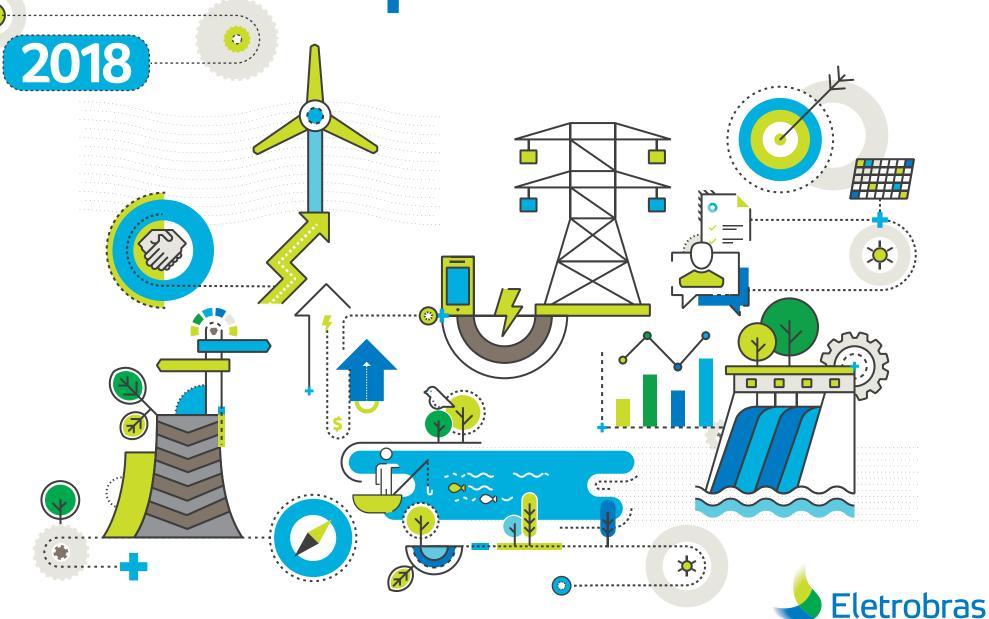
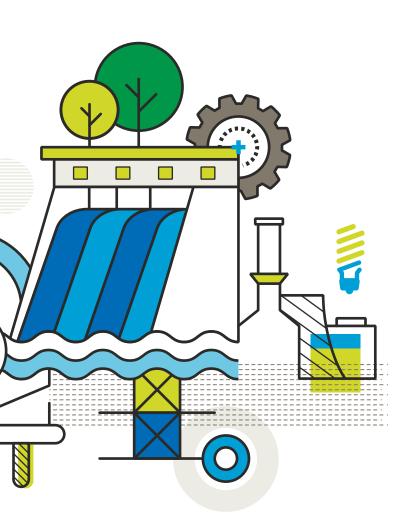
# **Annual Report**



# **CONTENTS**



#### 1. Introduction 02

About this report Highlights Message from the management

#### 2. Corporate Profile 14

Eletrobras Industry overview How we create value

#### 3. Strategy and vision of the future 24

Strategic planning R&D and Innovation Commitment to sustainability

#### 4. Governance and compliance 53

Corporate governance Risk management Business integrity

#### 5. Performance 86

Operation Financial results Capital market Sector programs

# 6. Responsible environmental management 105

Management system Water Biodiversity Climate change

#### 7. Relationships 127

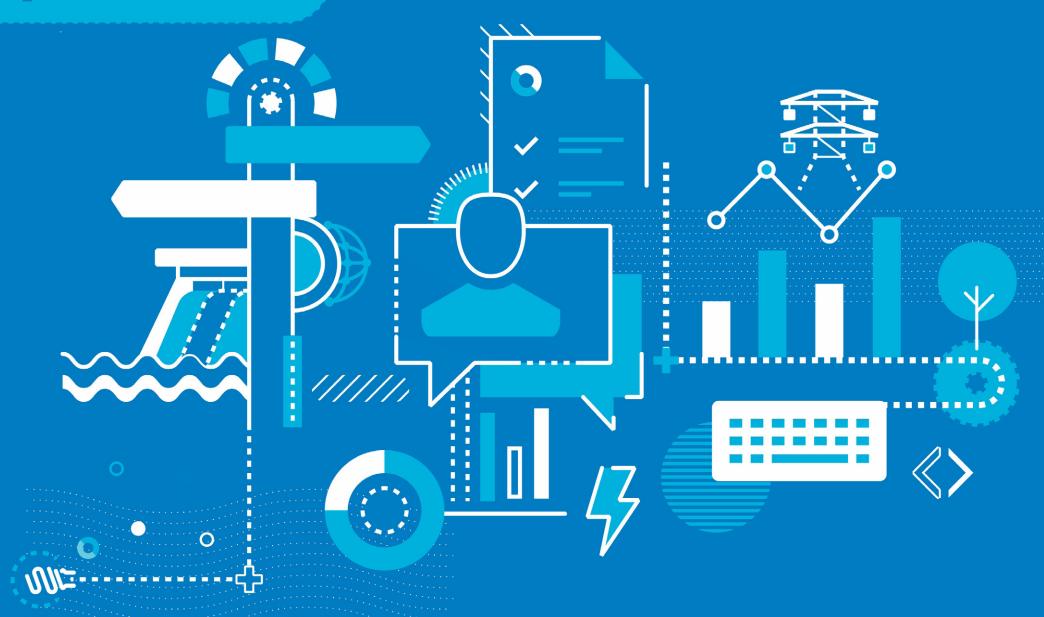
Dialogue and communication
Employee development
Customer satisfaction
Aligned suppliers
Community engagement

#### **GRI Content Index 163**

Capital map 175

Limited assurance report issued by independent auditors 177

**Acknowledgments 180** 



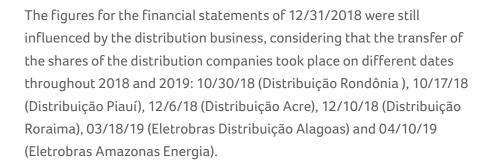
# ABOUT THIS REPORT

GRI 102-32; 102-40; 102-42; 102-43; 102-44; 102-50; 102-54; 102-56

For the 18th consecutive year, we publish our Annual Report, with the objective of presenting to all our stakeholders our strategy, performance and commitment to the sustainable development of Eletrobras companies. The report brings our performance between January 1 and December 31, 2018.

The indicators in this report represent the companies in the generation and transmission segment that make up 100% of our revenues.

Eletrobras ended 2018 reaching the goal of selling all its distribution companies, a management strategic decision that repositions the company in the market, reinforcing the focus on the business of generation, transmission and commercialization of energy. For this reason, the distribution segment will not be addressed in this report.



For the calculation of indicators, wherever necessary and to preserve comparability, we will provide disclaimers about what is or is not included.

#### Best reporting practices

The report is based on global best reporting and management practices in corporate sustainability:

- Guidelines of the Global Reporting Initiative (GRI), version Standards 2016, Core option;
- Principles of the Global Compact of the United Nations (UN);
- Sustainable Development Goals (SDG);
- Integrated Reporting (IR) Framework.



#### Useful reading tools

INTRODUCTION

In addition to linear reading, at the end of the report you will find three different possibilities for navigation, guided by:

#### **GRI** content index

Index explaining what each GRI disclosure is and displays the page on which it is reported.

There you also find the disclosures relationship with the Sustainable Development Goals (SDG) and with the Principles of the Global Compact of the United Nations (UN).

When you access the page where there is an indicator, you will find the symbol GRI XX-X.

Learn more about the GRI guidelines at:

https://bit.ly/1UL5UAS

#### **SDG** map

Map that presents the pages whose contents support the reach to the SDG. By accessing a page where there is mention of a SDG, you will find the symbol: SDG-X

Learn more about the SDG at: https://bit.ly/28Jgntb

#### **Capital map (Integrated Reporting)**

Map locating the capitals that give support to the business model. When you access the page where the capital is presented, you will find the symbols:













Manufactured

Natural

Social and Relationship

Learn more about the Integrated Reporting guidelines at: http://bit.ly/2WN8JLi

#### Reliability

INTRODUCTION

In line with our objective of presenting reliable information, as in recent years, the information published in the Ombudsman and social networks chapters were audited by KPMG Brasil, as directed by the Board of Executive Officers and the Board of Directors, according to international verification parameters. Learn more in the Assurance Report on page 178.

#### **Materiality**

GRI 102-46: 102-47: 102-49

For the 2018 Annual Report, we used the process already carried out in 2017 to map the most important themes for business sustainability, that is, with greater potential for impact and value creation in the opinion of our various audiences. The process was based on the following steps:

#### 1. Internal scenario assessment

Identification of material themes in the Stakeholder Survey results, applied by all Eletrobras companies, from the data provided by the relationship channels (Ombudsman and social networks), media reports, risk maps and significant fines and in the SDG prioritized by the management in its Business and Management Master Plan 2018-2022.

#### 2. External scenario assessment

Benchmark of the material themes for the electric sector.

#### 3. Prioritization with internal expert review

Workshop with sustainability coordinators of Eletrobras companies, based on the GRI guidelines and the Integrated Reporting for prioritizing material issues, considering their potential impact and relevance in the company's strategy.

#### 4. Prioritization with external expert review

Interviews with sustainability and in the electric sector specialists, representatives of external stakeholders of the company.

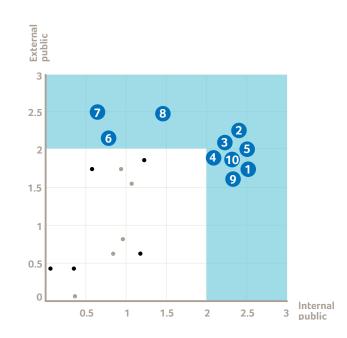
#### 5. Strategic Alignment

Verification of the themes prioritized by stakeholders vis a vis those chosen in the strategic deployment of the

Business and Management Master Plan 2019-2023, which evaluated the most critical issues for business continuity and for the generation of value in the long term.

#### 6. Validation with the leadership

Presentation of the materiality analysis process and the inferred priority themes to the Board of Directors, in order to align with the business strategy and validation of the company's materiality matrix, relative to the 2018 period, as follows.



#### LIMITS OF IMPACTS OF RELEVANT THEMES

Themes	Within Eletrobras (subsidiaries)	Outside Eletrobras (stakeholders)	Related GRI Indicators	Capitals	SDG
1. Retention and development of employees		26	GRI 102-8, 401-1, 402-1, 404-1, 404-2, 404-3, 405-2; EU-14	0	3 -₩• <b>5</b> 8
2. Relationship with communities		3 5 7	GRI 411-1, 413-1, 413-2, EU-20, EU-21, EU-22	O O	
3. Water (availability and quality)	L	3 5 7	GRI 303-1, 303-2, 303-3, EU-21		6 □ 12 □ 13 □ 14 □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □
4. Climate Change and Renewable Sources	L	13456	GRI 201-2, 305-1, 305-2, 305-3, 305-4, 305-5, 305-6, 305-7, EU-1, EU-2, EU-6, EU-10		7 12 13 ©
5. Biodiversity	L	3 5 6 7	GRI 304-1, 304-2, 304-3, EU-21	φ <b>γ</b>	15 <u>♣</u> ≈
6. Relationship with suppliers		467	GRI 102-9, 102-10, 204-1, 308-1, 308-2, 412-3, 407-1, 408-1, 409-1, 103-2, 414-1	Ó O	8 12 16 12 \(\frac{16}{2}\)
7. Ethical culture		8	GRI 102-16, 102-17, 406-1, 205-2, 205-3, EU-21	Ŏ O	16
8. Health and safety (employees)		26	403-1, 403-2, 403-3, EU-16		3 -W• 8
9. R&D and innovation		14567	EU-8		7 9 17
10. Governance and risk		8	102-15, 102-18 a 102-39		16 **

















Investors





#### **RESPONSIBILITIES AND APPROVAL**

The Board of Directors, supported by the Strategy, Governance and Sustainability Committee, recognizes the responsibility to ensure the integrity of this report. A dedicated team of technicians from Eletrobras companies worked on the report and the Board believes that it provides a balanced and appropriate presentation of the issues that have or could have a material effect on our ability to create value.

We apply an integrated and collective approach in the preparation and presentation of the information reported here.

I invite the stakeholders of Eletrobras companies to analyze this report and provide feedback on the company's performance and its disclosure about the value generation process.

#### José Guimarães Monforte

Chairman of the Strategy, Governance and Sustainability Committee Chairman of Eletrobras Board of Directors



# **HIGHLIGHTS**



INTRODUCTION

#### Financial capital

- Altogether, in 2018, the installed capacity
  of the Eletrobras System grew 1,667 MW,
  adding about R\$ 392.34 million to the
  company's annual revenue.
- In 2018, we added 189 km of transmission lines and R\$ 103 million to the company's annual revenue.
- More than R\$ 2.0 billion in annual savings in Personnel, Material, Services and Other (PMSO) accounts with the reorganization of the staff, the implementation of a unified management system and the Shared Services Center (CSC).
- Gains of R\$ 1.4 billion in tax optimization since 2017.

- 25.3% appreciation in Eletrobras common shares (ELET3), more than 10pp above the Ibovespa, ending the year quoted at R\$ 24.23.
- Agreement with Eletropaulo in the amount of R\$ 1.1 billion and collection of R\$ 95 million with the sale of shares.
- Sale auction of 26 participations in Special Purpose Entities (SPEs), with a collection of R \$ 1.3 billion, contributing to the pursuit of financial discipline, essential for business continuity.
- Recognition of GAG Improvement (Cost of Improvements to the Management of Generation Assets) in the amount of R\$ 1.03 billion.
- 16% reduction in the debt and the generation of operating cash ratio (Net Debt/EBITDA).

- Six privatized and transferred distributors, with a reversal of Shareholders' Equity of R\$ 3.0 billion in 2018 and another R\$ 5.0 billion for 2019.
- R\$ 7.2 billion in impairment reversal and onerous contracts with the redefinition of the Reference Price of the Angra 3 Nuclear Plant and the implementation period in 2026.
- 158% improvement in Ebitda as a result of cost reduction program and privatization of distributors.

Transmission line maintenance. Eletrobras Furnas / Daniela Monteiro collection



#### Manufactured capital

- Santo Antonio (3,568 MW), Jirau (3,750 MW), Mauá (591 MW), São Manoel (700 MW) and Belo Monte Transmissora (2,092 km).
- Finalization of the sale of our six distribution companies, in a movement developed and planned in recent years that allows us to maintain focus on generation and transmission, segments in which we have expertise and distinctive characteristics.
- Update of the Reference Price of R\$
   480.00 / MWh for the new Angra tariff,
   enabling the resumption of Angra 3's work,
   for completion and commissioning of the
   plant in 2026.
- Revenue from Energy Marketing in the Free Contracting Environment (ACL) of R\$ 6.9 billion.
- 9% reduction in transmission losses.



#### Intellectual capital

- Performance evaluation of the Board of
  Directors, Executive Board and Fiscal Council
  of the Eletrobras companies by independent
  external consulting companies and performance
  evaluation of the directors indicated in the
  SPEs.
- We were listed for the 11th time in the Business Sustainability Index (ISE) of B3 (Brasil, Bolsa, Balcão), reflecting the consistency and solidity of our commitment to results for Brazilian society and to the implementation of the best national and international practices of corporate sustainability.
- Achieved 63% of the 16 contribution targets with the priority SDG.
- R\$ 337.0 million invested in R&D, 9.6% more than in the previous year.
- the National Award for the Sustainable
  Development Goals SDG Brazil Award with the
  Alto Uruguai I project.



# Social and relationship capital

- Inquiries to the Securities and Exchange
   Commission (SEC) and litigators in the
   class action against Eletrobras abroad
   were closed, in addition to having concluded
   discussions with the Department of Justice
   (DOJ), which declined to sue the company.
- Consolidation of the integrity management process with the suppliers and recognition by the Business Ethics Award with the Integrity Mechanisms for Third Parties of Eletrobras Companies project.
- Human Rights Award 2018, by the then
   Ministry of Human Rights, in recognition of
   the commitment Open Letter Companies for
   Human Rights.

- Start of the Kayapó Mekrãgnoti Program, the third social responsibility project carried out with the Kayapó do Oeste / Kabu Institute, with a duration of five years and a total financial contribution from Norte Energia, consortium responsible for Belo Monte, in the amount of R\$ 11.25 million.
- Continuity of the Kayapó do Leste
   Autonomy Support Plan, the second
   project carried out with the Kayapó do
   Leste, scheduled to be completed in the first
   half of 2019.
- Consolidated customer satisfaction index of 86.97% for the generation and transmission business and for research, development and innovation, both exceeding the growth target compared to the previous result, of 85.31%.
- Maximum score, for the 2nd consecutive year, in the Governance Indicator of the Secretariat of Coordination and Governance of State-Owned Enterprises (IG-Sest).

- Certification by the B3 State-Owned Companies Governance Highlight Program Brasil, Bolsa, Balcão.
- One of the nine companies
   with maximum score in the
   implementation of its integrity
   program, among the 110 largest in
   Brazil, according to Transparency
   International.
- Accumulated investments of more than R\$ 6.3 billion in more than five thousand socio-environmental and with indigenous populations actions by the Norte Energia consortium, in five municipalities neighboring the HPP Belo Monte.



- Voluntary adhesion to the Brazilian Business Commitment for Water Security, launched by the 8th World Water Forum by the Brazilian Business Council for Sustainable Development (CEBDS).
- Beginning of the valuation of the ecosystem service "water supply" and Biodiversity Conservation Symposium, in Eletrobras Furnas, focusing on the relationship between the business of large companies and biodiversity and ecosystem services.



#### Human capital

- Board of Directors with 55% of independent members, out of a total of 11, with 9% being female participation.
- Overcoming the PDNG 18-22 goal to maintain at least the same percentage level of women in management positions as the percentage of women in the company (effective staff): women represent 19% of the workforce of Eletrobras companies but hold 21% of leadership positions.
- Improvement of 7.46% in the Employees' Satisfaction Index (Organizational Climate Survey), reaching 74.18%.



HPP Tucuruí Spillway. Eletrobras Eletronorte / Rony Ramos collection

# MESSAGE FROM THE MANAGEMENT

GRI 102-14

INTRODUCTION

In 2018, Eletrobras reaped the benefits from the work it has been doing since 2016 to reduce successive financial losses, low investment capacity and difficulty in raising funds. The deep crisis that the company has gone through is over. The market value of the company jumped from R\$ 9 billion in early 2016 to over R\$ 33 billion in 2018, reaching R\$ 50 billion in February 2019.

"Sustainable Excellence" was the goal of a broad restructuring program, materialized in Eletrobras' Business and Management Master Plan, with actions based on the "financial discipline", "operational excellence" and "governance and compliance" pillars. In December 2018, the Company's Adjusted Net Debt / EBITDA ratio reached 3.1, presenting a substantial reduction on the high 8.5 rate registered in September 2016 and 3.7 in 2017.

The privatization of distribution companies and the sale of minority interests in 26 Specific Purpose Entities in the amount of R\$ 1.3 billion were of great importance for

the result in 2018. The effects of these divestments will be reflected in the leverage levels reduction and in the improvement in the company's Ebitda from January 2019.

The projects schedule was updated and, in 2018, we concluded Mauá 3 and São Manoel. In 2019, the works of the Sinop plant will be completed and the Belo Monte plant will enter into full operation, becoming the third largest hydroelectric plant in the world, with a total installed capacity of 11,233 MW.

This new moment of the company is symbolically represented by the operational structure modernization and new facilities. For the first time in 56 years, Eletrobras headquarters in Rio de Janeiro is concentrated in an exclusive building, providing cost savings and work synergy. In only two programs - Shared Services Center and Integrated Management System – from the processes standardization and optimization, an estimated annual savings in the order of R\$ 617 million was recorded. Another R\$ 309 million was saved resulting from the employee termination programs in 2018, and new voluntary redundancy programs will continue in 2019.



Wilson Ferreira Junior, Eletrobras CEO. Eletrobras holding/Cláudio Ribeiro collection



José Guimarães Monforte, Eletrobras CEO. Eletrobras holding/ Cláudio Ribeiro collection

In the Governance and Compliance area, the company established its Statutory Audit Committee and, for the first time, performed an independent evaluation of the Company's and its subsidiaries' governing bodies.

In recognition of these developments, Eletrobras was certified in the B3's State-Owned Companies Governance Highlight Program, returned to the Corporate Sustainability Index (ISE), also from B3, and received for the second consecutive time the maximum score in the IG-Sest governance indicator. In parallel, the inquires with the Securities and Exchange Commission (SEC) and with the litigants in the class action against Eletrobras abroad were closed, as was closed the discussions with the Department of Justice (DOJ), which declined to sue the company.

As a Global Compact signatory, in 2018, Eletrobras continuously supported important initiatives, such as adherence to the Brazilian Business Commitment on Water Safety and projects selected from the prioritization of the Sustainable Development Goals (SDG), which comprise the 2030 Agenda.

In December, Eletrobras launched the Business and Management Master Plan for the period from 2019 to 2023, which, among other strategic guidelines, establishes the "Profitable Growth": to sustainably grow, ensuring the company's profitability and value.

