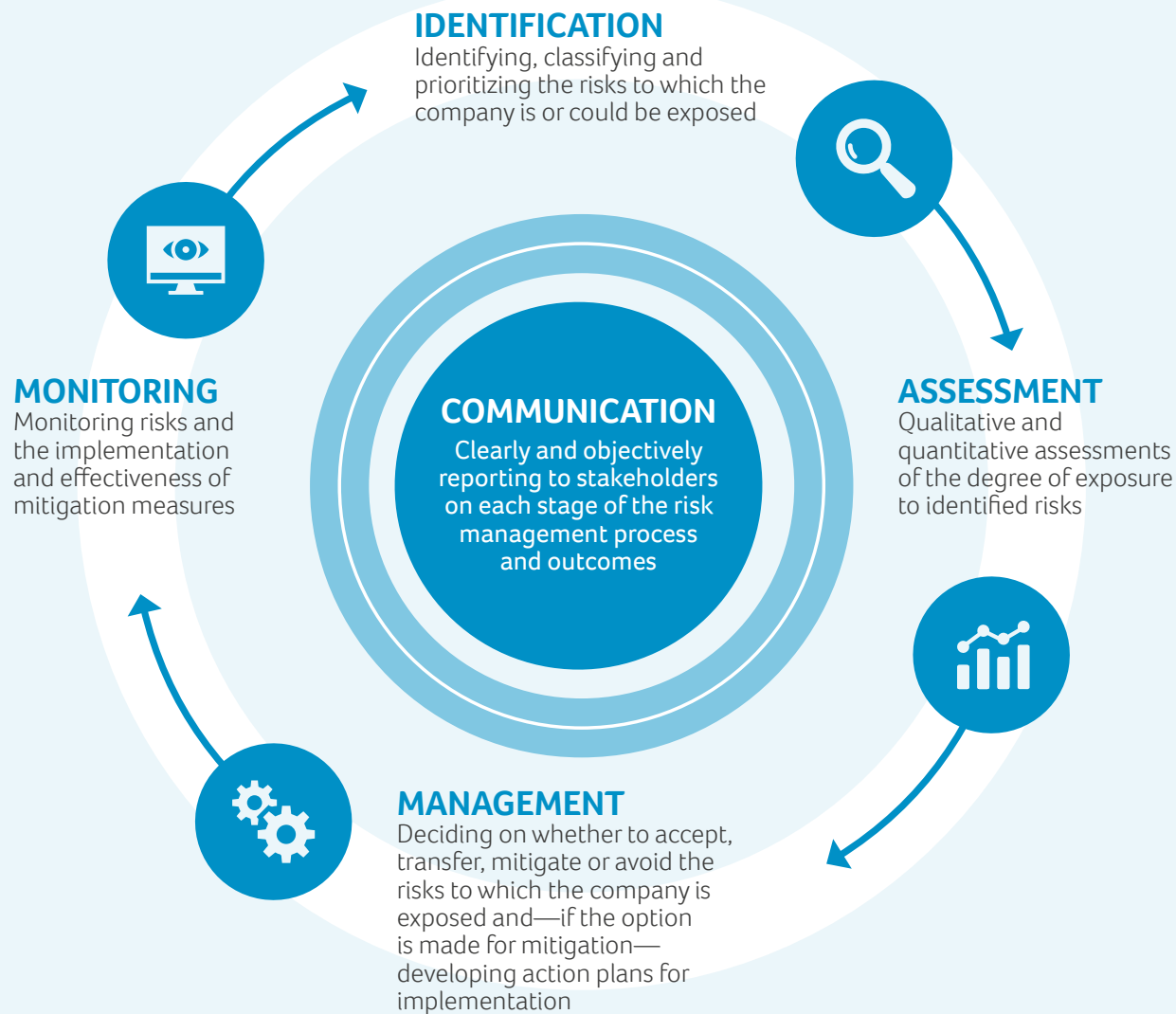
### Learn more

Read more on our [Transparency & Accountability portal](#), available on the Furnas website.

# Risk Management Model

GRI 102-30, 103-2, 103-3

Furnas uses a Risk Management Model to identify, classify, assess exposure to, measure, address and monitor risks. Communication plays a crucial role in ensuring our corporate environment reflects the values and risk culture we aspire for as an organization (see the chart for further details).



**Corporate risk management identifies business opportunities**, ensures alignment with strategic goals, and supports capital conservation and value creation for all stakeholders.

# Enterprise Risk Matrix

GRI 103-2, 103-3, 102-15, 102-29, 102-30, 102-31

Our Enterprise Risk Matrix, which is aligned with our parent-company policies, identifies the primary strategic, operational, financial and compliance risks to which Furnas is exposed.

The matrix is revised every three months; for the 2021-2022 cycle a total of 24 risk events were identified that could affect our operations and sustainability. The goal of the risk matrix is to ensure that risks are managed in a way that ensures Furnas' business objectives are reasonably attained.

In 2021, each Eletrobras Group company was given a mandate to independently revise its Risk Matrix. At Furnas, the Corporate Risk function submitted the revision to the Executive Board and the Board of Directors for approval, with the Statutory Audit & Risk Committee (ARC) issuing a favorable opinion.

Responsibility for risk management is shared with Furnas executives, who work toward targets that directly affect their remuneration.

In line with best practices in risk management, Furnas implements the recommendations issued in Internal Audits by the Federal Audit Court, in order to continuously improve its processes and perfect its approach to risk reporting and monitoring.

This and other risk-related information is detailed in our Risk Monitoring Report, which informs the development of optimal strategies and methods of addressing risks.



*Performing emergency maintenance*

# Main risks

GRI 103-2, 103-3, 102-15, 102-29, 102-31

## BUSINESS

### G&T Businesses

End-of-life generation and transmission (G&T) assets

Inefficient operation & maintenance (O&M) in generation & transmission

A competitive G&T expansion pipeline

Dam safety

### Electricity market

Electricity trading

Climate change

### Governance

Industry regulations

Information security

Water crisis

### Innovation

Research & development and innovation (R&D+I)

### Partnerships

Management of Special Purpose Entities (SPEs)

## OPERATIONAL

### Social & Environmental

Project social and environmental management

Human Rights

### Legal

Litigation management

### Human capital

Occupational health & safety

Employee training and retention

Pension funds

### Procurement

Supply chain management

### Safety

Property security

## FINANCIAL

### Liquidity

Cash flow

### Taxes

Tax management

### Assets

Regulatory asset pricing

## COMPLIANCE

### Ethics and integrity

Ineffective whistleblowing response

### Reporting

Financial statements and Sarbanes-Oxley (SOx) compliance

## Ethics training and performance review

GRI 205-1

All Furnas employees attend annual online training on the principles, rules and standards of behavior outlined in the Eletrobras Group Code of Ethical Conduct & Integrity, our Compliance Program, and other related standards. Employees also attend role-specific training. Our Employee Handbook, available on the corporate intranet, incorporates the following documents: Consequences Policy, the Eletrobras Group Anti-Corruption Policy, our Integrity Program Rules, and Regulatory Instruction 007/2016 – Revision 3 – Conflict of Interests.

The members of the boards of directors and executive boards of the Eletrobras Group and its subsidiaries, associates and joint ventures also receive information on Group policies through our Development Program. For contractors and suppliers, Furnas has processes in place for regular assessments on integrity, in addition to assessments during onboarding or when renewing a contract.

**In 2021 we identified 124 integrity-critical suppliers**, all of which underwent corruption risk assessments. No instances of corruption were identified in the year.

### COMMUNICATION AND TRAINING ON ANTI-CORRUPTION POLICIES AND PROCEDURES GRI 205-2

Position	2019		2020		2021	
	Informed	Trained	Informed	Trained	Informed	Trained
Governance	16 (100%)	11 (68.75%)	14 (100%)	14 (100%)	13 (100%)	12 (92,31%)
Middle management	208 (100%)	204 (98.08%)	205 (100%)	205 (100%)	213 (100%)	205 (96,24%)
University level	1,073 (100%)	1,012 (94.32%)	921 (85.67%)	921 (85.67%)	1,053 (100%)	1,044 (99.15%)
Non-university level	1,551 (100%)	1,396 (90.01%)	1,280 (82.74%)	1,280 (82.74%)	1,536 (100%)	1.446 (94,14%)
SPEs	-	-	-	-	24 (100%)	-

\*Furnas compiles this disclosure on a consolidated basis and not by region as required under the GRI Standards.

# Communication channels

GRI 102-17, 102-25

Furnas has (internal and external) communication channels that stakeholders can use to answer questions or submit reports on ethical, legal and integrity concerns.

Whistleblowing reports are submitted via the **Eletrobras Group Whistleblowing Hotline**, which is operated by an independent firm responsible for classifying reports by criticality level. Reports are addressed in accordance with a common procedure applicable across the Eletrobras Group.

Reports are submitted to the **General Ombudsman's Office**, which classifies them by level of priority and by subject, and determines whether they warrant an investigation. Where an investigation is deemed warranted, the case is submitted to the Integrity System Committee (CSI), which then transmits the report either to the Ethics Committee, in the case of ethical misconduct, or to the Investigation Management function, in the case of violations of our Integrity Program or applicable laws and regulations. The results of the investigation are then transmitted to the CSI for appropriate action before closing the case.

Four cases involving the **Furnas Ethics Committee**, a preliminary investigation is carried out using the investigation and assessment procedures issued by the Public Ethics Committee of the Office of the President.

## Furnas Ethics Committee

In 2021 we received **228 requests for advice**, including:

- 212 regarding ethics concerns, requests for information, disclosures for the Management Report, Sustainability Report, ISE/IBOVESPA, IGE SEST, CGU, TCU, Internal Audit and Sarbanes-Oxley (SOx) controls;
- 4 regarding conflicts of interest; and
- 12 regarding ethical misconduct.

## Ombudsman's Office

GRI 102-34

Critical concerns reported via the Furnas Ombudsman's Office include concerns and reports about potential violations of our Integrity Program (Eletrobras 5 Dimensions) and the Eletrobras Group Code of Business Conduct and Ethics.

Critical concerns	2021
Compliment	5
Suggestion	31
Report*	71
Request	508
Complaint	510
<b>Total</b>	<b>1125</b>

*\*Only valid reports, i.e. those within the scope of the Whistleblowing Hotline. Complaints, for example, are closed as not being within the scope of the Whistleblowing Channel, and are instead entered in the Ombudsman System (SOU). This figure also includes reports regarding Furnas' senior management and people involved in conflicts of interest, who participate in the whistleblowing process. Reports regarding these groups are addressed directly by our parent company.*

## The Furnas Ethics Committee received 228 requests for advice in 2021.

## Report investigation

In 2019 Furnas created a dedicated department for investigating whistleblowing reports. Investigations are conducted impartially in accordance with the whistleblowing investigation guidelines outlined in the Rules on Managing and Addressing Reports and Violations, and the recommendations in the Office of the Federal Comptroller General’s “Guide on implementing integrity programs at government-owned corporations.” In 2021, we recorded:

- **34 report cases**, all of which were resolved; and
- **15 remediation cases** finalized.

During the year we also took steps to standardize the monitoring process in accordance with Technical Directive no. 16, which outlines the roles and responsibilities of the parties involved and their limits of authority. This has helped to create objective criteria for internal management of remediation action recommended by the Integrity System Committee.

## Cases of discrimination

**GRI 103-2, 103-3, 406-1**

The Ombudsman’s Office and Ethics and Whistleblowing Committee monitor the number of discrimination cases reported in a given year and action taken in response. We take a strategic and educational approach to prevention, through initiatives such as training about the Eletrobras Code of Ethical Code and Integrity, which all employees and contractors are required to accept and adhere to. The Code contains specific rules on respect and diversity and against any form of discrimination.

Another tool for prevention is internal communication via the intranet or informational posters about available reporting channels, ethical behavior, and fostering respect, inclusion and diversity. Our anti-discrimination approach also includes training within the Eletrobras Integrity Program (Eletrobras 5 Dimensions).

For internal concerns, Furnas has a formal system in which managers are responsible for giving verbal and written warnings that are documented in employees’ employment records.

## Our communication channels

### Eletrobras Group Whistleblowing Hotline

0800 377 8037  
[relatoconfidencial.com.br/eletrobras/](http://relatoconfidencial.com.br/eletrobras/)

### Furnas Ombudsman’s Office

ouvidoria@furnas.com.br  
[www.furnas.com.br/ouvidoria](http://www.furnas.com.br/ouvidoria)  
 (21) 2528-3815  
 Av. Graça Aranha, 26, Centro,  
 Rio de Janeiro/RJ - CEP: 20030-000

### Furnas Ethics Committee

etica@furnas.com.br  
 Av. Graça Aranha, 26  
 Centro, Rio de Janeiro/RJ  
 CEP: 20030-000



**In 2021 we received no reports on discrimination at Furnas.**

# Sustainability Management System

GRI 102-20, 102-29

In 2021, responsibility for sustainability management was assigned to the Corporate Management department. Alongside innovation, sustainability is recognized as a key enabler for the business. Eletrobras Group companies share a common Sustainability Management System that is based on five pillars.

## 1. Eletrobras Group Sustainability Policy

Our [Sustainability Policy](#) guides our initiatives to promote sustainable business and sustainable development. The Policy, which was revised in 2019, completed its 11<sup>th</sup> year in 2021.

**Innovation and sustainability** are key enablers for the business.

## 2. Eletrobras Group Sustainability Management Committee

This [Committee](#) brings together the heads of sustainability at Group companies, under the oversight of the holding company. It is responsible for disseminating sustainability initiatives and coordinating the three other pillars in the Management System: the Corporate Sustainability Disclosures System, Value Creation Model, and Integrated Reporting.

## 3. Corporate Sustainability Disclosures System (IGS)

Developed by the Brazilian Power Sector Research Center (CEPEL) in collaboration with Eletrobras, the IGS System is a strategic tool for managing sustainability disclosures.

## 4. Integrated Reporting

Eletrobras Group companies have used the Integrated Reporting framework in developing annual reports since 2018, supplementing the Global Reporting Initiative (GRI) Standards. This report therefore provides information on both tangible and intangible aspects across the financial, manufactured, intellectual, human, social and relationship, and natural capital.

## 5. Value Creation Model

Our [Value Creation Model](#) shows how sustainability is embedded in every business process across the Eletrobras Group. This model, coupled with integrated action Group-wide, has helped to drive best practices and the sustainability of the business.

The model describes 30 value creation expectations, their linkages to each of our stakeholder groups, and how they support the 17 Sustainable Development Goals (SDGs), in particular our prioritized SDGs: 7, 8, 9, 10, 11, 12, 13, 15 and 16.



# VALUE CREATION MODEL

Learn about how the Eletrobras Group transforms inputs, through its business activities, into outputs and outcomes and how they create value for the business and society.

Equipment and facilities

Stakeholders

Financial resources

Main inputs

Natural resources

Research and knowledge

Workforce

- Manufactured capital
- Financial capital
- Social capital
- Intellectual capital
- Human capital
- Natural capital



- PURPOSE**  
We put all our energy into the sustainable development of society.
- VISION**  
To be an innovative, clean energy company, recognized for excellence and sustainability.
- VALUES**
  - Collaboration and recognition
  - Innovation
  - Ethics and transparency
  - Excellence
  - Respect for people and life

Value creation aspirations

- Supplier development **SDG 4, 5, 8, 10, 12, 13, 16**
- Revenue reliability **SDG 7, 9**
- Conservation of biodiversity **SDG 9, 13, 15**
- Energy savings **SDG 7, 13**
- Fairly priced (sustainable) contracts **SDG 7, 9**
- Contribution to sustainable development **SDG 1 a 17**
- Professional growth/training **SDG 4, 8**
- Participatory dialog **SDG 11, 16**
- Access to electricity for all, with a reduced risk for social and environmental impacts **SDG 1 a 3, 7, 9, 10, 13 a 15**
- Dividends **SDG 8**
- A more sustainable supply chain **SDG 5, 8, 10, 12, 16**
- Respect for human rights **SDG 8, 9, 10, 16**
- Jobs and income **SDG 1 a 3, 8, 9, 10, 12**
- Integrity (ethical, lawful and transparent conduct) **SDG 16**
- Private social investment **SDG 1, 3, 4, 7 a 9, 13, 15**
- Improvements to national infrastructure **SDG 7, 9, 11**
- Better living conditions in affected communities **SDG 1, 3, 9, 11, 16**
- Affordable electricity **SDG 3, 7 a 9**
- Partnership in managing government programs **SDG 1 a 3, 7 a 9, 12, 13, 17**
- Participation in structuring projects **SDG 7, 9**
- Research, development and innovation **SDG 7 a 9**
- Procurement predictability **SDG 8, 12, 16**
- Sponsorship of culture, sports and events **SDG 3, 4, 8, 9, 13**
- Greater diversity **SDG 5, 8, 10, 12, 16**

Stakeholders

- Partners, sponsors and suppliers
- Media and opinion makers
- Society
- Customers
- Communities
- Governments, congress and regulators
- Investors, shareholders and market analysts
- Employees and their families



# Sustainability 4.0 Program

Furnas is an active member of the Sustainability 4.0 Program launched Group-wide in 2020, following a survey and best practices in corporate sustainability.

The program is an integral component of the Eletrobras Group Business and Management Master Plan (PDNG), and comprises four pillars: Governance, Prosperity, People and Planet. Twelve projects have been implemented across these dimensions to drive excellence in business sustainability and value creation for all stakeholders (as detailed in the table opposite).

## Sustainability 4.0 Program Pillars – Governance, Prosperity, People and Planet.

Projects	Strategic Guidance under PDNG 2022-2026	Priority SDGs (PDNG 2022-2026)
Leveraging Human Capital	Culture & People	8 9 10
Synergies with Industry 4.0	Innovation and Digital Transformation	7 8 9 16
Reputation & Engagement Program	Governance	8 9 10 16
Sustainable Sourcing	Management	8 12 13 16
Decarbonizing Islanded Systems in the Amazon	New businesses	7
Sustainable Business/Agenda 2030	Value and investment Management	7 8 9 13 16
Improving Corporate Governance Practices	Governance	16
Enhancing Assessments of Social and Environmental Factors in Risk Management	Governance	7 9 13 16
Energy Transition	G&T Efficiency G&T Expansion	7 9 11 13
GHG Emissions Offsets and Environmental Protection	G&T Efficiency G&T Expansion	7 8 9 11 13 15
Certified Renewable Source Electricity	New Business	7 9 13
Sustainable Management of Financial Capital	Value and Investment G&T Efficiency Management	8 9 16

## Embedding the SDGs in our strategy

Our Strategic Plan and its sub-plans incorporate the Eletrobras Group’s voluntary commitment to the United Nations’ (UN) 2030 Agenda. Our Business and Management Master Plan (PDNG) 2021-2025 establishes nine priority Sustainable Development Goals (SDGs). For each prioritized SDG, we have developed a set of indicators and targets that are mapped to each company’s Business & Management Plan (PNG) and linked to the variable compensation earned by employees and executives.

In the appendix to this report you will find an [integrated table mapping the SDGs to the Eletrobras Group PDNG and Furnas’ PNG](#).

## Monitoring performance

Among the indicators affecting the Annual Variable Remuneration of senior management is the SDG Alignment Index (IAO), which measures weighted average performance on a set of strategic indicators within the Agenda 2030, denoting the extent to which Eletrobras Group companies’ performance is aligned with their commitments.

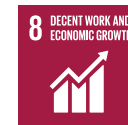
The new indicators incorporated in the 2021 IAO include SDG 10 (Weighted ratio of basic salary and remuneration of women to men, at multiple levels) and SDG 12 (Suppliers that have undergone EESG due diligence). The scope of our injury frequency rate indicator has also been expanded to include contractors.

## IAO composition for 2021

Energy savings in corporate buildings



Lost-time injury frequency rate for employees



R&D+I Investment /Regulatory ROL



Due diligence on suppliers exposed to fraud and corruption risks



Weighted ratio of basic salary and remuneration of women to men, at multiple levels







Critical suppliers that have undergone EESG due diligence



*\*As part of our approach to governance and compliance, senior and middle managers’ variable remuneration is subject to a deflation factor of up to 10% in the event that they fail to comply with recommendations from the internal audit and regulatory authorities.*

## EESG ASPECTS IN VARIABLE REMUNERATION

Strategic Scorecard Dimensions	Strategic guidelines	Variable remuneration for senior management	Variable remuneration for employees and middle managers	Related SDGs
Prosperity	<p><b>G&amp;T Expansion</b> Achieve leadership in G&amp;T, with a focus on clean energy</p> <p><b>G&amp;T Efficiency</b> Create value through more efficient G&amp;T assets</p> <p><b>Trading</b> Achieve leadership in electricity trading, with attractive margins and efficient risk management</p> <p><b>New Business</b> Invest in new businesses, especially in energy, participating in the current consolidation in the industry (M&amp;A)</p> <p><b>Value and Investment</b> Enhance value creation and strengthen our capacity for investment</p> <p><b>Management</b> Focus management on value creation and increasing competitiveness</p>	40%	78%	
Planet	<p><b>Innovation and Digital Transformation</b> Achieve leadership in innovation and advance a digital transformation of business and management processes</p>	8%	4%	
People	<p><b>Culture &amp; People</b> Develop a meritocratic culture of high performance and excellence in people management</p>	8%	4%	
Governance	<p><b>Governance</b> Achieve excellence in Governance, Risk Management and Internal Controls (GRC)</p>	45%	13%	

## Awards and recognition

### Pró-Ética 2020-2021

Furnas received a *Pró-Ética* Mark 2020-2021 for the first time in recognition of our Integrity Program—Eletrobras 5 Dimensions.

### 2<sup>nd</sup> Internal Affairs Good Practices Contest

Furnas ranked 1<sup>st</sup> in the Innovation category of the 2<sup>nd</sup> Internal Affairs Good Practices Contest, in recognition of our Remediation Action Monitoring Process. This is the first time the Eletrobras Group has received this award—Furnas’ project was selected among 26 candidates across Brazil.

### ABERJE Award 2021

The Furnas Corporate Integrity Program won an ABERJE Award 2021 for the region of Rio de Janeiro and Espírito Santo, in the Ethics, Integrity and Compliance category. Our winning case study described our experience transforming a touring drama program on ethics and compliance—which had toured several of Furnas’ sites in 2019—into an online format due to the COVID-19 pandemic.

### Brazilian GHG Protocol Program (PBGHG)

Furnas received Gold reporting status from the Brazilian GHG Protocol Program (PBGHG). This certification is awarded to companies whose Greenhouse Gas (GHG) Emissions Inventories have been third-party assured and published in the Public Emissions Register (RPE).

### Child-Friendly Company Mark

Furnas has been recognized as a Child-Friendly Company since 2016. The mark recognizes organizations that have joined Fundação ABRINQ’s Child-Friendly Program and demonstrate good practices in tackling child labor and protecting the rights of children and adolescents.

### Gender & Racial Equity Program

In 2021 Furnas again received Gender and Racial Equity Program certification from the Brazilian Ministry for Women, Family and Human Rights. The company has been among the companies certified by the program since 2007.

### Digital Governance Awards

Furnas was one of the four winners in the Digital Governance Awards, which recognized Brazilian companies for effectiveness in digitizing their governance. The initiative was organized by Atlas Governance, a Latin American leader in governance technology.



*Furnas’ former headquarters in Rio de Janeiro*

# Strategic plan 2021-2025

GRI 102-20, 102-29

Furnas' strategic vision for the current and next four years is guided by the Eletrobras Group's [Business and Management Master Plan \(PDNG\)](#) for the five-year period 2021-2025.

The plan outlines a set of projects to be implemented across the Group to achieve set targets and related SDGs over a short/medium-term horizon. The PDNG is a sub-plan under the Strategic Plan 2020-2035, from which it draws guidance on addressing current challenges in the power sector and in Brazil's broader social and economic context.

It explores different scenarios and includes an assessment of the business context, which informs priorities and targets for the period covered by the PDNG.



## PDNG 2022-2026

In 2021 Eletrobras launched a new PDNG for 2022-2026, with R\$ 48.3 billion in projected investments over this period. [Read the complete document on the Furnas website.](#)

## Strategic guidelines



### Value and investment

Enhance value creation and strengthen our capacity for investment



### Generation & transmission efficiency

Create value through more efficient G&T assets



### Generation & transmission expansion

Achieve leadership in G&T, with a focus on clean energy.



### New businesses

Invest in new businesses, especially in energy, participating in the current consolidation in the industry (M&A)



### Governance

Achieve excellence in Governance, Risk Management and Internal Controls (GRC)



### Trading

Achieve leadership in electricity trading, with attractive margins and efficient risk management



### Culture and people

Develop a meritocratic culture of high performance and excellence in people management



### Management

Focus management on value creation and increasing competitiveness



### Innovation and digital transformation

Achieve leadership in innovation and advance a digital transformation of business and management processes



## Planning & management

Read more on our [Transparency & Accountability portal](#), available on the Furnas website.