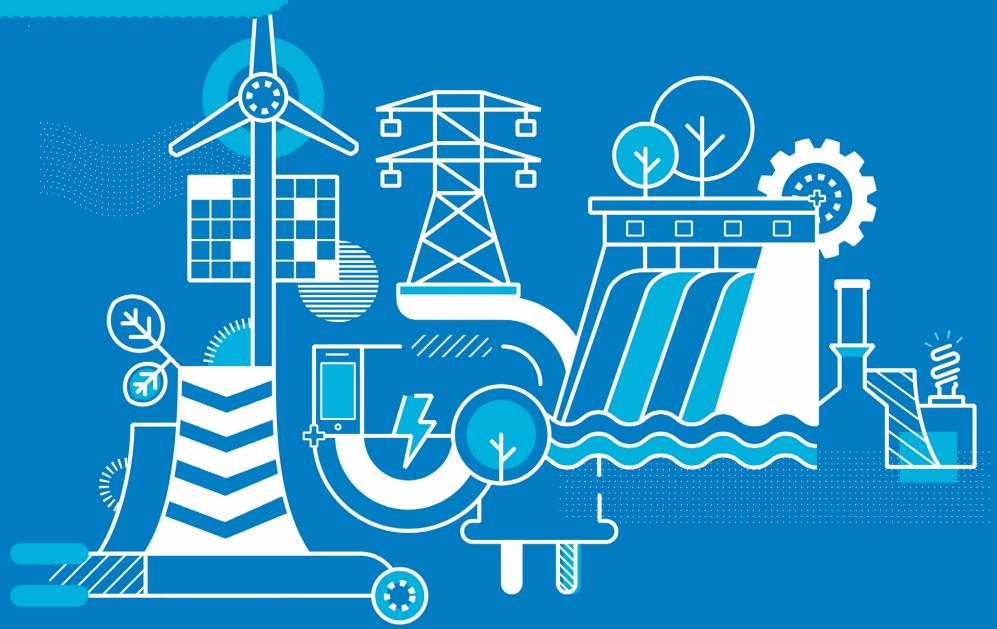
The great achievement in 2018 was to recover the market and society confidence in Eletrobras, in its employees and its leaders.

We take this special moment to thank our employees and greet them for their commitment and achievements. Now, the future awaits us, and we are getting the company ready for it, capable of competing on an equal footing with the great groups of the world's electric sector.

Wilson Ferreira Junior Eletrobras CEO

José Guimarães Monforte Board of Directors President

# 2 CORPORATE PROFILE



# **ELETROBRAS**

GRI 102-1; 102-2; 102-4; 102-5; 102-7; 102-6; 102-7; 102-10

Founded in 1962, Centrals Elétricas Brasileiras S.A. – Eletrobras controls 7 subsidiaries in electric power generation and transmission, a research center (Eletrobras Cepel), a holding company (Eletrobras Eletropar), and half of the capital stock of Itaipu Binacional. The Company also holds an indirect interest in 172 Special Purpose Entities (SPEs), and minority interests in 29 companies.

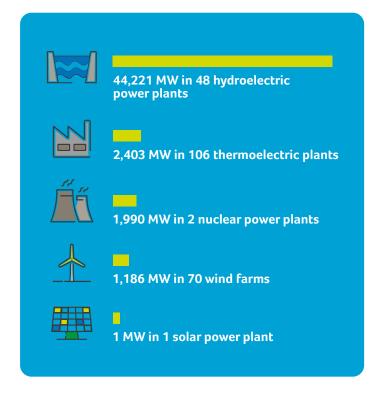
#### **2018 ELETROBRAS OVERVIEW**

Brazil's largest energy company in the world in generating capacity

#### **GENERATION**

INTRODUCTION

# 49,801 MW of power generation capacity in 227 power plants 30.5% of Brazil's capacity We are the 5" hydroelectric power generator in the world considering installed capacity 95% OF CAPACITY FROM CLEAN ENERGY SOURCES



#### **TRANSMISSION**

71,068 km in transmission lines

Substations capable of transforming **254,782 MVA** 

We are Latin America's largest transmitter, we have played a key role in Brazil interconnection in the last decades, and by 2018 we account for almost half (47.3%) of transmission lines with voltages above 230kV in the country.

#### **INTANGIBLE ASSETS OVERVIEW**



INTRODUCTION

12.9 thousand

suppliers



R\$ 337.0

invested in R&D+I

000

15,658



R\$ 499.1

#### million

in social and environmental actions



R\$ 326.9 million

invested in social, cultural and sports projects, as well as projects related to land development, promotion of citizenship, children and adolescent rights, environment, creation of job opportunities and income and health and food safety on surrounding communities.

#### **INTERNATIONAL OPERATIONS**

# 8 international projects

4.7 GW

in generation project:

1,500 km

in transmission lines

#### **COMPETITIVE ADVANTAGES:**

Expertise in large hydropower projects and regional integration, size and favorable geopolitical positioning.

#### **FOCUS:**

Projects of regional integration and renewable energy generation in Latin America, aimed at local partnerships, focusing on value creation, ensuring adequate return on investment.

Learn more in our Management Report (page 34) available at: https://bit.ly/2vytHOX

#### **2018 HIGHLIGHTS**

Signature of Technical Cooperation with the Inter-American Development Bank (IDB) and ENDE to carry out an international bidding process to contract studies for the Brazil-Bolivia Electric Interconnection.

Hydroelectric inventory studies in the binational stretch of the Madeira River along with Ende (Empresa Nacional de Electricidad da Bolivia) and CAF (Banco de Desarrollo de América Latina)

Negotiations with the Argentine state-owned company Ebisa (Emprendimientos Energéticos Binacionales Sociedad Anónima) to resume the feasibility studies on hydroelectric projects in the Uruquay River.

2018, we completed the sale of

our six distribution companies.

This movement, developed and

planned in recent years, allows us

to maintain focus on generation

and transmission, segments in

which we have expertise and distinctive characteristics.

During the year, we also held

a sale auction of 26 Special

to the pursuit of financial

discipline, essential for the

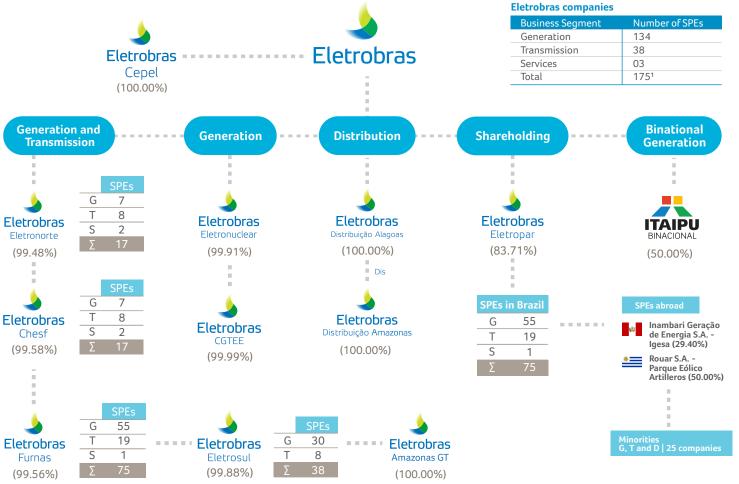
business continuity.

Purpose Entities (SPEs), 16 of

which are generation and 10 of

transmission, which contributes

#### **CORPORATE STRUCTURE OF ELETROBRAS COMPANIES**



Ma ava s not **ht**lerred

To see the other corporate events of the year, access the Management Report, page 10, available at:

https://bit.ly/2vytHOX

2. Eletrobras Distribuição Alagoas and Eletrobras Distribuição Amazonas were already sold at auctions held in 2018. The transfer of Eletrobras Distribuição Alagoas's shareholding control occurred on March 18, 2019 and Eletrobras Distribuição Amazonas is expected to occur on April 10, 2019.

<sup>1.</sup> The number of SPEs is taking into account direct and indirect interests and excluding the Specific Purpose Entities participating in more than one Eletrobras company, differently from the numbers considered in the tables of each company. In this total, two SPEs abroad are included. Intesa was not considered, which had the sale process concluded on 12/28/2018, from Auction no 01/2018, and the Costa Oeste and Marumbi, which were transferred from Eletrosul to Copel, through an exchange.

#### Ownership structure

GRI 102-7

A publicly held, government-controlled company, Eletrobras is controlled by the Brazilian government and its shares are traded on the São Paulo Stock Exchange, the New York Stock Exchange (United States), and the Madrid Stock Exchange (Spain).

Learn more about share distribution by shareholder and by region in our Management Report (page 78, available at https://bit.ly/2vytHOX



http://bit.ly/2EuSuse

# INDUSTRY OVERVIEW

#### Macroeconomic indicators

The GDP of 2018 showed a slow recovery, with a low result, and the truck drivers' strike was one of the factors that contributed most to this low growth. Year-to-date growth was 1.1% compared to 2017.

According to the supply side, the result was influenced mainly by the services sector, which grew 1.35% in the year and the industry, with growth of 0.93%, in the accumulated until the third quarter. The agricultural sector showed poor performance, with a fall of 0.34% in the accumulated over the year. In terms of demand, there was a small turnaround in domestic consumption of households in the face of a slight recovery in the labor market.

Inflation measured by the Extended Consumer Price Index (IPCA) reached 3.75% in 2018, (versus 2.95% in 2017), remaining below the National Monetary Council (CMN) target (4.5%) in the inflation targeting regime.

The IPCA was pressured in 2018, mainly due to the increase in health insurance prices, the item with the highest inflation impact of the year, with a cumulative increase of 11.17%, according to IBGE.

#### Sector indicators

According to the Brazilian Energy Research Agency (EPE), electricity consumption reached 472,242 GWh until December 2018, an increase of 1.1% compared to 2017, following GDP growth.

The climate and billing cycle made household consumption grow 1.2% p.a. Commercial grade increased 0.6% p.a. with growth in all regions and industrial consumption grew by 1.3% p.a. As for the geographical regions, there was a fall of 5.5% in the Northern Region. The others registered increases in relation to 2017: 1.4% in the Northeast; 1.7% in the Southeast and Mid-West and 1.7% in the South.

#### Regulatory overview

In 2017, the Brazilian Ministry of Mines and Energy announced a decision to democratize the capital of Eletrobras. The company's privatization proposal aimed to reduce the Union's share in Eletrobras' capital by preserving the veto power to guarantee the maintenance of strategic decisions for the country and to boost the company's investment capacity in the face of an economic growth recovery. For the process continuity, a decision of the National Congress is awaited, where Bill 9,463 / 2018 is being analyzed.

For the Generation segment, the main regulatory event in 2018 was the closing of the Public Hearing 16/2017, whose objective was to obtain subsidies for the regulation improvement of the periodic review of the Generation Annual Revenues - RAGs of the hydroelectric plants included in the regime of physical security and power quotas, pursuant to Law No. 12,783 / 2013.

The result of this process allowed the incorporation into the generation revenues of the quota plants of a portion, whose purpose is to enable improvements in these assets (GAG Improvement), which resulted in an increase in the revenue level referring to these plants.

For the Transmission segment, Aneel established the Annual Revenue Allowances (RAPs) for the concessionaires of public electricity transmission service for the 2018-2019 cycle (07/01/2018 to 06/30/2019). In addition to the correction for inflation, the increase in RAPs was due to the start-up of authorized reinforcements and improvements. On 12/31/2018, the corporate RAP of Eletrobras companies was approximately R\$ 10,765 million, representing an aggregate of approximately R\$ 103 million in relation to 2017.

More detail on other regulatory events that influenced the industry's generation and transmission in 2018 is available in our Management Report (page 311) at:

https://bit.ly/2vytHOX



Maintenance in transmission tower. Eletrobras Chesf / Severino Silva collection

# HOW WE CREATE VALUE

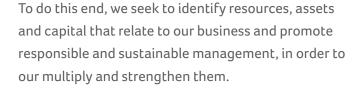
GRI 102-12

INTRODUCTION

By nature, our business is aimed at generating value to society, through access to energy, which is an essential resource for the operation of all productive sectors, as well as people relations and social and economic development.

In addition, as Latin America's largest company in the electric power sector, and one of the largest in the world, we still have the potential and the responsibility to positively influence society and our stakeholders in all aspects of our operations.

Our positioning enables us to exert this positive potential through progress towards a more efficient, responsible, transparent and, therefore, more sustainable operation in the short, medium and long term, with greater competitiveness and continuity, generating value for investors and other stakeholders.



This identification is necessary for the Company to achieve a more cohesive and efficient approach to corporate reporting, which reflects its processes and actions, enabling greater connectivity between different business units and financial and non-financial (intangible) results, and therefore, generate value in the short, medium and long term.

Considering the extension of the Company's operations and the continental dimensions of our country, the effects of this integration are multiplied and the values generated by it are more visible to the different stakeholders.

The following figure shows the main aspects of value generation of our performance.



#### **WORKFORCE AND FAMILY MEMBERS**

15,658 employees

#### Capitals:





Human

Intellectual



Social and Relationship

# Attributes of our operations to generate value - Perpetuation of inputs

- Diversity promotion
- Training and professional development
- Promotion of health and safety
- Job opportunities and income generation
- Quality of time

#### Value created in 2018

- 100% retention of male employees and 99% of women after parental leave
- 21.0% of leadership positions held by women
- 21% of leadership positions held by black, brown, yellow or indigenous people
- 763.9 thousand hours of training, R\$ 25.7 million invested in training
- 100% covered by health and safety agencies
- Injury rate of 4.6 for men and 3.6 for women
- Percent increase in the compensation of the Company highest paid individual represents 0.8 of the average percentage increase of the compensation of all employees
- Absenteeism rate of 5.8 for men and 6.0 for women
- Improvement of 5% in the Employee Satisfaction Index, achieving 74.18% satisfaction.

#### **INVESTORS, SHAREHOLDERS AND MARKET ANALYSTS**

#### Capitals:





Social and Relationship

Financial

## Attributes of our operations to generate value - Perpetuation of inputs

- Return on invested capital
- Brand valuation and reputation

#### Value created in 2018

- 25.3% common shares appreciation
- 1.3% of Net Revenue invested in R&D+I
- R\$ 33 billion in market value
- Company listed on B3's Corporate Sustainability Index
- ROE (Net Income / Shareholders' Equity) of 23.84%

#### **CUSTOMERS**

#### Capitals:





Social and Relationship

Manufactured

## Attributes of our operations to generate value - Perpetuation of inputs

- · Sustainable and fair price hiring
- Reliable power supply

#### Value created in 2018

- 86.97% of customer satisfaction with generation, transmission and research, development and innovation
- 96.7% average availability in hydroelectric generation, 98.81% in wind power and 99.5% in transmission.

CORPORATE INTRODUCTION PROFILE

STRATEGY AND VISION OF THE FUTURE

#### **COMMUNITIES, SOCIETY AND GOVERNMENT**

#### Capitals:





Natural

Manufactured



Social and Relationship

## Attributes of our operations to generate value -

Perpetuation of inputs

- Promotion of energy efficiency
- Improvement of the country's infrastructure
- Accessible clean energy for all
- Wealth generation
- Ethical and transparent conduct
- Research and Development
- Environmental preservation and recovery
- Private Social Investment

#### Value created in 2018

- 23 million MWh saved through Procel
- 49,801 MW of generation capacity and 71,068 km in transmission lines
- R\$ 3.8 billion invested in generation and transmission
- 95.2% of clean sources in the energy matrix
- 3.5 million consumer units and 16.4 million people benefiting from the Luz Para Todos Program
- R\$ 9.7 billion distributed as taxes
- R\$ 1.4 billion paid as financial compensation and royalties for the use of water resources in hydroelectric dams
- 97% of employees and 82% of the governance agents communicated on ethics and anti-corruption
- 88% of employees trained on ethics and anticorruption
- R\$ 337 million invested in Research and Development, of which R\$ 19.3 million related to energy efficiency.
- 9 million hectares in more than 60 protected areas supported by the company
- R\$ 499.1 million invested in social and environmental projects
- R\$ 326.9 million in Privet Social Investment

#### PARTNERS, SPONSORS AND SUPPLIERS

#### Capitals:





Social and Relationship

Financial

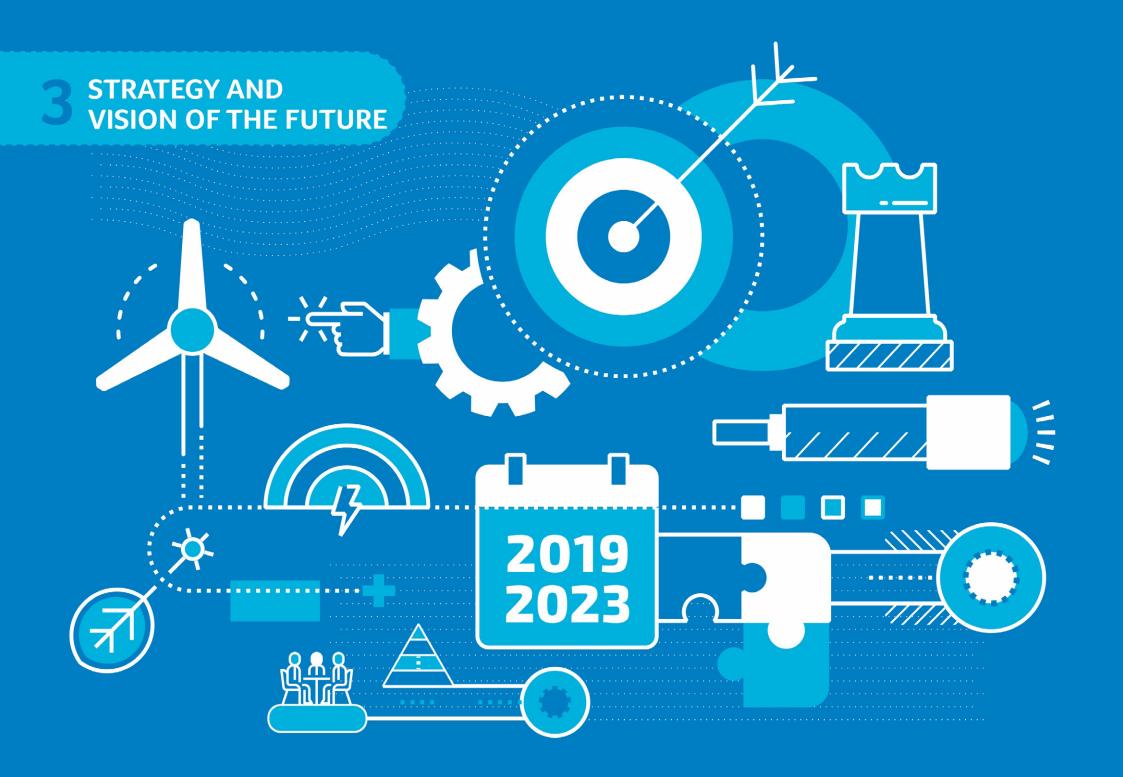
## Attributes of our operations to generate value -

Perpetuation of inputs

- · Wealth generation
- Promotion of a more sustainable and ethic supply chain

#### Value created in 2018

- R\$ 4.4 billion spent on 12,906 contracts with suppliers in 2018
- 89.7% of significant investment contracts include clauses relating to human rights
- Starting in 2018, 100% of suppliers must fill out integrity risk assessment forms.
- 90.4% of critical suppliers were training in Anti-Corruption Policies.



# STRATEGIC PLANNING

GRI 102-16, 102-26, 102-28

INTRODUCTION

The identification of trends, risks and uncertainties related to our business, based the estimates and guided the company's strategic planning in the definition of guidelines, objectives and strategies for a 15-year time frame, resulting in the 2015-2030 Strategic Plan (PE- 2015- 2030). Discover the strategic guidelines of the plan on our website: https://bit.ly/214052n.

As a result of the 2015-2030 Strategic Plan, we developed the Business and Management Master Plan (PDNG), for the five-year period. The PDNG includes targets and projects to achieve strategic objectives and projections to support decisions on business portfolio, as well as guiding the preparation of business and management plans (PNG) of our companies.

The PDNG aims to present a proposal to overcome the challenges of Brazil's current economic scenario and of the electric power sector, keeping focus on the business identity of Eletrobras and the business support bases.

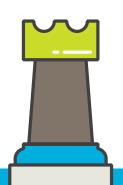
Below are the main advances made under the 2018-2022 PDNG period, and the new features and challenges of the current PDNG, with focus on the 2019-2023 period.



World Water Forum. Eletrobras holding / Jorge Coelho collection

#### **BUSINESS IDENTITY**

INTRODUCTION

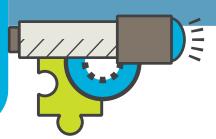


# **Mission**

Operating in the energy markets in an integrated, profitable and sustainable manner.

# 2030 Vision

Being one of the 3 largest clean energy global companies and one of the 10 largest electric power companies in the world, with profitability comparable to that of the best in the industry and being recognized by all stakeholders.



# **Values**

Ethics and transparency; focus on results; people appreciation and commitment; entrepreneurship and innovation and sustainability.



# 2018-2022 PDNG achievements

Throughout 2018, the PDNG remained in line with its strategic objectives of "enhance competitive advantages in generation, transmission and marketing, achieving corporate sustainability recognized by all stakeholders" and achieved important results in the five strategic pillars.