The PDNG informs the development of Business & Management Plans (PNG) for each Group company. Furnas’ PNG outlines projections, targets and specific projects over the following five years, which are monitored on a quarterly basis. In 2021, Furnas met the following targets as outlined in our holding company’s PDNG and mirrored in our PNG:

Strategic guidelines	Indicators	2021 Targets	2021 Results	2022 Targets
<b>Value and investment</b>	Enterprise value: Enterprise Value / EBITDA	N/A	N/A	Top 3 in IEE*
<b>Generation &amp; Transmission Efficiency</b>	Efficiency: Recurring/Efficient PMSO	1.06	0.92	1.18
	Generation-asset availability: GRAVAILAB	1.00	1.05	1.00
	Transmission-asset availability: TLAVAILAB	99.82	99.90	99.90
<b>Generation &amp; Transmission Expansion</b>	Generation expansion: added generation capacity (MW)	150	9.65	164
	Transmission expansion: added transmission capacity (km TL)	0	55.82	193
<b>New businesses</b>	New-business revenue/Recurring ROL	0.00%	0.45%	3.47%
<b>Culture and people</b>	Safety: injury frequency rate (employees)**	2.54	2.70	1.92
	Safety: injury frequency rate (contractors)**	3.81	9.39	3.53
	People: average hours of training per employee	35	15.87	35
	People: employee satisfaction rate (favorability rate)	74.70	This indicator is reported every two years and was not reported in 2021.	>74.7%
<b>Management</b>	Productivity: Recurring EBITDA/Headcount	0.59	***	***
<b>Innovation and digital transformation</b>	Innovation: Investment in technology and innovation/NOR %	1.2%	1.5%	1.3%

\*B3 Electric Power Index (IEE).

\*\*No. of injuries per million hours of exposure to risk.

\*\*\*This target is strategic and therefore is not reported.



# PROSPERITY

## MATERIAL TOPICS

- Technology and innovation
- Energy transition

## RELEVANT TOPICS

- Suppliers

## CAPITALS



# Prosperity

GRI 103-2, 103-3, 102-45

8 16

In 2021 an extended, severe drought created a water crisis that affected people’s lives and our own operations, as hydroelectric reservoirs fell well below average historical levels.

This required the National Grid Operator (ONS) to implement flow-restricting measures to contain the crisis. Despite these measures, Furnas succeeded in mitigating the adverse effects, and remained among the top power-sector companies in terms of monitoring and managing its generation and transmission assets, as ranked by the Ministry of Mines & Energy.

The financial impact on the generation business was approximately R\$ 1.4 billion, and revenues fell by R\$ 800 million. With less cash on hand, Furnas was required to cut expenses and this led to a R\$ 270 million reduction in investments. Thus, the water crisis, the pandemic and the economic headwinds in Brazil, including rising inflation, not only affected our budget but brought our construction sites grinding to a halt.

Emergency measures were taken—which included importing electricity from neighboring Argentina and Uruguay, and dispatching



thermal power plants—to prevent a blackout. The costs of the emergency measures led the Brazilian power sector regulator, ANEEL, to increase the dry-season rate tiers by more than 50%. A new Chamber on Exceptional Rules for Hydropower Management (CREG) and a Voluntary Demand Reduction Program helped to secure a continued supply of electricity from the National Grid.

In 2021 Furnas engaged in no new developments requiring the displacement of people. **Consequently, no expropriations were made.** G4-EU22

## Operation highlights



GRI 102-7

R\$ 4.03 billion

in net income  
(R\$ 2.57 billion in 2020)

R\$ 12.8 billion

in net operating revenue  
(R\$ 10.8 billion in 2020)

R\$ 6.8 billion

in CVM EBITDA  
(R\$ 4.6 billion in 2020)

R\$ 1.6 billion

in funds raised

R\$ 751 million

in investment (R\$ 807 million in 2020) (corresponding to 55% of the budget in 2021 x 61% of the budget in 2020)

R\$ 1 billion

allocated to investment programs



## Capitalization

As another significant development in 2021, the Brazilian Congress approved a bill regarding the capitalization of Eletrobras, which was subsequently enacted as Law no. 14 182/2021 by the Federal Government. The capitalization will reduce the Brazilian Government's interest in our capital from 51% to 45%, with the remainder sold on the market, but with the Brazilian Government retaining its status as the majority shareholder. Our parent company expects this will support increased investment to keep the company competitive. With Eletrobras' capitalization factored in, our PDNG 2022-2026 projects capital expenditure of approximately R\$ 48.3 billion, up 17.5% on the previous PDNG (2021-2025).

# Financial performance

GRI 102-7

Despite the economic headwinds and chronic inflation, which affected our generation and revenue performance, Furnas delivered strong financial performance in 2021, with a cash position of R\$ 1.97 billion. Among the factors underlying this positive performance were our strategic initiatives for the period 2021-2025, including continued efforts to minimize liabilities arising from debt to our parent company, which we reduced by approximately R\$ 650 million.

Our quarterly financial statements, covering all subsidiaries and Special Purpose Entities (SPEs), were completed on a timely basis and are available for review on the [Furnas website](#).

On the regulated market (ACR + guaranteed capacity quotas), Furnas posted revenue of approximately R\$ 2.84 billion in 2021 across the 60 electric utilities with which we have a commercial relationship. Ten utilities accounted for 62.6% of revenue, with our broad customer base helping to mitigate any risk of delinquency.

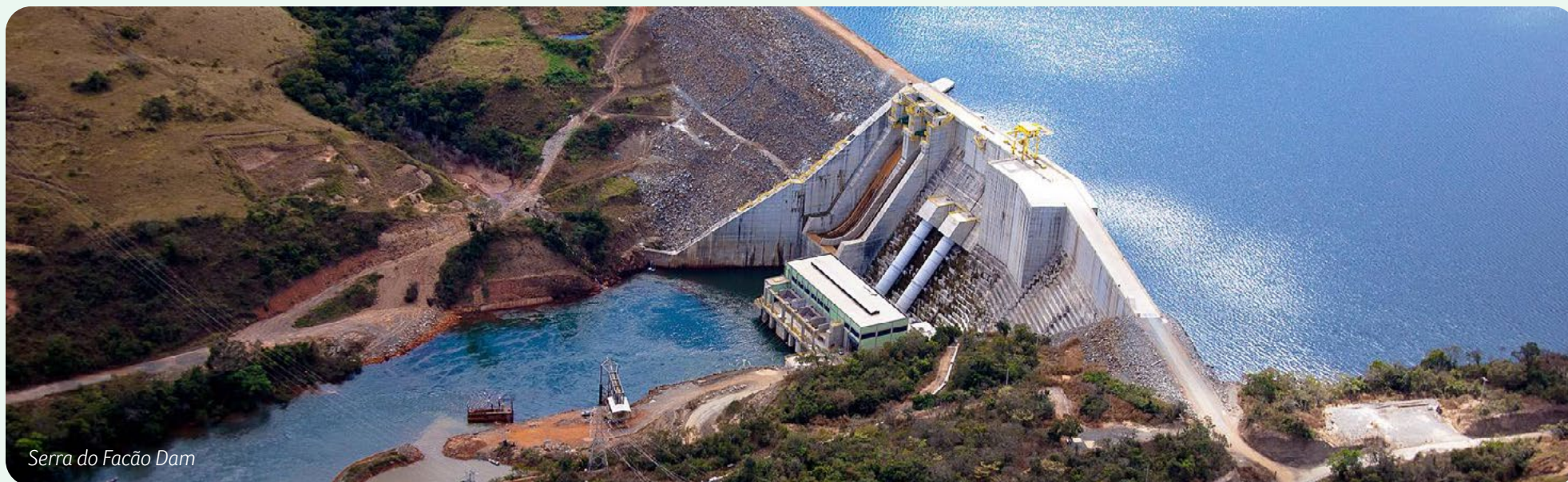
## Expansion of equity interests

In 2021 we acquired shares held by Camargo Corrêa in the Serra do Fação hydroelectric plant, a Special

Purpose Entity (SPE) in Goiás, increasing our equity interest by 5%. This involved an investment of R\$ 31 million, with the increased stake generating higher cash flows and value creation for the company. Furnas' equity interest in Transenergia Goiás SA (TGO) increased from 99% to 100% following our acquisition of shares held by J. Malucelli.

## Revenue and expense

For details about our budget execution and financial position, go to our [Transparency & Accountability portal on the Furnas website](#).



Serra do Fação Dam

## DIRECT ECONOMIC VALUE GENERATED (R\$ THOUSAND)

GRI 201-1, 102-7

Direct economic value generated	2019	2020 (restated)	2021
Electricity sales revenue	11,534,231	12,560,610	14,615,020
Economic value distributed (R\$)			
Distributed	2019	2020 (restated)	2021
Operating costs	1,660,971	2,167,698	2,691,091
Employment compensation	1,143,603	1,063,392	1,218,062
Dividends	763,284	510,744	969,397
Government (taxes and contributions)	1,724,327	2,556,079	3,181,917
Financial charges and monetary variance	930,409	709,523	827,021
Sector charges	561,017	577,370	541,754
<b>Total</b>	<b>6,783,797</b>	<b>7,584,806</b>	<b>9,429,242</b>
<b>Economic value retained</b>	<b>4,750,434</b>	<b>4,975,804</b>	<b>5,185,778</b>

## Outlook

In today's highly competitive market, Furnas' primary goals are to further expand market share and boost investments, leveraging the capacity of our human, intellectual and financial capital.

In 2022 we approved a new Business & Management Plan (PNG) that projects corporate investment of R\$ 1 billion and equity investments of approximately R\$ 1.1 billion.

## Tax performance

GRI 207-1, 207-2, 207-3

In 2021 Furnas generated approximately R\$ 3.2 billion in Federal, state and municipal taxes through value creation. By complying with tax legislation, we demonstrate our commitment to and respect for stakeholders, and by promoting good tax practices we are supporting efforts against tax evasion. We also influence our value chain to take a similar approach and pay taxes ethically and transparently, recognizing the importance of timely paid taxes for government programs.

# Operating performance

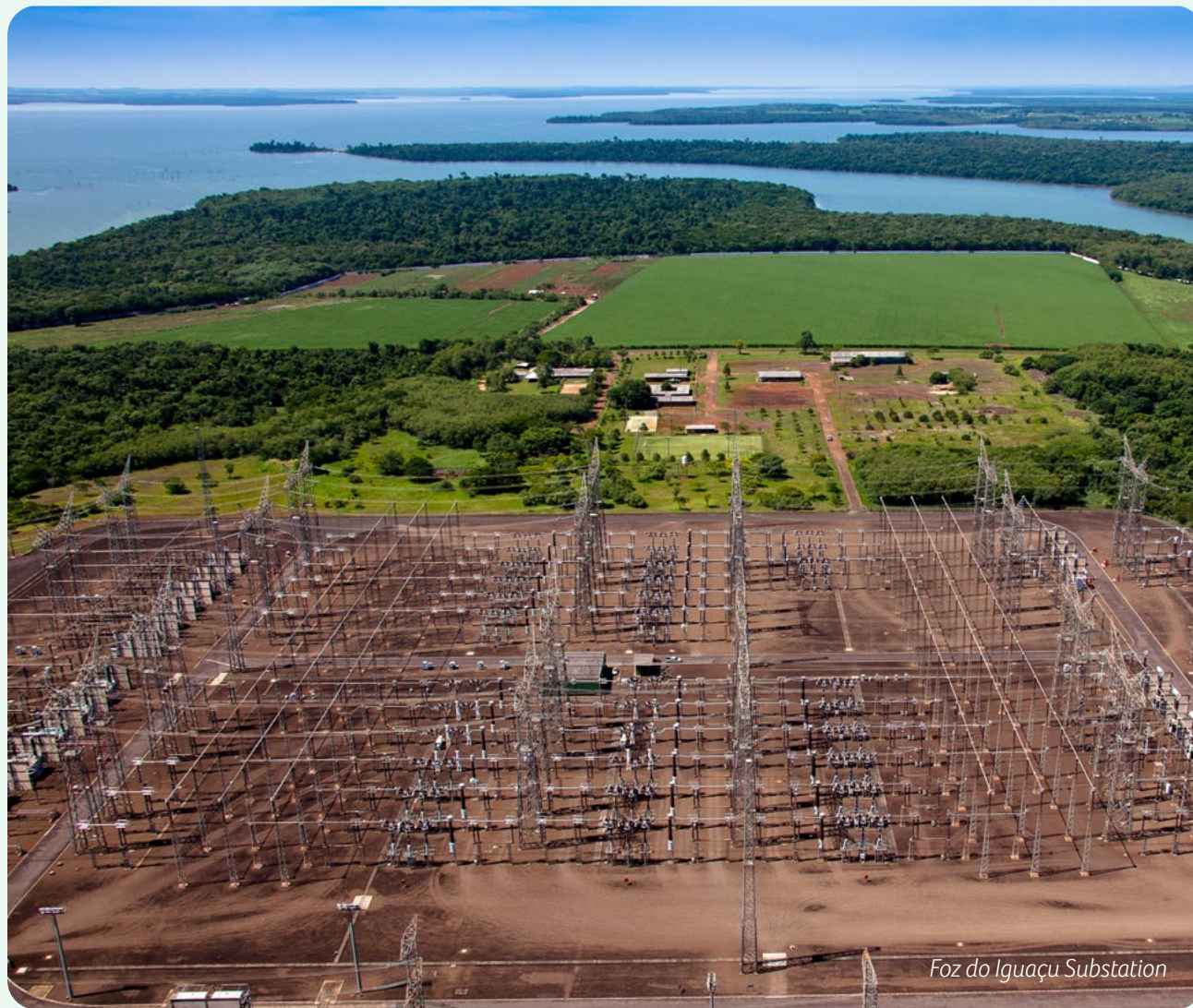
7 8 9 16

Furnas’ core business is generation and transmission. We have the equipment and manpower to effectively manage our operations in accordance with the dispatching instructions of the National Grid Operator (ONS).

The operating environment in 2021 was challenging for our operation and maintenance (O&M) activities, made worse by the uncertainties created by the COVID-19 pandemic. We implemented several initiatives in the year to ensure our ability to operate successfully under these conditions.

One of our major programs in the year, which will continue into 2022, was the revitalization of our hydroelectric dams including landscaping, paintwork, structural repairs, replacement of dated machinery, and equipment servicing. We completed works at Funil (RJ), Mascarenhas de Moraes (MG), Luiz Carlos Barreto (MG/SP), Furnas (MG) and Itumbiara (MG/GO). We also made significant progress in implementing remote operation of transmission assets from Operation Centers.

In business management innovation, we continued to deploy Power BI (business intelligence) to better manage our maintenance and investment budget by translating raw data from the SAP system into meaningful information.



Foz do Iguaçu Substation

Some of our significant projects in 2021 included:

- repowering one of the generator units at Santa Cruz, upgrading the turbine class;
- an overhaul of two transformers at the Ibiúna substation, supporting an ongoing project that will

modernize the direct-current link which transmits part of the electricity output from the Itaipu Dam;

- completion of the transfer of supervision, control and telecommunications from the System Operations Center and Telecommunications Supervision Center to new facilities located at the Grajaú substation (RJ), without disrupting operations;



*The operation center at the Funil hydroelectric plant*

- implementation of remote operation capabilities at the Brasília Geral and Estreito Nova substations, which are now operated from the Goiás and Minas Gerais Operation Centers;
- development of an innovative camera tool that improves safety and reliability in performing switching operations via the Operations Center Supervisory and Control System (SOL System);
- further progress on the construction of a redundant line along the 750 kV Itaberá – Tijuco Preto transmission line (circuit 2), for improved reliability; and
- continued progress on our additive manufacturing, or 3D printing, project. In 2021 we printed our first parts for use in the Static Compensator Cooling System at the Campos substation, reducing costs and implementation time.

## SOMA, a pilot for the future

SOMA is a predictive maintenance monitoring system that incorporates a number of products developed at the Brazilian Power Sector Research Center (CEPEL) for monitoring, analysis and troubleshooting of electric equipment.

SOMA supports comprehensive monitoring of generator units including partial discharge, vibration, temperature and process variables, as well as power transformers. This provides the ability to detect incipient faults in order to avoid

ultimate failure and extended equipment downtime. Benefits include increased availability and reliability, real-time performance monitoring, optimization of maintenance activities, and cost reduction.

In 2022 the system will be installed on three generator units at the Simplicio hydroelectric plant, four generator units at the Furnas plant and two step-up transformers at the Santa Cruz hydroelectric plant.

# Generation

GRI 102-7, G4-EU1, EU2

7 9

With a total net power output of 58,490,487.17\* MWh in 2021 (66,265,919.65 MWh in 2020), Furnas' generation assets comprise 28 power

plants in operation as of year-end 2021, including hydroelectric, thermal, wind and solar power plants, as follows:

<b>Hydroelectric Plants</b>	4 directly owned hydroelectric plants, not renewed
	6 hydroelectric plants under special management – affected by Law no. 12 783/2013 <sup>1</sup>
	2 hydroelectric plants co-owned with private entities, not renewed
	9 hydroelectric plants owned via Special Purpose Entities (SPEs)
<b>Thermal Power Plants</b>	1 temporarily designated hydroelectric plant <sup>2</sup>
	1 thermal power plant not renewed, out of service <sup>3</sup>
<b>Wind Farms</b>	1 thermal plant not renewed, in operation
	5 wind farms wholly owned via Special Purpose Entities (SPEs) <sup>4</sup>

<sup>1</sup> Law no. 12 783/2013 allows Furnas to elect whether to renew its concessions provided it meets certain conditions as the concession contracts expire. To learn more about concession renewals, see the background information available in our Management Reports on the [Furnas website](#).

<sup>2</sup> On November 27, 2020 the Ministry of Mines & Energy (MME) published Directive 409/2020 designating Furnas as being responsible for the operation of the Jaguari power plant until the entity awarded the concession contract takes over.

<sup>3</sup> The Roberto Silveira (Campos) thermal power plant (25 MW) has been taken out of commercial operation under ANEEL Resolution 708/2019.

<sup>4</sup> The holding company Brasil Ventos Energia S.A. is responsible for managing our wind projects. Brasil Ventos Energia S.A is wholly owned by Furnas.

## Our installed capacity by source\*

9,046.20 MW  
Hydro, corporate

123 MW  
Wind

8,719.77 MW  
Hydro, SPEs

350\*\* MW  
Thermal

27.60 MW  
Hydro, designated

Total  
18,266.57 MW  
similar to the figure in 2020, not including the new designated hydroelectric plant and including the Roberto Silveira (Campos) thermal power plant

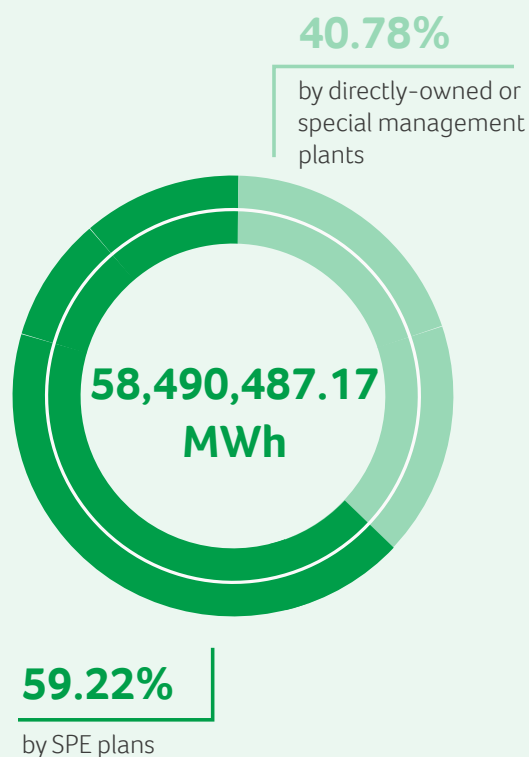
\*Not weighted by equity interests in SPEs and partnerships. Including equity interests in SPEs and partnerships, total electricity output in 2021 would have been 35,396,403.52 MWh.

\*\*Not including the 25 MW Campos thermal power plant, which is currently not operational.

## Net energy output

### GRI G4-EU2

In 2021 Furnas generated 58,490,487.17 MWh (not weighted by equity interests in SPEs and partnerships), down by approximately 12% from the previous year. Of this total, 40.78% was generated by wholly owned or special management power plants and 59.22% by power plants owned via Special Purpose Entities (SPEs).



Including equity interests in SPEs and partnerships, total electricity output in 2021 would have been 35,396,403.52 MWh. Of this total, 62.55% was generated by wholly owned or special management power plants and 37.45% by power plants owned via SPEs.

## NET ELECTRICITY OUTPUT, IN MWh

Energy sources	Total		
	2019	2020	2021
Hydroelectric*	28,555,709.42	32,225,119.00	22,120,539.59**
Thermal (gas)	2,002,857.84	926,923.54	1,730,093.40
SPE wind (wholly-owned)	0	129,626.35	438,231.87
SPE hydro	36,218,408.39	32,984,250.76	34,201,622.31**
<b>Total net electricity output</b>	<b>66,776,975.65</b>	<b>66,265,919.65</b>	<b>58,490,487.17**</b>

\*Includes corporate and jointly owned plants.

\*\*Not weighted by equity interests in SPEs and partnerships. Including equity interests in SPEs and partnerships, total electricity output in 2021 would have been 35,396,403.52 MWh. Of this total - Hydro: 20,409,320.03 MWh; SPE hydro: 12,818,758.22 MWh.

### GRI G4-EU30

Average plant availability factor by energy source and by regulatory regime*	Total					
	2019		2020		2021	
Source (Hydro/Thermal)**	H	T	H	T	H	T
Number of hours of planned outage	14,296	1,827	14,229	4,391	34,838.05	4,214.9
Number of hours of forced outage	10,270	1,503	10,683	200	32,835.15	785.43
Average availability in generation	95.35%	80.98%	95.14%	73.86%	92.02%	71.46%

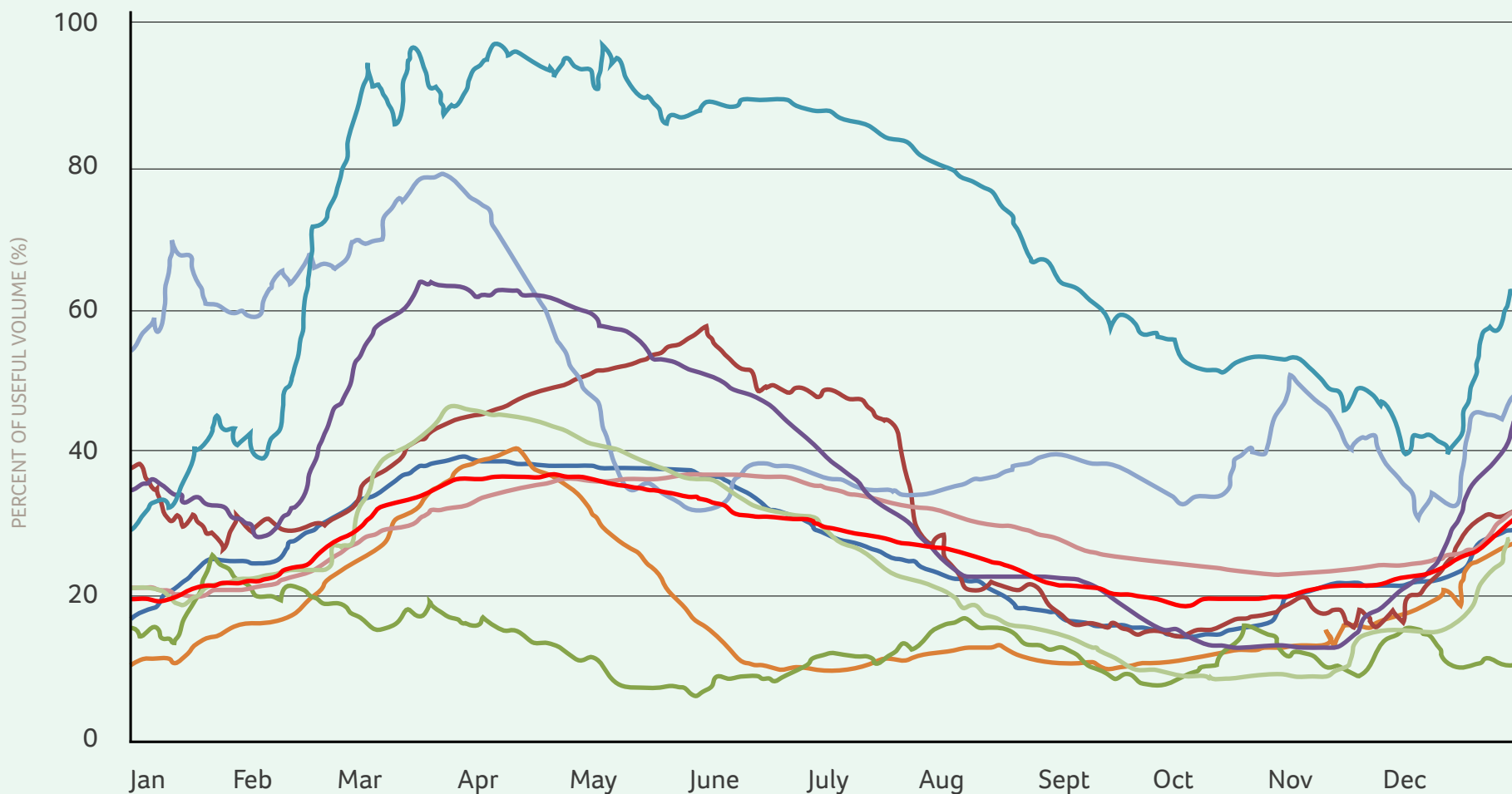
\*Includes directly-owned, jointly owned and SPE plants.