#### Challenge 22: Sustainable Excellence

#### **Governance and compliance**

2018 TARGET: ELIMINATE material weaknesses in our internal controls as identified by independent auditors



#### **Highlighted Initiatives**

- Standardization of Bylaws and approval lines at Eletrobras companies
- Relevant external acknowledgments (IG-Sest, Highlight at B3 and ISE 2019 portfolio) pg. 53
- Creation of the Statutory Audit Committee
- Changes in business administration: 90% of Board members and 97% of Executive directors.
- Independent evaluation of 200 Board Members and Directors of Eletrobras companies and evaluation of 190 Board Members appointed in SPEs and related companies pg. 60
- Implementation of the 5 Dimensions Program pg. 75
- Completion of pending issues with US regulators and closure of investigations before those authorities pg. 79
- Reduction of 67% of material weaknesses from 2015 to 2018

#### **Operational excellence**

2018 TARGET: REDUCE the ratio between recurring PMSO and Regulatory PMSO from 1.53 times for 1 time.



#### **Highlighted Initiatives**

- Annual savings of:
  - R\$ 74.4 million with a reduction of 758 remunerated positions
  - R\$ 1.2 billion with 2,991 terminations, of which 2,056 are from the Extraordinary Retirement Plan and 918 from the Consensus Dismissal Plan
  - R\$ 91 million reducing overtime, hazard pay and on call pay
  - R\$ 107 million with the implementation of the integrated management system ProERP in four companies in 2018 and the remaining ones to be completed by 2019
  - R\$ 616.0 million with the CSC Implementation: GO Live in July 2018
  - R\$ 649.8 million in gains with integrated trading (R\$ 329.8 in 2017 and R\$ 320.0 in 2018)
  - Creation of the working group from Resolution CNPE / 18
    with the purpose of conducting studies and analyzes to
    make feasible the Angra 3 project: Rise of the R \$ 480 /
    MWh Tariff and completion period for 12/31/2025
  - Recognition of R\$ 1.03 billion with GAG Improvement

#### **Financial discipline**

2018 TARGET: REDUCE the net debt/EBITDA ratio FROM 3.7 times to less than 3 times



#### **Highlighted Initiatives**

- Reduction of 60% in investment: R\$ 50 billion in PDNG 15-19, R\$ 35 billion in PDNG 17-21 and R\$ 19 billion in PDNG 18-22
- R\$ 1.68 billion raised from sales of shares and participations:
  - R\$1.1 billion CELG D
  - R\$ 364.7 million Energisa shares
  - R\$ 46.0 million CPFL shares
  - R\$ 70 million Tumarin shares
  - R\$ 95 million Eletropaulo shares
- Sale of distributors from the States of Piauí, in July, Rondônia, Acre and Roraima in August, and Amazonas and Alagoas, in December
- R\$ 1.3 billion raised from the sale of 26 SPEs in September
- R\$ 17 million raised from sales of administrative real estate: R\$ 12.9 million in 2017 and R\$
   4.1 million in 2018
- Gains of R\$ 1.4 billion in Tax Optimization, R\$ 750 million in 2017 and R\$ 677 million in 2018.
- Conclusion of important works, including Santo Antonio (3,568 MW), Jirau (3,750 MW), Mauá
   3 (591 MW), São Manoel (700 MW) and Belo Monte Transmissora (2,092 km)
- Works in progress: Belo Monte (11,233 MW) and Sinop (402 MW)

#### **People appreciation**

2018 TARGET: REDUCE the accident frequency rate from 2.18 to 1.38



#### **Highlighted Initiatives**

- Overcoming the PDNG 18-22 goal to maintain at least the same percentage level of women in management positions as the percentage of women in the company (effective staff): women represent 19% of the workforce of Eletrobras companies but hold 21.0% of leadership positions pg. 49
- R\$ 25.7 million invested in 764 thousand hours of training that had 51 thousand participations pg. 138
- Career development and evaluation actions pg. 138
- Review of the People Management Policy pg. 129

#### Sustainable performance

INTRODUCTION

2018 TARGET: REDUCE the GHG emission intensity (ton of CO2e emitted per thousand of R\$ of Net Operating Revenue) from 0.348 in 2016 to 0.330



#### **Highlighted Initiatives**

- Investment of R\$ 499.1 million in social and environmental actions pg. 107
- Start development of the Environmental Licensing Monitoring System (SAL) pg. 108
- Adhesion to the Brazilian Business Commitment for Water Security pg. 112
- Beginning of the valuation of the ecosystem service water supply pg. 11
- Biodiversity Conservation Symposium, held in Eletrobras Furnas pg. 116
- Human Rights Workshop organized by Fundação Getúlio Vargas FGV pg. 149
- Start of hydroelectric inventory studies in the binational stretch of the Madeira River and its main tributaries, located in Bolivian and Brazilian territories pg. 149
- New ethnodevelopment project with the Western Kayapó / Kabu Institute, which provides an investment of R\$ 11.3 million pg. 152
- Transparency and accountability in initiatives to generate value at HPP Belo Monte pg. 158



Germplasm bank. Eletrobras Eletronorte collection

#### **Integrated management**

INTRODUCTION

In April 2018, we completed the first stage of the implementation of ProERP, SAP ERP Implementation Program in a Single Instance, including Eletrobras holding companies, Cepel, Eletropar and Furnas. The second phase of the project, in January 2019, included the incorporation of the companies Eletrobras Amazonas GT, CGTEE, Chesf and Eletrosul. The final phase, planned for the first half of 2019, will incorporate Eletrobras Eletronuclear and Eletronorte.

We also created a single, centralized instance for ERP governance and management, the SAP Competency Center (CCSAP), to ensure and maximize ERP benefits and support system operation. With the implementation of Pro-ERP, we obtained annual savings estimated at R\$ 180 million, only in services related to information technology.

ProERP will bring several benefits with a single view of the business:

- gains in the operation of the Shared Services Center (CSC);
- greater speed in making business decisions through access to reliable, real-time information;
- improved control in the physical-financial follow-up on the projects;
- ensuring transparency and traceability of business information;
- mitigation of problems and material weaknesses found in SOX audits; and
- access to information, consolidation and comparison of results of Eletrobras companies in a timely and reliable manner.

#### CSC

The implementation of the Shared Services Center (CSC) aims to centralize the transactional and support activities of Eletrobras companies, such as: finance, accounting, human resources, supplies, information technology, legal, logistics and infrastructure and general services. Its main objectives are:

- Greater capacity for optimization in the use and allocation of internal resources and coordination of policies and good practices within the Eletrobras System;
- Standardization of support processes of all controlled companies, increasing control over internal compliance levels; and
- Increase the transparency and visibility
  of operations, by the availability of data
  on the business evolution and operational
  performance.

With Aneel's authorization, which took place in January 2019, and the completion of the CSC's implementation, an annual savings of around R\$ 434 million is expected.

#### 2019-2023 PDNG challenges

#### Materiality

INTRODUCTION

For the five-year strategic split, the company reassessed the main material themes for the next cycle, seeking to identify those that bring greater opportunity or risk for value creation in the long run.

In this sense, five relevant guidelines were listed, which will be highlighted over the next five years, as shown in the table below.

National and international trends	Guidelines	Performance indicators	Value added	Impact on business	Associated SDG
<ul> <li>Increased demand for energy;</li> <li>Market demand for clean and renewable energy in the energy matrix;</li> <li>Energy at affordable prices; and</li> <li>Demand for greater energy efficiency.</li> </ul>	Profitable growth Growing in a sustainable way, guaranteeing the company's profitability and value.	<ul> <li>Generation expansion (MW);</li> <li>Transmission Expansion (km);</li> <li>Adjusted Net Income;</li> <li>Global marketing index; and</li> <li>% of investment made.</li> </ul>	<ul> <li>Contribution to sustainable development;</li> <li>Financial return on invested capital;</li> <li>Availability of energy for all, with less risk of socioenvironmental impact;</li> <li>Energy at affordable prices; and</li> <li>Energy conservation.</li> </ul>	Revenues Increase in operating income.  Risks Stakeholder questioning; Biodiversity change; Changing the communities living in coexistence territories; and Displacement of populations in coexistence territories.	7 AFFORDABLE AND CLEAN ENERGY

CORPORATE PROFILE

**STRATEGY AND** VISION OF THE FUTURE **GOVERNANCE AND** COMPLIANCE

**PERFORMANCE** 

Value added

RESPONSIBLE **ENVIRONMENTAL** MANAGEMENT

RELATIONSHIPS

GRI CONTENT INDEX

#### **National** and **Guidelines** international trends Corporate engagement with Sustainable the SDG: performance

# To be recognized as

and transmission company, socially, financially responsible.

#### Performance indicators

#### **Impact on business**

#### **Associated** SDG

- · Commitment to international agreements;
- · Commitment to public policies:
- Appreciation of companies reporting on sustainable practices: and
- · Attention to the risks of climate change and changes in planet biodiversity.

an energy generation environmentally and

- Net Debt / Adjusted EBITDA:
- ISE Global Score:
- · DJSI Global Score; and
- GHG / ROL Emissions.
- Brand and business reputation appreciation;
- Availability of energy for all, with less risk of socioenvironmental impact:
- Contribution to sustainable development;
- Partnership in public policy management; and
- · Safety and reliability in operation (energy safety).

#### **Risks**

- Reputational;
- Divestment of shareholders:
- Stakeholder questioning;
- · Environmental: and
- Regulatory.



 Increased costs with more modern technologies for sustainable performance.



- More stringent regulatory determinations:
- · Demand for quality and reliable infrastructure:
- Increased productivity; and
- Ensure energy supply.

#### **Operational Excellence**

Search operational excellence throughout the value chain.

- Regulatory PMSO/ PMSO:
- Relative generation availability;
- Availability of transmission lines:
- Efficiency of generation units; and
- Efficiency of transmission units.

- · Safety and reliability in operation (energy safety);
- Availability of energy for all, with less risk of socioenvironmental impact:
- · Contribution to sustainable development;
- Improvement to the country's infrastructure:
- Increased research and innovation and technological development; and
- Energy at affordable prices.

#### **Risks**

- · Discontinuation of operations; and
- · Power failure.

#### Cost

- · Penalties from regulators; and
- Reduction in operating income.



## National and international trends

#### Guidelines

# Performance indicators

#### Value added

#### Impact on business

## Associated SDG

- Demand for greater transparency;
- Implantation of more effective controls that inspire market confidence;
- Preventive risk management; and
- Intolerance to corruption practices.
- Governance and business integrity enhancement
- Strengthen internal controls and corporate governance, ensuring business integrity.
- Number of material weaknesses reported;
- IG-Sest Global Score; and
- Score in sustainability indexes compared to other players.
- Financial return on invested capital;
- Brand and business reputation appreciation; and
- Integrity (ethical, legal and transparent conduct).

#### Risks

- · Reputational; and
- · Divestment of shareholders.

#### Cost

- · Loss of company value;
- Higher uptake costs; and
- Fines and penalties for the company and its managers.



- Demand for high performance;
- Need for more workforce qualification;
- Demand for innovation and development of new technologies;
- Accident prevention culture, promoting safe and protected environments for employees;
- To ensure human rights, with effective measures for the eradication of child labor, slave labor and protection of labor rights; and
- Valuing diversity and gender equality in the work environment.

#### People appreciation Develop and strengthen technical

strengthen technical and technological skills, valuing employees and fostering the culture of results.

- Accident frequency (with leave - own employees);
- Employee satisfaction (%);
- Amount invested R&D+I / ROL;
- Company turn-over;
- Accident severity rate;
- % of women in management positions; and
- Number of women on Boards of Directors.

- Financial return on invested capital;
- Employment and income generation;
- Health and safety promotion;
- · Quality of life;
- Fostering respect for human rights;
- Increased research and innovation and technological development;
- Professional growth and training;
- Brand and business reputation appreciation;
- Private social investment: and
- Fostering a more sustainable supply chain.

#### Risks

- · Low productivity; and
- Brain drain.

#### Cost

- · Occupational leave;
- · Labor claims; and
- Low return on training investments.



The 2019-2023 PDNG brings updates to 2018-2022 PDNG, assimilating the rapid changes in the national scenario in order to respond to the challenges that still persist for the next five years.



# PROFITABLE GROWTH



SUSTAINABLE PERFORMANCE



OPERATIONAL EXCELLENCE



IMPROVEMENT OF GOVERNANCE AND CORPORATE INTEGRITY



PEOPLE APPRECIATION

#### **Strategic guidelines**

Grow in a sustainable way, assuring the company's rentability and value

Be recognized as an energy generation and transmission company with social, environmental and financial responsability

Pursue operational excellence throughout the value chain

Strengthen internal controls and corporate governance, assuring corporate integrity

Develop and strengthen technical and technological skills, valuing employees and fostering the culture of results

#### **Strategic objectives**

Increase rentability in electric energy businesses; and

Expand generation and transmission businesses in a sustainable way.

Act as a sustainable development agent with their relationship chain; and

Optimize the indebtedness level reaching international standards.

Promote continuous improvement in process, project and decision supporting systems management; and

Adapt Eletrobras' companies operational and corporate cost structures.

Improve corporate governance through benchmarking, based on the market's best practices;

Improve internal controls and risk management by promoting transparency and reliability; and

Strengthen Eletrobras corporate integrity.

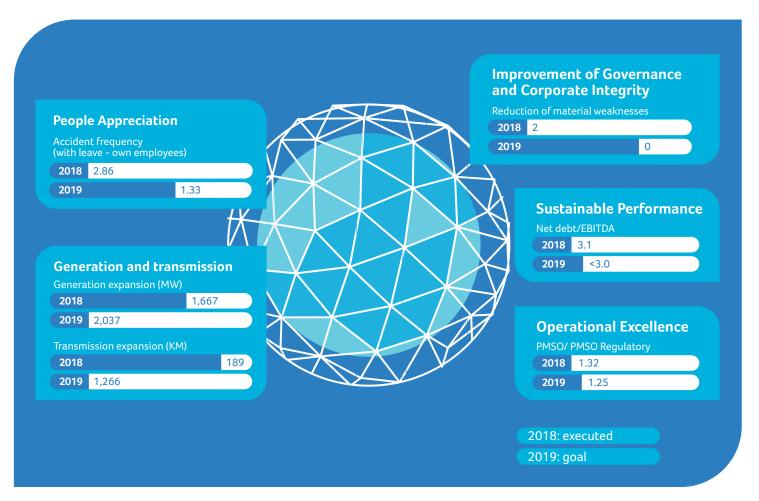
To foster high performance culture, knowledge management and recognition;

Develop R&D+I projects focused on aggregating value: and

Promote safety and employee well-being.

Thus, for each of the five strategic guidelines from the materiality analysis, we define corporate goals to be achieved in 2019, seeking an alignment with global trends and mitigation of risks posed.

For the purpose of disseminating the plan and simplifying understanding, some benchmarks of each strategic guideline were chosen, presented in the following figure, together with the results achieved in 2018, although there is a much more robust set of indicators and targets, as disclosed in the Annex II.



Get to know in detail the initiatives foreseen in the 2019-2023 PDNG available on our website https://bit.ly/2L9NOxh and, with the content and in Annex II: 2019-2023 PDNG Goals, detailing the targets set for the next year.

# Performance monitoring

We strongly believe that the achievement of our strategic objectives will lead us to a distinct position in the global power industry, generating value for all our stakeholders. To ensure that we are on the right track, we continuously monitor the development of our strategic initiatives through project management methodology, proven to be related to the success of high-performance companies.

A set of performance indicators is tracked systematically to verify compliance with the company's strategy. The result of this monitoring is regularly presented to management through executive reports, favoring the accountability and identifying needs of adjustments and corrective actions to achieve the strategic objectives

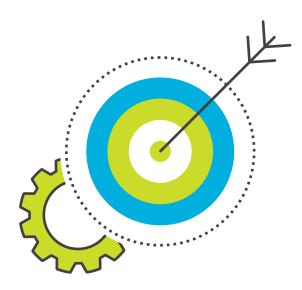
and revisions of our plans. In our portal, we make available quarterly partial results of our main indicators.

We establish tactical and operational indicators and goals related to the performance of processes that support the sustainability of our business. Some of these indicators refer to Eletrobras' commitment to the 2030 Agenda Sustainable Development Goals. These indicators are presented throughout the report and, on a consolidated basis, in Annex I - Contribution with the SDG.

To strengthen the engagement of the workforce and managers in achieving our strategic goals, we have established meritocratic management tools to recognize and reward these efforts. The Corporate Performance Targets Contract is the main one signed

with Eletrobras companies since 2010. The agreement is closely aligned with the business and management plan, containing trend and results indicators in the financial, operational, management, integrity, people and socio environmental.

The results of the agreement demonstrate the degree of alignment of our companies with the strategy of Eletrobras Holding and are impacting the managers' annual variable remuneration and participation in the profits and results of the workforce, including managers. The strategic indicators goals achievement is also input for assessing the performance of the workforce, managers and board members. These instruments are points of convergence of everyone's efforts to reach our vision of the future and the sustainability of Eletrobras.



	CORPORATE	STRATEGY AND	GOVERNANCE AND		RESPONSIBLE		
INTRODUCTION	PROFILE	VISION OF THE FUTURE	COMPLIANCE	PERFORMANCE	ENVIRONMENTAL	RELATIONSHIPS	GRI CONTENT INDEX

MANAGEMENT

Strategic Scorecard Dimensions	Strategic Guidelines	Variable remuneration of Directors	Variable remuneration of Employees and Managers	Related SDG
Economic-financial	<b>Profitable growth</b> Grow in a sustainable way, guaranteeing the profitability and value of the company.	58%	55%	7 AFTORDARLE AND CLEAN DRIFTS
Operational	Operational Excellence Seek operational excellence across the value chain.	0%	11%	9 INDUSTRY INNOVATION AND INFRASTRUCTURE
Environmental	Sustainable Development To be recognized as an energy generation and transmission company, socially, environmentally and financially responsible.	12%	14%	13 CLIMATE ACTION
Social	People Appreciation  Develop and strengthen technical and technological skills, valuing employees and fostering a culture of results.	5%	9%	8 DECENT WORK AND ECONOMIC GROWTH
Governance, Management and others	Improvement of Governance and Corporate Integrity Strengthen internal controls and corporate governance, ensuring business integrity.	26%	11%	16 PRACE JUSTICE AND STRONG INSTITUTIONS

We have a Corporate Project Management Office - Corporate EGP that monitors, analyzes and reports to top management the progress of the relevant projects and programs of Eletrobras companies - such as those linked to the Business and Management Master Plan - PDNG and to the annual variable remuneration of the managers. We follow the good practices of Project Management Body of Knowledge (PMBOK), as recommended by the Project Management Institute (PMI). We increased our maturity in project management by 36% from 2015 to 2018, according to the Prado-MMGP methodology. The greater the maturity in project management, the greater the chance of succeeding in projects and, consequently, improving business performance.

### Investments

INTRODUCTION

In 2018, Eletrobras invested R\$ 4.6 billion, corresponding to 74.1% of the budget estimated for the year. The main differences between investments planned and carried out are essentially the result of investment below projected in corporate transmission works and in special purpose entities.

When compared to 2017, there was an increase of 9.4% in total Corporate Investment and a 41.6% decrease in Investments in SPEs.

The main corporate investments were Eletrobras Chesf transmission system (R\$ 0.49 billion) and nuclear plant III (R\$ 0.41 billion), and the main investments in SPEs were in the implementation of Belo Monte HPP (R\$ 0.47 billion), Santo Antônio HPP (R\$ 0.26 billion) and Jirau HPP (R\$ 0.14 billion).

The PDNG provides for investments of R\$ 30.2 billion for the 2019-2023 period, an increase of 52.5% over the five-year period 2017-2021, of which R\$ 12 billion related to investments in the Angra 3 nuclear power plant project.

#### PDNG 2019-2023 INVESTMENT

(R\$ million - currency)

Planned investment in the amount of R \$ 30,175 million



# **R&D AND INNOVATION**

GRI 103-1; 103-2; 103-3; G4-EU8

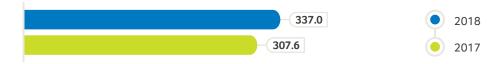
Our commitment to bring energy and sustainable development to the country is present in the Company's mission, vision and organizational values and in the transversality of our electric power programs. The continuous investment in Research & Development and Innovation (R&D+I), focused on promoting clean energy generation, environmentally less impacting and socially responsible, creating value for stakeholders, is fundamental to achieve this commitment and to our sustainability strategy.

The Electric Power Research Center (Eletrobras Cepel) has been increasing its partnership with new members and has achieved a high degree of satisfaction from its main customers. In addition, it undertakes international partnerships with institutions for technical cooperation in research, development and innovation in the areas of electricity and related services, including research of interest to both parties, training, staff development, sharing of equipment and facilities for testing in the context of international services carried out jointly with these new partners.

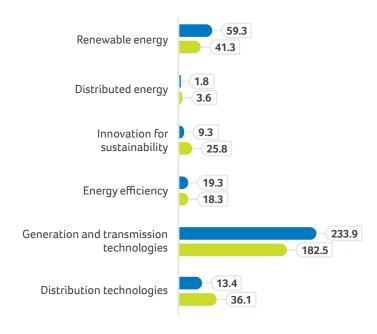
In the Eletrobras companies, the investment in R&D+I is made through Eletrobras Cepel and public calls for the capture of innovative projects to be invested in partnerships with other institutions.

In 2018, we invested R\$337.0 million in R&D+I, including the projects of Eletrobras companies, an increase of 9.6% over 2017.

#### TOTAL INVESTMENT IN R&D+I (R\$ MILLION)



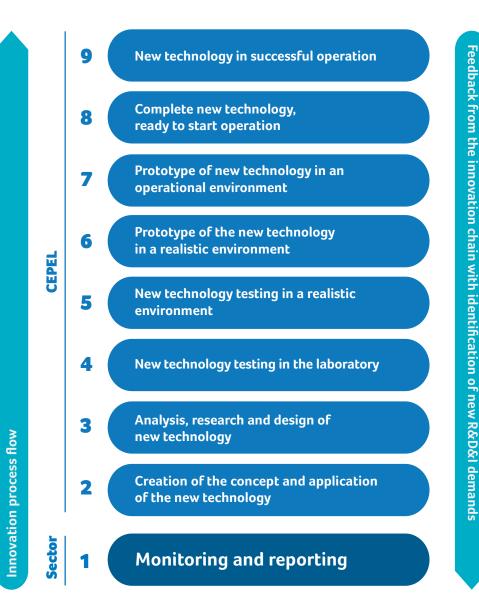
#### INVESTMENT IN R&D+I (BY CATEGORY R\$ MILLION)



# Value generation in the R&D+I process

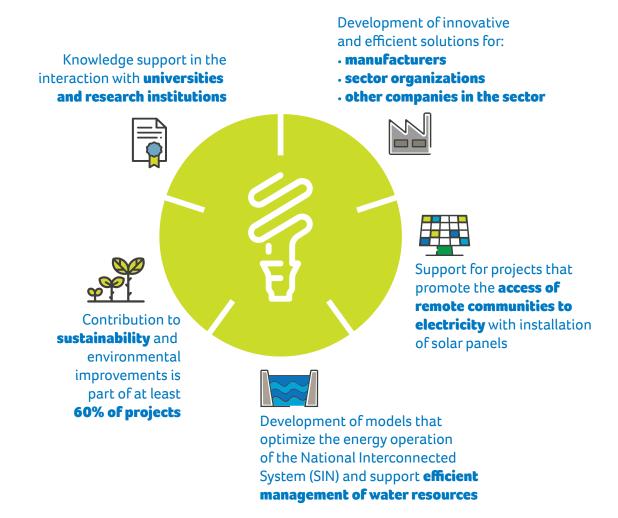
We operate throughout the innovation chain, from the early stages\* of knowledge production to the launch of the product in the market, with its application in the daily routine of the companies, training of the teams and future improvement.

**Developing innovative products and specialized services** that lead to important contributions to the electric power sector and help consolidate national technological expertise, generating value and social, economic and environmental development for different stakeholders.