\*\*Not including wind farms.

# Reservoir levels

## RESERVOIR STORAGE 2021

- FURNAS
- M. MORAES
- MARIMBONDO
- BATALHA
- CORUMBÁ
- ITUMBIARA
- FUNIL
- SERRA DA MESA
- MANSO
- EQUIVALENT



# Transmission

GRI 102-7, GRI-EU4

7 9

In 2021 our transmission lines stood at a total length of 25,954.04 km (25,897 km in 2020), including 83.6% directly owned (21,702 km) and 16.4% owned via stakes in Special Purpose Entities (SPEs) (4,252.04 km). 72<sup>1</sup> substations, of which 55 (76.4%) are directly owned.

<sup>1</sup>Includes corporate and SPE substations (transmission and step-up substations).

## Transmission lines in operation

- **Corporate:** 21,702.00 km (21,701.20 in 2020)
- **SPEs:** 13,499.26 km (13,293.89 km in 2020) x stake = 4,252.04 km (4,196.22 km in 2020)
- **Total:** 35,201.26 km (34,995.09 km in 2020) x stake = 25.954.04 km (25,897.42 km in 2020)

Corporate transmission lines in operation	21,702.00 km
Transformer capacity in operation	112,188.17 MVA
Transmission lines coming online or offline	10.80 km
Net change in transformer capacity	210.60 MVA
Approved RAP (in R\$) for transmission assets in operation	R\$ 4,478,186,324.48
Transmission lines in operation, all voltage levels – SPE	4,252.04 km
Operational transformer capacity – SPE	12.214,43 MVA <sup>2</sup>
Added transmission line length – SPE	55.82 km
Added transformer capacity – SPE	585.65 MVA
Planned investment in transmission system expansion – SPE (R\$ million)	R\$ 572.57

<sup>2</sup>The figure includes Transmission Substations and Step-Up Substations.



Viana Substation

# 2021 Highlights

## TLs owned via Special Purpose Entities (SPEs)

- Expanded the Viana 2 substation (SS) by 900 MVA in the 1<sup>st</sup> quarter, to 1,800 MVA.
- Furnas’ equity interest in Transenergia Goiás SA (TGO) increased from 99% to 100% following our acquisition of shares held by J.Malucelli on 5/2/2021.
- The 252.10 km, 500 kV Mesquita – Viana 2 C1 TL was sectioned at the Mutum SS in the 2<sup>nd</sup> quarter, creating a separate Mesquita – Mutum 500 kV TL measuring 136.18 km in length, and the Mutum – Viana 2 500 kV TL measuring 118.57 km in length.

## SPE and Corporate TLs

- The total length of direct-current transmission lines includes the length of electrode lines.

## Corporate TLs

- The 38 km Adrianópolis – Jacarepaguá 2 TL was sectioned at the Nova Iguaçu SS on February 12, 2021 by opening tower 38 via fly-tap, creating the Adrianópolis – Nova Iguaçu TL, measuring 26.9 km in length, and the Jacarepaguá – Nova Iguaçu transmission line, measuring 34.9 km in length. 11.9 km (41 towers) were added for each circuit.
- The 13 km 138 kV Santa Cruz/Brisamar C-2 RJ TL was transferred to Light on August 10, 2021.

## Availability and reliability

### GRI G4-EU6

Furnas monitors plant performance against a set of performance indicators and, in particular, availability. Each plant is unique and has its own site-specific maintenance plan.

Managing peak load is the responsibility of the National Grid Operator (ONS), which operates, supervises and controls power generation across the National Grid (SIN) and manages the backbone grid in Brazil. Furnas follows ONS instructions and seeks to maintain its assets in optimal working condition and in a state of readiness to operate when requested.

The main challenges in ensuring supply-and-demand balance include:

- accurately estimating demand growth, especially during the pandemic;
- uncertainties around future streamflow, considering that our generation assets still largely consist of hydroelectric plants;

- growth in renewable sources, increasing variability in power output;
- the company’s newly acquired role of ensuring system flexibility, control and resilience to variation in local generation and loss of large transmission trunk lines;
- peaking generation; and
- segregating physical capacity from rated power.

Over the years, Furnas has helped to expand the system with new demand-side generation and transmission projects. To enhance our demand-side efforts, we implement initiatives to reduce energy consumption through distributed generation and energy efficiency programs ([read more](#)).

**Our transmission asset availability rate\* in 2021 was 99.9%, in line with our performance in the previous year.**

*\*The reported figures are for corporate backbone transmission lines eligible to RAP and that were in operation at the end of the reporting period, including disconnected sections. Excludes supplementary grid transmission lines.*

## Losses

### GRI G4-EU12

Transmission losses stood at 0.89% at year-end 2021, down from 1.28%\* in 2020.

*\*The reported figures are for corporate transmission lines eligible to RAP and that were in operation at the end of the reporting period.*

## Our Emergency Response Plan and well-trained teams ensured a fast response to transmission line damage

### GRI G4-EU21

In October 2021 our crews successfully repaired two towers of the Foz do Iguaçu – Ivaiporã transmission line, which had been knocked down by a windstorm in western Paraná. Wind speeds as high as 100 km damaged three circuits.

The response team included more than 100 employees and a fleet of trucks, cranes, excavators and ambulances. The responding crew members all took COVID-19 tests and followed appropriate health and safety procedures. The two transmission line towers were quickly repaired thanks to a well-structured TL Emergency Response Plan and the technical training and dedication of our crews.



Performing emergency maintenance

# Trading

8 9

Despite the lingering pandemic in 2021, a well-structured telecommuting program and remote operation enabled us to maintain a reliable power supply to our customers, including public and private companies across different industries, trading companies, and free consumers.

Due to the impacts from the water crisis on our operations, Furnas was required to purchase electricity from third parties, increasing electricity rates. Despite these effects, revenues expanded in 2021 and our trading business remained in profit.

In regulatory aspects, 2021 was a year of greater stability and of preparation for the next rate-setting review in 2023, when some of our concessions will also be renewed. We therefore expect 2022 will be a year of internal planning and helping to ensure that the capitalization process led by our holding company is successful. Furnas expects to see increased modernization in the sector and an expanding free market.

**Furnas sold 39,570 GWh of electricity in 2021**  
(39,460 GWh in 2020).

## Energy transition

GRI 103-2, 103-3

Furnas believes the energy transition will be about responsible consumption, engaging in markets that are committed to sustainability, and deploying innovation to transform the energy market, through a climate strategy focused on generating clean and renewable electricity. As part of our commitment to minimizing our impacts and supporting the shift to a low-carbon economy, we invest in new technologies and appropriate business models.

One of our goals is to amplify the positive impacts from the energy transition in the power sector. We track progress in the energy transition on the basis of our greenhouse gas (GHG) emissions intensity, net operating revenue, and the results from our Internal Carbon Pricing Assessment.

With renewable energy in our DNA, and with an electricity mix that is already 97% clean energy, in recent years Furnas has launched several solar projects through auctions, advanced in wind power, and ventured into green hydrogen to further diversify our generation assets.

2020 saw our first solar power auction and, in 2021, we completed our first auction of Renewable Energy Certificates (I-REC) using an online format. The auction offered products geared to end beneficiaries seeking to offset their emissions, and to trading companies. Bidders actively participated in the negotiations, and average goodwill exceeded 50%.

Our next auction will sell certificates directly to consumers. One of our major goals is to certify our entire generation output, helping to attract more

consumers, strengthen our reputation, and effectively reduce carbon emissions. Each I-REC certificate is equivalent to 1 MWh of renewable electricity generated. In 2021 we had several ongoing projects linked to the energy transition:

- we built the first **green hydrogen production and storage plant** at the Itumbiara hydroelectric plant (read more about the [project](#)). Straddling the border between the municipalities of Itumbiara (GO) and Araporã (MG), the Itumbiara dam completed 40 years of operation in 2021. The dam supplies power to approximately 4 million people, and its 800 km<sup>2</sup> reservoir spans across 47 municipalities. The project is currently working to develop applications for the green hydrogen in agriculture, the chemicals industry, transportation, mobility and power generation;
- we worked to secure a **permit to build a wind farm in Itaguaçu**, Bahia. The project will be developed by Brasil Ventos, a wholly-owned subsidiary, under long-term contracts. The entire electricity output will be off-taken by Furnas, which in turn will allocate a portion to smaller end consumers as part of a strategy to expand our portfolio in the consumer segment.
- **building on the solar power auction held** toward the end of 2020, Furnas concluded new contacts in 2021 that will be implemented in 2022 and potentially start operation in 2023. All electricity purchased by Furnas will be incorporated into our trading portfolio under additional short-term contracts. We are targeting revenues of R\$ 45 million from these contracts.

## Evolving in cybersecurity

Cybersecurity is a field in which we are constantly evolving, with our related efforts currently focused on Furnas' automation network—an operational network separated from the corporate network, i.e. disconnected from the outside world. To ensure the integrity of the network and protect it from cyber attacks, we work proactively across three pillars: building our in-house team's skills, exploring new tools available on the market, and continuously monitoring network assets.

In 2021 Furnas helped to develop a dedicated cyber security framework for the power sector, jointly with peers and solutions providers. We collaborated in forums on cybersecurity for critical facilities, and actively supported the Eletrobras Operation Technology Committee (CTOEE). This committee organizes cybersecurity initiatives in the operation environment across Group companies.

In 2022 the CTOEE will test new market-leading tools, and monitor the implementation of operational environment initiatives as directed by the National Grid Operator (ONS), and new cybersecurity guidelines issued by the power sector regulator, ANEEL.

## A platform for selling renewable energy certificates

Furnas developed and launched in 2021 a proprietary platform, called RECFY, for selling renewable energy certificates. The certificates will be traded using blockchain technology to ensure electricity is traceable to its source and GHG inventories are managed strictly in accordance with the GHG Protocol. Renewable energy certificates can be used to offset Scope 2 greenhouse gas (GHG) emissions as audited by Bureau Veritas.

The platform is offering the market an innovative, world-class product and an ideal solution for large consumers seeking to offset their Scope 2 GHG emissions. Internally, Furnas is working to better manage costs and advance a rapid scale-up, creating new revenue streams. RECFY adds to our portfolio of decarbonization solutions, which began with I-REC certificates, creating new business opportunities.



*A substation in Mogi das Cruzes*

# Technology and innovation

## G4-EU8

Alongside sustainability, technology and innovation are among the business enablers that allow us to develop medium- and long-term strategies connected to both the present and the future.

At Furnas, innovation is orchestrated by expanding projects and deploying tools across additional areas of the company. Our lean startup program is currently being extended beyond the industrial automation function. Meanwhile, artificial intelligence and digitization are being deployed in new projects and processes.

We have also applied innovation in employee training and development, ensuring a future-ready workforce. Using a digitally nimble approach, Furnas is providing training on data science and artificial intelligence to 160 employees, who will then be able to work as data scientists at our different departments.

### *Espaço Conexões*

In 2021 we launched *Espaço Conexões* (“Connections Space”) at Furnas headquarters to promote employee engagement and host events, such as the Innovation & Digital Transformation Training Pathway. The space is supported by *Fábrica de Startups*, a partnership responsible for organizing the agenda of initiatives, projects and partnerships, and supporting ideas with the potential to develop into new businesses.

We also launched an Intra-entrepreneurship Policy to implement employee ideas and projects. Partnerships such as those we establish with startups are another of the strategies we used to position our company in such a highly competitive market.



## Furnas attends MIT workshop

Furnas is positioned among the leading innovation players in the US through our partnership with the Massachusetts Institute of Technology (MIT). In 2020 the city of Rio de Janeiro was selected to participate in MIT REAP (Regional Entrepreneurship Acceleration Program)—a global program to develop innovation ecosystems. A group comprising LabrIntOS (a laboratory at Coppe/UFRJ), Furnas, Petrobras, VIBRA Energia, Fábrica de Startups, Hub SDP and MSW Capital has since been working to create a world-class innovation ecosystem revolving around energy and sustainability. In 2021 Furnas became the first company to represent Brazil at the MIT campus in Boston, alongside 16 other countries.

In November, *Espaço Conexões* was selected to host the 2021 edition of the accountability workshop, an opportunity to showcase progress and early results from the initiative to society. The workshop was attended by the leaders from the MIT REAP Rio team, supporters and other project team members. [The event was livestreamed on YouTube](#) and is available online.

*The Itumbiara plant synergistically combines hydro, solar and green hydrogen*



### Green Hydrogen

2021 saw the beginning of a new chapter in our innovation efforts with the development of our first green hydrogen production and storage plant, at the Itumbiara dam site. The plant synergistically combines hydro and solar power, with the power output from photovoltaic plant used to produce hydrogen via electrolysis. The hydrogen is stored in a tank and then reconverted into electricity on demand.

The power output from the plant will be supplied to the National Grid via a Substation at the Itumbiara dam site. The project is supporting innovation efforts in Brazil’s power sector, with hydrogen expected to play a key role in decarbonization initiatives with its promising production potential and multiple applications.

### Eletrobras Innovation Awards

Five employee-led projects were selected for the 1<sup>st</sup> Eletrobras Innovation Awards, which brought together 89 product and process proposals for the Brazilian power sector. The two top-ranked R&D projects in the Core business category were a “Method for estimating extreme pressure values from hydraulic jump in stilling basins” and “Wind tunnel aerodynamics laboratory.”

In the R&D Solutions category, four projects received awards in the Dam Safety and Technology category; in the Management Support Category, the first and second-place awards went to two projects titled “Risk assessment and forecasting in power generation and transmission projects” and “Managerial laminar and linear erosion risk maps”. Our “Flow” project, one of the finalists in the Inova Furnas 2020 awards, won

an award in the Employee Solutions category for a proprietary, automated platform for managing technical documentation and information.

### Digital transformation process

**GRI 103-2, 103-3**

To support our deployment of new technologies, Furnas has a set of enabling initiatives focused primarily on the company’s core processes—electricity generation, transmission and trading—but also on new businesses. One of our enabling initiatives has established three strategic pillars to drive the digital transformation, namely:

- 1. Digital nimbleness:** a new organizational design and talent mix for a high performance digital working environment.
- 2. Data & Analytics:** a focus on value creation using artificial intelligence, machine learning and advanced data analytics.
- 3. Digital foundations:** supporting agile initiatives and integration across development, security and infrastructure.

Furnas assesses performance through internal client satisfaction surveys. In the most recent survey, 32% of respondents recognized the technology-enabled business transformation at Furnas, 54% partially agreed and 14% partially disagreed. No respondents fully disagreed.

# DIGITAL TRANSFORMATION AT ELETROBRAS GROUP



## Research and development

GRI 103-2, 103-3

Research and development (R&D) needs at each department are determined based on our strategic plan and Business & Management Master Plan (PDNG). R&D and Innovation projects are managed, monitored and tracked to ensure they deliver expected results, and to manage intellectual property.

R&D management performance is assessed under governance policies and through internal and external audits, including Sarbanes-Oxley (SOx) compliance audits and audits by the Federal Audit Court and the Brazilian power sector regulator, ANEEL. No issues were identified in any audits conducted in 2021.

Furnas' R&D Program is compliant with Law no. 9 991/2000 and Law no. 14 120/2021, which require that power-sector companies spend a minimum percentage of Net Operating Income (NOR) on R&D projects. All projects follow guidelines established in our ANEEL-regulated Research & Development Program Procedure.

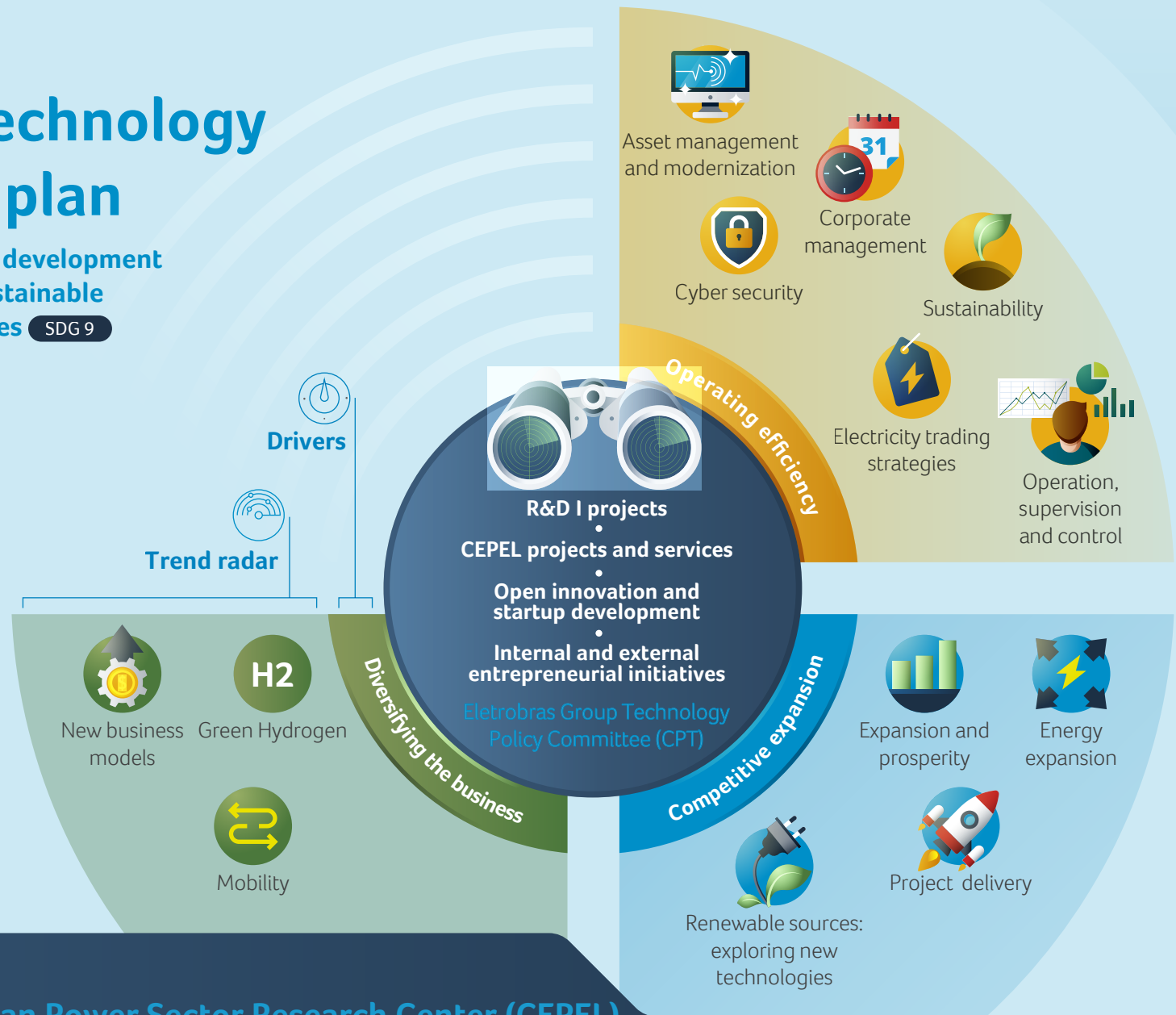
## R&D INVESTMENT

Topic	2021
Alternative sources	R\$ 16,505,008.53
Watershed and reservoir management	R\$ 5,429,588.13
Environment	R\$ 5,429,588.13
Safety	R\$ 2,096,170.42
Energy efficiency	R\$ 5,671,488.40
Power system supervision, control and protection	R\$ 4,333,646.51
Other topics	R\$ 2,763,807.85

**No issues were identified in any audits conducted in 2021.**

# The Eletrobras **technology and innovation plan**

A structure designed to facilitate the **development of studies and research around sustainable development and new opportunities** **SDG 9**



## Brazilian Power Sector Research Center (CEPEL)



Our parent company, CGT Eletrosul, Chesf, Eletronorte and Furnas are the lead sponsors of CEPEL, Brazil's leading center for technological innovation for the power sector and a research and development powerhouse. Eletrobras Group companies' collaboration with CEPEL provides valuable and strategic capabilities to develop both current and immediate solutions as well as long-term research.

<sup>1</sup> Business & Management Master Plans

# Suppliers

GRI 103-2, 103-3, 102-9

Supplier management is a material topic for Furnas and was enhanced in 2021 by strengthening compliance practices, training and alignment with sustainability principles, and by improving corporate processes. We implemented a new SAP menu as a one-stop-shop for a range of supplier management features, standardizing day-to-day activities across the Eletrobras Group. New features were added on the Supplier Portal (extranet), which is now common across Group companies, making company-supplier communications more effective.

In the onboarding process, a key stage in our relationship with suppliers, we made important improvements in standardization and digitization. Supplier assessments were implemented in an SAP Single Instance and work is now progressing on adjusting and maturing the process, in line with Eletrobras Group policies. The tool will be used for assessments of supplier-delivered goods and services, and for ESG (human rights and environment) due diligence. In addition, the Eletrobras Group supplier portal implemented a method for assessing selected suppliers using questionnaires on topics such as human rights and the environment.

The 2021 edition of the Eletrobras Group Supplier Summit brought together approximately 500 delegates in a virtual environment. The summit addressed aspects such as ESG due diligence during onboarding

and integrated supply chain management, and also featured an employee-led workshop on ESG due diligence, contract management, supplier onboarding, and other subjects.

## Procurement practices

GRI 103-2, 103-3, 205-1

The Furnas Procurement Logistics Policy outlines social, environmental and ethical requirements and commitments expected of suppliers in order to foster sustainability and integrity. As a government-owned company, we are subject to laws and regulations on procurement and our relationship with suppliers to ensure we are compliant with the constitutional principles of impartiality, selecting the best value for money, and promoting local development.

All contracts and procurement are formalized based on our Bidding and Contracting Rules, which ensure our procurement practices conform to the requirements contained in the Government-Owned Corporations Act.

To assess supplier management performance, we conduct internal satisfaction surveys that are answered by requesting departments and suppliers. In 2021 we conducted ESG due diligence on our suppliers.

## Suppliers 2021



3,889  
suppliers



311  
engaged in 2021\*



R\$ 1.08 billion  
contract spending

*\*Engaged via competitive procedures, under exemption (above R\$ 50,000.00) or via direct contracting.*

### Local sourcing

#### GRI 204-1

44.1% of our procurement spend in 2021 went to local suppliers, amounting to R\$ 499,494,195.16 (out of a total budget of R\$ 1,132,733,332.15).

This exceeded our local supplier spend of 32.37% in 2020, totaling R\$ 328,296,921.16 (out of a total budget of R\$ 1,014,270,659.56).

### Sustainable sourcing

A new sustainable sourcing project is implementing improvements in supply chain management and governance at Eletrobras Group companies, with a focus on ESG aspects and corporate risk management. The targets below have been set to be achieved by year-end 2022.

- **Target 1:** fully implement ESG due diligence Group-wide.
- **Target 2:** identify and implement improvements in the supplier governance and management process at Eletrobras Group companies, with an emphasis on sustainability and corporate integrity.
- **Target 3:** expand the Small Business Development Program.

- **Target 4:** expand the scope of diversity, occupational health and safety and supplier management practices.

### Supplier rights and duties

#### GRI 407-1

The Eletrobras Group Code of Business Conduct and Ethics and the Furnas Standards of Business Conduct for Suppliers set out requirements on freedom of association and collective bargaining. To ensure suppliers are familiar with and agreed to abide by these standards, we require all companies with which we do business to submit a proposal presentation letter as part of the bidding process, signed by their legal representative, stating that they understand and agree to observe and comply with the contract's provisions on aspects such as human rights, as applicable.

In 2021, **44.1% of supplier spend went to local suppliers** (32.37% in 2020).





# PEOPLE

## MATERIAL TOPICS

- People management and development
- Health, safety and well-being
- Human rights
- Communities

## RELEVANT TOPICS

- Suppliers

## CAPITALS



\*Photos where people are not wearing masks were taken before the pandemic.

# People

8 16

2021 brought its own pandemic challenges, which still remain. In light of this, Furnas continues to comply with its protocols, especially those regarding returning to in-person work, which considers health, social and family issues; these protocols were authorized by the Labor Courts. By late 2021, 60% of all positions had returned to in-person work.

Furnas reinforced its recommendations regarding prevention, and continued to monitor the pandemic, also advancing in its program to monitor vaccinations. In 2021, the ShareCare comprehensive health program was also used to monitor Covid vaccines.

According to the vaccinometer published from time to time; by December, 99.4% of those eligible had received at least 1 dose of a Covid-19 vaccine, and 99.3% had received two doses. Only 18 employees, 0.6 % of our workforce, had not reported their vaccination status. Furnas reinforces the importance of immunization to reduce hospitalizations and deaths. Six employees died from Covid since the start of the pandemic.

**479 employees working remotely**  
(17% of the total Furnas staff).

## Focus on mental health

Beyond vaccines, and considering that its people are its greatest asset, in 2021 the company created a Network of Psychosocial Support, a joint effort by the workplace health, safety, and well-being areas of Eletrobras companies. This initiative was driven by a perception of worsening mental health, one of the visible effects of the pandemic that has been monitored by the in-house ShareCare system. This service is available Monday through Friday for all Eletrobras employees. The social workers of each company are also provided with support and instructions for online care. Help may be scheduled directly using the [digital platform](#) or using the e-mail disclosed internally.

## Remote work policy

The remote work policy was created in 2021, and defines the criteria to plan, implement, and assess this work regime. Both the company and the employee must adhere, especially when most activities will be performed outside the company using information and communication technologies.

One of the challenges of people management is to support teams so they remain engaged and connected in a healthy and productive hybrid model that combines autonomy and responsibility. For Furnas, remote working should improve the quality of life of people, and help reduce the pressure on urban infrastructure.



Grounds of the Funil Hydro Plant

# Our pandemic response: two years





## Vaccination Dashboard<sup>1</sup>

**2,777** employees  
**2,746** vaccinated with 1st dose (99.4% of eligible employees)  
**2,745** vaccinated with booster dose (99.3% of eligible employees)  
**18** pending vaccination (0.6% of eligible employees)

 **Six deaths** since 2020



## Return to work

-  A **staggered** return to work, taking account of health, social and legal aspects
-  Return to work at the Barão de Mauá building (RJ) and regional facilities under a **Telecommuting Policy**<sup>2</sup>

**40%** remote







**60%** on site

Remote work vs on site

COVID-19 and flu vaccination campaign

## Technology supporting health

-  **Mental health support** through online psychological counseling on social and emotional issues
-  Used KeyApp for **self-health checkups**, and facial recognition kiosks for access control (including for suppliers)
-  **Monitored overall employee health** using the ShareCare platform
-  **Epidemiological surveillance** using Power BI, generating data on the Covid Risk Level in the locations hosting Furnas facilities

## Community initiatives



### Saving Lives Program 2020-21

Three hospitals provided with cold storage rooms. A total of 46 healthcare providers benefited, in 32 municipalities. R\$ 8.75 million donated by Furnas, and then double-matched by BNDES.



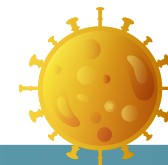
### Support for small fish farmers and artisanal fisherpeople who derive their livelihoods from the Furnas reservoir in MG (2021)

R\$ 830,000 in donations  
 1,106 professionals benefited  
 29 municipalities benefited



### Social Energy Program (2021)

**1,300** personal hygiene kits distributed



<sup>1</sup> as of February 2022

<sup>2</sup> since 2020

# X-Ray of the Furnas staff in 2021

GRI 102-7, 102-8, 103-2, 103-3

<sup>1</sup>The total number of Furnas employees includes one who was placed on disability retirement on February 15, 2022 retroactive to December 28, 2021.

<sup>2</sup>Includes the following: employees, requisitioned employees, rehired employees and commissioned positions. The figures exclude seconded employees, employees on unpaid leave, and rehired employees seconded to other agencies. All Furnas employees have indefinite employment contracts.

<sup>3</sup>Those on secondment are considered as indeterminate time, as per decree 9144 of August 22, 2017.

These are people in all their diversity and subjectiveness, able to come up with agile and creative solutions for current and future challenges.

## By region

### North

Men 6  
Women 0  
TOTAL 6

### Northeast

Men 0  
Women 0  
TOTAL 0

### Southeast

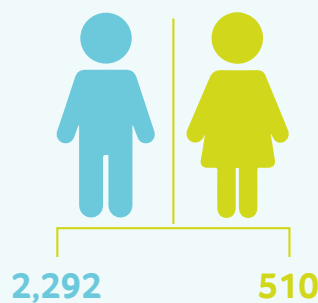
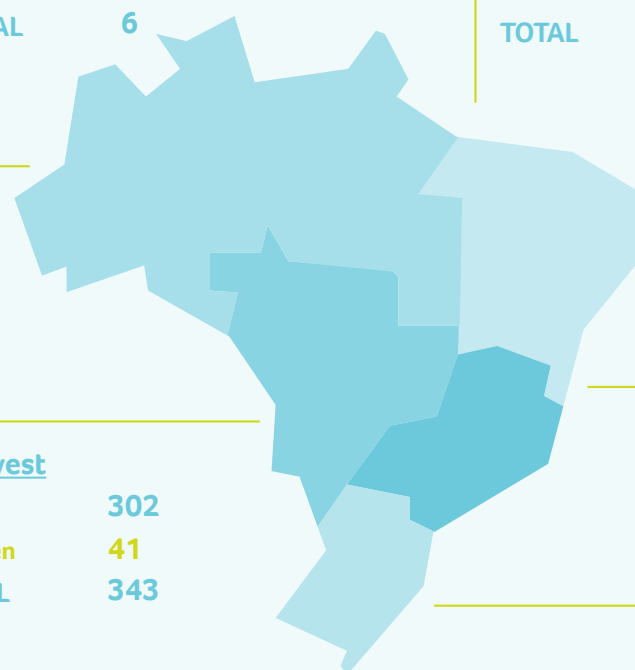
Men 1,896  
Women 465  
TOTAL 2,361

### Midwest

Men 302  
Women 41  
TOTAL 343

### South

Men 88  
Women 4  
TOTAL 92



TOTAL 2,802<sup>1,2,3</sup>

## Furnas has 2,802 employees, 74 interns, and 107 young apprentices.

<sup>1</sup>The total number of Furnas employees includes one who was placed on disability retirement on February 15, 2022 retroactive to December 28, 2021.

<sup>2</sup>Includes the following: employees, requisitioned employees, rehired employees and commissioned positions. The figures exclude seconded employees, employees on unpaid leave, and rehired employees seconded to other agencies. All Furnas employees have indefinite employment contracts.

<sup>3</sup>Those on secondment are considered as indeterminate time, as per decree 9144 of August 22, 2017.

### WORKFORCE BY REGION<sup>1,2,3</sup> GRI 102-8

Region	2019			2020			2021		
	Men	Women	Total	Men	Women	Total	Men	Women	Total
North	6	0	6	6	0	6	6	0	6
Northeast	0	0	0	0	0	0	0	0	0
Midwest	307	42	349	305	42	347	302	41	343
Southeast	1,920	468	2,388	1,917	467	2,384	1,896	465	2,361
South	-	-	-	86	4	90	88	4	92
<b>Total</b>	<b>2,318</b>	<b>514</b>	<b>2,832</b>	<b>2,314</b>	<b>513</b>	<b>2,827</b>	<b>2,292</b>	<b>510</b>	<b>2,802</b>

### Hiring and employment

GRI 102-8, 103-2, 103-3

As a government-owned company, new Furnas employees may only be hired following a civil service exam, as per legal and constitutional requirements. They must first be authorized by Eletrobras, and then by Sest, the State-Owned Company Coordination and Governance Department. The last civil-servant exam was in 2009.

All employees are hired for an indefinite period. Em 2021, Furnas had 74 interns (29 men and 45 women), and 107 young apprentices (51 men and 56 women).

### WORKFORCE BY EMPLOYMENT TYPE<sup>1</sup>

Type of employment	2019			2020			2021		
	Men	Women	Total	Men	Women	Total	Men	Women	Total
Full time	1,935	484	2,419	1,942	484	2,426	1,932	482	2,414
Part time	383	30	413	372	29	401	360	28	388
<b>Total</b>	<b>2,318</b>	<b>514</b>	<b>2,832</b>	<b>2,314</b>	<b>513</b>	<b>2,827</b>	<b>2,292</b>	<b>510</b>	<b>2,802</b>

<sup>1</sup>Full-time employees are those working 220 hours/month or more. Those with a monthly workload of less than 220 hours are considered part-time.

# People management and development

GRI 404-2, 406-1, 412-2

To fulfill its future vision and leverage clean energy based on excellence and sustainability, Furnas revised its people management strategy, deploying innovative practices and betting on the development of professionals of the future.

In 2021, it made a multi-area effort to implement the **Cultural Strengthening** project that started in 2020 with the Cultural Transformation of Eletrobras companies. This initiative calls for continued training of company leaders over 22 months, as well as the implementation of new people management processes to increase productivity, improve the organizational climate, develop leaders, and improve adherence to the organizational culture and strategy.

This initiative is comprised of nine work packages - Effectiveness, Engagement, Communication, Development, Leadership, Enchantment, Attraction, Connection, and Cultural Support. The first three were implemented in 2021.

All departments were included, involving leaders and employees in a moment of alignment, engagement, and co-creation. Below are the main achievements in 2021.

## Effectiveness



279 people participated in workshops for leaders and employees - managing goals, targets, and performance

## Engagement

988 respondents to an online survey on strategic guidelines - purpose, future vision, and values

124 respondents to an online survey on cascading Furnas values and beliefs into practical orientations

185 people participated in workshops for leaders and employees - cascading Furnas values and beliefs into practical orientations, and drafting the Furnas Manifesto.

## Communication



270 respondents to an online survey on communication in the company

220 people participated in workshops for leaders and employees - developing practical orientations for communications at Furnas.



## Capitalization context and people

2022 is expected to be a year of institutional transformation and challenges, such as retaining talents and re-planning the workforce, considering the capitalization process.

The strategy developed includes promoting and stimulating in-house talents, and an improved connection with talents outside the organization that are part of our relationship network, which is essential to renew and strengthen our culture and focus on excellence.

### Career development

**GRI 103-2, 103-3, 404-2, G4-EU14**

Furnas has a one-year Global Learning Plan covering all areas in the company, in which it has systematically invested. This plan is based on a broad survey of the learning needs of several company departments such as Strategic Planning, area demands, and training in workplace health and safety, it also covers educational activities and knowledge management.

Training and education at Furnas are managed based on the Eletrobras Group Corporate Education Policy and Regulation, and is assessed using climate surveys and indicators that monitor education and awareness actions.

In 2021, Furnas leaders joined the Leadership Development Program created for all Eletrobras companies, as part of its Global Learning Project.

#### Global Learning Plan Dimensions

1. Business area-led strategic actions
2. Health and safety
3. Individual development plan
4. Leadership
5. Languages
6. Strategic corporate programs

**GRI 404-3**

Employee performance assessments reflect their career plan, which is reviewed against a set of competencies managed simultaneously with the position plan, and must be approved by Sest, the State-Owned Company Coordination and Governance Department in 2022.

One of the new people management proposals at Furnas is the W career, which expands the possibilities for professionals and makes careers more flexible. This is true for both highly qualified, technical professionals who have the potential to create competitive advantage for the company, and for those in leadership positions working on strategic projects.

In 2021, our employee valuation and career development plans based on innovation included:

- **Entrepreneur Journey**, part of the Innovation Program, a series of ten workshops offered to members of the finalist projects in the 1st Eletrobras Innovation Olympics in 2020;
- **1st Eletrobras Companies Innovation Award** to promote a culture of innovation by recognizing employees whose solutions benefited the companies.



## Team and individual targets, as of 2021

One of the transforming practices of the Furnas Cultural Strengthening project was creating team and individual targets linked to the PDNG (Business and Management Master Plan) as a strategic development tool. With the support of HR teams and technology

tools, leaders and employees were trained to design, implement, and properly operate the team and individual target system. We also resumed recognition and reward programs as connection and meritocracy tools.

### EMPLOYEES RECEIVING REGULAR PERFORMANCE REVIEWS, BY EMPLOYEE CATEGORY (%)

GRI 404-3

Category	2019			2020			2021		
	Men	Women	Total	Men	Women	Total	Men	Women	Total
Management level	100	100	100	99.38	100	99.51	98.2	100	98.58
University graduates	99.74	99.33	99.63	96.4	96.31	96.37	79.16	81.98	79.92
Non-university graduates	99.85	98.85	99.74	94.98	89.53	94.38	92.19	86.05	91.51

An employee receives the "House Gold" award for ten years of service from the hands of the CEO.



## Employment and compensation

GRI 102-38

### RATIO OF THE ANNUAL TOTAL COMPENSATION OF THE ORGANIZATION'S HIGHEST-PAID INDIVIDUAL TO THE ANNUAL AVERAGE FOR ALL EMPLOYEES (R\$)

Compensation	2019	2020	2021
Highest compensation	712.177,11	724.268,30	696.370,87
Average annual total compensation for all employees	-	180.131,61	175.193,85
Ratio	3.88	4.02	3.97

### EMPLOYEES HIRED BY AGE GROUP

	2019		2020		2021	
	#	Rate	#	Rate	#	Rate
Under 30	0	0	0	0	0	0
30 to 50	62	3.33	7	0.4	0	0
Over 50	47	4.95	1	0.09	1	0.09
<b>Total</b>	<b>109</b>		<b>8</b>		<b>1</b>	

### EMPLOYEES HIRED BY REGION

	2019		2020		2021	
	#	Rate	#	Rate	#	Rate
North	0	0	0	0	0	0
Northeast	0	0	0	0	0	0
Midwest	25	7.16	2	0.58	0	0
Southeast	83	3.45	6	0.25	1	0.04
South	1	1.12	0	0	0	0
<b>Total</b>	<b>109</b>		<b>8</b>		<b>1</b>	

### EMPLOYEES HIRED BY GENDER

	2019		2020		2021	
	#	Rate	#	Rate	#	Rate
Men	80	3.43	7	0.3	1	0.04
Women	29	5.6	1	0.19	0	0
<b>Total</b>	<b>109</b>		<b>8</b>		<b>1</b>	

## New employees hired and employee turnover

GRI 401-1

### TURNOVER BY REGION

	2019		2020		2021	
	#	Rate	#	Rate	#	Rate
North	2	28.57	0	0	0	0
Northeast	0	0	0	0	0	0
Midwest	35	10.03	04	1.15	02	0.58
Southeast	242	10.06	13	0.54	28	1.18
South	11	12.36	1	1.11	0	0
<b>Total</b>	<b>290</b>		<b>18</b>		<b>30</b>	

Calculation methodology:  $[(\text{employees hired} + \text{terminated})/2]/\text{total headcount}$ .

### TURNOVER BY AGE GROUP

	2019		2020		2021	
	#	Rate	#	Rate	#	Rate
Under 30	0	0	0	0	0	0
30 to 50	24	1.29	11	0.62	7	0.4
Over 50	266	28.03	7	0.66	23	2.18
<b>Total</b>	<b>290</b>		<b>18</b>		<b>30</b>	

Calculation methodology:  $[(\text{employees hired} + \text{terminated})/2]/\text{total headcount}$ .

### TURNOVER BY GENDER

	2019		2020		2021	
	#	Rate	#	Rate	#	Rate
Men	235	10.07	13	0.56	25	1.09
Women	55	10.62	5	0.97	5	0.98
<b>Total</b>	<b>290</b>		<b>18</b>		<b>30</b>	

Calculation methodology:  $[(\text{employees hired} + \text{terminated})/2]/\text{total headcount}$ .

## Our benefits

### GRI 401-2, 401-3

The company offers the following benefits to its employees: transportation vouchers, funeral support, parental leave, medical and dental care, group life insurance, retirement fund, variable compensation, meal and food vouchers, psycho-pedagogical support, day-care vouchers, education

vouchers, paid vacation, tenure bonuses, pharmacy vouchers, leave for domestic violence victims, supplemental sick-leave, companion leave, leave due to the death of step-parent, extended parental leave, and language courses.

## PARENTAL LEAVE

		2019	2020	2021
Employees who took parental leave	men	71	45	42
	women	23	11	10
Employees who returned to work during the reporting period after parental leave ended	men	71	45	42
	women	23	11	10
Employees that returned to work after parental leave ended that were still employed 12 months after their return to work	men	71	45	42
	women	22	11	11
Return rate (%) <sup>1</sup>	men	100	100	100
	women	100	100	100
Retention rate (%) <sup>2</sup>	men	80.68	47.83	93.33
	women	100	63.38	90.91

<sup>1</sup> Calculated using the following formula: (total employees who returned to work after parental leave ended / total employees who should have returned to work after parental leave ended) x 100.

<sup>2</sup> Calculated using the following formula: (total employees retained 12 months after returning to work from parental leave / total employees who returned to work from parental leave in years prior to the reporting period) x 100.

## Innovative education actions

Because of the pandemic, in 2021 the company again provided fewer training hours, however it offered the required trainings, in addition to awareness actions regarding employee health.

For the first time ever, the company offered remote (Distance Learning) training for high-risk activities, a format we had already used for ethics and integrity training. We also point out two innovative Knowledge Management projects.

- **Energy capsules:** these microlearning projects deliver specific content recorded on the Microsoft Teams platform that can be subsequently accessed by employees to improve the performance of our working teams;
- **Furnas Edu 4.0:** an app created to optimize educational actions. The aim is that this will become a content factory and a curator of excellence. It is being used for trainings at the São José da Barra plant, the aerodynamic lab in Goiás, and other locations. Each manager may order the trainings he or she needs, based on the annual General Learning Plan.

**36,143 hours**  
of training were  
offered in 2021.

**AVERAGE HOURS OF TRAINING PER EMPLOYEE BY GENDER** GRI 404-1

	2019	2020	2021
Men	50.97	96.71	12.16
Women	39.48	108.25	23.40
<b>Total</b>	<b>48.88</b>	<b>98.8</b>	<b>14.45</b>

**AVERAGE HOURS OF TRAINING PER EMPLOYEE BY EMPLOYEE CATEGORY**

	2019	2020	2021
Management positions	34.97	85.17	9.85
University graduates	74.85	126.07	17.51
Non-university graduates	32.78	87.85	9.51
<b>Total</b>	<b>48.88</b>	<b>98.8</b>	<b>14.45</b>

**In 2021, 66 volunteers participated as mentors of the Young Apprentice program, meeting six times with each one.**



**Recognition program for educating employees**

This program exists in all Eletrobras companies, and selects and trains volunteers interested in disseminating the content in which they specialize, thus creating an in-house educator base of people who are skilled and able to lead education actions. This is centralized on the Eletrobras University (Unise) website.

In addition to recognizing in-house professional experience, the program improves the quality of the educational actions, as they are based on the reality of the organization and focus on knowledge dissemination. Employees with specific technical knowledge are trained in teaching skills aligned with the Eletrobras companies education model. They may act as facilitators, content creators, or tutors in other projects. This initiative also connects to the Capsules of Energy project and the General Learning Program.

# Health, safety and well-being

GRI 103-2, 103-3, 403-2, 403-3, 403-6

G4-EU16

To maintain the high standard of performance in workplace health and safety, Furnas has preventive measures and procedures based on education and planning for safe task performance. This initiative has the full involvement of all managers in controlling risks and preserving employee health and safety to continuously improve their quality of life. For this, it has a healthcare team made up of labor physicians, technicians, and nurses, along with social workers, and psychologists.

At Furnas, labor-related risks are identified by reviewing the Environmental Risk Prevention Program (PPRA), and by the Preliminary Risk Analysis (APR) performed before any activity that involves risk. Identifying and monitoring risks based on actions and activities are part of the Workplace Health and Safety Policy (WHS), comprised of workplace safety requirements and a number of guidelines based on documents and programs that are in line with current legislation. Incidents, accidents, and non-conformities may be reported and recorded on dedicated employee-only channels.

## Internal Accident Prevention Committees

GRI 403-4

Right now there are 26 Internal Accident Prevention Committees, known as CIPAs, 11 Safety Units or USEGs, and five appointed persons who perform CIPA responsibilities in locations where compliance with NR5 (Workplace Health and Safety) is not required.

**100% of our employees are represented on formal health and safety committees.**



## Energy, and occupational health and safety program

GRI 403-1, 403-8

Furnas continues to implement the Eletrobras Energy and Workplace Health and Safety Program, which started in 2020, with the support of DuPont Consulting. The goal is to improve the culture of safety and risk prevention, helping promote the health and quality of life of our internal stakeholders along the entire Eletrobras Group relationship chain.

In 2021, protocols and measures to preserve safety were revised, such as the care required to perform in-person essential work at the company. This year this system was not audited internally nor independently.

## Workplace injuries

GRI 403-9

### FREQUENCY RATE AND SEVERITY RATE<sup>1,2</sup>

Variable name	Variable name
Number of employees – monthly average	2,953
HHTER	5,918,146
Absolute number of lost-time (15 days or less) injuries - employee	13
Absolute number of lost-time (> 15 days) accidents - employee	3
Absolute number of non-lost-time injuries - employee	4
Absolute number of accidents – employees	20
Man-days lost time - employee	368
Debited man-days - employee	0
Total man-days lost - employee <sup>3</sup>	368
Number of deaths – employee	0
Lost time injury frequency rate (TFA) – employee	2.70
Frequency rate (FR) – (employees)	3.38
Severity Rate (SR) – employee	62.18

<sup>1</sup>This indicator is based on the following premise: according to applicable legislation, employees are those employed by the company CNPJ (corporate tax #) as per their employment agreement, and are registered in their Work Permit (Carteira de Trabalho), as per the Brazilian Consolidated Labor Law. The following categories are included: employees present at the company, those seconded or on leave (with or without a specific return date); retirees at the company or on secondment, young apprentices, employees on leave with or without a return date, or performing an elective role. The following categories are not included: employees on secondment from other companies, the CEO and interns.

<sup>2</sup>The lost-time injury frequency rate (TFA), frequency rate (TF) and severity rate (TG) use the following calculation for hours worked: the sum of monthly average hours worked x 167 x 12 (with 12/31/2021 as the cutoff date).

<sup>3</sup>Days lost from an injury that occurred in 2020 were accounted for in both 2020 and 2021. [102-48]

### Search for Excellence in Workplace Health and Safety (WHS)

Training in workplace health and safety is considered an integral part of our corporate strategy, and managers and other employees are encouraged to commit to this as a factor of success in the search for excellence in WHS. The records of compulsory trainings, including the attendance list and certificates, are available to external control bodies.

2021 highlights of WHS at Furnas:

- Training facilitators in safety-focused behavioral analysis;
- Implementation of computerized WHS tools across the company;
- Structure a platform for independent WHS certification of the entire company.

The PDNG (Business and Management Master Plan) includes health and safety targets, including for contractors - one of the critical themes for creating a true culture of safety.

## Health promotion and training

GRI 403-5, 403-6, 403-7

As required by Brazilian labor law, Furnas provides compulsory training in workplace health and safety, such as NR-10, NR-33, and NR-35, as well as first-aid and defensive driving.

It also offers co-pay healthcare plans that cover medical and hospital expenses, and treatments provided by healthcare professionals or institutions. Other programs offered include help to fight smoking, treatment for drug and alcohol dependence, nutritional support, workplace exercise, agreements with gyms and, in some locations, gyms and registration in street running events.

To make sure its contractors abide by workplace health and safety requirements, Furnas issued Instruction IN 001.95, which sets forth the requirements for contracting services, as per Labor and Social Security Legislation, and Technical Standards approved by the Brazilian National Technical Standards Association (ABNT).

# Human rights

GRI 103-2, 103-3, 412-3

2 17

This theme permeates the entire company. Human rights at the company are guided by the [Furnas Social Responsibility Policy](#), available in portuguese on the Furnas website. The following areas manage the theme in partnership: Human Resources, Environment, Sociocultural Responsibility, Sustainability, Procurement, and Supplier Management. In addition to this guiding policy, all purchases and contracting are formalized based on the Contract and Bid Regulation, which includes human rights clauses.