# Contribution to sustainability

We present below, among the several projects developed by Eletrobras Companies in 2018, those that have the greatest potential to contribute to the social and environmental aspects for the promotion of sustainability.



# Industry and sector development

#### **Expansion and operation planning**

The series of methodologies and the computer programs widely used in expansion and operation planning and real-time operation are essential tools for the management of the sector, within strict safety criteria, enabling the sustainable use of the country's energy resources. In addition, they significantly collaborate for the diversification of the electricity matrix on a renewable basis, with the consequent reduction of financial costs, therefore relevant for the development of the Brazilian hydroelectricity production.

#### 2018 highlights

- An important evolution of the DESSEM tool has been completed in response to Aneel's definition for the program to be the tool responsible for implementing the new regulatory guidelines, price formation and dispatch on an hourly basis, starting in January 2020.
- Scenario re-sampling capabilities were introduced in the Newave PDDE strategy, bringing more precision to the future cost function.
- In the Matrix program the representation of technologies for energy storage (batteries and reversible plants) was introduced, considering horo seasonality.
- The ANATEM program began to incorporate the automated calculation of the new coupling indices and performance of the CC links and was implemented in ANAREDE the automation of the Transmission Margin Calculation.

#### **Asset management**

Products focused on the monitoring, diagnosis and management of the electric power system assets that increase the reliability and safety of system operation with great benefits related to avoiding failures and costs.

#### 2018 highlights

- The DianE system was integrated with SAP ProERP at Eletrobras and had new functionality made available with the introduction of methodology for evaluating the state of battery banks.
- The SOMA system is being installed in the Itaipu plant's generators, and the development of SOMA-TurboDiag (for the monitoring of thermoelectric turbines) was completed.
- Development of a new transient voltage measurement system for high voltage TCs (550 kV), with application in the field.



### **Efficiency in transmission**

Development of optimized transmission line projects, providing higher transmission capacity over long distances with cost reduction of between 10% and 30%, and lower environmental impact.

### 2018 highlights

INTRODUCTION

Providing new functionalities in the ELEKTRA, ATERRAMENTO
and SAD-LT computational programs, including, respectively, the
inclusion of new staked structures for insulation coordination
calculation, rapid assembly of grounding loops and a greater
number of transmission tower models and new methodology to
calculate structures' weight.

# Knowledge management and human capital

#### System operator training simulator

Simulator integrated with the Open Energy Management System (SAGE), which is used by generation, transmission and distribution concessionaires, as well as the Brazilian Electric System Operator (ONS), promoting a more effective training of the different electric system agents, simulating the practice in the real management environment.

#### 2018 highlights

Provision of the first operational version of the TopSim System, which will provide better training and qualification for transmission system operators in electricity sector companies, through precise simulations of the electrical networks operating conditions.



# Electric Vehicle Program (VE)

Developed by Itaipu Binacional, in partnership with a Swiss company from the energy generation sector, the program seeks to research electric mobility solutions that are technically and economically feasible for individual, cargo and passenger transport vehicles, with the objective of reducing consumption of fossil fuels and the consequent emissions of Greenhouse Gases.

The project has already promoted the development of electric versions of car models from various automakers, cargo vehicles, buses and even the first manned electric airplane in Latin America. The Program also seeks to develop battery technology and the sharing of electric cars in order to popularize these vehicles.

Learn more at: https://bit.ly/2EcY9Sv

# Complementary generation

#### **Brazilian Wind Potential Atlas**

Eletrobras Cepel remain updating data from the Brazilian Wind Potential Atlas of 2001, which includes information on wind speed and direction throughout the country, at different heights, and an estimate of its wind potential. The atlas is publicly available at <a href="http://bit.ly/2HFemD8">http://bit.ly/2HFemD8</a> and contributes toward the generation of knowledge for the entire sector, promoting the planning and expansion of clean and renewable wind energy projects in the country.

#### 2018 highlights

INTRODUCTION

Conclusion of parametric adjustments of the BRAMS (Brazilian Atmospheric Modeling System) model results, considering data measured in the years 2012, 2014 and 2015, which allows greater precision in the evaluation of the wind potential. These results will be publicly available on the internet (http://bit.ly/2HFemD8), throughout 2019.

By 2019, Eletrobras Cepel's investments will be directed to acquisitions of equipment and systems aimed at supporting the development of research, as well as updating and expanding its laboratory infraestructure.

# Planning and operation of new distributed sources

New distributed and intermittent sources of energy generation have been quickly disbursed, mainly wind and solar power. With this, the sector must face important challenges with the expansion planning model, system operation and the technological knowledge of the equipment involved. Eletrobras Cepel prepares itself to tackle these challenges by investing in the constant evolution of operation management tools such as Newave (in order to incorporate these new sources) and DESSEM, responsible for implementing the new regulatory guideline for price formation and dispatch on an hourly basis from January 2020. Thus, the projects support the transformation of the national electricity system into a more sustainable and efficient model, in addition to contributing to a more efficient management of energy resources, considering the insertion of wind energy sources in the planning of the electro-energetic operation.

#### 2018 highlights

 Resources were introduced to the energy planning and scheduling programs to incorporate intermittent (wind) sources uncertainty modeling into the DECOMP model and the consideration of fast storage devices (batteries) in the DESSEM model.

In 2018, Eletrobras Cepel participated actively in the debates on climate change inside and outside the company, elaborating the technical report "Adapting to Climate Change in Eletrobras Companies - risks and opportunities" and participating in the International Workshop "Adaptation and Resiliency Indicators for Eligibility of Hydropower Projects to Climate Bonds", from the International Energy Agency, the International Hydropower Association and the Mott MacDonald Consultancy.

# Climate change management

#### Mudclima

Project that supports Eletrobras in the strategy of adaptation to climate change, addressing three dimensions related to climate change:

- Researches for the use of climatological information in the construction of scenarios of flows to the reservoirs, evaluating the impact of climate change on the generation of energy in Brazil;
- Strategies and actions for social and environmental adaptation to climate change, one based on communities and another on ecosystems; and
- Development of strategies and adaptation actions aimed at electric power companies.

#### 2018 highlights

- Climatic and hydrological characterization and construction of future scenarios
  of influent flows to hydroelectric power plant reservoirs from the IPCC
  Representative Concentration Pathways (RCPs) and also from the consideration of
  the El Niño Southern Oscillation.
- Implementation and application of a multicriteria analysis methodology based on the AHP and VIP Analysis methSDG for planning the long-term expansion of generation systems considering greenhouse gas emissions.
- International Workshop "Adaptation and Resiliency Indicators for Eligibility of Hydropower Projects to Climate Bonds", with the participation of Eletrobras Cepel, International Energy Agency, International Hydropower Association and Mott MacDonald Consultancy.
- Creation of the Technical Report "Adapting to Climate Change in Eletrobras Companies - Risks and Opportunities".

RESPONSIBLE

MANAGEMENT

# Management of water resources

# Optimization models for the energy operation of the National Interconnected System (SIN)

As hydroelectricity is the country's main source of energy, we have a portfolio of continuously evolving and improving models aimed at optimizing energy operations (such as the Matriz, Newave, Decomp and Dessem projects), officially adopted for the planning of the SIN operation in order to contribute to the efficient management of water resources.



Salto do Curuá (PA). Eletrobras holding/Jorge Coelho collection

### Flows forecasting and generating models

Eletrobras Cepel develops forecasting (Previvaz) - which in 2018 evolved studies to start promoting daily rather than weekly forecast - and generation models of flow scenarios (Gevazp), required for the planning of the operation and for planning and scheduling models of flood control in the reservoirs of the hydroelectric power plants (Cheias project), allowing for more efficient management of water resources, allowing the shared use of reservoirs.

#### 2018 highlights

- In the CHEIAS project, a study was carried out to verify
  the influence of the ENSO (El Niño Southern Oscillation)
  phenomenon on the behavior of the flood regime in the
  Paraná river basin. The results of this study will allow to
  optimize the use of the reservoirs of the hydroelectric plants
  to control floSDG in the region.
- In the PREVIVAZ project, the analysis of numerical forecasts
   of daily rain was intensified, aiming to evaluate its use in the
   daily forecast models and in the future version of the weekly
   PREVIVAZ forecast model. In addition, an integrator system of
   flow forecasting models was developed, composed of modules
   for data analysis, execution and evaluation of results.

# Incorporation of the social and environmental dimension in the planning of the electric power sector

#### Methodologies for the evaluation of the environmental dimension

Among the R&D+I projects, some are aimed to support mitigation of social and environmental impacts of the sector, such as: AAEXP (Environmental Assessment for Expansion), which develops methodologies for the environmental evaluation of generation and transmission expansion plans, and SINV – (System for Hydropower Inventory Studies of River Basins), which develops methodologies to assist decision–making processes in the feasibility of hydroelectric power plant in river basins, based on a multi objective approach, which considers the energy benefits, as well as negative and positive social and environmental impacts.

#### 2018 highlights

- In the AAEXP project, the Ambientrans Tool was updated, allowing the definition of corridors with less potential of negative socio-environmental impact through the implementation of transmission lines using geographic information systems (SIG).
- Workshop "Sustainability in Wind Farms Experiences and Perspectives", as a step in the development of the project, which has as one of its objectives to propose an action matrix for wind power projects, in order to minimize conflicts between stakeholders and, consequently, minimize risks during the implementation of this type of project.

### Fostering the innovation culture

The R&D+I investment of Eletrobras companies follows guidelines and general orientations of research and development related to science or technology, aiming at enhancing innovation capacity and competitiveness of companies. The companies, in line with the Technology Policy Commission (CPT), act in an integrated manner, focusing on optimizing investments, as well as disseminating and sharing results while maximizing performance.

Promoting mechanisms for recognition and valorization of employees, which contribute to the results of R&D+I projects, is also very important. In this context, in 2018, the CPT began planning the Eletrobras Companies Innovation Award, with biennial editions, with the main objective of "fostering an innovation culture, by appreciating the innovative effort of its employees".

The award also aims to disseminate the solutions and results that will serve as inspiration and reference for the implementation of new innovative initiatives by other employees and for the promotion of knowledge management of innovations in companies.

# COMMITMENT TO SUSTAINABILITY

GRI 102-32

# Strategic guidance

We want to maximize the value generated for our stakeholders and, therefore, our strategy seeks to balance the economic, financial, environmental and social aspects of our projects, in order to promote respect for human rights, to prevent risks, ensuring the availability and quality of the resources needed for our business continuity.

Reflecting the consistency and solidity of our commitment to results for Brazilian society and the implementation of the best national and international practices of corporate sustainability, in 2018, we were listed for the 11th time in the B3 Corporate Sustainability Index (Brasil, Bolsa, Balcão). The ISE groups publicly traded companies with better commitments and practices in corporate governance, economic-financial, social, environmental and climate change aspects.

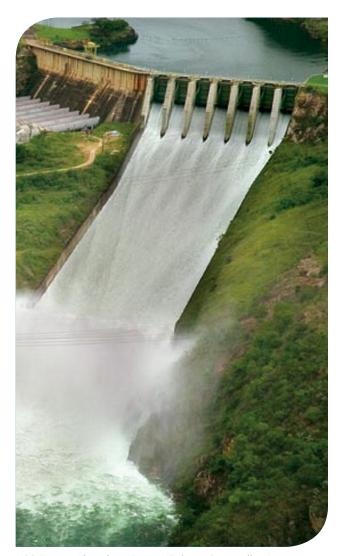
# Support to achieve the SDG

In order to optimize our contribution to sustainability beyond the business and support priority causes for the country, we have been signatories to the Global Compact since 2006, and in 2017, we integrated our strategy into the UN Sustainable Development Goals (SDG). Get to know in detail the process of prioritizing and integrating the SDG into our strategy in our latest sustainability report:

https://bit.ly/2U0p2jW

The SDG alignment demonstrates our commitment to sustainable development and strengthens ties with civil society and governments, working to foster and implement public policy. Learn more about initiatives on their websites:

http://bit.ly/2WJj8aY and http://bit.ly/30YPkXg



HPP Furnas. Eletrobras Furnas/Roberto Rosa collection

**PROFILE** 

MONITORING OF PDNG TARGETS BY PRIORITIZED SDGs Status at the end of 2018

In 2018, we worked towards the indicators alignment evolution and practices to the 5 prioritized SDGs, for which 16 indicators and their targets were defined, integrated into the 2018-2022 PDNG - Challenge 22, whose results demonstrate our evolution and focus on results.



95.2%

94.6% share in clean energy sources in the consolidated energy matrix of Eletrobras Companies

# ■ 22.99 billion of KWh

23.80 billion kWh/ **vear** in energy savings as a result of Procel actions



**21.0%** 

**21.0%** of women in management positions

**2.86** 

1.38 accident frequency rate.

**18%** 

100% human rights violations dealt with by 2020

# ■ 12.3 times

Reduction of pay inequality, the highest wage is corresponding to 10 times the lowest salary, by 2020



# **3.4%** consumption reduction

0.2% in reduction of own consumption of energy from public distribution network

**1.4%** 

1% of the regulatory Net Operating Revenue (ROL) applied in R&D+I projects

# **0.4%** consumption increase

0.3% reduction of administrative consumption from the water supply network

# **1.13%** consumption reduction

**0.2%** reduction in the consumption of fossil fuels of the terrestrial vehicle fleet



**0.247** 

0.330 tCO<sub>2</sub>e/ R\$ thousand in total emissions of greenhouse gases by Net

Operating

Revenue (ROL)



**94**%

**60%** of critical suppliers submitted to the due diligence evaluation

**83.4%** 

40% of suppliers stimulated to adopt practices of valorization and promotion of diversity

**96%** 

**100%** of employees trained in anti corruption courses

**90%** 

**60%** of critical suppliers trained in anti-corruption policies and procedures

**99%** 

60% of commercial partners trained in anti corruption courses

Goal achieved

Goal partially achieved

We identified 43 cases involving actions, projects or programs developed by Eletrobras and its companies, which are aligned with the prioritized SDG.

Our efforts and the main results of the commitment to the 2030 Agenda permeate the whole report. We highlight, in particular, the main actions, achievements and challenges related to the five SDG prioritized in our vision for the future. Our business and activities also contribute to some specific goals of other SDG, as indicated at the beginning of each chapter.

To reinforce our engagement with the 2030 Agenda, we present in the Annex I **Contribution with the SDG** the indicators and targets for 2019 that show our efforts and vision of the future to reach our commitments to SDG by 2030.

In addition, the agreement of multi-year indicators and targets directly linked to the SDG inserted in the Strategic Plan, linked to the variable managers and employees' compensation strengthens and brings consistency to the implementation of the 2030 Agenda.



Eletrobras Eletrosul was a finalist for the National Sustainable Development Goals Award - SDG Brasil Award, an initiative of the federal government, which will be awarded biennially until 2030. The submitted project, Alto Uruguai I, is based on three axes: energy conservation (rational and non-wasteful use), use of alternative energy sources with emphasis on protecting the environment and universal access to electricity.

# Management structure

GRI 102-20; 102-32

INTRODUCTION

To ensure alignment among planning, strategy, performance and sustainability, Eletrobras relies on the Sustainability Management Executive Committee, which is linked to the Presidency, reports to the Strategy, Governance and Sustainability Committees and is coordinated by the Superintendence of Strategy, Business Management and Sustainability.

The committee is responsible for implementing internationally recognized sustainable management processes, procedures and tools within Eletrobras companies, monitoring and evaluating results, as well as establishing goals and improvements.

The superintendence is responsible for supporting and interacting with the Strategy, Governance and Sustainability Committee, disclosing and disseminating the guidelines established by the committee, and proposing improvement plans, topics identified in the materiality research and the editorial model adopted in the Annual Report.



Main power house HPP Belo Monte. Norte Energia collection

### Voluntary commitments

GRI 102-12; 102-13

INTRODUCTION

We endorse national and international initiatives that discuss social, environmental, economic and human rights issues in business, in order to expand our potential contribution to sustainable development.

Eletrobras also voluntarily participates, in a strategic way, in organizations focused on the promotion of sustainability in different topics, which are relevant to its business.

#### **Support for initiatives**

- Pro-Equity Gender and Race Program, since 2005;
- UN Global Compact;
- Declaration of Commitment to Fight Against Sexual Exploitation of Children and Adolescents;
- · Women's Empowerment Principles;
- Sustainable Development Goals SDGs;
- Brazilian Business Commitment for Water Security;
- · National Volunteer Program Viva Volunteer; and
- · Open Letter of Companies for Human Rights.

#### **Corporate sustainability**

- Brazilian Business Council for Sustainable Development CEBDS;
- Global Compact Brazil Network CBPG;
- Global Reporting Initiative GRI Community; and
- Ethos Institute of Business and Social Responsibility.

#### **Business management**

Brazilian Institute of Corporate Governance – IBGC; and

RESPONSIBLE

MANAGEMENT

National Forum on Ethics Management in State-owned Companies.

#### **Environment**

Brazilian Electricity Sector Environment Forum – FMASE.

#### Climate change

- Brazilian Forum on Climate Change (FBMC);
- Companies for Climate EPC;

#### Water

- National Council of Water Resources CNRH; and
- World Water Council WWC.

#### **Industry development**

- Chamber of Electric Power Commercialization CCEE;
- Brazilian Association of Thermoelectric Generators Abraget;
- Brazilian Association of Electric Power Distributors Abradee;
- Cier (Regional Energy Integration Commission) Brazilian Committee Bracier;
- Brazilian Committee on Dams CBDB;
- Brazilian Association of Electric Power Generation Companies Abrage;
- Brazilian Association of Large Electric Power Transmission Companies Abrate;
- Brazilian Association on Wind Energy ABE Eólica;
- Brazilian Association on Nuclear Energy ABEN;
- World Association of Nuclear Operators WANO; and
- World Nuclear Association WNA.

# 4 GOVERNANCE AND COMPLIANCE



# CORPORATE GOVERNANCE

### Commitment

INTRODUCTION

GRI 103-1; 103-2; 103-3

Ethics, transparency, equity, accountability and corporate responsibility are the guiding principles of our governance practices.

As we are a publicly traded company with shares traded in Brazil, the United States and Spain, we comply with the requirements of the Securities and Exchange Commission (CVM) / B3 - Brasil, Bolsa, Balcão, the Securities and Exchange Commission (SEC)/ New York Stock Exchange (NYSE) and Latibex, of the Madrid Stock Exchange.

Our commitment to best management practices and sustainability was recognized through important achievements in 2018:

- for the third consecutive year, we reached the maximum score in the Governance Indicator of the Secretariat of Coordination and Governance of State-Owned Companies (IG-Sest);
- we were certified by the Governance Highlight Program on State-Owned Companies of B3 — Brasil, Bolsa, Balcão;
- we were one of the nine companies, among the 110 largest in Brazil, that obtained the maximum score in the implementation of its integrity program according to Transparency International; and
- we received the Business Ethics Award for the Integrity Mechanisms for Third Parties of Eletrobras Companies.

In addition, we are listed in Level 1 of Corporate Governance and in the Corporate Sustainability Index (ISE), both segments of B3 that recognize the commitment and adoption of best practices in governance and sustainability, respectively.



The Minister of Planning, Esteves Colnago, and Eletrobras Board Advisor, Edvaldo Luis Risso, for IG-Sest certification. Ascom-MP Collection

## Policies and tools

GRI 102-16

INTRODUCTION

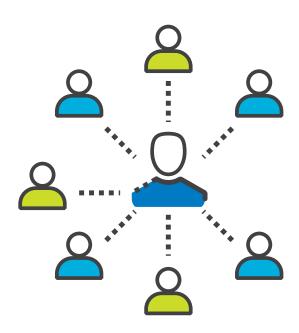
We have an institutional structure of policies and management tools, continuously updated, that establish standards, values and behaviors to be observed for good business governance.

Improving the robustness of these documents and policies favors the creation and maintenance of a safer business environment by ensuring management alignment with established principles and values, reinforcing company commitments and enhancing investor and market confidence in general.

### Main management tools

- Bylaws;
- Manuals, guides and regulations;
- Guidelines, codes, and policies to guide conduct and commitment on different aspects and relationships involving strategic issues such as ethics, compliance, integrity, risk management and sustainability;
- Specific policies on issues relevant to the business operation (e.g., systems, people management, project management, etc.); and
- Rules and internal regulations of the governing bodies.

**Click here** for the full documents available on our website.



CORPORATE STRATEGY AND GOVERNANCE AND RESPONSIBLE
PROFILE VISION OF THE FUTURE COMPLIANCE PERFORMANCE ENVIRONMENTAL RELATIONSHIPS GRI CONTENT INDEX

# Management structure

GRI 102-16; 102-18; 102-17; 102-19; 102-22; 102-23; 102-24; 102-26; 102-30

# **MANAGEMENT ON 12/31/2018**

# **CEO (non-executive)**\* José Guimarães Monforte

#### **Directors**

INTRODUCTION

Carlos Eduardo Rodrigues Pereira (representing the employees)

Elvira Baracuhy Cavalcanti Presta (representing the minority shareholders holding preferred shares)\*

José Pais Rangel (representing the minority shareholders holding common shares)\*

Ariosto Nunes Culau

Edvaldo Luís Risso

Manoel Arlindo Zaroni Torres\*

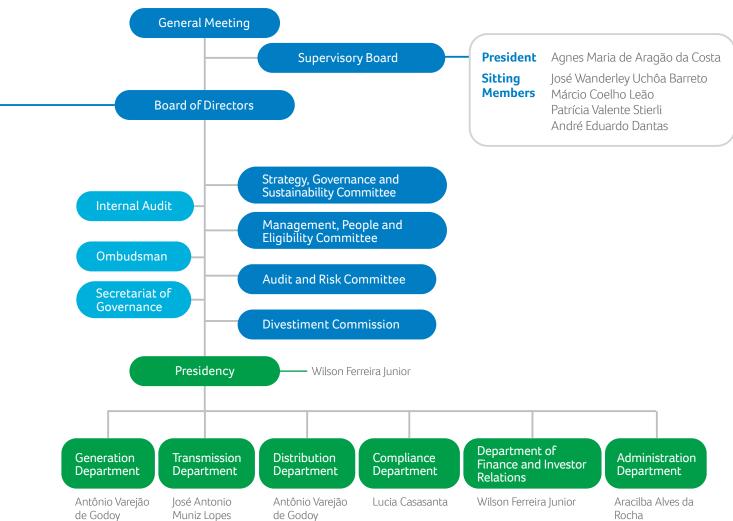
Mauro Gentile Rodrigues Cunha\*

Vicente Falconi Campos\*

Walter Baère de Araujo Filho

Wilson Ferreira Junior

\*Independent Directors



MANAGEMENT

# Shareholders Meetings

INTRODUCTION

**Objective:** decision-making body composed by shareholders with right to vote, about strategy and general business orientation.

Meetings: Annual Shareholders Meeting (AGO), held annually until April, and Extraordinary General Meetings (AGE), promoted whenever the Board of Directors deems convenient or in situations provided for by law. The company makes available on its website the "Manual for Participation in Eletrobras Shareholders 'Meetings", which supports the shareholders' understanding of the matters proposed at the General Meetings and defines how the participation in them should be.

Frequency in 2018: one AGO and four AGEs were held. At all meetings, the company made available to its shareholders the possibility of voting through the distance ballot, even when it was not mandatory, which led to the achievement of relevant quorums ranging from 79% to 88%.

#### **Board of Directors**

**Objective:** protects and values the company, optimizing the long-term return on investment, and seeks to balance the expectations of all stakeholders. Eletrobras' main governance body, in charge of the strategic direction, mission, vision and values, with active participation in the elaboration of the strategic planning and in the Business and Management Master Plan (PDNG) of the company.

Composition: up to 11 members, elected at the Annual Meeting, being at least 30% independent. The term of office of the Board of Directors members is unified and not longer than two years, with a maximum of three consecutive reelections permitted. Of these members, seven are appointed by the Minister of Mines and Energy; one Director appointed by the Minister of Planning, Development and Management; one, by minority shareholders holding common shares; one, by minority shareholders holding preferred shares issued by Eletrobras, representing at least ten percent of the share capital; and one representing the employees (Under Act No.12,353/2010).

Our Board of Directors has 6 independent members from a total of 11. In 2018, the representation of women on the Board also evolved, with 9% participation. The average board members' tenure in the current collegiate is 1.64 year.



Meetings: ordinary and extraordinary monthly meetings whenever necessary. Executive Board members may be requested to attend.

**Frequency in 2018:** 33 meetings, with attendance described as follows.

Member	Term	Participation in meetings %
Wilson Ferreira Jr.	04.28.17 to 04.26.19	100
José Guimarães Monforte	04.28.17 to 04.26.19	100
Edvaldo Luís Risso	04.28.17 to 04.26.19	94
Ariosto Antunes Culau	04.28.17 to 04.26.19	91
Vicente Falconi Campos	04.28.17 to 04.26.19	85
Esteves Pedro Colnago Júnior (1)	04.28.17 to 04.10.18	88
José Pais Rangel	04.28.17 to 04.26.19	100
Mauro Gentile Rodrigues da Cunha	03.23.18 to 04.26.19	100
Carlos Eduardo Rodrigues Pereira	04.28.17 to 04.26.19	88
Elvira Baracuhy Cavalcanti Presta <sup>(2)</sup>	04.27.18 to 04.26.19	95
Walter Baère de Araújo Filho	05.25.18 to 04.26.19	89
Manoel Arlindo Zaroni Torres	04.27.18 to 04.26.19	95
Average		

- (1) Letter of resignation received by Eletrobras on 04.10.18.
- (2) On March 12, 2019, Mrs. Elvira Baracuhy Cavalcanti Presta took over as Eletrobras' Chief Financial and Investor Relations Officer. As a result of her tenure in the new position, Ms. Elvira is no longer a member of the Board of Directors CA and the Audit and Risk Committee CAE of Eletrobras.
- (3) The term of office shall be extended until the effective investiture of the new members pursuant to article 26 of Eletrobras Bylaws.



Lecture by Bernardinho at the closing event of the year. Eletrobras holding / Cláudio Ribeiro collection

MANAGEMENT

The Board of Directors has three committees to advise it on analysis, follow-up and recommendation on specific issues in each area: Strategy, Governance and Sustainability Committee; Audit and Risk Committee; and Management, People and Eligibility Committee, the last two of which are provided for by Eletrobras' Bylaws. Each committee has three vacancies for board members, and its duties are set out in the Company's internal regulations. In 2018, 13, 34 and 16 meetings were held, respectively.

#### **2018 RELEVANT TOPICS**

INTRODUCTION

#### **ELETROBRAS' BOARD OF DIRECTORS ADVISORING COMMITTEES**

Strategy, governance and sustainability	Management, people and eligibility	Audit and risk
Strategic planning and corporate performance	Supplementary Pension Plans and Health Plans	Investments and Divestments
Governance and Statutory Reform	Corporate Policies	Financial Management
Investments and Divestments Corporate Reports	Termination Plans	Improvement of internal monitoring reports (critical areas)
Value Creation	Eligibility of managers and fiscal councilors	Litigation Management Regulatory Affairs
Financial performance and funding Physical and Financial Monitoring of Major Works / Projects	Unified People Management Regulation	Corporate operations
Sustainability Agenda	Directors' Perfomance Evaluation	Integrity and Compliance
R&D+I	Career and Compensation	Internal Audits
Integrity and Compliance	Human Capital Development	Ombudsman and Whistleblower Channel
Corporate Policies Ombudsman and Whistleblower Channel		Supplementary pension plan
		Financial Statements
		Internal controls Risk Management Information Security

Moreover, it has the support of the Divestment Commission, created in 2017 and made up of three Board members and two employees, whose purpose is to support decisions to sell shares in companies that it owns.

Meet the composition in the internal regulations of the committees and in the Regulation of Internal Audit at Eletrobras website.



#### **Executive Board**

**Objective:** general management of Eletrobras, based on the guidelines set by the Board of Directors.

Composition: seven officers, including the CEO, elected by the Board of Directors. The term of office is unified and not longer than two years, with a maximum of three consecutive reelections permitted. The chief executive officer is elected from among the Board of Directors members, excluding the chairman of the board of directors. The board also has committees and workgroups created on-demand to discuss the technical aspects of management matters.

Meetings: weekly meetings.

Frequency in 2018: 79 meetings.

# **Supervisory Board**

**Objective:** responsible for representing the shareholders' supervisory function, overseeing the management to ensure compliance with their statutory and bylaw duties.

Composition: five members and their relative alternates. The term of office of the Supervisory Board members is no more than two years, with a maximum of two consecutive reelections permitted. Members' appointment is made by the majority shareholder (three members); by the minority shareholders holding common shares (one member) and by the minority shareholders holding preferred shares (one member).

**Meetings:** ordinary and extraordinary monthly meetings whenever necessary.

Frequency in 2018: 13 meetings.

# Selection and development of leadership

GRI 102-27; 102-28; 102-35; 102-36; 102-37

With the publication of Law 13,303 (State-Owned Companies Act) and its regulations (Decree 8,945) - which has brought new requirements for the selection and qualification of candidates for management and Supervisory Board member positions at state-owned companies -, since 2016 we have improved our analysis and qualification processes for nominees and we have promoted several initiatives towards the development of these professionals.

# **EVOLUTIVE CYCLE OF THE BOARD OF DIRECTORS EVALUATION**

Ethics and compliance based selection

Continuous development



Compensation aligned to the business' value creation



#### Selection

Our process for analyzing the nominees for positions at the Board of Directors, Executive Board and Supervisory Board, complies with the company's legislation, Bylaw's and other normative documents, and since 2016, it was improved to ensure an ethical and valuecreating process.

For all appointments to directors and officers, the integrity and governance areas make a preliminary analysis on the compliance status of the nominees - with reference to the sanctions database applied by the Public Ethics Commission and the electronic websites of regulatory agents<sup>(1)</sup>, to assess whether there are

any breaches of integrity - and consultations with the ombudsmen of Eletrobras Companies.

Since 2017, in addition, the Management, People and Eligibility Committee has deliberated on the nomination of the members of Eletrobras Board of Directors and Supervisory Board and of all the companies controlled by Eletrobras, promotes and monitors the adoption of good corporate governance practices related to compensation and to the succession for the entire Eletrobras system, as well as the effectiveness of its processes, proposing updates and improvements whenever necessary.

(1) The Brazilian Securities and Exchange Commission (CVM), the Brazilian Court of Audit (TCU), the Superior Electoral Court (TSE) and the State Court of Accounts (TCE).



Meeting on biodiversity. Eletrobras holding / Jorge Coelho collection

#### **Evaluation**

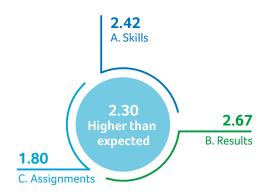
INTRODUCTION

In order to ensure performance aligned with the company's strategy, every year, the Board of directors, executive officers and Supervisory Board and committees members undergo an evaluation process, since 2013, with a unique methodology for all Eletrobras companies, covering 327 people. In 2018, the evaluation was carried out independently by external consulting company in all Eletrobras companies and included structured interview, self-assessment and personalized 360° evaluation - for chairman of the Board of Directors and CEO. The evaluation criteria include three pillars: competencies, results and attributions of the body.

The results are scored and consolidated in a report and the respondents participate join the feedback meeting.

From this analysis, we seek to stimulate the continuous evolution of governance and the training of upper leadership through training actions in line with the priority themes.

### **EVALUATION RESULTS IN 2018**



0.00-0.75 Well below	The Board of Directors has performance well below the defined standard.
0.76-1.50 Getting close	The Board of Directors has performance that is close to the defined standard.
1.51-2.25 Compliant	The Board of Directors has performed as expected in relation to the defined standard.
2.26-3.00 Exceeds	The Board of Directors has performance above expectations compared to the defined standard

#### Inspiring 2.41 communication Creation of a 2.23 strong team Understand how the business can 2.44 generate revenue Time management 2.52 Valuing organizational 2.50 culture Final Concept of 2.42 Competencies 0.00 0.75 1.50 2.25 3.00 Well Getting Compliant Exceeds below

#### Evaluation of Eletrobras' members and governing bodies

#### **Final Concept of Competencies:**

2.42 - Higher than expected

0.00-0.75	The Board of Directors has performance well below the defined standard.
0.76-1.50	The Board of Directors has performance that is close to the defined standard.
1.51-2.25	The Board of Directors has performed as expected in relation to the defined standard.
2.26-3.00	The Board of Directors has performance above expectations compared to the defined standard.

November 2018

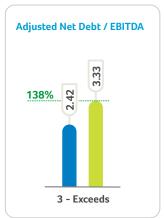
In addition, in 2018, for the first time, Eletrobras conducted a unified performance evaluation process also for the directors nominated by Eletrobras companies in their Special Purpose Entities (SPEs).

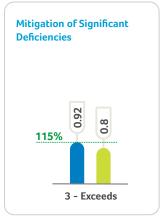
#### Results

INTRODUCTION

In 2018, the evaluation showed significant advances in Eletrobras' practices, but also important future improvements opportunities. The Board of Directors obtained a higher than expected concept in the Competencies pillar, showing not only the quality of the collegiate but also the importance of the high percentage of independent members.

In the Results pillar, the Board also exceeded expectations, with a view to overcoming a significant part of the strategic objectives of the Eletrobras 5 Dimensions Program.







Result

Goal

% Goal achievement

- 0 Does not achieve (target achieved below 80%)
- 1 Partially reached (target achieved between 80% and 95%)
- 2 Achieved (target achieved between 95% and 100%)
- 3 Exceeds (target achieved over 100%)

# Average 2.67

Evaluation of Eletrobras' members and governing bodies

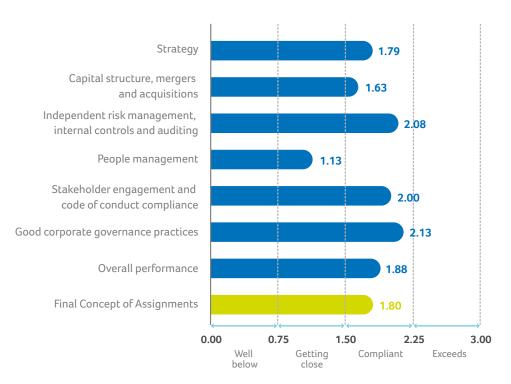
# Final Concept of Results:

2.67 - Higher than expected

0.00-0.75	The Board of Directors has performance well below the defined standard.	
0.76-1.50	The Board of Directors has performance that is close to the defined standard.	
1.51-2.25	The Board of Directors has performed as expected in relation to the defined standard.	
2.26-3.00	The Board of Directors has performance above expectations compared to the defined standard.	

November 2018

Finally, in the Assignments pillar, Eletrobras Board of Directors obtained a concept "within the expected", showing opportunities for improvement especially in the fields of people management, capital structure and strategy.



Evaluation of Eletrobras' members and governing bodies

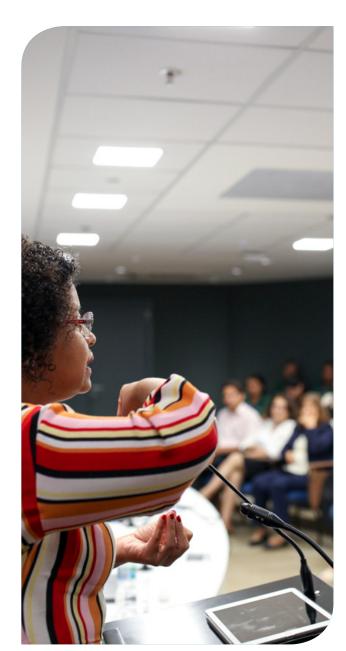
#### **Final Concept of Assignments:**

1.80 - As expected

0.00-0.75	The Board of Directors has performance well below the defined standard.
0.76-1.50	The Board of Directors has performance that is close to the defined standard.
1.51-2.25	The Board of Directors has performed as expected in relation to the defined standard.
2.26-3.00	The Board of Directors has performance above expectations compared to the defined standard.

November 2018

Eletrobras understands that the above diagnosis is relevant to the improvement process of the company's governance practices and shares the view of the evaluators that there is room for significant improvements in the coming years.



Ethos Institute lecture on Women's Day. Eletrobras holding / Cláudio Ribeiro collection

# Development

Since 2017, we have the Eletrobras' directors and officers Improvement Program, with educational actions to promote, in all Eletrobras Companies, the development of Board of Directors, Supervisory Board members and officers consistently and continuously.

The program consists of lecture, annual conferences, face-to-face and online courses and, in 2018, developed six lectures and improvement workshops for Eletrobras directors and officers on governance, integrity, capital markets, internal controls and the Code of Ethical Conduct and Integrity. In all, there were 272 participations in 927 classroom hours.

# Compensation

#### **Board of Directors and Supervisory Board:**

according to the legislation establishes that the compensation of the members of these bodies of the federal state-run and mixed investment companies shall not exceed 10% of the average monthly remuneration of the directors. Members

of the Board of Directors are not paid any additional compensation as consideration for their board committees and/or advisory commissions' duties, except the Audit Committee members, who may have a different compensation depending on the workload.

**Executive Board:** The monthly remuneration of the Executive Board is determined at the Shareholders' General Meeting, following the guidelines of the Department of Coordination and Governance of State-run Companies (Sest).

The annual compensation of the Eletrobras CEO in 2018 was R\$ 688,530.96 (including the amount received as a Board of Directors member) and for the other Officers was R\$ 598,350.84.

In the same year, for Eletrobras workforce, the median of the total annual fixed remuneration was R\$ 142,273.62.

Thus, the ratio between the annual compensation of the CEO and the median of employees was 4.84.

Strategic cornerstone

The table below summarizes the annual amounts paid to the different corporate governance bodies of Eletrobras.

Compensation (R\$)	2018	2017	2016
Board of Directors	588,596.49	661,975.71	673,081.19
Supervisory Board	382,649.66	393,229.11	405,633.14
Executive Board	6,948,244.60	8,323,204.63	7,814,294.60
Audit Committee and Risks	901,556.04	-	-

Values according to Management Proposal 59<sup>a</sup> AGO in 2019.

The Annual Variable Remuneration Program (RVA) can add up to 4.5 compensation and is structured based on goals for performance indicators agreed between the Board of Directors and the Executive Board of each of the Eletrobras companies.

The indicators are linked to the PDNG, in addition to the performance evaluation indicators of the Executive Board, Sest Compliance Indicator and indicator linked to the business units (projects assigned to each board), ensuring leadership alignment with the with the business value creation strategy.

The AVR is paid in five years: - 50% in the first year, 20% in the second year, 10% in the 3rd, 4th and 5th years -, and the payments for the 2nd to 5th year conditioned to the result (net profit), reinforcing the commitment to corporate sustainability and the generation of perennial value.

#### **2019 GOALS**

Category	of the 2019-2023 PDNG	Indicator
	Profitable growth	Strategic Alignment Index – IAE (CMDE)
	Financial Discipline	Adjusted Net Income
Corporate (the company as a	Operational Excellence	Personnel, Material, Services and Other (PMSO) / Adjusted Net Operating Revenue
whole)	Profitable growth	% of Investments Made in PDNG
	Sustainable Operation	GHG emissions from the use of fossil fuels in the vehicle fleet or GHG emissions from TPPs for net energy generated by TPPs or Total GHG emissions on Net Operating Revenue
Callagiata	Governance and Corporate Integrity Enhancement	Board of Directors Evaluation
Collegiate	Governance and Corporate Integrity Enhancement	Sest Compliance Indicator (Compliance with regulatory deadlines)
Business unit (*) (specific indicators for each Board)	Operational Excellence	Project Success Index by Board

<sup>(\*)</sup> Each of the boards is responsible for one of the strategic projects of the PDNG 2019-2023 and monitors its execution. The goal is achieved when the project is developed within the expected timeframe, taking into account the strategic goals.

# RISK MANAGEMENT

GRI 102-11; 102-15; 102-29; 102-30; 102-31; 102-37; 103-1; 103-2; 103-3; 201-2; 205-2

The risk management process implemented in Eletrobras companies is integrated - coordinated by the holding company and governed by a single corporate policy - and its main focus is to reduce the occurrence of events that may negatively impact, in a relevant and permanent way, our strategic goals.

Our risk management is guided by the precautionary principle, seeking to anticipate and avoid negative impacts or be prepared to act if the identified risks materialize.

### **RISK MANAGEMENT MODEL**

Based on best international management practices: coso 2013 methodologies (committee of sponsoring organizations) and iso 31000:2018



#### Identification

Recognition and description of the risks that the company is or may be exposed to



# **Monitoring**

Supervision of the implementation and effectiveness of the selected action plans for risk management

# Communication

Clear and objective reporting of all stages and results of risk management to all stakeholders involved in the process.



Qualitative and quantitative analyzes to define the company's vulnerability to identified risks and their prioritization



#### Treatment

Decision whether to accept, avoid, mitigate or transfer the risks that the company is vulnerable



# Responsabilities

INTRODUCTION

## Management process

conduction: conducted by the risk management departments and by the risk committees of each of the subsidiaries, with general guidance from the Risk Committee of the holding company.

Assessment of results: in early 2018 a Statutory Audit and Risk Committee was created, which receives quarterly reports from the Corporate Risk Management area and brings the Board of Directors process even closer. Through the Audit and Risk committee, the Board of Directors periodically resolves on the strategic issues related to the risk management process, such as the Company's level of appetite for risk, its tolerance ranges, the role of the Board of Executive Officers in managing risks and the policy that should guide the whole process.

The most relevant results of the risk analysis are published in documents such as the 20-F Form and the Reference Form. We present below the main analyzed risks and more detail is available at the Company's investor relations website.

By 2019, we intend to implement a program for risk and control analyzes systematization, which should include a review of the risk matrix, its factors and impacts, as well as the improvement in its monitoring indicators.

# Main risks analyzed

Risk prioritization is performed based on the risk appetite defined by top management and considers topics related to sustainability in the analyzes to determine the company's exposure to the risks identified. Learn below the main risks analyzed.

# Compliance

#### Scenario

As a publicly-held government-controlled company listed on the São Paulo Stock Exchange (B3 – Brasil, Bolsa, Balcão), the New York Stock Exchange (NYSE) and the Madrid Stock Exchange (Latibex), we are subject to legislations such as compliance laws, transparency and anti-corruption, as well as the rules and guidelines of bodies such as the Securities and Exchange Commission (SEC), the Brazilian Securities and Exchange Commission (CVM), the

Brazilian Institute of Corporate
Governance (IBGC) and the
Organization for Economic
Cooperation and Development
(OECD). Failure to comply
with these requirements and
standards can generate negative
impacts for the company.

# Risk management and mitigation

Since 2016, we rely on the Compliance Program, which gives greater strength and maturity to compliance processes in Eletrobras companies and is part of the 2019-2023 Business and Management Master Plan (PDNG), monthly monitored by the Board of Executive Officers. More detail on the program is available on page 82.

Maintenance in transmission tower. Eletrobras Chesf / Severino Silva collection

# Management of SPEs and consortia

#### Scenario

We carry out some generation and transmission activities through SPEs and consortia in which the holding company or its companies participate, specifically created to bid in auctions. Therefore, our ability to meet financial obligations is linked to the cash flow and revenues from these SPEs and consortia. Due to the country's challenging macroeconomic situation, the operating and financial results of subsidiaries and SPEs may negatively affect the results of the group as a whole.

#### Risk management and mitigation

In order to standardize the management of SPEs and mitigate operational and financial risks, the holding company developed the "Eletrobras Companies SPEs Manual", with guidelines for the construction of a uniform corporate governance model, which is being replicated in all subsidiaries, establishing activities to control and mitigate risks related to the:

- Pre-constitution of the SPEs, such as the preliminary integrated assessment of the business, the partner selection process based on pre-defined premises and the evaluation of the conditions for participation in auctions; and
- Post-constitution of the SPEs, such as dividend management and financial contributions, business plan updates, as well as monitoring of the financial statements and of the implementation and operation of projects.

In addition, the SPEs manual provides guidelines to support project analysis, considering the dynamics of the process in the generation and transmission areas, including social and environmental issues.

#### Cash flow

#### Scenario

Law 12,783/13 establishes that companies are only responsible for the operation and maintenance of the generation assets under their concession, which has led to a significant reduction of their revenues, the need for greater leverage and the worsening of their risk perception.