Contractors that disrespect any human rights clauses, or the laws and regulations regarding minor, child, or slave labor are subject to the penalties in the agreement, as per applicable laws and the Brazilian legislation.

To monitor this theme, Furnas tracks the priority Sustainable Development Goals, as well as satisfaction surveys and assessments of actions and projects on the theme, at the request of the areas in charge.



*Dialog between the Furnas team and the community during the Minas Gerais project.*

**In 2021 we found 11 significant investment agreements, all of which included human rights clauses.**

## Commitment to children and adolescents

GRI 103-2, 103-3

Furnas pays special attention to the fight against child labor, along with forced or slave-like labor.

Impact related to this could be the result of company operations or existing social issues in the areas where our facilities are located. These risks are identified and monitored by specialized technicians and governed by the Furnas Social Responsibility Policy and its Code of Ethics.

The main goal is to avoid and remedy any negative impact, given the company's ability to help mitigate incidents and enable positive impacts.

**No cases of child, forced, or slave labor were reported in 2021.**

## Mão Certa [in the Right Hands] Program

In line with its commitments, 2021 marked the 12th anniversary of the company's involvement in the *Mão Certa* [in the Right Hands] Program, maintained by Childhood Brazil. With this new condition, Furnas will not only continue with its current activities, but will also disseminate this commitment to the distinctive audiences it relates to as an institution.

The *Mão Certa* Program Indicators show that the company is in the most advanced stage (4) in terms of engagement to fight the sexual exploitation of children and adolescents, as well as regarding child, slave, and slave-like labor.

The main additions for the year are:

- Furnas employees who took the defensive driving course received instruction on what to do if they witness child or adolescent exploitation on the highways. The goal is to inform and encourage employees and drivers to engage in actions to eliminate a situation that affects thousands of boys and girls across the country; and
- Initiatives to bring awareness to the transportation team regarding handling sexual exploitation of children and adolescents on the highways. Meetings with fleet managers, training drivers as facilitators, and creation of a WhatsApp group for communication on this topic.

## Risks and monitoring

GRI 408-1, 409-1

In 2021, 169 suppliers were identified as being at significant risk for incidents of child labor. These are contractors that provide long-term services and employ many sub-contractors, typically construction or working in remote areas, and those placed on our Criticality Matrix due to the risk of violating human rights.

To monitor and verify compliance with the Corporate Conduct Principles and Standards governing the relationship between Furnas and its Suppliers, Furnas reviews the documents of its service providers and defines contractual clauses that allow it to investigate and audit supplier facilities and/or the location where services are provided at any time.

Contractual sanctions are enforced in the event any of the clauses are breached.

## Security personnel trained in human rights policies and procedures **GRI 410-1**

Furnas has a total of 557 security guards, nine of them are company employees and 548 are outsourced. All security personnel were trained in human rights policies and/or procedures during the year.

## Diversity, gender and equity

**GRI 102-12, 103-2, 103-3, 405-1**

5

The Brazil Network of the United Nations Global Compact announced the expansion of two fronts of the Equity as a Priority Program, which Furnas first joined in 2020: gender and racial/ethnic equity. Furnas will help develop the Diversity Census to identify the main diversity gaps in the company, and help create an action plan to reduce these gaps.

To expand understanding and awareness of diversity, especially among leaders, workshops were organized for the entire company. One of the goals was to encourage women in all teams and areas to participate in the recently launched project entitled **Driving women in leadership**. This initiative is part of the management selection program, and is in line with the company's commitment to having at least 30% women in senior leadership positions by 2030.

This program selected 75 women via a Bid, and two groups of 25 joined the project in 2021. The third group will start in 2022. This is a 12-month program based on awareness (via webinars) and training (employee development path based on analysis of their behavioral profile and training, as well as one-on-one and group coaching). After this, they will be monitored and trained to mentor other women. Right now, the company's leadership is 21% female, and women make up 18% of the workforce.

Other diversity highlights in 2021:

- Agreements with **employees with disabilities** (166) were renewed early in the year following in-depth legal and administrative research; and
- On **International Women's Day**, 11 female Furnas employees participated in a virtual event held together with NGO Inspiring Girls Brasil, which included a series of conversations on the successes and challenges of women in Science, Technology, Engineering, and Mathematics.

## EMPLOYEES TRAINED IN HUMAN RIGHTS

**GRI 412-2**

	2019	2020	2021
Hours of training	82,191	0	5,376
Percent employees trained	71.61	0	95.82

**In 2011, Furnas subscribed to the Women's Empowerment Principles, a UN women's initiative and part of the Global Compact.**

## BASIC SALARY (IN R\$)

GRI 405-2

	2019		2020		2021	
	Women	Men	Women	Men	Women	Men
Management positions	25,273.43	25,663.85	25,273.44	25,437.47	26,074.34	25,980.19
University graduates	11,102.34	12,231.94	11,244.71	12,371.04	11,948.47	13,167.58
Non-university graduates	6,818.4	6,817.3	6,870.91	6,803.43	7,302.26	7,200.12

## COMPENSATION (R\$)

	2019		2020		2021	
	Women	Men	Women	Men	Women	Men
Management positions	27,551.35	28,912.29	27,816.65	28,903.75	28,859.99	29,594.87
University graduates	13,815.31	17,396.53	13,642.7	15,203.33	14,555.62	18,012.11
Non-university graduates	8,741.08	12,953.21	8,029.47	9,135.81	9,106.78	11,604.09

## RATIO OF BASIC SALARY OF MEN TO WOMEN BY EMPLOYEE CATEGORY

	2019	2020	2021
Management positions	0.98	0.99	1
University graduates	0.91	0.91	0.91
Non-university graduates	1	1.01	1.01

## RATIO OF REMUNERATION OF WOMEN TO MEN BY EMPLOYEE CATEGORY

	2019	2020	2021
Management positions	0.95	0.96	0.98
University graduates	0.79	0.9	0.81
Non-university graduates	0.67	0.88	0.78

## INDIVIDUALS WITHIN THE ORGANIZATION'S GOVERNANCE BODIES, BY AGE GROUP

GRI 102-8, 405-1

		Management positions	University graduates	Non-university graduates
2019	Under 30	0	0	38
	30 to 50	148	725	983
	Over 50	60	348	530
	<b>Total</b>	<b>208</b>	<b>1,073</b>	<b>1,551</b>
2020	Under 30	0	0	22
	30 to 50	141	677	938
	Over 50	64	398	587
	<b>Total</b>	<b>205</b>	<b>1,075</b>	<b>1,547</b>
2021	Under 30	1	0	4
	30 to 50	131	624	901
	Over 50	81	429	631
	<b>Total</b>	<b>213</b>	<b>1,053</b>	<b>1,536</b>

## EMPLOYEES BY MINORITY GROUP\* AND POSITION

	Non-university graduates		University graduates		Management positions	
	Men	Women	Men	Women	Men	Women
Black, yellow, mixed-race and indigenous	446	28	150	65	20	3
People with disabilities	12	0	6	2	0	0

\*Furnas does not adopt any specific concept of what constitutes a minority.



Campinas Substation

# Communities

GRI 102-43, 408-1, 409-1, 411-1

8 10

Committed to its social vocation, Furnas has been improving its socioenvironmental policies by strengthening communication and improving the governance of resources dedicated to projects and actions to create value for this important stakeholder.

Once again, the pandemic required that certain interactions and monitoring of social projects underway be virtual. Furnas took this opportunity to increase the frequency of its communications and gather more information on community needs and demands, especially among those most affected by Covid-19 and the water crisis, and those living around our hydro plants.

Based on its targets plan, Furnas' social area defined methodology to outline strategic territories for actions, considering those locations where the company has greater scope and impact, or some 500 municipalities. In addition to projects selected directly, bids were organized in 2021 using the strategic territory criterion to select proposals favoring the municipalities that were more seriously affected by the water crisis.

The result was a map of priority actions in Minas Gerais, Mato Grosso, and Goiás, with some 30 projects underway and expected to continue through 2023.

## MG socioeconomic commitment

GRI 413-1

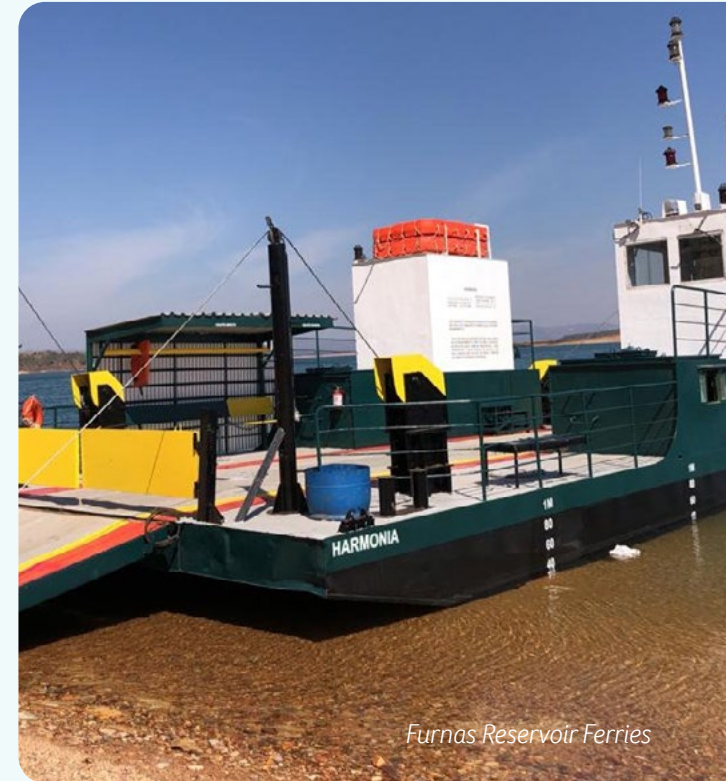
The Furnas support and representation office in Belo Horizonte has reopened. This is a key structure for the partnerships signed with the various municipalities located around the Furnas reservoir.

The company also strengthened its ties with Alago, the Association of Municipalities Along the Furnas Lake, creating more dialog and a protocol of intentions to make soil use and occupancy around the reservoir compatible with current laws, and is investigating the possibility that irregular settlements around the reservoir be allowed to stay, or if they must be entirely or partially removed.

Below are the main activities performed under this commitment in 2021, most of which will be completed in 2022:

### 1. Research and development (R&D) Projects

- Use of artificial intelligence to develop innovative approaches to the recovery and protection of springs and protected areas (2021 - 2024).
- Vessel Project: producing an electric propulsion system for a ferryboat to carry vehicles and passengers along the Mascarenhas de Moraes hydro dam, and another triptych catamaran-type to operate in the Guanabara Bay.
- Building Information Modeling (BIM): this technology was developed by the University of Uberlândia, and applies to substations integrated into the Geographic Intelligence and Enterprise Resource Planning System in Mascarenhas de Moraes (2020-2023).



Furnas Reservoir Ferries

- CTFU Innovation Center: consolidate the Southern Minas Innovation Hub, taking advantage of the facilities and competencies of the high-tech labs in São José da Barra, which have infrastructure and experience in promoting professional training and development activities for the energy industry. The next step is to connect with local universities to promote the development of local and regional companies, foster new business, and create a virtuous outlook for increased social and economic development for the region.

## 2. Ferries

Run a feasibility study for ferry concessions to serve the population of 17 municipalities in Minas Gerais. Currently Furnas is responsible for maintaining these ferries, which are operated by nine municipalities under agreement with the company.

## 3. Dredging the Piumhi river channel

Performing the jobs and services required to clean and maintain this channel in Minas Gerais. Its course was reversed in the fifties for the Capitólio dam, when the Furnas hydro plant was built.

## 4. Social programs

- Distribution of food vouchers to some **1,106 fish farmers and artisanal fishermen** in the Furnas and Mascarenhas de Moraes hydro reservoirs, impacted by low water levels due to current geo-climate conditions. Other projects will be selected for 2022, with the support or records made by the Care Program for Small Family Fishing Ventures and Artisanal Fishermen.
- **Agricultural Schools:** Training managers and educators in five municipalities to improve education based on environmental sustainability, in a partnership with Alago and Ameg, the Association of

Municipalities in the Mid-Grande River Micro-region. A pilot project will be implemented in 2022.

- **Planting the future at Santa Casa de Passos:** three thousand native saplings were donated, from the woods around UHE Furnas and/or UHE Estreito.
- The **Saving Lives** project led by the BNDES continued to distribute protective equipment, including surgical and disposable masks and gloves, hand sanitizer, aprons, caps, and other items. Forty-six hospitals in 32 municipalities around Furnas ventures in the following states benefitted: Rio de Janeiro, Minas Gerais, Goiás, São Paulo, Paraná, Mato Grosso, Espírito Santo, Ceará, Tocantins and the Federal District.



Estreito Hydro Plant

Refrigerators were purchased with the remaining funds in the project, and sent to a few municipalities to support vaccinations. Furnas donated the equipment to Hospital Municipal Dr. Waldemar de Alcântara, in Fortim (CE); Hospital Municipal de Itaberá (MG); and Hospital de Clínicas Nossa Senhora da Conceição, in Três Rios (RJ).



Integration Hubs project – Mogi das Cruzes, SP



Donations of hospital kits to Santa Casa da Misericórdia – Ibaraci, MG

## Extension of the Territorial Development Program

GRI 102-43

Created to drive the social and economic development of communities surrounding Furnas ventures, the program also aims to qualify, join, and increase the dynamics of the relationship between organized community groups, local governments, and civil society.

In 2021, local mobilization in these territories enabled keeping these community spaces, creating debate forums for the different social groups to set priorities for the local development of each one of them.

Five Community Integration Hubs were created in a partnership with Ibase, the Brazilian Institute for Social and Economic Analyses, to foster emancipation of low-income communities in a participative approach, giving voice to local social players and driving the development of the community base. These projects are located in the district of Nova Conquista, in Itatiaia, RJ, in the district of Cidade Nova in Foz do Iguaçu, PR, and Parque Mambucaba in Angra dos Reis, RJ.

These are monitored using Monitoring and Assessment (M&A) indicators, which indicate a stronger associative tissue, seeking community recognition of their own potential as the subjects of rights and transformation. The goal is to allow these communities to, democratically and independently, define the transformations in their territories, improving the quality of life of all those living in these locations.

## Contribution to SDG 8: Decent work and economic growth

The Training Program for work and income opportunities, the Business as Children’s Friend Program (Abrinq), and the *Mão Certa* (Childhood Brasil) program all address SDG 8 issues, especially the goal of full and productive work for men and women, fewer unemployed youth, and the elimination of slave-like work, people trafficking, and child labor.



## Sponsorships and Bids

In 2021 the company launched its first Bid Document for Socioenvironmental Projects for Eletrobras companies, a R\$ 4.2 million investment (R\$ 800 thousand put up by Furnas) for programs in the municipalities where there are power plants, substations, transmission lines, or administrative facilities, or are part of the hydro-plant river basins. The goal is to contribute to creating socioeconomic value in the communities, and preserve and recover the biodiversity of diverse regions in the country.

Two leading projects were selected - ANTOlogia [Anthology], in Cachoeiras de Macacu, RJ, and Água Limpa [Clean Water]: Traditional and Quilombola Families preserving the Environment in Acaiaca, MG, and two alternate projects: Restaura-Ação [Restoration]: ensuring ecosystem services in the Serra da Mesa region (Niquelândia, GO), and Energy das Mulheres da Terra [Energy of the Women of the Land] (Corumbá and

surroundings, GO). These projects are expected to run between 2021 and 2023.

## Capacity building and volunteering

- **Caregiver course:** classes to train people to be caregivers for children, the elderly, and people with disabilities are again in-person, abiding by all applicable health protocols. This group is made up of 50 participants, among them refugees.

- **Iara, an Environmental Intervention for Water Recovery:** mobilized volunteers from the environmental area and the Furnas Volunteer Program, city governments, and NGOs to clean the margins of reservoirs and streams in eight municipalities around the Furnas and Mascarenhas de Moraes plants, gathering some 500 kg of waste. In addition to cleaning and clearing, saplings of landscaping species were planted, as well as aquatic species that help de-pollute the water.



## Furnas Volunteer Program

Right now, 100 employees spend part of their time, work, and talent on socioenvironmental causes via the Furnas Volunteer program. The three action fronts are the Mentoring, Iara, and Social Vegetable Garden projects.

**PRIVATE SOCIAL INVESTMENT 2021**

<b>Social initiatives</b>	<b>R\$ 1.075.693,38</b>
<b>Social and environmental projects</b>	<b>R\$ 985.263,01</b>
Education	R\$ 262.964,00
Initiatives promoting civic engagement and rights	R\$ 10.000,00
Jobs and income	R\$ 481.794,09
Environment	R\$ 230.504,92
<b>Territorial Development Program</b>	<b>R\$ 90.430,37</b>
<b>Sports initiatives</b>	<b>R\$ 1.927.769,11</b>
Tax-Deducted Sports Sponsorship (Sports Incentive Law no. 11.438/06)	R\$ 1.927.769,11
<b>Human rights and diversity</b>	<b>R\$ 121.566,88</b>
Initiatives promoting children's and adolescent rights	R\$ 61.070,00
Initiatives promoting gender equity	R\$ 60.496,88
<b>Cultural initiatives</b>	<b>R\$ 4.339.000,00</b>
Tax-Deducted Cultural Sponsorship (Culture Incentive Law no. 8,313/91)	R\$ 4.339.000,00
<b>Sponsorship and events</b>	<b>R\$ 323.400,00</b>
<b>Voluntary initiatives</b>	<b>R\$ 156.472,97</b>
<b>Institutional initiatives</b>	<b>R\$ 1.713.013,23</b>
<b>Donations and contributions</b>	<b>R\$ 7.181.354,21</b>
<b>TOTAL INVESTMENT</b>	<b>R\$ 16.838.269,78</b>

## Management of community impact

**GRI 102-43, 103-2, 103-3, 413-1, 413-2**

**G4-EU20, EU21, EU22**

By fulfilling the environmental constraints imposed by the environmental bodies, including the requirement for Preliminary, Installation, and Operating permits, Furnas also fulfills its commitments to local communities.

Regarding the land-ownership situation, communities are identified and monitored in environmental impact studies (EIA/RIMA). The main goal is to remedy any negative impact caused by the ventures in these locations, either through compensation or through publicity and transparent processes. Community actions, disclosure of information regarding impact and procedures are part of the Basic Environmental Plan (PBA) for each venture, based on applicable legislation, ABNT assessment techniques, the programs and constraints approved by the environmental bodies, and the assessment of social impacts.

Those affected are identified and registered by name, address, and socioeconomic status. To avoid unnecessary travel, Furnas runs these surveys and socioeconomic studies in the area where the venture is located. To keep the population informed and hear their demands, meetings and public hearings are held with the environmental bodies.

Regarding works to rebuild transmission lines, these may cause potential impact regarding the expectations and uncertainties of the population, put pressure on essential services and infrastructure, and increased highway traffic. Possible impacts include

the vulnerability of rural communities based on the low level of formal jobs, low levels of education, and precarious health and education.

### Contingency and emergency plans

The contingency plans of each power plant include topics with the main risks events and premises, external emergency plans, external communication means, emergency plan testing, and specific emergency training for employees and suppliers. This plan complies with specific regulatory requirements and includes measures and instructions for environmental accidents, natural disasters, social issues, and IT issues.

The methodology used to prepare the Central Emergency Services Plan (Paec) fulfills the requirements of Law 9,605/1998 and other measures, as well as Conama Resolution 398.

## Operations with significant impact on the communities

UFV (photovoltaic plan) Batalha: the impact of building the photovoltaic plant is being mapped in the Simplified Environmental Impact Report (RAS). For reasons related to the engineering drawing, these services were added and the final report signaled significant possible negative impact, including uncertainty and expectations among the population, pressure on essential services and infrastructure, and pressure on road traffic.

In 2021 there were 166 operations, seven of them with engagement, impact assessment, and development programs focused on the local community, equivalent to 4.2% of the total. **GRI 413-1**

**Key**

- A. Social communication and interaction
- B. Environmental education
- C. Restoration of livelihoods

- D. Rehabilitation of disturbed land
- E. Institutional articulation
- F. Urban rehabilitation
- G. Public health
- H. Professional training

- I. Development of livelihood activities
- J. Improved public management
- K. Restoration of tourism and recreational activities
- L. Social support
- M. Support for affected communities

**IMPACT ON THE COMMUNITY GRI 413-1**

Type of activity/project*	Examples of impact**	Examples of mitigation/compensation measures
<b>Hydro, thermal, wind and solar plants and transmission systems</b>	Generate expectations among local and regional communities, and emerging/increased social tensions	A
	Restricted land utilization Restrictions on the use of rights-of-way and adjacent land	A, B, C, D
	Increased migration flows	A, B, E, F, G
	Economic stimulus	A, E, H, I
	Higher municipal tax revenue	A, E, I, J
	Increased offer of direct jobs during construction	A, E, H
	Increased technical and scientific knowledge about the region	A, B
<b>Hydro, wind and solar plants, and transmission systems</b>	Adverse effects on the tourism potential (degradation of scenic beauty)	A, K
	Adverse effects on scenic, paleontological, archaeological, and cave sites	A, B Paleontological and archaeological research, monitoring and salvaging, and protection of scenic and cave sites
	Impacts on traditional, indigenous and/or other ethnic communities	A Support for affected communities as outlined in Indigenous Component Studies and the Basic Project for Indigenous Components
<b>Hydro and wind</b>	Impact on ways of life and social and cultural relationships	A, B, L, M Patrimony valuation
	Increased real estate speculation	A, F

Type of activity/project*	Examples of impact**	Examples of mitigation/compensation measures
<b>Hydropower dams</b>	Compulsory relocation of urban and rural communities	A, M, C, L
	Loss of livelihoods (farming, non-timber forest products, mining, fishing)	A, M, C Qualification of fishing professionals, support for aquaculture projects
	Disruption/loss of transportation routes and communications systems	A Road improvements and repairs
<b>Thermal power plants</b>	Adverse effects on air quality from particulate and dust emissions, etc.	A Air quality monitoring, installation of equipment to reduce these emissions
<b>Wind farms</b>	Shadow flicker	Avoid developing wind farms near populated areas
<b>Solar farms</b>	Flash blindness	Avoid developing solar farms near populated areas
<b>Transmission lines</b>	Presence of maintenance crews on rights-of-way	A, B Specific initiatives addressed to indigenous communities
	Noise from transmission lines	A
	Increased vulnerability	A Territorial protection, strengthening of indigenous organizations (in the case of indigenous reserves), support for livelihood activities, awareness raising about the environment and indigenous peoples, environmental education

\* Where the impact is most likely to occur, but will not necessarily occur in every case. Regardless of the project stage.

\*\* The magnitude and scale of the impact depend on the size of the project and the region where it is developed.

## Population displacements

G4-EU22

In 2021, Furnas was not involved in any new corporate ventures requiring population displacements. Thus, there were no land releases.

## Traditional populations: Indigenous and Quilombola

GRI 102-43, 103-2, 103-3, 411-1, 413-1, 413-2

10 12

Furnas identifies and monitors the positive and negative impact of its ventures that may interface with indigenous peoples, with technical follow-ups and monthly monitoring reports. Once impact is identified, the situation is relayed to the relevant bodies so that mitigation, compensation, prevention, and remediation measures may be implemented to ensure exclusive access to the land to traditional peoples, discourage invasions, fight fires, and ensure the transfer of resources defined in applicable standards and agreements.

Covid-19-related restrictions for entering indigenous lands established in Funai Ordinance 419/2020, and Law 14,021/2020 remain in force. Videoconferences were organized with the main leaders, with weekly and remote dialog with indigenous monitors, when all of the demands were heard, along with general information on what was going on in the villages.

Furnas continued its Kaingang Infrastructure, Sports and Culture Project in the Queimadas indigenous lands in 2021, this includes construction of a community kitchen, a multi-use area, and a multi-sports center in the Kaingang territory, located in Ortigueira, PR. The three Kaingang communities – Sede, Campo, and Missões – were involved in a participative process to select the actions to be implemented in an agreement between Furnas, the Federal Prosecutor, and the National Indigenous Foundation (Funai).

This project is coordinated by the ÇaraKura Institute, which has been adapting their efforts due to the need for social isolation in the past two years due to Covid-19. In addition to continuing this project, which seeks to strengthen the ethnic and cultural identity of the Kaingang, develop social and livelihood activities, Furnas donated monthly baskets of food, helping feed the population in the indigenous lands during the pandemic.