#### Risk management and mitigation

With the strategic guidance and goals related to financial discipline in the 2017-2021 PDNG, which were reviewed and reinforced in the 2018-2022 PDNG and the 2019-2023 PDNG, we have already achieved some positive results, such as the reduction of the debt ratio (see more on page 8), the development of relevant projects, such as the Extraordinary Retirement Plan (see more on page 96), the beginning of the implementation of the Shared Services Center and the standardization of the integrated corporate management system (corporate ERP).

Learn more about the results of the 2018-2022 PDNG and the new commitments of the 2019-2023 PDNG on page 27 to 35. Since 2016, with the preparation of the 2017-2021 PDNG, management has been showing increasing concern about the Company's financial solvency, prioritizing projects that address the economic-financial balance and operational performance improvement, basically by reducing costs and restructuring and enhancing organizational processes.





Nuclear power plant Angra 2. Eletrobras Eletronuclear collection

# Licensing and social and environmental management

#### Risk scenario

INTRODUCTION

Non-compliance with specific social and environmental legislation may impact electric power generation and transmission companies.

#### Risk management and mitigation

Regarding the Company's social management approach, the indigenous issue stands out as one of the most striking issues. To mitigate its negative impacts, since 2016 the topic is included in the Eletrobras Companies Social Responsibility Policy. The topic was also included in the Environmental Policy review, approved by the Environment Committee of Eletrobras Companies in 2018 and approved by the Executive Board in 2019, including a set of specific guidelines to address the indigenous issue. Eletrobras companies have been developing actions, in partnership with the Indigenous National Foundation (Funai). Learn more on page 152.

From an environmental management point of view, Eletrobras companies have implemented environmental management systems with tested and formalized standards and procedures, including the pre-operational and operational stages of generation and transmission projects, in order to verify Eletrobras exposure to the environmental risks and the effectiveness level of the planned and implemented actions. This analysis includes the assessment of risks related to environmental controls, biodiversity and physical environment, accidents and environmental licensing. It is also worth mentioning that Eletrobras companies have a unique Corporate Environmental Policy, which defines the guidelines for handling issues

related to this topic. Thus, Eletrobras and its subsidiaries already carry out, for the most part, a more comprehensive environmental auditing processes, which aim to include criteria beyond those already required by the supervisory bodies in obtaining permits. Also in this sense, the group companies began the definition and implementation of their respective environmental management systems and Eletrobras Eletronorte, Furnas and Chesf are certified by ISO 140001 in the scope of some of their operations.



HPP Funil. Eletrobras Furnas collection

#### Climate Change Risk

#### Risk scenario

INTRODUCTION

Currently, climate change risk is the main focus of several world forums, being constantly discussed and analyzed, and giving rise to a greater movement of implementation of measures to prevent, mitigate, adapt and/or offset impacts, as well as the report its results to the market.

#### Risk management and mitigation

Based on this scenario, the assessment of the "climate change" risk seeks to determine how we can be impacted, foreseeing actions to readapt operations, as well as repairs and mitigate damages.

Therefore, it is important that Eletrobras companies can ensure the execution of control activities, such as:

- Address climate change issues in its activities;
- Know its vulnerabilities related to climate change;
- Ensure that a set of measures are implemented to adapt electric power generation and transmission systems to the climate change effects;
- Check if service providers or suppliers operate in areas susceptible to climate change effects and/or act in disagreement with the legislation and standards in force on the subject;

- Ensure to raise awareness on the social and economic effects of climate change; and
- Ensure the monitoring of the development of the National Policy on Climate Change or other related policies and regulations, such as the carbon credit market.

Since the first analyses of the issue,

we have been managing the climate change risk and dealing with all its aspects through the Working Group on Climate Strategy, which has been developing a pilot study to be used as foundation to the future elaboration of a strategy to adapt to climate change in Eletrobras companies.

In 2018, the Task Force on Adaptation to Climate Change developed a diagnosis of risks and opportunities related to climate change in Eletrobras companies, with the mapping and prioritization of the risks and climatic opportunities that apply to the organization, based on a perception survey from different areas and companies that make up the Eletrobras System.

# Operating risks – Nuclear power generation

#### Risk scenario

INTRODUCTION

Because it involves the use of radioactive materials, nuclear power generation activity may cause many negative social and environmental impacts in case of accidents or incidents during the life cycle of the projects. However, in 30 years of operation, the Angra nuclear power plants have never had an accident or event that would put at risk its employees, the surrounding population or the local fauna, flora and ecosystems. According to the Brazilian law and the Vienna Convention, damages in the event of an accident are the Company's strict liability.

#### Risk management and mitigation

All activities involving the nuclear power generation process are extremely controlled, with the supervision of national and international institutions. In this context, Angra 1 and 2 plants operate under the supervision of the National Nuclear Energy Commission (CNEN) and are subject to periodic inspections by international agencies, such as the International Atomic Energy Agency and the World Association of Nuclear

Safety is a commitment that is crystallized in Eletrobras Eletronuclear's Integrated Management Policy. It is a priority and comes before productivity and savings and should never be compromised for any reason.

Operators. The Company is also involved in the Protection System for the Brazilian Nuclear Program (Sipron) and participates in the general activities program every year, which includes, among other initiatives, courses and seminars, as well as emergency response training or facility safety exercises.

Although the Angra nuclear power plants are considered solid and have an annual budget for safety activities, following the Fukushima accident in Japan in 2011, the Company developed the "Fukushima Response Plan", comprising 30 studies, 28 projects and investments of approximately R\$ 300 million.

Eletrobras Eletronuclear Fukushima Response Plan

Created in 2011, it guides Eletrobras Eletronuclear's studies and projects to reassess the safety of Almirante Álvaro Alberto Nuclear Power Plant (CNAAA) regarding the lessons learned from the accident at the Fukushima Daiichi Central in Japan in March 2011. The intention is to prevent internal or external events, considered in the project bases or that exceed these bases, that could jeopardize the facilities' safety, in line with the Integrated Security Policy, in which the company expresses its commitment to generate energy with high safety standards, reliability and socioenvironmental responsibility. The initiatives are scheduled to run until 2022 and the Implementation Followup Report is issued every six months.

HPP Passo São João. Eletrobras Eletrosul collection

#### Operating risks – Hydropower generation

#### Risk scenario

Currently, the most important risk related to this type of activity is the hydrological risk, which consists of maintaining a systemic production level below the physical guarantee of the plants that are part of the regulated energy market. This risk is higher when the occurrence of water shortages and has negative impacts on results.

#### Risk management and mitigation

We seek to mitigate this risk through the renegotiation of the hydrological risk, a measure established by law in 2015, limiting the generators' losses during periods of shortage and extraordinary gains in periods of a more favorable flow. We also carry out the "Energy Hedge" in the amounts that are not covered by the renegotiation, that is, electricity available for sale in case of severe droughts so the Company's power production is not completely contracted.

#### DAM safety

G4-EU21

INTRODUCTION

Eletrobras maintains a firm commitment to the safety of the dams used for power generation in its projects, which by their very nature present completely different technical characteristics of design, construction and operation from the tailings dams.

It is important to note that Brazil has a specific legal and regulatory framework for this type of structure, such as Law 12,334 / 10, which establishes the National Policy on Dams Safety, and Aneel Resolution 696/15, which establishes criteria for classification, formulation of the Safety Plan and implementation of the Periodic Safety Review in dams inspected by Aneel.

Compliance with current legislation includes the mandatory creation of the Dams Safety Plan (PSB) and the Emergency Response Plan (PAE), which is an internalized practice by Eletrobras companies for all their dams.

Our companies also carry out regular inspections and periodically improve the safety criteria of all their dams and dikes, which are constantly monitored in order to minimize the risks to the population and guarantee the operational safety of their projects.

All relevant information on the subject is submitted to Aneel, which at its discretion supervises the projects, through on-site inspections, among other methods.

In keeping with its commitment to provide good services to the population, Eletrobras companies always adopt the best practices related to the safety of dams in energy generation and, therefore, are seen as a national and international reference in this area, highlighting Eletrobras companies' crucial role in the creation of the National Policy for Dams Safety.

In addition, Eletrobras companies actively participate in technical discussions involving dams safety, with a view to ensuring the integrity

of their power generation plants.
They also maintain important nongovernmental organizations working
in this area, such as the Brazilian
Committee on Dams (CBDB) and the
International Commission on Large
Dams (ICOLD).

All these facts underscore the importance of the theme for Eletrobras companies, highlighting the historical commitment to good service delivery to the population, supported by a corporate culture increasingly focused on designing, building and operating dams to generate electricity in a safe manner, responsible from the socio-environmental point of view, thus contributing to the Brazil's development.

## **BUSINESS INTEGRITY**

GRI 102-16; 102-17; 102-21; 102-29; 102-33; 102-34; 103-1; 103-2; 103-3; 205-1; 205-2; 205-3

#### **Evolution**

Improving governance and corporate integrity is one of the guidelines of our strategic planning, which underscores the importance of the theme for the company.

We are committed to ethics and the fight against corruption and fraud in order to mitigate risks and correct nonconformities, in order to guarantee the sustainability of Eletrobras companies and the confidence of our shareholders and society.

Every year, the Ethics Committees of the Eletrobras Companies participate in the National Forum on Ethics Management in State-Owned Companies, which fosters study groups, promotes the achievement of certifications and seals and holds an annual Seminar, open to all employees of the participating companies, renowned professors, governmental authorities and the general public.

In addition, over the last four years we have been continuously working to intensify and advance our ethics and corporate integrity management through the Compliance Department, which is responsible for the Integrity Program of Eletrobras Companies and for a solid institutional and regulatory framework.

These instruments establish the companies and their employees' principles, guidelines, standards and commitments of conduct in their relations with our public, and identify, mitigate and deal with transgression cases. In addition, annually the Company's Internal Audit verifies the adherence and compliance of the Integrity Program.

Main policies and standards for the promotion of corporate integrity:

- Code of Ethical Conduct and Integrity: https://bit.ly/2UbFopw
- Manual of the Anti-Corruption Program at Eletrobras Companies: https://bit.ly/2tKHWix
- Anticorruption Policy of Eletrobras Companies: https://bit.ly/2Ek4v2t



#### **Integrity Program**

INTRODUCTION

The Eletrobras 5 Dimensions Integrity Program relies on the continuous involvement of the holding company's Board of Executive Officers and Board of Directors, and covers all Eletrobras companies, through the Compliance Committee (CDC), which is composed of the companies' compliance managers.

The program is aimed at strengthening the integrity practices of processes, routines and conduct, for the development of a culture of integrity in companies through five dimensions:

1 Development of the management environment of the Integrity Program

5 Program monitoring, mitigating measures and penalties application

2 Periodic risk analysis

3 Structuring and implementation of the Integrity Program policies and procedures

4 Communication and training

Continuing our work started in 2017 (learn more on page 48 of our Annual Report 2017: http://bit.ly/2QK86Np), in 2018 one of the main advances of the program was the consolidation of the integrity management process with suppliers.

We implemented the new Bidding Procedures and Contracts Regulation, which adapts Eletrobras companies' contracting rules to that established in Law 13,303/2015 (State-Owned Companies Act) and provides for the assessment of the supplier's corporate integrity, from the contracting process to the monitoring during the execution of the contract.

We also consolidated the monitoring of suppliers identified in the initial due diligence process as high or very high risk of integrity. In these cases, we now have a monitoring plan to know and follow supplier integrity practices and mitigate possible risks. In addition, we have established integrity assessment for other relevant audiences regarding the integrity aspect, such as those involved in sponsorship, partnerships, donations and agreements and for Eletrobras Corporate Governance members. For all these cases, the analysis is performed before establishing the relationship with Eletrobras companies.

The Integrity Mechanisms for Third Parties project seeks to assess the third party integrity (suppliers, partners, grantees and sponsors), before beginning the relation with Eletrobras, by identifying and classifying the risk of fraud and corruption, as well as monitoring the third party in order to mitigate the risk.

Eletrobras was the winner of the Business Ethics Award in 2018.



Eletrobras companies identified their most critical suppliers regarding the integrity aspect and that should be monitored. For this critical group of suppliers 351 integrity due diligence forms were applied. Learn more about the process on page 146. In addition, 90.4% of the critical suppliers (338) undertook training in Policies and Anti-Corruption practices.

#### Program communication

We disseminated the Eletrobras 5 Dimensions Program through communications initiatives and training sessions tailored to each type of stakeholder, in all our companies. Among the initiatives, we highlight news broadcast via intranet, as well as lectures and videos with professionals from the Compliance Department.

We also consolidated the Integrity and Ethical Culture Week, which in its fifth edition featured lectures from internal and external experts on governance, risk and compliance, moral harassment, management and treatment of complaints, information security, social media and relationship with the public sector, among other topics related to the Eletrobras 5 Dimensions Integrity Program. At the time, an institutional campaign was launched, both internal and external, highlighting the advances of the Integrity Program, with emphasis on promoting ethical culture.

Other important educational actions carried out in 2018, focusing on specific audiences, were the Integrated Governance, Risk and Compliance (GRC) Course, which trained professionals from the Integrity teams and related areas of the Eletrobras companies and promoted an integrated performance between the 2nd and 3rd defense lines and the Fraud and Corruption Risk Course at Eletrobras Companies, which trained managers on the subject and clarified the corruption risk mapping and managing process.

Anti-corruption awareness initiatives in 2018	Number of participants
Governance agents	82%
Employees	97%
Management level	99%
Higher education level	99%
Primary and secondary level	96%
Business partners	44%

Anti-corruption training initiatives	Number of participants
Governance agents	66%
Employees	88%
Management level	88%
Higher education level	92%
Primary and secondary level	86%

The communication and training indexes on ethics and anti-corruption among employees have evolved. In 2017, 82% were trained and 90% were communicated. By 2018, the levels had increased to 88% and 97%, respectively.



#### **Complaints**

GRI 406-1

INTRODUCTION

Contact: we make available to all our audiences a unified Whistleblower Channel that can be accessed by anyone, managed by an external and independent company, with a guarantee of secrecy, anonymity and confidentiality: http://bit.ly/2WZwMnc. The channel is available in Portuguese, English and Spanish every day, 24 hours a day. In addition to the Whistleblower Channel, all Eletrobras companies have ombudsmen, bodies attached to the Boards of Directors, which can also receive complaints in person.

We also guarantee non-retaliation, as determined in the Code of Ethical Conduct and Integrity and Consequence Policy.

Investigation: the integrity management and complaint handling, investigation process is guided by internal normative documents, procedures and unified departments. The Consequences Policy establishes corporate commitments to combat corruption, anticompetitive practices, conflicts of interest and other infractions, and guides the application of consequences to actions and conduct in disagreement with the Code of Ethical Conduct and Integrity of Eletrobras Companies, with the Eletrobras Integrity Program and with the internal and legal norms.



In 2019, quarterly presentations of the Ombudsman's Office are planned in the thematic agenda of the Board of Directors. Since 2015, the Supervisory Board and the Statutory Audit Committee are informed on a monthly basis of information on complaints and other types of reports that may generate risks or opportunities for process improvement.

**Follow-up:** the whistleblower channel allows the whistleblower to monitor the progress of his/her report through an individual protocol and password, providing transparency to the process and ensuring the care and verification of all contacts received.

#### **COMPLAINTS IN 2018:**

## CENTRALIZED WHISTLEBLOWER CHANNEL OF ELETROBRAS COMPANIES

**501** complaints:

101 (20%) were considered to be out of scope and 400 (80%) were considered valid complaints

Of the total number of valid reports, 147 (37%) were concluded (went through all the accountability and mitigation decision steps).

Infractions to the Integrity Program (fraud and corruption)

79 complaints in 2018, of which 42 were concluded, 3 being valid and 1 partially valid, which went through accountability and mitigation measures.

#### **OMBUDSMAN OF ELETROBRAS COMPANIES**

**4,241** reports, of which **501** were complaints filed in Centralized Whistleblower Channel.

Of the total number of reports, 93% were concluded and 7% were ongoing at the end of the period.

- Corruption11 complaints in 2018, all of them being analyzed.
- Discrimination6 complaints in 2018, all of them being analyzed.

#### Internal investigation and audit

In addition to strengthening compliance and integrity management, as previously mentioned, 2018 brought an important event: the conclusion of pending issues with US regulators and the closure of investigations before those authorities.

Considering the scenario in which some Eletrobras companies were cited in the scope of Operation Lava Jato (investigation conducted by the Federal Police and by the Federal Public Ministry) and the risk of violation to the Integrity Program, in 2015 we started an independent investigation procedure, through the hiring of the US law firm Hogan Lovells, to assess the existence of irregularities.

The investigation was organized around the Brazilian legislation and the Code of Ethics and Conduct of Eletrobras Companies, and followed the principles of the Securities and Exchange Commission (SEC), the Department of Justice (DOJ) and the U.S. Securities and Exchange Act and Foreign Corrupt Practices Act (FCPA), which govern the U.S. capital market, as we have been liable for trading our American Deposit Receipts (ADRs) on the New York Stock Exchange since 2008.

The Radioactivity and Pripyat operations, conducted in 2016 as part of the Lava Jato Operation, resulted in the sentencing of three former executives of Eletronuclear in 2017. The independent investigation identified contracts in which irregularities could have occurred, and they were duly assessed and the respective corrective measures adopted – whether suspension or cancellation. Administrative measures were also taken in relation to employees and directors involved in the activities identified by the independent investigation, adopting, when applicable, the respective disciplinary procedures.

Since the beginning of the investigations, Eletrobras has been cooperating with the authorities: we terminated the suspects in 2016, shared information gathered by the independent investigation even assisting the prosecutors in these criminal proceedings.

On April 30, 2018, the independent investigative action initiated in 2015 by the Hogan Lovells law office, after denunciations from Operation Lava Jato, was terminated. As of this date, all new matters related to the topic are conducted internally by Eletrobras itself, through its Compliance Department. To this end, the company has been adopting the necessary measures to enable a dedicated structure, with the improvement of the management and treatment process of complaints coordinated by the Integrity System Committee (CSI), created in 2017, along with the contracting of an external Whistleblower Channel, as well as the training of its employees to investigate allegations of corruption.

On August 13, 2018, the Department of Justice (DOJ) declined to sue Eletrobras for issues involving the US anti-corruption law, not establishing any contingency or condition and without determining the indication of a monitor.

On December 26, 2018, the SEC accepted the agreement proposed by Eletrobras to cease and desist from suing the company for violation of the Foreign Corrupt Practices Act (FCPA). The agreement did not represent recognition of an illegal act by Eletrobras. In order to enter into this agreement, the SEC imposed a US\$ 2.5 million penalty for violation of the FCPA's books, accounting records and internal controls, which was mitigated by measures to remedy the material weaknesses in internal controls adopted by the company, the evolution of the compliance program and other anticorruption procedures, as well as its cooperative position adopted in the course of the investigation.

It is important to note that the favorable resolution with the US authorities was also only possible due to the quantitative extension and quality of the self-investigation procedure that was submitted to Eletrobras, with Hogan Lovells leadership. There were more than 448 thousand terabytes of data collected, and more than 49 thousand terabytes of data processed; 871 computers, 1,795 seized electronic devices; 654 background checks carried out in almost three years of research. This included all Eletrobras subsidiaries and SPEs where relevant. investments were made. Based on the findings of the independent investigation, Eletrobras has adopted the pertinent administrative measures, such as suspension of contracts, removal and dismissal of employees and directors involved, as well as negotiations for compensation of losses.

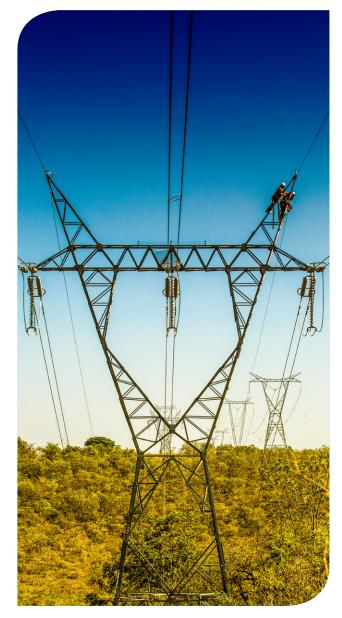
Also, on May 2, 2018, Eletrobras signed a Memorandum of Understanding to enter into an agreement with respect to the class action lawsuit based on the US securities legislation filed against the company in the United States District Court for the Southern District of New York (SDNY).

The agreement was intended to terminate all pending lawsuits initiated by investors who acquired Eletrobras common and preferred shares, represented by American Depository Shares (ADS), during the period alleged in the lawsuit, and became final in January 2019. The agreement comprised the payment of US\$ 14.75 million to class action members. The agreement does not represent recognition of an illegal act or fault by Eletrobras. The company denies the allegations and accusations made by plaintiffs in the course of the action but opted for the agreement to minimize the risks and costs of a lawsuit.

With these resolutions, there are no more pending issues with Eletrobras to be resolved with U.S. regulators, and the independent investigation in the context of the Lava Jato operation is definitely closed. However, even after the end of the investigative action, Eletrobras continues to monitor the ongoing developments of the Lava Jato operation, as well as the news involving Eletrobras companies and their SPEs, regarding corruption acts, so that it can adopt remedial measures if necessary.

As for the compensation measures, the company and its subsidiaries, Eletrobras Furnas, Chesf and Eletronorte, adhered to the leniency agreement signed between CGU and Odebrecht at the end of 2018, which represents an opportunity to recover part of the losses caused to the mentioned companies, under the corruption scheme revealed by Operation Lava Jato. The leniency agreement with Odebrecht amounted to R\$ 162 million to be paid to Eletrobras and its subsidiaries over a period of 21 years, updated by Selic.

Eletrobras evaluates other measures to compensate for damages caused to Eletrobras companies as a result of illegal acts of which it was a victim.



TL Furnas. Eletrobras Furnas collection

#### Conflict of interests

GRI 102-25

INTRODUCTION

#### Legislation

Eletrobras is subject to Law 12,813 / 2013, which provides the performance of public agents in relation to conflicts of interest and determines conflict-generating situations, the rules to be followed and the public agencies and tools for conflicts' monitoring and evaluation.