## Contribution to SDG 12: Responsible consumption and production

In 2021 we organized three projects to launch Sustainable Development Goal 12: the Água Limpa [Clean Water] project designed to reach traditional and quilombola families by preserving the environment in Acaiaca, MG, the Restaura-Ação [Restoration] Project to ensure ecosystem services in Niquelândia, GO; and research and practice for ecological recovery adapted to climate change.

## Contributions to SDG 10: Reduce inequality

The initiatives and projects contributing to achieve Sustainable Development Goal 10 are: Integration Hub; Kaingang Infrastructure, Sports, and Culture Project, Saving Lives Program; Caregiver Course; and Internet of

Things Program. All share the same goals and targets: increase the income of the poorer population, promote social inclusion, ensure equal opportunities, and reduce inequalities.

**In 2021 there were no incidents where the rights of indigenous peoples were violated.**

# Customers and stakeholders

GRI 102-6, 102-42, 102-43

7 9 16

Energy generated by Furnas is sold via distributors, traders, and to free consumers, benefitting individuals and corporations. For this, it uses two trading environments: the ACR or Regulated Environment, with energy generation and distribution agents (including Ensured Output Quotas), ACL or the Free Environment, which includes generators, distributors, traders, importers, and exporters, along with free and special consumers.

Transmission transactions take place in the public utility (concession) environment and in the environment known as exclusive interest of the accessing user (other revenue). With capitalization, some customer strategies will result in increased free market negotiations, and increase the options available for retail energy sales.

## Reinforced communication

In 2021, because of the water crisis and capitalization, Furnas invested in in-house and external institutional disclosures to answer stakeholder questions. The company invested R\$ 7 million in campaigns about its business, stressing image and reputation building. Other important sources of communication were education and information campaigns, with instructions on the proper use of energy, and the importance of not throwing waste into reservoirs, of preserving the river basins, and the dangers of burning

to clear areas, and fire balloons (these in regards to nature and transmission lines).

Furnas also invested in a media strategy to expand its interactions with the various stakeholders of interest in 2021. Its growth in social networks was exclusively organic. The *website* had 887,220 unique visualizations in 2021, or 2,464/day. The website provides information about the company and its business, the environment, sustainability, services, culture, institutional and public interest publications, account rendering, dam safety, reservoir levels, care with transmission lines, and the rational use of water and electricity.

**In 2021, Furnas prioritized** campaigns about the business and media strategies to expand its interactions with its various stakeholders.

## Customer channels

The Furnas website includes a [Contact us](#) link, and links to the company [Ombusman](#). Direct contact with customers is handled by the areas that manage our sales agreements.

## Interactivity in 2021



### Twitter

19,195

followers in 2021, up 1% compared to 2020.

[twitter.com/Furnas](https://twitter.com/Furnas)



### Facebook

23,479

followers by late 2021, up 7.2% compared to 2020.

[facebook.com/FurnasEnergia](https://facebook.com/FurnasEnergia)



### YouTube

608

new registrations in 2021, up 17% compared to 2020, for a total of 4,090. As of December, there had been 776,800 views of the videos published (94,611 in 2020).

[youtube.com/CanalFurnas](https://youtube.com/CanalFurnas)



### Instagram

13,497

followers, up 9.4% compared to 2020.

[instagram.com/furnasenergia](https://instagram.com/furnasenergia)



### LinkedIn

72,877

followers, up 17.7% compared to 2020.

[linkedin.com/company/furnas](https://linkedin.com/company/furnas)



### Contact us

774 requests for miscellaneous information, 70% (544) answered by December 2021.

## Stakeholder engagement and survey

### GRI 102-43

Furnas continuously conducts surveys, trainings, technical and awareness events, and offers courses and campaigns via its communication channels to engage stakeholders. The company participates in the Eletrobras Group Integrated Customer Satisfaction Survey conducted every two years. The most recent survey was in the 2019/2020 period, and revealed that 90.11% of the respondents were satisfied. The average for all group companies is 87.98%.

**90.11% of customers satisfied with services\***

\*Most recent Eletrobras Group Integrated Customer Satisfaction Survey (2019/2020)



# PLANET

## MATERIAL TOPICS

- Climate change
- Water
- Biodiversity and ecosystem services

## CAPITAL



# Planet

7 13

No energy source is as efficient as hydropower, which accounts for 97% of our generation assets. Furnas recognizes the importance of this precious resource as a common good with multiple uses. We seek to reconcile our hydropower operations with other non-consumptive water uses, such as recreation, and consumptive uses, such as irrigation.

We also recognize the need to diversify our electricity matrix while keeping it renewable. As part of this, we have continued to invest in solar farms and, adding to our Fortim project, we are now preparing to implement

a wind project in Itaguaçu, Bahia. The only finite resource in our electricity mix is the natural gas we consume at our Santa Cruz thermal power plant.

Furnas is aligned with the Eletrobras Group Environmental Policy, which outlines Group commitments to minimizing emissions and the use of non-renewable energy sources. The policy is translated into a wide range of initiatives that support our environmental management efforts within the organization.

**In 2021 Furnas achieved an overall Corporate Sustainability Index (ISE B3) rating of 75.06, slightly less than our PDNG target of 76.80 (which was met in 2020).**



Funil Dam

# Environmental management

Furnas’ Environmental Policy sets out principles and guidelines on responsible business. In line with this policy, we establish a set of related targets in our Business & Management Plan (PNG), such as reducing electricity and water consumption in our administrative activities, fuel consumption in our vehicle fleet, and greenhouse gas emissions across all scopes.

Environmental risks are mapped and assessed under an Integrated Management Plan. Furnas uses an

Environmental Hazards, Risks, Aspects and Impacts (PRAI) spreadsheet as a tool to identify risks, minimize their severity, mitigate adverse impacts and/or enhance positive ones.

The environmental dimension of our IGS 2.0 software system, a Group-wide enterprise sustainability management tool, is used to document indicators and variables covering different environmental aspects.

## Waste management

Waste management at Furnas has been governed since 2010 by a Waste Management Policy conforming to the National Solid Waste Management Policy (PNRS) and other applicable regulations. Waste materials are tracked from source to disposal, and we seek to reuse or recycle all waste materials to the extent possible. As one of the tools introduced by our Waste Management Policy, we have developed Waste Management Plans for each project, in line with internal rules.

## Investments

In 2021 Furnas invested R\$ 124 million<sup>1</sup> in environmental preservation and conservation initiatives aligned with the environmental license covenants for our assets. We also carried out environmental impact assessments, and allocated funds to research and development and environmental education.

<sup>1</sup>Includes investments in environmental preservation and conservation, land indemnities in connection with projects, and investments in environment-related R&D projects. The figure reported in 2020 included only investments in disturbed land rehabilitation. In 2021 we invested R\$ 15 million in rehabilitation.



The Serra da Mesa reservoir

# Climate change

GRI 103-2, 103-3

13

Climate change and its consequences are increasingly high on business agendas, and have led to increased investment in the energy transition, R&D projects to develop smart solutions, preservation, and rehabilitation of natural resources.

In its approach to climate change, our Environmental Management function identifies and assesses impacts from our operation and maintenance activities, and prepares greenhouse gas (GHG) emission inventories, Environmental Hazards, Risks, Aspects and Impacts (PRAI) spreadsheets, and other related assessments and studies.

The primary goal in these efforts is to either reduce our greenhouse gas emissions or offset them through reforestation projects and renewable energy certificates. This helps to mitigate the negative impacts caused by our operations, and especially the Santa Cruz thermal power plant, our most emission-intensive asset.

**Climate change and its consequences** are addressed in our business strategies and decisions.

## SIGNIFICANT AIR EMISSIONS

GRI 305-7

	2019	2020	2021
NO <sub>x</sub>	52.09	541.98	583.59
CO	2.65	38.97	87.87

All figures are for emissions from the Santa Cruz thermal power plant.

## Emissions in 2021

Our emissions totaled 1,449,269.04 metric tons of CO<sub>2</sub> equivalent in 2021, largely consisting of scope 1 emissions (73.98% of the total), followed by scope 2 (26% of the total) and scope 3 (0.02% of the total) emissions. Furnas accounts for 17.49% of total Group emissions (8,288,650.13 t CO<sub>2</sub>).



Horto Serra do Facão

## GREENHOUSE GAS (GHG) EMISSIONS (tCO<sub>2</sub>e)

GRI 305-1, 305-2, 305-3

Scope	2019	2020	2021
Scope 1	1,249,522.20	590,709.45	1,072,154.83
Scope 2	322,936.30	242,403.66	376,837.38
Scope 3	1,103.90	71.95	276.84
<b>Total</b>	<b>1,573,562.40</b>	<b>833,185.06</b>	<b>1,449,269.04</b>

### Emissions by greenhouse gas (tCO<sub>2</sub>e)

HFCs	2020	2021
HFC-23	0	0
HFC-134a	0	0
HFC-152a	0	0

### Composite gases

	2020	2021
R401a	0	0
R407c	0	0
R410a	67.21	10.44

### Gases covered by the Montreal Protocol

	2020	2021
R-22	105.01	156.11
HCFC 123	0	0
R-141b	6.53	0.36

## Risks and opportunities

GRI 201-2

Climate change is among the risks listed in our Corporate Risk Matrix, and is currently treated by our management as a top priority. The matrix identifies potential causes and risk factors that require periodic monitoring and action. From a regulatory perspective, Furnas has identified risks relating to regulatory developments on climate change and water withdrawals which could potentially affect our generation operations.

Climate change-related physical risks include reduced rainfall, the primary factor underlying the water crisis in 2021, and changes in wind patterns and frequency, which could lead to transmission tower damage, which in turn would result in financial losses.

In the market environment, the primary risks are related to shifting consumer behavior and carbon-intensive projects becoming unfeasible as a result. Developing non-carbon intensive energy sources, such as [green hydrogen](#) — one of our flagship projects in the year — and implementing distributed generation and biomass projects are some of the main opportunities we have identified in the market.

Furnas has not yet assessed the financial implications of climate change risk factors, but has identified and classified a series of risks.

# Water

**GRI 103-2, 103-3, 303-1, 303-2, 303-4, 303-5**

We rely on water for both our operational and our administrative activities. The water flowing through our hydropower plants is not consumed and is returned in its entirety to the downstream water body at a higher level of quality than at the intake.

Water for consumption that is not sourced from local utilities may be withdrawn from surface or groundwater bodies, and treated at a water treatment plant or via a simplified treatment method, such as chlorination. Water supplied by electric utilities is pre-treated.

Following use and appropriate treatment, wastewater is discharged to recipient water bodies or infiltrated into the soil. Our stormwater systems are designed to prevent erosion and sediment transport under normal rainfall conditions. Some sites have systems for reducing rainwater and effluent runoff velocity, such as stormwater basins, stepped chutes, physical barriers and contouring, which increase water infiltration into the soil and/or channel the runoff safely to recipient water bodies.

Water and effluent quality is periodically monitored and the results are compared against the potability and discharge standards established in CONAMA Resolution 430/2011. Water sampling and testing methods conform to Brazilian and international standards, such as the Standard Methods for the Examination of Water and Wastewater and ABNT standards.

Furnas uses the IGS 2.0 System (Environmental Dimension) and works closely with working groups under the Environment Committee (CMA) to manage the complex process of analyzing, mitigating or remediating negative impacts. The methods used in water and effluent (sanitary and industrial wastewater and stormwater) quality management are outlined in each site’s Effluent and Water Quality Monitoring Plan.

We use Environmental Hazards, Risks, Aspects and Impacts (PRAI) spreadsheets to identify existing controls and recommend measures to address impacts from wastewater discharge into water bodies based on the severity and frequency of those discharges. The PRAI uses a matrix to determine the severity of impacts from each site’s operations.

## Integrated management

**GRI 303-3**

Efficient and integrated water governance is ensured by guidelines outlined in the Eletrobras Group Environment and Water Resource Policy and the Furnas Environmental Policy.

In its Strategic Plan 2020-2035, Eletrobras has prioritized nine Sustainable Development Goals (SDGs) within the UN’s 2030 Agenda, including SDG 7 – Affordable and Clean Energy, SDG 13 – Climate Action, and SDG 15 – Life on Land, which are directly related to water stewardship. Performance indicators and targets have been set for each of the prioritized SDGs, and these are periodically monitored by senior management at the strategic and tactical level.



Estreito dam

They are also included in the Eletrobras Business & Management Master Plan (PDNG) and Furnas' corresponding Business & Management Plan (PNG).

The water-related target set in the PDNG is to reduce utility water consumption by 0.3% from a prior-year baseline.

Other initiatives may be proposed to reduce, mitigate, remediate and/or offset impacts identified in assessments, in order to prevent risks, in accordance with the principles and guidelines established in the Eletrobras Group Environmental Policy. During operation, monitoring activities may indicate the need for further action and investments in technology and operational processes to mitigate impacts.

The type, nature, extent, duration, reversibility and magnitude of impacts depends on the type, size and siting of the relevant asset. The table opposite shows the impacts most commonly associated with each type of project, and actions that Eletrobras Group companies can take to address each of them.

### IMPACTS ON WATER

Type of operation*	Examples of impacts**	Examples of mitigation/compensation measures
<b>Hydropower dams</b>	Changes in hydro-sedimentological dynamics	Hydro-sedimentological monitoring program
	Changes in rainfall patterns/ Reduced downstream streamflow	Hydro-sedimentological monitoring program
	Changes in groundwater levels	Hydrogeological monitoring program/ Groundwater level and quality monitoring program
	Conversion of river ecosystems from lotic to lentic	Water quality monitoring program
	Changes in surface water quality	Water quality monitoring program
	Riverbank erosion downstream of the reservoir	Erosion monitoring/Rehabilitation of riparian vegetation
	Multiple reservoir uses	Environmental preservation and usage plan for artificial reservoirs (PACUERA)
<b>Thermal power plants</b>	Water consumption in the generation process	Water consumption and quality monitoring program
	Potential water contamination by waste/Oil spills	Water quality monitoring program/ Emergency Response Plan
	Varying temperature, turbidity and pH in discharged water	Water and effluent quality monitoring program
<b>Transmission lines and substations</b>	Consumptive water use in the transmission process/ Consumptive water use in current conversion	Water consumption and quality monitoring program/ Use of additives in cooling water to increase the number of cycles through the substation towers
<b>Floating solar farms (on reservoirs)</b>	Oil leaks (from collapsing equipment)	Contingency Plan/Bunding

\* Where the impact is most likely to occur, but will not necessarily occur in every case. Regardless of the project stage.

\*\*The magnitude and scale of the impact depend on the size of the project and the region where it is developed.

## Emergency preparedness and dam safety plans

### GRI G4-EU21

An Integrated Management Plan (IMP) is developed for each of our projects to ensure compliance with applicable regulations and technical standards on waste, water and effluent monitoring, emergency response, and assessment of hazards and risks, aspects and impacts.

For dam facilities, Furnas has a Dam Safety Protocol and exercises continuous management under a Dam Safety Plan (DSP) that is stringently followed in monitoring structural stability and assessing the condition of our dams and their appurtenant structures.

Furnas' engineering staff conduct periodic dam safety inspections, which are supplemented by assessments of dam structure stability. These activities are documented in technical inspection and stability assessment reports, at a frequency suited to the characteristics of each dam.

These reports and the Emergency Response Plan (ERP) are stored in the dam's archives and are made available to the National Power Sector Agency (ANEEL) in accordance with the National Dam Safety Policy (PNSB). Our dams and facilities have also been periodically inspected by ANEEL against site-specific criteria based on the structure's integrity and operating functionality.

## Volume of water discharged

### GRI 303-4

Each of our facilities monitors the effluents generated on site using best-practice standards and methods. In 2021 our facilities discharged 2,283,688,918 m<sup>3</sup> (2,846,016.000 m<sup>3</sup> in 2020) into rivers and areas with water stress.

Total water discharge in 2021 was 159,559,399,412 m<sup>3</sup> (228,595,172,71 m<sup>3</sup> in 2020).

The water discharge volumes reported by Eletrobras Group companies in 2021 include the volume of turbinated water flow through hydropower dams, the volume of water returned to the rivers and oceans from the hydropower dams, and the volume of water used in aquaculture and protected areas, as well as 80% of the volume of water used for administrative activities. The volume of water consumed is the amount of water used in thermal generation and 20% of the water used in administrative activities.

## Water consumption

### GRI 303-5

Water consumption data are obtained from the IGS 2.0 System (Environmental Dimension), a Group-wide enterprise sustainability management tool that is used to document indicators and variables covering different environmental aspects, including water. Measurements may be made directly or by estimation, in line with best-practice standards and methods.



Furnas dam

In 2021 our operations consumed **3,287.64 thousand m<sup>3</sup>** (313.08 thousand m<sup>3</sup> in 2020) of water.

## WATER WITHDRAWAL

GRI 303-3

Total volume of water withdrawal across all areas (and thousands of m <sup>3</sup> )	2019	2020	2021
<b>Administrative activities</b>			
Utility water	154.46	155.84	153.86
Groundwater	66.22	157.24	121.19
Surface water	2,731.99	247.48	2,562.99
No water meter available (consumption estimated)	NA	NA	7.29
<b>Thermal generation</b>			
Surface water	58.99	59,840.43	82,565.68
Rainwater harvested	0.12	0	0
<b>Hydropower</b>			
Surface water	NA	228,535,084.80	159,477,276.04
<b>Total</b>	<b>3,011.78</b>	<b>228,595,485.80</b>	<b>159,562,687.05</b>

# Biodiversity and ecosystem services

GRI 103-2, 103-3

15

Furnas has a team dedicated to annually reporting and monitoring initiatives around biodiversity and ecosystem services. The results are reflected in sustainability indices, management reports and voluntary commitments. As a signatory of the Brazilian Business Commitment to Biodiversity, we have also pledged to report on our performance against biodiversity targets on an annual basis.

Several projects were launched in 2021 to contribute to the conservation of life on land and ecosystem services. One is a fauna monitoring project designed to align the monitoring activities under our environmental licenses with a national strategic conservation plan. Another highlight in the year was a call for social and environmental projects revolving around the conservation of Brazilian biodiversity and ecosystem services.

## Impacts from our operations

GRI 304-2

For every new project, or changes to an existing project, Furnas applies for an environmental license from the appropriate (municipal, state or federal) agency, and develops an inventory of local fauna and flora in accordance with applicable regulatory requirements. Most impacts occur during the construction of generation and transmission projects. In relation to biodiversity, our management approach includes actions to avoid, mitigate and/or remediate impacts.

In the construction of **hydroelectric dams**, the primary impacts on biodiversity occur as a result of the impoundment of the river and the flooding of its banks, potentially causing loss of habitat for local wildlife, as well as modifying ecosystems in the affected stretch of the river.

In the case of **thermal power plants**, because they were built before the environmental licensing framework came into effect, we are unable to accurately determine the impacts on biodiversity that occurred during construction.

The construction and operation of **transmission lines (TLs)** and **substations (SSs)** has a lesser impact on biodiversity. The most significant impact from TLs is habitat fragmentation, although Furnas currently uses a special method for building transmission lines running through forest patches to mitigate this impact.

In 2021 we initiated the environmental licensing process at IBAMA for the Campos II thermal power plant, which will be built in an area adjacent to the Campos thermal power plant. An environmental impact assessment, including physical, biotic, social and economic impacts, is being carried out for this project. This assessment is due to be completed in 2022.

Another three projects have also initiated their environmental licensing process: the photovoltaic solar farms at the Batalha and Luiz Carlos Barreto de Carvalho hydroelectric dams, with impacts on biodiversity described in a Simplified Environmental Report (RAS).



Furnas Archives

## IMPACTS ON BIODIVERSITY

Type of operation	Examples of direct impacts	Duration	Reversibility	Examples of indirect impacts	Species affected	Actions/programs to avoid, reduce and/or offset impacts
<b>Hydropower dams</b>	Conversion of river ecosystems from lotic to lentic	Permanent in reservoir area	Irreversible in reservoir area	Changes in water quality	Species of fish, aquatic mammals, reptiles, amphibians, benthic and planktonic organisms, and aquatic plant species	Water Quality Monitoring Program
				Loss of aquatic habitats		Monitoring and rehabilitation initiatives, and Environmental Offset Programs
				Macrophyte proliferation		Water quality monitoring, macrophyte monitoring and removal
				Loss and/or replacement of aquatic species		Aquatic fauna monitoring and management programs and Environmental Offset Program
				Reduction of fish stocks		Reproduction and restocking initiatives
<b>Hydropower dams, solar farms, transmission lines, wind farms</b>	Loss of vegetation cover	Permanent in the plant/reservoir area	Irreversible in the plant/reservoir area	Forest fragmentation	Species of plants, terrestrial mammals, birds, reptiles, amphibians and insects	Disturbed Land Rehabilitation Program, germplasm banks, forest rehabilitation in an area adjacent to the plant, and the Environmental Offset Program
				Loss of terrestrial habitats		Monitoring and rehabilitation initiatives, and Environmental Offset Programs
				Loss of flora and fauna diversity		Aquatic fauna and flora monitoring and management programs, germplasm banks, and Environmental Offset Programs
				Reduction of land wildlife populations		Reproduction and restocking initiatives

Type of operation	Examples of direct impacts	Duration	Reversibility	Examples of indirect impacts	Species affected	Actions/programs to avoid, reduce and/or offset impacts
<b>Hydropower dams, solar farms, transmission lines, wind farms</b>	Changes in ecosystems/habitats	Permanent in the plant/reservoir area	Irreversible in the plant/reservoir area	Loss of flora and fauna diversity	Species of plants, terrestrial mammals, birds, reptiles, amphibians, insects, aquatic mammals, fish, and benthic and planktonic organisms	Support in creating and/or maintaining protected areas; fauna and flora monitoring programs; fauna and flora management; conservation programs for threatened species; germplasm banks; and Environmental Offset Program
<b>Hydropower dams</b>	Impacts on fish migration	Permanent in dam area	Irreversible in dam area	Isolation of fish populations	Fish species	Fish monitoring; fishways; fish fauna management
				Loss of and/or changes in fish species		Fish monitoring and management programs and reproduction and restocking initiatives
<b>Transmission lines, wind farms</b>	Interference with bird and bat populations	Permanent in the area occupied by the power lines/tower	Irreversible in the area occupied by the power lines/tower	Death of birds and bats	Bird and bat species	Siting wind farms away from migration routes; installing signaling equipment to prevent collisions

# Long-standing stewardship of **biodiversity**

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

**2003**

COMASE is renamed as the Eletrobras Group Environment Committee, its present designation



**2012**

Biodiversity indicators and variables are incorporated in the Environmental Dimension of the IGS System<sup>1</sup>



**2019**

We join the Brazilian Business Council for Sustainable Development (CEBDS)<sup>2</sup>



**2020**

We sign up to the Business for Nature's Call to Action to reverse nature loss by 2030



**2006**

A working group is created to address issues related to aquatic resources and biodiversity



**2012**

Biodiversity guidelines are included in the Eletrobras Group Environmental Policy



**2020**

We prioritize the Sustainable Development Goal 15 – Life on Land



**SDG 15**

**2021**

Targets to expand biodiversity conservation initiatives



## Our targets

Our goals focus on four pillars

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

## Our protection network



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



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



Examples include: our first call for environmental conservation projects in the Cerrado and Atlantic Forest biomes; Avá-Canoeiro Indian Reservation.

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

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

## Species in areas affected by operations

GRI 304-3, 304-4, G4-EU13

We periodically monitor the wildlife present at our project sites, under dedicated programs, to detect any changes in the dynamics of endangered species. Species are classified in accordance with the IUCN (International Union for Conservation of Nature) Red List of Threatened Species and conservation lists published by the Brazilian Ministry of the Environment. In 2021 we carried out activities within three wildlife conservation programs:

- **Bare-faced Curassow** (*Crax fasciolata*, IUCN-listed as vulnerable) **and Aracuã** (*Ortalis remota*, MMA-listed as critically endangered) **Conservation Program.** This program has been implemented in the area of influence of the Marimbondo dam. The first phase of the program was completed in 2020, and the second began in 2021 and is scheduled to be completed in 2023. The program has been reported by IBAMA;

- **Small Feline Conservation Program** (for target species including *Leopardus tigrinus*, IUCN-listed as vulnerable, and *Leopardus colocolo*, IUCN-listed as near threatened). This program has been implemented in the area of influence of the Batalha hydroelectric project. The program was initiated in 2021, and is due to be completed in 2023; and

- **Bird Conservation Program** in the area of influence of the 750 kV Itaberá-Tijuco Preto III Transmission Line, for the protection of endemic, rare and threatened Atlantic Forest bird species. A total of 21 threatened and near-threatened species were identified across two campaigns in 2021, including 15 threatened at the state level (four endangered, four vulnerable

and seven near-threatened); nine at the national level (one endangered, four vulnerable and four near-threatened), and 15 at the global level (four vulnerable and 11 near-threatened).