In our case, as a mixed-economy company, in addition to employees, executive directors, as public agents subject to the law (including those who are in the period of leave), are required to inform the company about:

- their financial position;
- their equity interests;
- their professional activities or possible acceptance of contracts or business in the private sector and potential conflicts of interest; and
- the existence of a spouse or relative by consanguinity or affinity in activities that may generate a conflict of interest.

As provided by law, in addition to the Public Ethics Committee, the Federal Comptroller's Office (CGU) also acts in the supervision and evaluation of conflict of interest situations.



High voltage laboratory. Eletrobras Cepel / Jorge Luíz da Fonseca collection

#### Our rules and policies

#### **Board of Directors**

The Company's Bylaws determine the conflict of interests situations in which members must register the conflict in minutes and abstain from discussing and voting. The Board of Directors should also monitor and manage potential conflicts of interest of executives, board members and shareholders, in order to avoid the misuse of the Company's assets and, especially, improper transactions between related parties.

The board member elected by employees does not participate in discussions and resolutions on matters that constitute a conflict of interest: union relations, compensation, benefits and advantages, including matters related to complementary welfare and assistance funds.

#### **Board of Executive Officers**

In order to avoid possible conflicts and the misuse of confidential and strategic information, the CEO and the executive officers may not hold management, administrative or consulting positions in electric power public utility companies or private companies which are linked or not to the electric power sector.

The exception are for subsidiaries, special purpose entities and state-owned concessionaires, in which Eletrobras has an equity interest, where they may be members of the Board of Directors and the Fiscal Council. In this cases, they must comply with the provisions of Law No. 9,292, which regulates compensation and establishes the limit of only two compensations from public companies.

#### Other employees

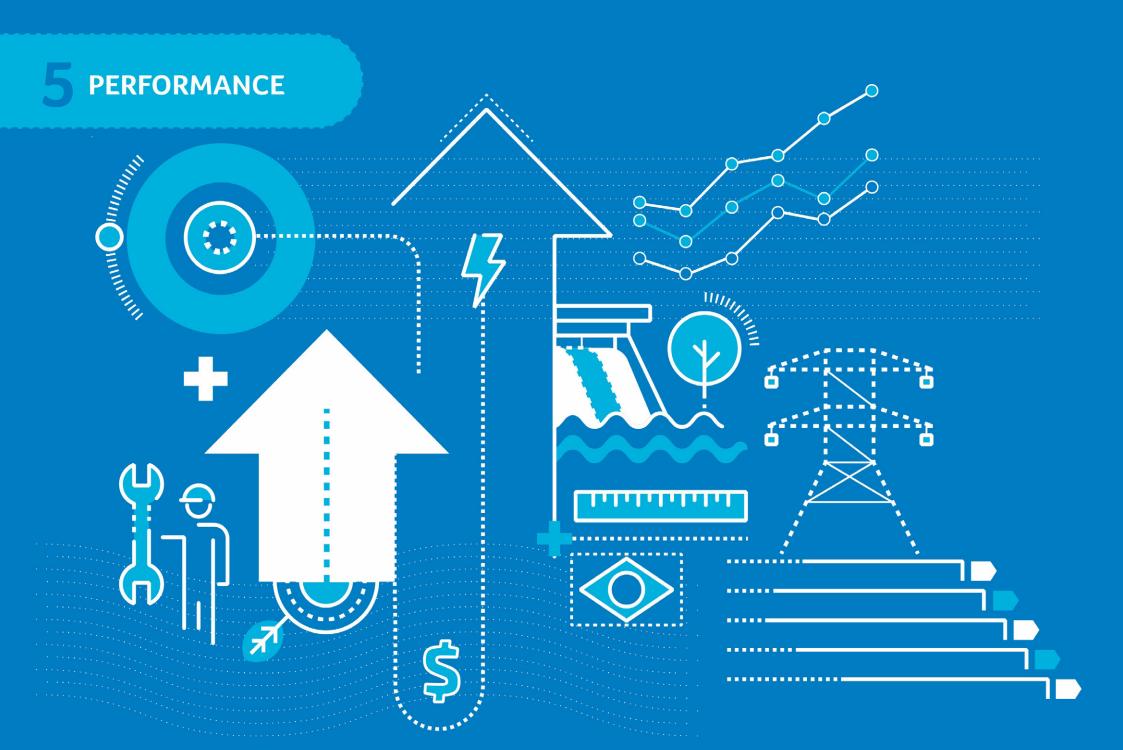
A consultation system, integrated to the Personnel Management department and the Ethics Committee, is available to all employees through the email address: conflitodeinteressesaeletrobras.com For those who wish to make formal inquiries about conduct in situations of possible conflict of interest.

The Comptroller General of the Union (CGU) created the Electronic System for the Prevention of Conflict of Interest (SeCI), which can be accessed by all government bodies and is available to all employees via the Company's intranet or on the CGU website.

In 2018, the Board of Directors approved the Negotiation Policy between Related Parties of Eletrobras Companies, with the objectives of establishing the principles guiding the execution of these transactions, safeguarding the Eletrobras and its shareholders interests. while regulating the transfer of information needed to comply with capital market legislation.



TPP Mauá 3. Eletrobras Amazonas GT / Alessandro Nunes collection



## **OPERATION**

#### Generation

INTRODUCTION

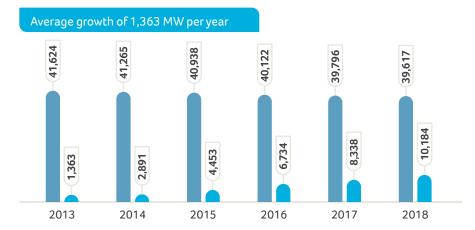
G4-EU1; G4-EU10

#### Installed capacity

Our installed generation capacity at the end of 2018 was 49,801 MW, which represents 30.5% of the 163,441 MW installed in Brazil. We have expanded this capacity, on an average 1,363 MW per year, in the last six years, in terms of installed capacity, especially via SPEs.

Of this total, 31% (15,452 MW) are from Corporate Power Plants, 26% (13,090 MW) Corporate Power Plants under the O&M regime (Operation and Maintenance), 5% (3,132 MW) Corporate Power Plants Renewed by Law 13,182/2015, 16% (7,943 MW) from Shared Ownership Power Plants, 20% (9,781 MW) from Specific Purpose Entities (SPEs) and 1% (403 MW) from Specific Purpose Companies under the O&M regime. If we consider the total installed capacity of the plants in which we have participation, this amount will be 69,436 MW.

#### **INCREASE IN INSTALLED CAPACITY (MW)**



Corporate, including under the O&M regime



In 2018, we sold 26 SPEs, achieving revenues of R\$ 1.3 billion, of which R\$ 300.6 million were already received in 2018. Eletrobras has SPEs remaining from the auction held in 2018, with a revenue projection of R\$ 1.8 billion in seven lots to be divested in 2019. These changes in our corporate structure contribute to the financial discipline, essential for the long-term business.

Projects that were concluded in 2018 are: São Manoel HPP (700 MW), HPP Anta (28 MW), Casa Nova III wind farm (28.2 MW) and TPP Mauá 3 (591 MW). Also noteworthy is the start-up of five generating units, each with 611 MW, from Belo Monte HPP, reaching a total installed capacity of 7,566 MW by the end of 2018.

In total, in 2018, there was an increase in the installed capacity of the Eletrobras System of 1,667 MW, adding about R\$ 392,339.88 million to the company's annual revenue.

Another key advance for the evolution in generation operation was the signing of the gas contract to supply the plants of the subsidiary Eletrobras Amazonas GT at a tariff approved by Aneel and ANP that will allow a profitable and positive operation.

In October 2018, a resolution of the CNPE (National Energy Policy Council) recommended adopting as Reference Price R\$ 480.00/MWh for the new Angra tariff. With this definition and a possible international partnership, it is sought to make possible to resume work at Angra 3, to finish it and the plant may start operations in 2026.

#### Strategic expansion planning

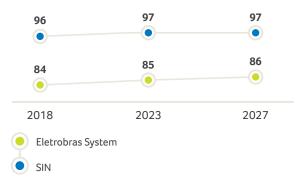
Our goal is to maintain our leadership position in the energy generation sector, prioritizing the completion of projects that are part of our portfolio. As a result, Eletrobras and its partners are expected to add about 6 GW of installed capacity to the Brazilian energy matrix, reaching a planned capacity of 53 GW until 2027, while increasing the share in sources with low GHG emissions.

Evolution in Eletrobras' capacity (MW)% of sources with low greenhouse gas emissions% of the Brazilian total



In recent years, we have increased our share in sources with low emission of Greenhouse Gases (GHG) in our installed capacity which, in 2018, represented about 95.2% of the total, decisively contributing to place the Brazilian electrical matrix as one of the cleanest and most renewable in the world.

#### % OF SOURCES WITH LOW GHG EMISSION



According to the forecast of the Ten-Year Energy Expansion Plan (PDE) 2018-2027, one of the main tools for planning country's electro energetic expansion, prepared by the Brazilian Energy Research Agency (EPE) and by the MME, our participation in relation to the country's total installed capacity tends to fall.

## EVOLUTION OF THE INSTALLED CAPACITY IN THE SIN CAPACITY OF THE ELETROBRAS SYSTEM VS. TOTAL PLANNED CAPACITY (PDE 2027)

SOURCE	Brasil - SIN (MW)	Eletrobras System (MW)	Share (%)	Brasil - SIN (MW)	Eletrobras System (MW)	Share (%)	Brasil - SIN (MW)	Eletrobras System (MW)	Share (%)
	2018			2023			2027		
Coal	3,252	350	11	3,420	350	10	3,420	350	10
Oil	9,361	302	3	5,198	47	1	2,144	23	1
Nuclear	1,990	1,990	100	1,990	1,990	100	3,395	3,395	100
Natural gas	13,143	1,247	9	17,898	1,121	6	23,021	1,121	5
Hydro	104,195	44,221	42	109,226	46,251	42	112,278	46,247	41
Wind	14,401	1,186	8	18,672	1,187	6	26,672	1,187	4
Biomass	14,797	-	-	14,463	-	-	16,583	-	-
Solar	2,296	1	0	4,639	1	0	8,639	1	0
Other	37	-	-	1,305	-	-	13,142	-	-
TOTAL	163,442	49,297	30	176,811	50,946	29	209,294	52,323	25

#### Notes:

INTRODUCTION

We shut down 4 oil plants and 1 coal plant. As for renewable sources, we added 1 wind farm and 1 SHP. We reduced our coal generation by 6% and increased wind power by 8%.

We have the goal of investing R\$ 9.5 billion between 2015 and 2019 in generation projects from clean sources. By the end of 2018 we had already invested R\$ 16.3 billion. From 2015 to 2018, Eletrobras and its

partners increased installed capacity by 4.4 GW with corporate projects and in SPEs, which represents 20% of the increase in the Brazilian Electric Matrix in the period. The projected expansion of the country's installed capacity in 2019, of the Energy Expansion Plan (PDE 2027), is around 4.1 GW. For the same period, Eletrobras and partners are expected to incorporate 2.2 GW of installed capacity into the SIN, which represents about 54% of the expected expansion in 2019 of PDE 2027.

<sup>-</sup> Our capacity Includes the Brazilian half of Itaipu Binacional (7,000 MW) and, for jointly owned plants, the installed capacity considered was proportional to the ownership interest held by the parties.

<sup>-</sup> It was considered the deactivation of some thermal plants in the coming years, as forecasted by Eletrobras Companies.

<sup>-</sup> Considering the installed capacity of the Eletrobras Companies plants that are part of the SIN, plus those that are part of the Isolated Systems (504 MW, being 15 MW from natural gas source and 489 MW from oil source), the total installed capacity of Eletrobras Companies in 2018 corresponds to 49,801 MW.

In order to learn about the Eletrobras
Companies power plant map in operation in 2018
(by region and type of power plant), in addition to detailed information on installed capacity (by company and by type of enterprise), access our Management Report, item 3.1, pages 14 to 16, available at:

INTRODUCTION

https://bit.ly/2vytHOX

#### **Energy production**

G4-EU2

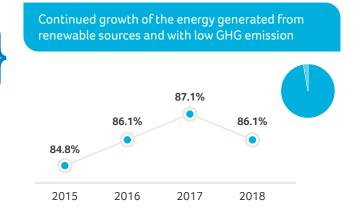
#### In 2018, we generated 184,081 GWh, an increase of 1.1% over 2017.

The positive changes followed the same consumption growth of the country's energy sector. The most significant positive change was in Eletrobras Amazonas GT, due to the start-up of all HPP Mauá 3 generating plants.

Generation from renewable sources and low emission of Greenhouse Gases remained at the same high level as in the previous year:

#### **ENERGY GENERATED FROM RENEWABLE AND LOW GHG EMISSION SOURCES**

Net Generation by source (GWh)	2015	2016	2017	2018
Solar	0	1	1	1
Wind	1,475	3,383	3,594	3,874
Hydro	139,305	143,827	155,129	155,028
Natural Gas	4,170	3,448	3,674	5,516
Uranium	14,808	15,864	15,741	15,675
Coal	2,212	2,281	1,589	1,490
Oil	4,138	2,113	2,419	2,497
TOTAL	166,108	170,917	182,148	184,081



The data presented consider corporate plants, shared ownership, Itaipu Binacional and Specific Purpose Entities (SPEs).

For details on the energy generated by company, access our Management Report, item 3.1, page 18, available at: https://bit.ly/2vytHOX

RESPONSIBLE



Exchange of transmission towers. Eletrobras Eletrosul collection

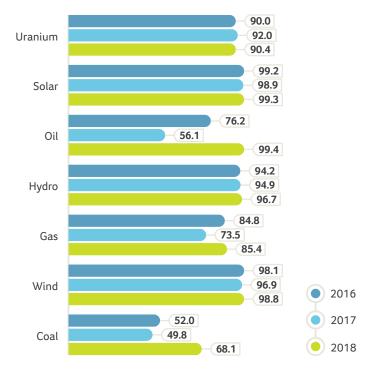
#### Availability

G4-EU11 / G4-EU30

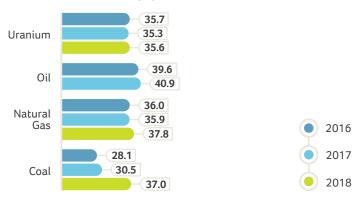
The availability factor is the indicator that is associated with the time that a power plant is available to generate power with greater reliability and continuity, that is, fewer stops and duration for planned and forced maintenance.

For the SPEs, the availability factor by wind and water source was, in 2018, respectively 96.48% and 97.11%. The data presented consider corporate plants, shared ownership and Itaipu Binacional.

#### **AVERAGE PLANT AVAILABILITY FACTOR BY ENERGY SOURCE (%)**



## YEARLY AVERAGE GENERATION EFFICIENCY OF THERMAL PLANTS BY ENERGY SOURCE (%)



#### **Transmission**

#### Lines and substations profile

#### **Transmission lines**

G4-FU4

INTRODUCTION

On December 31st, 2018, our transmission lines network totaled approximately 71,068 km. Of this total, 9.7% (6,919 km) are corporate, 79.6% (56,560 km) refer to corporate assets under O&M agreements and 10.7% (7,589 km) correspond to ownership interest in SPEs.

Considering only the basic SIN grid, that is, voltages of ± 800, 750, ± 600, 525/500, 345 and 230 kV, we are responsible for 64,833 km of transmission lines, about 47.3% of all transmission lines in Brazil.

#### **Substations**

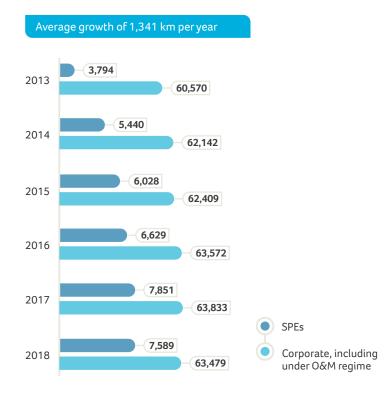
At the end of 2018, we had a transformation capacity of 254,782 MVA, of which 91.3% (232,538 MVA) through our corporate substations, and 8.7% (22,244 MVA) in SPEs. In a leveraged manner, that is, considering all the capacity of the SPEs in which we have a stake, Eletrobras contributed with 275,215 MVA in transformation capacity.

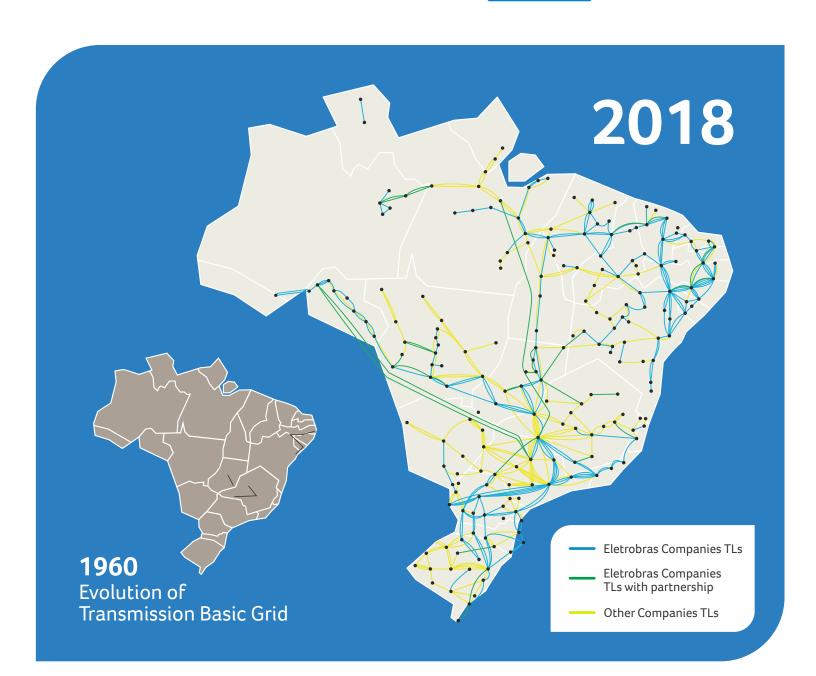
#### Strategic expansion

We are Latin America's largest transmitter; we have played a key role in the interconnection of Brazil in the last decades and in 2018 we accounted for almost half (47.3%) of the transmission lines above 230 kV in the country.

In 2018, we added 189 km of transmission lines and R\$ 103 million to the company's annual revenue. Besides expanding operations, we intend to promote the modernization and automation of facilities, with the deployment of teleassistance resources, to enable remote operation to increase operational efficiency and reliability and reduce costs.

## EXPANSION OF TRANSMISSION LINE BY TYPE OF PROJECT (KM)





In the year, however, due to the financial discipline guideline established in the company's PDNG, the investments were only directed towards the completion of works already contracted and the energization of transmission lines in its portfolio, as well as SPEs sales initiatives, as already mentioned. There was no expansion through new auctions. Despite this, Eletrobras continues to be the most relevant player in the transmission industry, maintaining its leadership.

Learn in detail the extent of transmission lines and substations per company and regulatory regime in our Management Report, pages 21 and 22, available at:

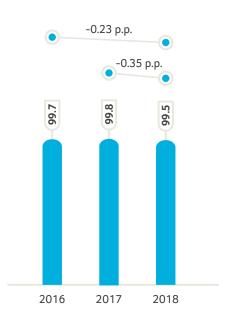
https://bit.ly/2vytHOX

#### Quality and efficiency

G4-EU6

In 2018, the transmission lines availability rate, that is, the percentage of hours in the year in which the lines remained available for the transmission system, totaled 99.46%, slight drop of 0.35 p.p. in relation to the previous year.

## TRANSMISSION LINES AVAILABILITY RATE (%)

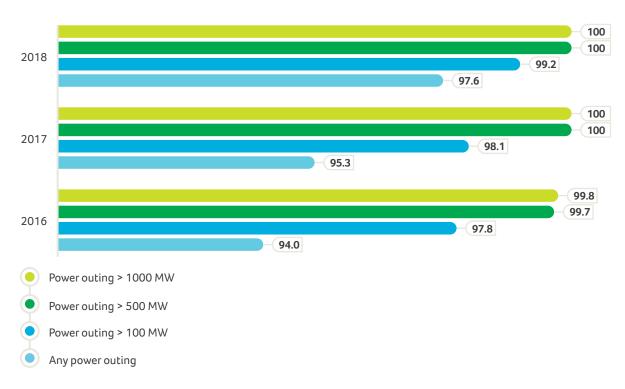


In order to monitor the quality and efficiency of the service provided, we track the robustness indicator, which assesses the ability of the basic grid to withstand contingencies without disruption of power supply to consumers, considering only disturbances originating from the transmission grid of Eletrobras Companies.

MANAGEMENT

The Eletrobras System has been maintaining the same performance from the latest years, with emphasis on the robustness for any power outing which had a considerable increase, considering the smaller number of disturbances which caused power outings in 2018.

#### **ROBUSTNESS INDICATOR OF THE ELETROBRAS SYSTEM (%)**



#### Losses

INTRODUCTION

G4-EU12

The transmission technical losses Index was 1.62%, improvement of 0.16 p.p. when compared to 2017. The electrical losses are due to the grid topology and to the operating point of the system, both situations beyond the control of the transmission companies. Therefore, changes to the profile of the optimization of the electro-energetic operation of the National Interconnected System (SIN) generate increases or reductions of the losses that, in the current Brazilian regulatory model, have the cost split between consumers and generators, without any charge to the transmission company.

#### **TECHNICAL LOSSES BY TRANSMISSION (%)**





MANAGEMENT

Itaipu Binacional substation. Itaipu Binacional/Alexandre Marchetti collection

GRI CONTENT INDEX

## FINANCIAL RESULTS

GRI 102-7

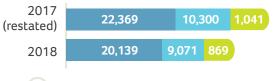
#### Operating revenue

The net operating revenue in 2018 totaled R\$ 24,976 million, reduction of 15.2% in relation to the R\$ 29,441 million in 2017 (disregarding the distributors).

#### Generation

Generation revenues decreased 10.0%, going from R\$ 22,369 million in 2017 to R\$ 20,139 million in 2018, mainly due to the negative variation of the supply account.