Reforestation programs are at an initial phase. There are therefore insufficient inputs by which to assess variables.

**We periodically monitor the fauna present at our project sites** to detect any changes in the dynamics of endangered species.



Furnas Archives

# About this report

GRI 102-12, 102-49, 102-50, 102-52

This report describes our activities and results in the period from January 1 to December 31, 2021, and has been prepared in accordance with the Global Reporting Initiative (GRI) Standards: Core option.

The report provides an integrated account of our economic, environmental, social and governance (EESG) performance, in line with internationally recognized standards and best practices, including:

- the GRI Standards;
- the integrated reporting framework of the International Integrated Reporting Council (IIRC);
- industry-specific standards – Sustainability Accounting Standards Board (SASB);
- recommendations of the Task Force on Climate-related Financial Disclosures (TCFD);
- the Sustainable Development Goals (SDGs); and
- the United Nations (UN) Global Compact principles.

In addition to the above, the report also draws guidance from: “Annual reports: a guide on integrated reporting”, published by the Federal Audit Court (TCU); and the

“Annual and Sustainability Reporting Guidelines for Electric Utilities”, published by the Brazilian power sector regulator, ANEEL. Because it includes all ANEEL-required information and disclosures, this report is equivalent to an “Annual Sustainability Report for Electric Utilities”.

[Learn more](#) about the GRI framework and the concepts and assumptions used in our report.

## Institutional transparency

In addition to our Annual Report 2001, other reporting information and documents, such as our Management Report and Financial Statements, are available on the [Transparency & Accountability Portal](#). The portal provides information about our planning and management, corporate integrity, operating and economic performance, and our key programs, projects, initiatives and activities.



Campinas Substation

# Materiality assessment

GRI 102-21, 102-42, 102-43, 102-44, 102-46, 102-47, 103-1

Eletrobras' 2021 materiality matrix informs the contents of all Group reports. A survey of 1,074 internal and external stakeholders informed the contents and boundaries of the material topics.

These surveys are carried out every two years jointly with other Eletrobras group companies, under the oversight of our parent company.

The Eletrobras Group Stakeholder Communication and Engagement Policy guides the definition of which stakeholders to engage with in the materiality assessment process.

The Eletrobras Group materiality assessment consisted of four steps (see the infographic below for details).

Our materiality assessment survey involved **1,074** stakeholders

Following internal validation, 11 material topics were selected to report, manage and monitor, and another 6 were selected as being material—they may or may not be reported on depending on their relevance to each Group company. In 2020 the list contained 16 material topics, meaning they have been effectively narrowed and prioritized in a way that will improve our management of selected topics this year.

## List of material topics GRI 102-47

### Governance

Governance, integrity and ethics  
Risk management

### Prosperity

Technology and innovation

### People

People management and development  
Health, Safety and Well-being  
Human rights  
Communities

### Planet

Water  
Biodiversity and ecosystem services  
Climate change  
Energy transition

The report additionally addresses the following relevant topics:

- Waste
- Suppliers\*
- Customers
- Regulatory context
- Nuclear safety

*\*Furnas has selected Suppliers as a relevant topic to be covered in this report.*

## Assurance

GRI 102-56

The non-financial information in this report has been assured by an independent third-party under the oversight of the Executive Board and the Board of Directors in accordance with international assurance standards. The current report has been assured by PwC. [Read the Assurance Report here.](#)

# Eletrobras Group Materiality Assessment

GRI 102-21, 102-46

## 1. Identification

- Map out the **company's relationship channels**
- Build a list of **18 topics** describing the primary impacts from the Eletrobras Group's activities, based on benchmarking against the leading players in the global power sector

## 4. Approval

- Approval** of the final list by the Strategy, Governance & Sustainability Committee and the Board of Directors



## 2. Analysis

Collect the views of different stakeholders through:

- An online survey to **rate the material topics** on a scale of high impact to low impact
- Deep-dive interviews** with Eletrobras executives and independent experts
- Surveys using Eletrobras' communication channels:** Ombudsman's Office, Investor Relations, Social Media and Contact Us

## 3. Prioritization

- Refine the topics** and assign weights to responses based on the perspectives of experts vs. executives
- An **Eletrobras Group workshop** attended by the Executive Sustainability Management Committee and

**70** representatives to prioritize the material topics

## List of material topics

GRI 102-47

SDGs

### People

- Communities **7, 10, 11, 16**
- Human rights **4, 8, 9, 10, 16**
- Health, safety and well-being **3, 7, 8**
- People management and development **4, 7, 10, 11, 16**

### Planet

- Water **6, 12, 13**
- Climate change **3, 7, 11, 12, 13, 15**
- Energy transition **7, 9, 13**
- Biodiversity and ecosystem services **14, 15**

### Governance

- Risk management **12, 16**
- Governance, integrity and ethics **12, 16**

### Prosperity

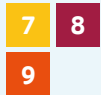
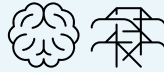


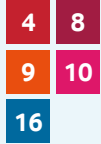

- Technology & Innovation **7, 8, 9**

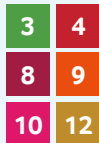







11 material topics

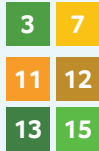



## Material topics and their boundaries

GRI 102-44, 102-46, 103-1

The boundaries of the topics in the materiality matrix denote where the impacts from our operations occur, what stakeholders are affected, and what capitals they relate to, based on the International Integrated Reporting Framework.

	Material topic	Why the topic is material	Where it occurs	SDG*	Capital	Linkage to other frameworks	Stakeholders**
<b>Prosperity</b>	Technology and innovation	Research and development activity aimed at providing reliable electricity and promoting sustainable development; deployment of new technologies to transform business processes and improve the security, integrity, reliability and protection of digital information; and initiatives to make the supply chain and electricity consumption more efficient, creating positive environmental impacts.	Within and outside the organization			TCU DJSI SASB ISE Global Compact	<ul style="list-style-type: none"> <li>• Workforce</li> <li>• Leadership team</li> <li>• Customers</li> <li>• Suppliers</li> <li>• Government</li> <li>• Investors</li> <li>• Society</li> <li>• Opinion makers</li> </ul>
<b>People</b>	Communities	Engagement with local communities—persons or groups of persons living and/or working in any areas that are impacted by an organization’s operations.	Outside the organization			TCU DJSI ISE	<ul style="list-style-type: none"> <li>• Communities</li> <li>• Opinion makers</li> <li>• Leadership team</li> </ul>
	Human rights	Respect for and promotion of human rights, and implementing mechanisms to identify, prevent, monitor and mitigate actual or potential human rights impacts.	Within and outside the organization			TCU DJSI ISE Global Compact	<ul style="list-style-type: none"> <li>• Workforce</li> <li>• Suppliers</li> <li>• Communities</li> <li>• Government</li> <li>• Society</li> <li>• Influencers</li> </ul>

	Material topic	Why the topic is material	Where it occurs	SDG*	Capital	Linkage to other frameworks	Stakeholders**
People	People management and development	Activities related to people management, careers, development and termination.	Within the organization			TCU DJSI ISE Global Compact	<ul style="list-style-type: none"> <li>• Employees</li> <li>• Investors</li> <li>• Opinion makers</li> <li>• Leadership team</li> <li>• Workforce</li> </ul>
	Health, safety and well-being	Creating a safe and healthy environment for all employees.	Within and outside the organization			TCU SASB ISE	<ul style="list-style-type: none"> <li>• Workforce</li> <li>• Leadership team</li> <li>• Communities</li> <li>• Suppliers</li> <li>• Customers</li> <li>• Opinion makers</li> </ul>
Planet	Water	Managing water-related impacts.	Within and outside the organization			TCU SASB DJSI ISE	<ul style="list-style-type: none"> <li>• Communities</li> <li>• Shareholders</li> <li>• Customers</li> <li>• Opinion makers</li> <li>• Leadership team</li> <li>• Workforce</li> <li>• Suppliers</li> <li>• Government</li> <li>• Society</li> </ul>
	Biodiversity and ecosystem services	Biodiversity conservation and preservation.	Within and outside the organization			TCU SASB DJSI ISE	<ul style="list-style-type: none"> <li>• Communities</li> <li>• Society</li> <li>• Opinion makers</li> </ul>

	Material topic	Why the topic is material	Where it occurs	SDG*	Capital	Linkage to other frameworks	Stakeholders**
Planet	Climate change	Greenhouse gas mitigation and climate change adaptation.	Within and outside the organization			TCU SASB TCFD ISE	<ul style="list-style-type: none"> <li>• Investors</li> <li>• Communities</li> <li>• Suppliers</li> <li>• Customers</li> <li>• Leadership team</li> <li>• Opinion makers</li> <li>• Workforce</li> <li>• Government</li> <li>• Society</li> </ul>
	Energy transition	The role of the power sector in a low carbon economy. Using clean and renewable energy sources, and decarbonizing the energy mix.	Within and outside the organization			TCU SASB TCFD Global Compact	<ul style="list-style-type: none"> <li>• Investors/shareholders</li> <li>• Leadership team</li> <li>• Customers</li> <li>• Opinion makers</li> <li>• Suppliers</li> <li>• Government</li> <li>• Society</li> </ul>
Governance	Governance, integrity and ethics	The system by which the company is managed, monitored and incentivized, involving relationships between senior management, law enforcement and control agencies, and other stakeholders; embedding social and environmental aspects in decision-making, anti-corruption policies and procedures, and ethics management, based on the organization's principles, standards and norms of behavior.	Within the organization		Not related to an IR capital, but to governance, which spans across and underpins all value creation activities.	TCU <i>Pró-Ética</i> ISE DJSI	<ul style="list-style-type: none"> <li>• Workforce</li> <li>• Investors/ shareholders/market analysts</li> <li>• Communities</li> <li>• Media</li> <li>• Customers</li> <li>• Opinion makers</li> <li>• Leadership team</li> <li>• Suppliers</li> <li>• Government</li> <li>• Society</li> </ul>

	Material topic	Why the topic is material	Where it occurs	SDG*	Capital	Linkage to other frameworks	Stakeholders**
<b>Governance</b>	Risk management	Having an architecture in place at the company to effectively manage risks, helping to prevent events from materializing that could adversely impact strategic objectives.	Within and outside the organization	 		TCU SASB TCFD DJSI ISE	<ul style="list-style-type: none"> <li>• Workforce</li> <li>• Leadership team</li> <li>• Investors/ shareholders/market analysts</li> <li>• Communities</li> <li>• Society/media/ opinion makers</li> <li>• Partners/sponsors/ suppliers</li> <li>• Governments/ congress/regulators</li> <li>• Customers</li> </ul>

\*SDG 17 cuts across all other SDGs.

\*\*Stakeholders that are affected by and/or prioritized the topic in the materiality assessment (we included a “leadership team” stakeholder category, which may include members of the Executive Board, the Board of Directors and the Fiscal Board).

\*\*\*The energy transition, although falling under the Planet pillar in the Sustainability Framework, is presented in this report under the Prosperity pillar to make the report more fluid.



# GRI CONTENT INDEX



# GRI CONTENT INDEX GRI 102-55

Disclosure	Page/URL	Omission	SDGs
<b>GENERAL DISCLOSURES</b>			
<b>GRI 101: Foundation 2016</b>			
101 contains no disclosures			
<b>GRI 102: General disclosures 2016</b>			
<b>Organizational profile</b>			
102-1 Name of the organization	<a href="#">9</a>		
102-2 Activities, brands, products, and services	<a href="#">9</a>		
102-3 Location of headquarters	<a href="#">9</a>		
102-4 Location of operations	<a href="#">9</a> . Brazil.		
102-5 Ownership and legal form	<a href="#">9</a> . A privately held, mixed-ownership company controlled by Centrais Elétricas Brasileiras S.A. (Eletrobras), founded under Federal Decree 41 066 on February 28, 1957.		
102-6 Markets served	<a href="#">9</a> , <a href="#">10</a> , <a href="#">82</a>		
102-7 Scale of the organization	<a href="#">9</a> , <a href="#">10</a> , <a href="#">35</a> , <a href="#">36</a> , <a href="#">39</a> , <a href="#">42</a> , <a href="#">57</a>		
102-8 Information on employees and other workers	<a href="#">57</a> , <a href="#">58</a> , <a href="#">72</a>		8, 10
102-9 Supply chain	<a href="#">52</a> . Our main suppliers are in areas such as technology, information systems, telecommunications, engineering, manufacturing, transportation, reselling, power system equipment, consulting, and janitorial and security services. In our procurement and supply-chain processes, we implement initiatives to support the Sustainable Development Goals (SDGs) within the United Nations' (UN) Agenda 2030.		
102-10 Significant changes to the organization and its supply chain - TCU	There were no significant changes to the organization and its supply chain.		

Disclosure	Page/URL	Omission	SDGs
102-11 Precautionary principle or approach	Furnas uses the precautionary principle in preventing social and environmental risks and implementing action to avoid impacts on the environment, communities and society. To this end, we exercise continuous risk management in accordance with the Eletrobras Group Risk Management Policy, under the oversight of the Eletrobras Group Risk Committee. We periodically identify, classify, assess exposure to, measure, address and monitor social and environmental risks.		
102-12 External initiatives	<a href="#">70</a> , <a href="#">98</a> , <a href="#">128</a>		
102-13 Membership of associations	<a href="#">128</a>		
<b>Strategy</b>			
102-14 Statement from senior decision-maker	<a href="#">5</a>		
102-15 Key impacts, risks, and opportunities	<a href="#">19</a> , <a href="#">20</a>		
102-16 Values, principles, standards, and norms of behavior	<a href="#">12</a>		16
<b>Ethics and transparency</b>			
102-17 Mechanisms for advice and concerns about ethics	<a href="#">13</a> , <a href="#">22</a>		16
<b>Governance</b>			
102-18 Governance structure	<a href="#">14</a> , <a href="#">15</a>		
102-19 Delegating authority	<a href="#">14</a>		
102-20 Executive-level responsibility for economic, environmental, and social topics	<a href="#">15</a> , <a href="#">24</a> , <a href="#">30</a>		
102-21 Consulting stakeholders on economic, environmental, and social topics	<a href="#">99</a> , <a href="#">100</a>		16
102-22 Composition of the highest governance body and its committees	<a href="#">14</a>		5, 16
102-23 Chairman of the highest governance body	The chair of the highest governance body is not an executive officer.		16

Disclosure	Page/URL	Omission	SDGs
102-24 Nominating and selecting the highest governance body	<a href="#">15</a>		5, 16
102-25 Conflicts of interests	<a href="#">22</a>		16
102-26 Role of highest governance body in setting purpose, values, and strategy	<a href="#">15</a>		
102-27 Collective knowledge of highest governance body	<a href="#">15</a>		
102-28 Evaluating the highest governance body's performance	<a href="#">15</a>		
102-29 Identifying and managing economic, environmental, and social impacts	<a href="#">19</a> , <a href="#">20</a> , <a href="#">24</a> , <a href="#">30</a>		16
102-30 Effectiveness of risk management processes	<a href="#">15</a> , <a href="#">18</a> , <a href="#">19</a>		
102-31 Review of economic, environmental, and social topics	<a href="#">15</a> , <a href="#">19</a> , <a href="#">20</a>		
102-32 Highest governance body's role in sustainability reporting	<a href="#">15</a> . Board of Directors.		
102-33 Communicating critical concerns	<a href="#">15</a>		
102-35 Remuneration policies	<a href="#">15</a>		
102-36 Process for determining remuneration	<a href="#">15</a>		
102-37 Stakeholders' involvement in remuneration	<a href="#">15</a> . A common salary matrix is used for all Eletrobras Group companies, developed whenever possible based on market research in the power sector.		16
102-38 Annual total compensation ratio	<a href="#">62</a>		
102-39 Percentage increase in annual total compensation ratio	1.41		

Disclosure	Page/URL	Omission	SDGs
<b>Stakeholder engagement</b>			
102-40 List of stakeholder groups	The Eletrobras Group Stakeholder Communication and Engagement Policy ensures we maintain continuous engagement with stakeholders and collect their views on expectations regarding our projects and activities. The stakeholders listed in the Policy are: employees/their families, investors/shareholders/market analysts, communities, society, media/opinion makers, partners/sponsors/suppliers, governments/congress/regulators, and customers.		
102-41 Collective bargaining agreements	All employees are covered by collective bargaining agreements.		8
102-42 Identifying and selecting stakeholders	<a href="#">82</a> , <a href="#">99</a>		
102-43 Approach to stakeholder engagement	<a href="#">73</a> , <a href="#">75</a> , <a href="#">78</a> , <a href="#">81</a> , <a href="#">82</a> , <a href="#">83</a> , <a href="#">99</a>		
102-44 Key topics and concerns raised	<a href="#">99</a> , <a href="#">101</a>		
<b>Reporting practices</b>			
102-45 Entities included in the consolidated financial statements	<a href="#">33</a> . Furnas' financial statements include all subsidiaries (Transenergia Goiás S.A. and Brasil Ventos Energia S.A.) and Special-Purpose Entities (SPEs).		
102-46 Defining report content and topic Boundaries	<a href="#">99</a> , <a href="#">100</a> , <a href="#">101</a>		
102-47 List of material topics	<a href="#">99</a> , <a href="#">100</a>		
102-48 Restatements of information	Restatements of information and assumptions in the previous report are flagged throughout the report by a reference to this disclosure.		
102-49 Changes in reporting	<a href="#">98</a>		
102-50 Reporting period	<a href="#">98</a> . Our Annual Report 2021 is for the period from January 1 to December 31, 2021.		
102-51 Date of most recent report	June 2021.		
102-52 Reporting cycle	<a href="#">98</a> . Annual.		

Disclosure	Page/URL	Omission	SDGs
102-53 Contact point for questions regarding the report	The Contact us section on the Furnas website, under the subsection “ <a href="#">Information</a> ”. The Contact Us service is managed by the communication function, which forwards requests to the relevant department depending on the subject.		
102-54 Claims of reporting in accordance with the GRI Standards	This report has been prepared in accordance with the GRI Standards—Core option.		
102-55 GRI content index	<a href="#">106</a>		
102-56 External assurance	<a href="#">99</a> . The non-financial information in this report has been assured by an independent third-party under the oversight of the Executive Board and the Board of Directors in accordance with international assurance standards. The current report has been assured by PwC.		

Disclosure	Description	Disclosures	Page
<b>MATERIAL TOPICS</b>			
<b>GRI 103: Management Approach 2016</b>			
103-1	Explanation of the material topic and its Boundary		<a href="#">99</a> , <a href="#">101</a>
103-2	The management approach and its components	Water	<a href="#">89</a>
		Biodiversity and ecosystem services	<a href="#">93</a>
		Communities	<a href="#">78</a> , <a href="#">81</a>
		Human rights	<a href="#">68</a> , <a href="#">69</a> , <a href="#">70</a>
		Risk management	<a href="#">17</a> , <a href="#">18</a> , <a href="#">19</a> , <a href="#">20</a>
		People management and development	<a href="#">57</a> , <a href="#">58</a> , <a href="#">59</a> , <a href="#">60</a>
		Governance, integrity and ethics	<a href="#">13</a> , <a href="#">15</a> , <a href="#">16</a> , <a href="#">23</a>
		Climate change	<a href="#">87</a>
		Health, Safety and Well-being	<a href="#">66</a>
		Technology and innovation	<a href="#">33</a> , <a href="#">48</a> , <a href="#">50</a>
Energy transition	<a href="#">33</a> , <a href="#">45</a>		
103-3	Evaluation of the management approach	Water	<a href="#">89</a>
		Biodiversity and ecosystem services	<a href="#">93</a>
		Communities	<a href="#">78</a> , <a href="#">81</a>
		Human rights	<a href="#">68</a> , <a href="#">69</a> , <a href="#">70</a>
		Risk management	<a href="#">17</a> , <a href="#">18</a> , <a href="#">19</a> , <a href="#">20</a>
		People management and development	<a href="#">57</a> , <a href="#">58</a> , <a href="#">59</a> , <a href="#">60</a>
		Governance, integrity and ethics	<a href="#">13</a> , <a href="#">15</a> , <a href="#">16</a> , <a href="#">23</a>
		Climate change	<a href="#">87</a>
		Health, Safety and Well-being	<a href="#">66</a>
		Technology and innovation	<a href="#">33</a> , <a href="#">48</a> , <a href="#">50</a>
Energy transition	<a href="#">33</a> , <a href="#">45</a>		

Disclosure	Page/URL	Omission	SDGs
<b>ECONOMIC DISCLOSURES</b>			
<b>GRI 201: Economic performance 2016</b>			
201-1 Direct economic value generated and distributed	<a href="#">36</a>		8, 9
201-2 Financial implications and other risks and opportunities due to climate change	<a href="#">88</a>		13
<b>GRI 204: Procurement practices 2016</b>			
204-1 Proportion of spending on locally-based suppliers	<a href="#">53</a>		8
<b>GRI 205: Anti-corruption 2016</b>			
205-1 Operations assessed for risks related to corruption	<a href="#">15</a> , <a href="#">21</a> , <a href="#">52</a>		16
205-2 Communication and training on anti-corruption policies and procedures	<a href="#">21</a>		16
205-3 Confirmed incidents of corruption and actions taken	<a href="#">15</a> . No confirmed cases of corruption were reported in 2021.		16
<b>GRI 207: Taxes 2019</b>			
207-1 Approach to tax	<a href="#">36</a>		1, 10, 17
207-2 Tax governance, control and risk management	<a href="#">36</a>		1, 10, 17
207-3 Stakeholder engagement and management concerns related to tax	<a href="#">36</a>		1, 10, 17
<b>ENVIRONMENTAL DISCLOSURES</b>			
<b>GRI 303: Water and effluents 2018</b>			
303-1 Interactions with water as a shared resource	<a href="#">89</a>		6, 12
303-2 Management of water discharge related impacts	<a href="#">89</a>		6

Disclosure	Page/URL	Omission	SDGs
303-3 Water withdrawal	<a href="#">89, 92</a> . Furnas ensures compliance with National Council for the Environment (CONAMA) Resolutions 357/05, 396/08 and 430/2011, which contain water classification and environmental requirements for withdrawals from surface and groundwater, as well as rules and requirements for discharging wastewater. Our procedures to ensure compliance at our facilities may include observations made by water resource users (self-monitoring) in accordance with the relevant regulatory frameworks (CONAMA Resolution 357), environmental license conditions and permit requirements. Both the frequency of monitoring and the parameters monitored are established by the relevant authorities. [102-48]		16
303-4 Water discharge	<a href="#">89, 91</a>		6
303-5 Water consumption	<a href="#">89, 91</a>		6

**GRI 304: Biodiversity 2016**

304-2 Significant impacts of activities, products, and services on biodiversity	<a href="#">93</a>		6, 14, 15
304-3 Habitats protected or restored	<a href="#">97</a>		6, 14, 15
304-4 IUCN Red List species and national conservation list species with habitats in areas affected by the organization's operations	<a href="#">97</a>		6, 14, 15

**GRI 305: Emissions 2016**

305-1 Direct (Scope 1) GHG emissions	<a href="#">88</a>		3, 12, 13, 14, 15
305-2 Energy indirect (Scope 2) GHG emissions	<a href="#">88</a>		3, 12, 13, 14, 15
305-3 Other indirect (Scope 3) GHG emissions	<a href="#">88</a>		3, 12, 13, 14, 15

Disclosure	Page/URL	Omission	SDGs
305-4 GHG emissions intensity	<a href="#">GHG inventory</a>		13, 14, 15
305-5 Reduction of GHG emissions (SASB)	<a href="#">GHG inventory</a>		13, 14, 15
305-6 Emissions of ozone-depleting substances (ODS)	<a href="#">GHG inventory</a>		3, 12
305-7 NOx, SOx, and other significant air emissions	<a href="#">87</a>		3, 12, 14, 15

## SOCIAL DISCLOSURES

### GRI 401: Employment 2016

401-1 New employee hires and employee turnover	<a href="#">63</a>		5, 8, 10
401-2 Benefits provided to full-time employees that are not provided to temporary or part-time employees	<a href="#">64</a> . All benefits are provided to all direct employees, with no distinction depending on employment type or employment contract.		3, 5, 8
401-3 Parental leave	<a href="#">64</a>		5, 8

### GRI 403: Occupational health and safety 2018

403-1 Occupational health and safety management system	<a href="#">66</a>		8
403-2 Hazard identification, risk assessment, and incident investigation	<a href="#">66</a>		3, 8
403-3 Occupational health services	<a href="#">66</a>		3, 8
403-4 Worker participation, consultation, and communication on occupational health and safety	<a href="#">66</a>		8, 16
403-5 Worker training on occupational health and safety	<a href="#">68</a>		8
403-6 Promotion of worker health	<a href="#">66</a> , <a href="#">68</a>		3
403-7 Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	<a href="#">59</a> , <a href="#">68</a>		8

Disclosure	Page/URL	Omission	SDGs
403-8 Workers covered by an occupational health and safety management system	<a href="#">66</a>		8
403-9 Work-related injuries	<a href="#">67</a>	Information about contractors has not been reported as the company is currently adjusting its database.	3, 8, 16
403-10 Work-related ill health	No employees took sick leave due to work-related ill health in 2021.		3, 8, 16

**GRI 404: Training and education 2016**

404-1 Average hours of training per year per employee	<a href="#">65</a>		4, 5, 8, 10
404-2 Programs for upgrading employee skills and transition assistance programs	<a href="#">59</a> , <a href="#">60</a>		8
404-3 Percentage of employees receiving regular performance and career development reviews	<a href="#">60</a> , <a href="#">61</a>		5, 8, 10

**GRI 405: Diversity and equal opportunity 2016**

405-1 Diversity of governance bodies and employees	<a href="#">70</a> , <a href="#">72</a>		5, 8
405-2 Ratio of basic salary and remuneration of women to men	<a href="#">71</a>		5, 8, 10

**GRI 406: Non-discrimination 2016**

406-1 Incidents of discrimination and corrective actions taken	<a href="#">23</a> , <a href="#">59</a> . There were no incidents of discrimination during the reporting period.		5, 8
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**GRI 407: Freedom of association and collective bargaining 2016**

407-1 Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	<a href="#">53</a>		8
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Disclosure	Page/URL	Omission	SDGs
<b>GRI 408: Child labor 2016</b>			
408-1 Operations and suppliers at significant risk for incidents of child labor	<a href="#">69</a> , <a href="#">73</a>		8, 16
<b>GRI 409: Forced or compulsory labor 2016</b>			
409-1 Operations and suppliers at significant risk for incidents of forced or compulsory labor	<a href="#">69</a> , <a href="#">73</a>		8
<b>GRI 410: Security practices 2016</b>			
410-1 Security personnel trained in human rights policies or procedures	<a href="#">70</a>		16
<b>GRI 411: Rights of indigenous peoples 2016</b>			
411-1 Incidents of violations involving rights of indigenous peoples	<a href="#">73</a> , <a href="#">81</a> . From January 1 to December 31, 2021, no violations involving rights of indigenous peoples were reported via our whistleblowing channel.		2
<b>GRI 412: Human rights assessment 2016</b>			
412-2 Employee training on human rights policies or procedures	<a href="#">59</a> , <a href="#">70</a>		
412-3 Significant investment agreements and contracts that include human rights clauses or that underwent human rights screening	<a href="#">68</a>		
<b>GRI 413: Local communities 2016</b>			
413-1 Operations with local community engagement, impact assessments, and development programs	<a href="#">73</a> , <a href="#">78</a> , <a href="#">79</a> , <a href="#">81</a> . This disclosure is based on the table of strategic assets published by the National Grid Operator, in addition to other operations that are monitored. The percentage of engagement initiatives has therefore been calculated based on the definition of “operations” for this disclosure. [102-48]		
413-2 Operations with significant actual or potential negative impacts on local communities	<a href="#">78</a> , <a href="#">81</a>		1, 2

Disclosure	Page/URL	Omission	SDGs
<b>GRI 415: Public policy 2016</b>			
415-1 Political contributions	In compliance with applicable legislation, the Furnas does not make contributions to or otherwise support political parties, campaigns or candidates, nor are our employees permitted to do so on behalf of Furnas. This requirement is stipulated in our Code of Ethical Conduct & Integrity and the Eletrobras Group Anti-Corruption Policy.		

<b>GRI 418: Customer privacy 2016</b>			
418-1 Substantiated complaints regarding breaches of customer privacy and losses of customer data	No breaches of customer privacy were identified.		16

**SECTOR SUPPLEMENT**

Organizational profile			
EU1 Installed capacity, broken down by primary energy source and by regulatory regime	<a href="#">39</a>		7
EU2 Net energy output broken down by primary energy source and by regulatory regime	<a href="#">39</a> , <a href="#">40</a>		7, 14
<b>EU4</b> Length of above and underground transmission and distribution lines by regulatory regime	<a href="#">11</a> , <a href="#">42</a> . This disclosure is based on (corporate and SPE) transmission lines that were in operation at the end of the reporting period, whether or not they were eligible to RAP, and supplementary grid transmission lines (transmission lines connecting power plants and serving free consumers, or connected to other < 230kV transmission systems).		

Availability and reliability			
EU6 Management approach to ensure short and long-term electricity availability and reliability	<a href="#">43</a> . The reported figures are for corporate backbone transmission lines eligible to RAP and that were in operation at the end of the reporting period, including disconnected sections.		7

Research and development			
EU8 Research and development activity and expenditure aimed at providing reliable electricity and promoting sustainable development	<a href="#">47</a>		7, 9, 17

Disclosure	Page/URL	Omission	SDGs
<b>Availability and reliability</b>			
EU10 Planned capacity against projected electricity demand over the long term, broken down by energy source and regulatory regime	In Brazil, electricity supply-and-demand planning is carried out by the Brazilian Energy Research Corporation (EPE) in accordance with applicable regulations. As a large-scale generation and transmission company, Furnas does not engage in demand planning by energy source.		7
<b>System efficiency</b>			
EU11 Average generation efficiency of thermal plants by energy source and by regulatory regime	Average average efficiency by energy source – Gas: 38.00% (based on the average efficiency of Furnas-owned plants).		7, 8, 12, 13, 14
EU12 Transmission and distribution losses as a percentage of total energy	<a href="#">44</a> . Consolidated backbone grid technical losses: 0.89%.		7, 8, 12, 13, 14
<b>Biodiversity</b>			
EU13 Biodiversity of offset habitats compared to biodiversity of the affected areas	<a href="#">97</a>		6, 14, 15
<b>Employment</b>			
EU14 Programs and processes to ensure the availability of a skilled workforce	<a href="#">60</a>		4, 8
EU16 Policies and requirements regarding health and safety of employees and employees of contractors and subcontractors	<a href="#">66</a>		8
<b>Local communities</b>			
EU20 Approach to managing the impacts of displacement	<a href="#">78, 91</a>		1, 2, 11
EU21 Contingency planning measures, disaster/emergency management plan and training programs, and recovery/restoration plans	<a href="#">44, 78, 91</a>		1, 11
EU22 Number of people physically or economically displaced and compensation, broken down by type of project	<a href="#">33, 78, 81</a>		1, 2
<b>Access</b>			
EU30 Average plant availability factor by energy source and by regulatory regime	<a href="#">40</a>		1, 7

# SUSTAINABLE DEVELOPMENT GOALS

1. No poverty	1
2. Zero hunger and sustainable agriculture	2
3. Good health & well-being	3
4. Quality education	4
5. Gender equality	5
6. Clean water and sanitation	6
7. Affordable and clean energy	7
8. Decent work and economic growth	8
9. Industry, innovation and infrastructure	9
10. Reduced inequalities	10
11. Sustainable cities and communities	11
12. Responsible consumption and production	12
13. Climate action	13
14. Life below water	14
15. Life on land	15
16. Peace, justice and strong institutions	16
17. Partnerships for the goals	17

# SASB & TCU CONTENT INDEX

## DISCLOSURES FROM OTHER FRAMEWORKS – SASB & TCU

Disclosure	GRI equivalent	Page
<b>SASB</b>		
IF-EU-110a1: Gross global Scope 1 emissions, percentage covered under emissions-limiting regulations, and percentage covered under emissions-reporting regulations	GRI 305-1	<a href="#">88</a>
IF-EU-110a2: Greenhouse gas (GHG) emissions associated with power deliveries	GRI 305-2	<a href="#">88</a>
IF-EU-110a3: Description of long-term and short-term strategy or plan to manage Scope 1 emissions, emission-reduction targets, and an analysis of performance against those targets.	GRI 305-4 GRI 305-5	<a href="#">114</a>
IF-EU-120a1: Air emissions of the following pollutants: NO <sub>x</sub> (excluding N <sub>2</sub> O), SO <sub>x</sub> , particulate matter (PM <sub>xx</sub> ), Pb, and Hg; percentage of each in or near areas of dense population	GRI 305-7	<a href="#">87</a>
IF-EU-140a1: Total water withdrawn and total water consumed, percentage of each in regions with High or Extremely High Baseline Water Stress	GRI 303-3 GRI 303-4 GRI 303-5	<a href="#">89</a> , <a href="#">91</a> , <a href="#">92</a>
IF-EU-140a3: Discussion of water management risks and description of strategies and practices to mitigate those risks	GRI 303-1	<a href="#">89</a>
IF-EU-150a1: Amount of coal combustion residuals (CCR), percentage recycled.	GRI 305-6 G4-EU11	<a href="#">114</a> , <a href="#">118</a>
IF-EU-320a1: Total recordable injury rate (TRIR), fatality rate, and near miss frequency rate (NMFR).	GRI 403-9	<a href="#">67</a>
IF-EU-550a1: Number of incidents of non-compliance with standards or regulations on physical and cyber security.	GRI 418-1	<a href="#">117</a>

Disclosure	GRI equivalent	Page
<b>Installed capacity and electricity generated and transmitted</b>		
IF-EU-000.C: Length of transmission and distribution lines	G4-EU4	<a href="#">11</a> , <a href="#">42</a>
IF-EU-000.D: Total electricity generated, percentage by major energy source, percentage in regulated markets	G4-EU2	<a href="#">39</a> , <a href="#">40</a>
IF-EU-550 a.2: (1) System Average Interruption Duration Index (SAIDI), (2) System Average Interruption Frequency Index (SAIFI), (3) Customer Average Interruption Duration Index (CAIDI), inclusive of major event days	G4-EU30	<a href="#">40</a>
<b>TCU</b>		
Organizational overview and external environment	GRI 102-2, 102-5, 102-7, 102-8, 102-9, 102-14, 102-15, 102-16, 102-22	<a href="#">5</a> , <a href="#">9</a> , <a href="#">10</a> , <a href="#">12</a> , <a href="#">14</a> , <a href="#">19</a> , <a href="#">20</a> , <a href="#">35</a> , <a href="#">36</a> , <a href="#">39</a> , <a href="#">42</a> , <a href="#">52</a> , <a href="#">57</a> , <a href="#">58</a> , <a href="#">72</a> , <a href="#">106</a>
Risks, opportunities and outlook	GRI 102-15, 102-17, 102-30, 102-31, 102-34	<a href="#">13</a> , <a href="#">15</a> , <a href="#">18</a> , <a href="#">19</a> , <a href="#">20</a> , <a href="#">22</a>
Governance and strategy	GRI 102-18, 102-20, 102-22, 102-23, 102-25, 102-26, 102-30, 102-35, 102-36, 102-37, 102-38, 102-39	<a href="#">14</a> , <a href="#">15</a> , <a href="#">18</a> , <a href="#">19</a> , <a href="#">22</a> , <a href="#">24</a> , <a href="#">30</a> , <a href="#">62</a> , <a href="#">107</a> , <a href="#">108</a>
Budgetary, financial and accounting information	GRI 201-1, 201-2, 204-1, 205-1, 205-3, 207-2, 405-2	<a href="#">15</a> , <a href="#">21</a> , <a href="#">36</a> , <a href="#">52</a> , <a href="#">53</a> , <a href="#">71</a> , <a href="#">88</a> , <a href="#">112</a>
Results and performance	GRI 413-1, 413-2, G4-EU1, EU2, EU4, EU8, EU20, EU21, EU22	<a href="#">11</a> , <a href="#">33</a> , <a href="#">39</a> , <a href="#">40</a> , <a href="#">42</a> , <a href="#">47</a> , <a href="#">73</a> , <a href="#">78</a> , <a href="#">79</a> , <a href="#">81</a> , <a href="#">91</a>

# Independent auditor's limited assurance report on non-financial information included in the Annual Report for 2021

To the Board of Directors and Stockholders  
Furnas Centrais Elétricas S.A.  
Rio de Janeiro - RJ

## Introduction

We have been engaged by Furnas Centrais Elétricas S.A. ("Furnas" or "Company") to present our limited assurance report on the non-financial information included in the Furnas' 2021 Annual Report for the year ended December 31, 2021.

Our limited assurance does not cover prior-period information, or any other information disclosed together with the 2021 Annual Report, including any incorporated images, audio files or videos.

## Responsibilities of Furnas' management

The management of Furnas is responsible for:

- selecting or establishing adequate criteria for the preparation and presentation of the information included in the Annual Report.
- preparing the information in accordance with the criteria and guidelines of the Global Reporting Initiative

(GRI - Standards) and with the basis of preparation developed by the Company.

- designing, implementing and maintaining internal control over the significant information for the preparation of the information included in the Annual Report, which is free from material misstatement, whether due to fraud or error.

## Independent auditors' responsibility

Our responsibility is to express a conclusion on the non-financial information included in the 2021 Annual Report, based on our limited assurance engagement carried out in accordance with the Technical Communication CTO 01 – "Issuance of an Assurance Report related to Sustainability and Social Responsibility", issued by the Federal Accounting Council (CFC), based on the Brazilian standard NBC TO 3000, "Assurance Engagements Other than Audit and Review", also issued by the CFC, which is equivalent to the international standard ISAE 3000, "Assurance engagements other than audits or reviews of historical financial information", issued by the International Auditing and Assurance Standards Board (IAASB). Those standards require that the auditor complies with ethical requirements, independence requirements,

and other responsibilities of these standards, including those regarding the application of the Brazilian Quality Control Standard (NBC PA 01) and, therefore, the maintenance of a comprehensive quality control system, including documented policies and procedures on the compliance with ethical requirements, professional standards and relevant legal and regulatory requirements.

Moreover, the aforementioned standards require that the work be planned and performed to obtain limited assurance that the non-financial information included in the 2021 Annual Report, taken as a whole, is free from material misstatement.

A limited assurance engagement conducted in accordance with the Brazilian standard NBC TO 3000 and ISAE 3000 mainly consists of making inquiries of management and other professionals of the Company involved in the preparation of the information, as well as applying analytical procedures to obtain evidence that allows us to issue a limited assurance conclusion on the information, taken as a whole. A limited assurance engagement also requires the performance of additional procedures when the independent auditor becomes aware of matters that lead him to believe that the information disclosed in the Annual Report taken as a whole might present material misstatements.

The procedures selected are based on our understanding of the aspects related to the compilation, materiality, and presentation of the information included in the 2021 Annual Report, other circumstances of the engagement and our analysis of the activities and processes associated with the material information disclosed in the 2021 Annual Report in which material misstatements might exist. The procedures comprised, among others:

(a) planning the work, taking into consideration the materiality and the volume of quantitative and qualitative information and the operating and internal control systems that were used to prepare the information included in the 2021 Annual Report.

(b) understanding the calculation methodology and the procedures adopted for the compilation of indicators through interviews with the managers responsible for the preparation of the information of Furnas Centrais Elétricas S.A.

(c) applying analytical procedures to quantitative information and making inquiries regarding the qualitative information and its correlation with the indicators disclosed in the 2021 Annual Report; and

(d) when non-financial data relate to financial indicators, comparing these indicators with the financial statements and/or accounting records.

The limited assurance engagement also included the analysis of the compliance with the guidelines and criteria 1) of the Global Reporting Initiative (GRI-Standards); 2) the provisions established in the basis of preparation developed by the Company, applicable in the preparation of the information included in the 2021 Annual Report.

We believe that the evidence we obtained is sufficient and appropriate to provide a basis for our limited assurance conclusion.

### Scope and limitations

The procedures applied in a limited assurance engagement vary in nature and timing and are less detailed than those applied in a reasonable assurance. Consequently, the level of assurance obtained in a limited assurance engagement is substantially lower than the level that would be obtained in a reasonable assurance engagement. Had we performed a reasonable assurance engagement, we might have identified other matters and possible misstatements in the information included in the 2021 Annual Report. Therefore, we do not express an opinion on this information.

Non-financial data are subject to more inherent limitations than financial data, due to the nature and diversity of the methods used to determine, calculate and estimate these data. Qualitative interpretations of the materiality, relevance, and accuracy of the data are subject to individual assumptions and judgments. Furthermore, we did not consider in our engagement the data reported for prior periods, nor future projections and goals, including results of goals established by Furnas' Business and Management Master Plan (PDNG) and Business and Management Plan (PNG) attached to the 2021 Annual Report.

The preparation and presentation of non-financial information and indicators followed the definitions of the basis of preparation developed by the Company and the guidelines of the Global Reporting Initiative (GRI-Standards) and, therefore,

the information included in the 2021 Annual Report does not aim to provide assurance with regard to the compliance with social, economic, environmental or engineering laws and regulations. Those standards establish, however, the presentation and disclosure of any non-compliance with such regulations when significant sanctions or fines occur. Our assurance report should be read and understood in this context, inherent to the criteria selected and previously mentioned in this paragraph.

### Conclusion

Based on these procedures performed, described herein, and on the evidence obtained, no matter has come to our attention that causes us to believe that the non-financial information included in the Annual Report for the year ended December 31, 2021 of Furnas Centrais Elétricas S.A. has not been prepared, in all material respects, in accordance with the criteria and guidelines of the Global Reporting Initiative (GRI-Standards), and with the basis of preparation developed by the Company.

Rio de Janeiro, April 29, 2022

PricewaterhouseCoopers  
Auditores Independentes Ltda.  
CRC 2SP000160/O-5

Eliane Kihara  
Contadora  
CRC 1SP212496/O-5

# APPENDIXES



*Volunteers in the IARBA project.*

# 2030 AGENDA DISCLOSURES X PNG AND PDNG TARGETS

Below we describe Furnas' performance against and contribution to our prioritized Sustainable Development Goals (SDGs). The table maps the projects we carried out in 2021 to the targets under the Eletrobras Group Business & Management Master Plan 2021-2025, and the targets under the Furnas Business & Management Plan (PNG) 2022-2026.

For further details, visit our [Commitment to the 2030 Agenda website](#).

Pillar	SDG	2030 Agenda Disclosures	Unit	2021 Status*	PNG 21/25 Target	PDNG 22/26 Target	Eletrobras action guidelines
Corporate governance	9	Digital automation to optimize workflows	Hours	N/A	New	10,780	N/D
	9	Percentage of processes automated out of total automatable internal controls processes	%	115%	20	NA	Sustainability Program 4.0/ Synergies with Industry 4.0/ Eletrobras Digital Program
	9	Investment in Technology & Innovation/Net Operating Revenue (NOR)	%	1.55%	1.20%	1.30%	Inova Eletrobras Program
	10	Consolidated Diversity in Management Positions and Succession Processes	%	N/A	New	42	N/D
	10	Management positions held by women	%	21.23	18	22	Affirmative action and campaigns
	10	People benefited by social programs	%	68.34	80	Tactical monitoring	Long-term strategic engagement and collaboration with community organizations
	10	Weighted ratio of basic salary and remuneration of women to men, at multiple levels	Absolute no.	0.94	0.95	0.96	Affirmative action and campaigns

\*Key for "2021 status" column: - Being updated - Target met - Target not met

Pillar	SDG	2030 Agenda Disclosures	Unit	2021 Status*	PNG 21/25 Target	PDNG 22/26 Target	Eletrobras action guidelines
Prosperity	12	Suppliers that have undergone ESG due diligence	%	98.88	60	100	Sustainability 4.0 Program and Sustainable Supplier Management Project
	16	Due diligence on suppliers exposed to fraud and corruption risks	%	100	100	100	5 Dimensions Program
People	16	Employees trained on human rights	%	36.23	50	75	Sustainability Program 4.0; stakeholder engagement in the value chain to raise awareness about human rights
	8	Lost-time injury frequency rate - employees	Injuries / Million hours	2.37	2.54	1.92	Occupational Health & Safety Program
	8	Lost-time injury frequency rate (third-party employees)	Injuries / Million hours	9.39	3.81	3.53	Occupational Health & Safety Program
	8	Injury severity rate (direct employees)	Injuries / Million hours	62	120	102	Occupational Health & Safety Program
	8	Injury severity rate (contractors)	Injuries / Million hours	1,823	180	153	Occupational Health & Safety Program

\*Key for "2021 status" column: - Being updated - Target met - Target not met

Pillar	SDG	2030 Agenda Disclosures	Unit	2021 Status*	PNG 21/25 Target	PDNG 22/26 Target	Eletrobras action guidelines
Planet	7	Share of clean energy sources (solar, wind, hydro, nuclear) in our energy mix	%	96.93	95.70	> 96	Adjustments to the G&T portfolio development process (PDNG21-25).
	7	Energy savings in corporate buildings	%	N/D	6.45%	NA	Sustainability 4.0 Program / Energy Efficiency Project / PROCEL energy efficiency initiatives
	11	Adjusted Scope 1 and Scope 2 emissions (not including transmission losses)	Reduce %	1,073,982.89	1	4,084,998	Sustainability Program 4.0; Climate Change Mitigation and Environmental Protection Project; Energy Transition Project
	11	Total GHG emissions to Recurring Net Operating Revenue (NOR)	tCO <sub>2</sub> / R\$ thousand	0.127	0.122	0.185	Sustainability Program 4.0; Climate Change Mitigation and Environmental Protection Project; Energy Transition Project
	11, 13	Greenhouse gas emission intensity per MWh	tCO <sub>2</sub> / MWh	N/A	New	0.058	N/D
	15	Percent investment in voluntary projects supporting biodiversity management	%	N/A	New	Increase investment in projects supporting biodiversity by 1% year on year	N/D

\*Key for "2021 status" column: - Being updated - Target met - Target not met

# PARTNER AND SUPPORTED ORGANIZATIONS

GRI 102-12, 102-13

Furnas is a member of a wide variety of trade associations, and has undertaken commitments to several important Brazilian and international organizations.

## Open letters, pledges and other initiatives:

- Open letter – Business for Human Rights
- Open Letter – Private Sector Support for Carbon Pricing in Brazil, developed by IEC
- Brazilian Business Commitment to Biodiversity
- Brazilian Business Commitment to Water Security
- Pledge on Addressing Sexual Violence against Children and Adolescents
- Eletrobras Pledge on Climate Change
- ISO 26000
- Sustainable Development Goals (SDGs)
- Global Compact
- Position Paper on Carbon Pricing Mechanisms within the Business for Climate Initiative (IEC)
- UN Women's Empowerment Principles
- Brazilian GHG Protocol Program
- *Na Mão Certa* Program
- Gender & Racial Equity Program

## Organizations in which Furnas sits on governance bodies:

- Brazilian Association for Nuclear Development (ABDAN)
- Brazilian Infrastructure and Heavy Industry Association (ABDIB)\*
- Brazilian Association for Standardization (ABNT)
- Brazilian Association of Large Electric Power Generation Companies (ABRAGE)
- Brazilian Association of Thermal Power Generators (ABRAGET)\*
- Brazilian Association of Asset Management and Maintenance Companies (ABRAMAN)\*
- Rio de Janeiro Commercial Association (ACRJ)\*
- Brazilian Association for Research & Development at Innovative Companies (ANPEI)\*
- Association of Private Telecommunications Infrastructure and Systems Owners (APTEL)\*
- Brazilian Dam Committee (CBDB)\*
- Centro de Memória da Eletricidade\*
- Global Compact Network Brazil Steering Committee (CORB)
- FGV Energia - Fundação Getulio Vargas
- Business Management Committee Foundation (FUNCOGE)\*
- Instituto Compliance Rio (ICR)
- Utilities Telecom Council América Latina (UTCAL)\*

## \*Organizations in which we are members of projects and committees:

- Brazilian Wind Power Association (ABEEÓLICA)
- Brazilian Distribution Generation Association (ABGD)
- Brazilian Risk Management Association (ABGR)
- Brazilian Association for Standardization (ABNT)
- Brazilian Ombudsman Association (ABO)
- Brazilian Corrosion Association (ABRACO)
- Brazilian Association of Power Sector Accountants (ABRACONEE)
- Brazilian Association for Clean Power Generation (ABRAGEL)
- Brazilian Association of Transmission Companies (ABRATE)
- Brazilian Association for Photovoltaic Solar Power (ABSOLAR)
- Brazilian Association of Finance Executives (ANEFAC)
- CIGRE-Brasil
- Rio de Janeiro Industrial Center (CIRJ-FIRJAN)
- Brazilian Concrete Institute (IBRACON)
- National Conference of Standards Laboratories (NCSL)
- Minas Gerais Weather Station Network (RMMG)
- Brazilian Metrology Society (SBM)

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