## GROSS REVENUE BY BUSINESS SEGMENT (IN R\$ MILLION)



Generation

Transmission

Other revenues

#### **Transmission**

Transmission revenues fell 11.9%, from R\$ 10,300 million in 2017 to R\$ 9,071 million in 2018, mainly due to the change in the measurement of the balance receivable related Remuneration of the financial asset of the Existing System Basic Network (RBSE).

#### Costs and expenses

Operating costs decreased by 41%, from R\$ 9,460 million in 2017 to R\$ 5,537 million in 2018. Operating expenses, in turn, fell 67%, from R\$ 16,455 million in 2017 to R\$ 5,502 million in 2018.

The following accounts are highlighted in this result:

 Personnel: presented a reduction of 18%, from R\$ 6,578 million in 2017 to R\$ 5,385 million in 2018, influenced by the cost reduction policy established by the Company, which offset the annual salary adjustment of 1.69%, by the Extraordinary Retirement Plan (PAE), in the amount of R\$ 853 million in 2017, and by the Consensus Dismissal Plan (PDC), in the amount of R\$ 370 million in 2018.

- Material: presented a reduction of 0.7%, going from R\$ 264 million in 2017 to R\$ 262 million in 2018, mainly due to the company's cost reduction policy.
- Services: growth of 4.3%, from R\$ 2,068
  million in 2017 to R\$ 2,157 million in 2018.
  The increase was mostly influenced due to
  the increase in the consulting service at the
  parent company.
- Other Expenses: a reduction of 5.2%, from R\$ 1,376 million in 2017 to R\$ 1,304 million in 2018, influenced by the company's cost reduction policy, which offset the provision equivalent to the GAG investment cost forecast of around R\$ 197 million.

#### Shareholding

INTRODUCTION

Shareholding recorded increase of 62% resulting from accounting of R\$ 2,692 million in 2017 and R\$ 4,352 million in 2018, due to the reversal of the negative shareholders' equity of the distributors Cepisa, Eletroacre, Ceron and Boa Vista Energia in 2018 and, in 2017, the sale of CELG D in 2017 in the amount of R\$ 1,525 million.

#### Financial result

The net financial result went from net expense of R\$ 1,736 million in 2017 to a net expense of R\$ 578 million in 2017. Such variation was caused mainly due to the accounting of the agreement with Eletropaulo in the amount of R\$ 1,064 million, impacting the interest, commissions and fees growth from R\$ 1,736 million in 2017 to R\$ 2,643 million in 2018.

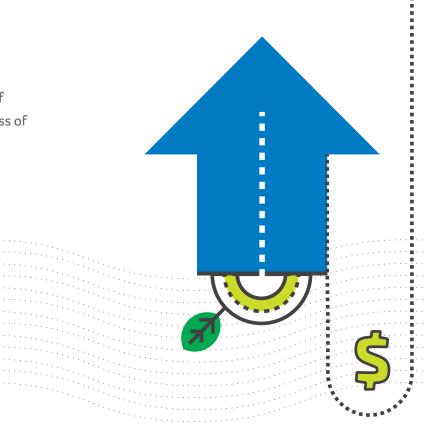
# Income tax and social contribution

The provision for income tax (IR) and Social Contribution (CSLL) went from an expense of R\$ 2,029 million in 2017 to an expense of R\$ 2,484 million in 2018.

#### Result

GRI 102-7

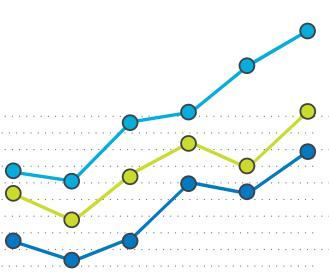
In 2018, we reported net income of R\$ 13,348 million, reversing the loss of R\$ 1,726 million in 2017.



### Statement of income for the year (DRE)

CONSOLIDATED (R\$ million)	2018	2017 Restated	Change
Net Operating Revenue	24,976	29,441	-15.2%
Energy Purchased for Resale	-1,560	-6,156	-74.7%
Charges upon Use of Electric Network	-1,482	-1,372	8.0%
Fuel for Electricity Production	-1,185	-962	23.2%
Construction	-1,310	-970	35.1%
Gross Income	19,439	19,981	-2.7%
Personnel, material, services, and other	-9,108	-10,285	-11.4%
Depreciation and amortization	-1,702	-1,524	11.7%
Operating provisions/reversals	5,308	-4,646	-214.2%
Operating Result before Equity Interest	13,936	3,526	295.2%
Equity Interest	4,352	2,692	61.7%
Profit or Loss before Financial Result	18,288	6,219	194.1%
Financial Result	-578	-1,736	-66.7%
Profit or Loss before Income Tax and Social Security	17,710	4,483	295.0%
Income Tax and Social Security	-2,484	-2,029	22.4%
Net Income from continuing operations	15,227	2,454	520.5%
Net Loss on Taxes of Discontinued Operations	-1,879	-4,179	-55.0%
Net Profit or Loss for the Period	13,348	-1,726	873.3%

MANAGEMENT



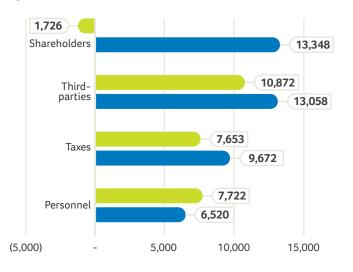
#### Value-added statement (DVA)

The added value to be distributed, in 2018, was R\$ 42,596.9 million, 72.7% higher than in 2017.

There was a positive variation of R\$ 15,073 million in value added for shareholders, from a negative amount of R\$ 1,726 million in 2017 to a positive amount of R\$ 13,348 million in 2018.

The increase of R\$ 2,186 million in amounts to third parties mainly reflects higher interest payments.

#### **R\$ MILLION**



12/31/2017

12/31/2018

The R\$ 2,109 million increase in taxes is a reflection of the profit growth, strongly influenced by the reversals related to the Angra III Thermonuclear plant and the sale of 4 distributors.

The negative change of 16% in the personnel account, from R\$ 7,722 million in 2017 to R\$ 6,520 million in 2018, is a result of the Company's cost reduction policy.

Accordingly, the variation of R\$ 18,076 million in Eletrobras' Value Added Statement in 2018 is mainly explained by the reversals related to the Thermonuclear plant in Angra III and the sale of 4 distributors.

#### **EBITDA**

EBITDA totaled R\$ 19,990 million in 2018, a 158% increase over 2017. Managerial EBITDA reached R\$ 8,456 million, an increase of 26% when compared to 2017.

#### Consolidated debt

GRI 102-7

Net debt at the end of 2018 was R\$ 26,098 million, an increase of 31.2% when compared to 2017. In the year, Eletrobras Holding chose not to access the local or foreign capital market; also the Holding chose not to assume debts in the local or foreign banking market.

Get to know in detail the company's economic-financial results in the year in the Management Report, starting on page 84, available at: https://bit.ly/2vytHOX

## CAPITAL MARKET

#### Share performance

INTRODUCTION

The macroeconomic scenario showed the signs of economic growth recovery, still at a slow pace, affected by the truck drivers' strike in the first half of the year and by the instability generated by the presidential elections in the second half.

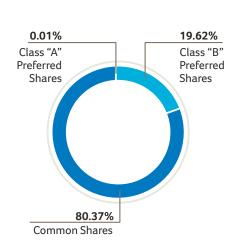
Nevertheless, the IBovespa index, stock market main indicator, advanced 15.0%, considering the closing score of December 28, 2018.

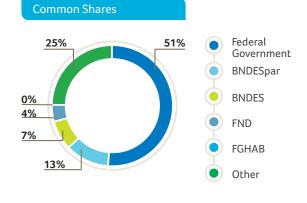
Eletrobras' common shares (ELET3), in turn, showed a 25.3% appreciation, more than 10 pp above the Ibovespa, ending the year quoted at R\$ 24.23.

Our shares have had significant appreciation in recent years. Between January 2016 and December 2018, our market value almost quadrupled, going from R\$ 8.3 billion to R\$ 33.8 billion.

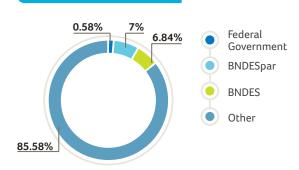
See the company's share capital profile on page 78 and details on share performance on page 79 of our Management Report, available at: https://bit.ly/2vytHOX

#### **SHAREHOLDING STRUCTURE\***





\* All of the Preferred Shares are distributed among "Other", that is, they are not concentrated in any particular shareholder.



Class "B" Preferred Shares

## SECTOR PROGRAMS

G4-EU7; G4-EU23

INTRODUCTION

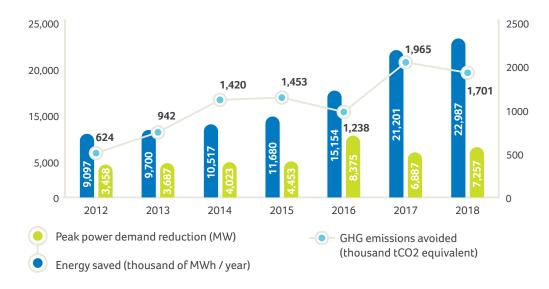
We support important initiatives by the federal government to promote the sustainable development of society and the sector through universal access to electric power, energy efficiency incentive and expansion of science and technology in the country.

Get to know below the main programs developed by the government in 2018, the contribution from Eletrobras and the results achieved.

# National electric power conservation program – (Procel)

Brazilian program, coordinated by the Ministry of Mines and Energy, destined at promoting the efficient use of electricity and fighting waste, by means of education initiatives (Procel Educação), dissemination of information (Procel Info), of energy efficiency in the segments of buildings, environmental sanitation, municipal energy management, public and industrial lighting and support for energy efficiency through transparency for the consumer (Procel Seal).

The benefits generated by the program can be accounted for by the energy savings that result in benefits for society, adding value to the Eletrobras brand. Since 2016, the financial resources allocated in Procel have been provided for by Law 13,280 / 2016, which relieved the company of these investments.



Procel, run by Eletrobras since 1985, saved, in 2018, an estimated 23 million megawatts-hour (MWh) - equivalent to the annual consumption of 12 million homes -, avoiding the emission of 1.70 million tCO2.equivalents. Since 2012, more than 9 million tCO2.equivalents have ceased to be released into the atmosphere due to Procel's actions.

RESPONSIBLE

MANAGEMENT

#### **Procel Seal**

INTRODUCTION

Allows the consumer to learn the energy consumption profile of equipment and appliances, promotes the technological development and improvement of the manufacturers and supports the training in laboratories and research centers.

Supported by the program, manufacturers are also encouraged to comply with energy consumption rates for devices, under the Energy Efficiency Act #10,295/2001, and receive subsidies for the preparation of technical energy efficiency standards. Eletrobras Cepel plays an important role in this project, supporting the Seal since the beginning in 1993, through its researchers and laboratories.

#### Procel Educação

Availability of information and educational resources to the country's formal education system, encouraging citizens to develop skills, competences and attitudes towards the effective use of energy.

Through Procel in Schools, it develops and make available the "Energy that Transforms" and "Nature of the Landscape" methodologies, to stimulate and facilitate teachers' approach to basic education on energy efficiency and sustainable development.

In professional training - aimed at undergraduate and graduate students and energy professionals -, Eletrobras and Procel have invested in the creation of a network of laboratories and research

centers to design and disseminate advanced educational tools in energy efficiency and develop and monitor energy optimization studies.

#### **Procel Info**

The Brazilian Energy
Efficiency Information
Center (Procel Info) gathers,
generates, and disclose
important information
originating in Brazil or
abroad relating to energy
efficiency, through the Procel
Info website, developed by
Eletrobras in 2006.

#### 2018 results

#### **Procel Reluz**

22 technical cooperation terms signed with Brazilian municipalities for the modernization of public lighting systems with LED technology.

#### **Expected results**

22 municipalities benefited 14,000 modernized public lighting points. 7.8 million kWh of energy saved.

#### **Procel Info**

54,312 registered users, with 1,821 new users, 3.5% more than in 2018.

1,408,870 views, an average of 117 thousand visits / month. 610 services to the public.



# Programa Luz Para Todos (Light For All) – (LPT)

Program aims to provide the service in electric energy to the rural portion of the Brazilian population that has no access yet to such public service, through extensions of electricity distribution grids, implementation of generation systems with renewable sources of energy in remote areas and the connection, with the free installation, in residences of up to three points of light, one per room, two power outlets, conductors, lamps and other necessary materials.

The LPT, with end scheduled for 2018, was postponed until December 2022, by Presidential Decree 9,357 / 2018.

The program offers solutions for its use as a vector of social and economic development in low income communities, contributing to poverty reduction and increasing family income, besides making easier the integration with health services, education, water supply and sanitation, as well as federal government social programs.

Estimates of the MME indicate that more than 510,000 direct and indirect jobs were generated as a consequence of the implementation of the program, which prioritizes the use of local labor and the purchase of domestic materials and equipment.

Resources for this program come from the federal government as subsidy—through the Energy Development Account (CDE) and from credit facilities—through the Global Reversal Reserve (RGR) and Caixa Econômica Federal, in addition to investments from state governments involved and Executing Agents.

Eletrobras manages the contracts with federal resources and the monitoring of the execution of the set of rural electrification works associated to these contracts.

The Luz para Todos program, operated by Eletrobras and coordinated by MME, was considered by the United Nations as an example to be followed by other nations.

At the end of 2018, investments foreseen totaled R\$ 26.01 billion, of which R\$ 19.00 billion (73%) related to sector resources (CDE and RGR), managed by Chamber of Electric Power Commercialization – (CCEE), of which 84% were already available since 2004.

**Results of the program in 2018** 68,125 consumer units served.

#### **Cumulative program results**

- 3,457,162 consumer units served
   (2,993,947 under Eletrobras contracts,
   86% of the total);
- works carried out in 5,435 municipalities;
- construction of 784 thousand km of high and low voltage electrical networks;
- implementation of 8.19 million poles;
- installation of more than 1.14 million transformers; and
- deployment of 3,561 individual and 17 collective photovoltaic systems.

16.4 million people benefited.



# Alternative source incentive program – (Proinfa)

Program created in 2002, intended to increase the participation of alternative renewable sources in the Brazilian energy matrix, adding projects based on wind, small hydroelectric power plants (SHP), and biomass sources to the SIN.

The Ministry of Mines and Energy defined the total installed capacity to be contracted and evaluated the impact of costs to final consumers. Eletrobras carried out the contracting and selection of projects for the purchase and sale of energy. The contracting of energy from projects ended on December 31, 2011.

The program, besides contributing to the diversification of the energy matrix of the Country, created about 150,000 direct and indirect jobs in the whole country, bringing industrial advancement and internalization of state-of-the-art technology and reduction

of greenhouse gas emissions and exposure to risks related to energy generation activity, such as hydrological risk.

**PERFORMANCE** 

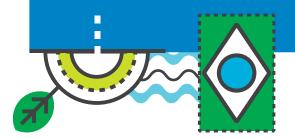
#### Results of the program in 2018

131 developments with installed capacity of 2,975.10 MW:

- 60 SHP (533.34 MW)
- 52 wind farms (1,282.52 MW)
- 19 thermal and biomass plants (1,159.24 MW)

9.3 million MWh generated at a cost of R\$ 3.48 billion.

**Cumulative program results**97.7 million MWh of energy generated





Osório wind farm. Eletrobras Eletrosul collection

# **RESPONSIBLE ENVIRONMENTAL MANAGEMENT**

Rational and responsible environmental management is essential to the sustainability of our operations and our value creation model.

Therefore, we rely on an Environmental Management System aimed at monitoring all of the companies' actions related to the environment. with a focus on prevention and minimization of negative impacts and improvement of environmental quality, contributing to the maintenance of the balanced environment for present and future generations and for the construction of a transparent dialogue with the various stakeholders.

#### Pillars of the Environmental Management System



#### **Orientation: Environmental Policy**

#### https://bit.ly/2HFYthH

The purpose of the Environmental Policy is to provide guidance for the treatment of social and environmental issues related to our electric power projects. The document reinforces our commitment to respect for the environment and Brazil's sustainable development.

In 2018, Eletrobras Companies' Environmental Committee approved a revision of the Environmental Policy, version 4.0 of the document, approved by the Executive Board in March 2019. The version 4.0 presents a clearer and more concise text, addresses compliance and incorporates the relation guidelines with indigenous people.

The Environmental Policy review followed the provisions of Eletrobras' new internal regulations, considered ISO 14001 and sought alignment with the provisions of the Global Compact in encouraging sustainable development and highlighting the preventive approach.

It is incumbent upon our companies to incorporate into their internal processes the principles and guidelines of the Environmental Policy, applying them to production operations and business premises, developing and offering new services, products and projects, selecting suppliers, service providers and contractors, in the distribution and logistics activities and in the management of waste, effluents and atmospheric emissions. We must also emphasize that the Environmental Policy should be recognized by our business partners and applied to the realization of due diligences, mergers and acquisitions involving our companies.



#### **Management**

#### **Environment Committee**

It is composed of managers of Eletrobras companies' environmental areas, and, at the technical level, specialists organized in thirteen topic-specific working groups and a temporary committee to propose guidelines for the relationship with indigenous peoples.

#### Corporate Sustainability Management Indicators System (IGS SYSTEM)

Monitoring system with 231 environmental performance indicators and 360 variables, with 498 registered users, subject to internal and external verifications.



#### Certification

In 2018, the Eletrobras companies maintained their ISO 14001 certification the following operations: HPP Tucuruí and HPP Coaracy Nunes from Eletrobras Eletronorte.

The renewal certification process for the Foz do Iguaçu and Ibiúnas substations from Eletrobras Furnas is scheduled for completion in June 2019. Eletrobras Chesf is ISO 14001 certified for the maintenance service at Paulo Afonso substation.



#### **External audits**

External audits were carried out at Eletrobras Furnas thermoelectric power plants located in the state of Rio de Janeiro, as required by State Law, No. 1,898/91.



#### Investment

R\$ 499.1 million invested in social and environmental actions in 2018

Learn more about environmental management on our website: https://bit.ly/2HtMkrE

#### Sharing best practices

Since 2011, the Best Practices Project has been gathering the most important social and environmental initiatives carried out by Eletrobras companies, bringing benefits to the region in which these projects are implemented. Initiatives can be focused on mitigation, environmental compensation or voluntary, which go beyond what is required by law, reflect the Company's growing commitment to sustainability. Learn more on our website (https://bit. ly/2EwU9uk). Below we present the main environmental aspects of our operation and the highlighted projects in each one of them.



Nursery at HPP Marimbondo. Eletrobras Furnas / Paulo Martins collection



GRI 103-1; 103-2; 103-3; 303-1; 303-2; 303-3; 303-4; 303-5

#### Outlook

INTRODUCTION

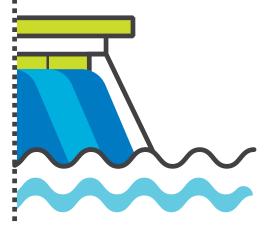
#### Water use profile

The use of water by Eletrobras companies can be divided into: use by power plants for power generation and administrative use.

The water used in the hydroelectric plants is completely returned to water bodies with similar quality to their abstraction. However, those that operate using the volume of the reservoir alter the amount of water bodies downstream of dams, respecting the restrictions of minimum flow in times of low inflows and of maximum flow, performing flood control, in order to protect the valley downstream from natural flooding. The hydroelectric power plants that run through run-of-the-river systems do not store water and are not able to change the downstream flow.

The Eletrobras hydroelectric plants are located in all Brazilian regions, with emphasis on the São Francisco, Tocantins, Paraná, Paraíba do Sul and Grande rivers, where the operations with the highest installed capacity are located. Only one operation is located in water stress area: EletrOobras Chesf's SHP Curemas, which represents less than 0.01% of Eletrobras installed potential and did not generate electricity in 2018.

Eletrobras companies pay financial compensation and royalties (in the case of Itapu Binacional) for using the water resources in their hydroelectric dams. The Brazilian Electricity Regulatory Agency (Aneel) manages the collection and distribution of these resources among the beneficiaries: states, municipalities and bodies run directly by the federal administration. The values are calculated based on the energy generation for each year. In 2018, Eletrobras companies paid the amount of R\$ 374 million in financial compensation and R\$ 1 billion in royalties (Itaipu), which together represent approximately 54% of the amount paid in Brazil.



**RESPONSIBLE** 

**MANAGEMENT** 

In thermoelectric plants, water is collected from surface sources for refrigeration and steam generation and returned to the original water body complying with legal standards of temperature and quality, minimizing the impact on ecosystems and habitats.

At the nuclear plants, the sea water is used for cooling the secondary system and completely returned to the sea, with a small temperature increase.

In administrative activities, water is mostly provided by the supply network. Water abstraction for operations and administrative uses of Eletrobras companies have licenses issued by the competent bodies.

#### Water use management

In the hydroelectric project phase, Eletrobras companies make projections of the consumptive use of water for the concession period (regulated in 35 years), in order to estimate the water availability at the project site and the energy to be generated, based on studies and plans in accordance with the guidelines and scenarios of the National Water Resources Plan (PNRH). The Environmental Impact Studies consider minimum flows for the maintenance of environments, species and ecological processes downstream of hydroelectric plants.

The National Water Agency (ANA) evaluates such studies and considers the future demand for water use in the basin prior to issuing a license, in order to enable multiple use of water in the future or preserve the resource.

The Electric System National Operator (ONS) define the volumes of water stored in the reservoirs of the National Interconnected System (SIN) according to the observed flows and storage capacities and operating restrictions of the system. Also, the ONS considers as other uses of water in the reservoir region, focused on water security in the basin.

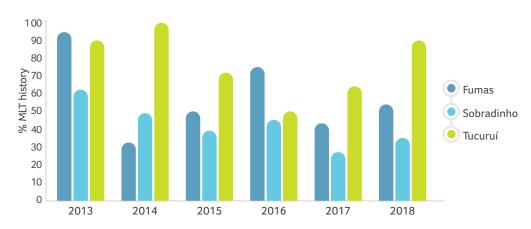
Volumes withdrawn from all operations are monitored, as are water and effluent quality, and data are made available to competent bodies. Technical inspections are periodically conducted to evaluate water management systems.

#### **Availability Scenario**

Our generation is influenced by variations in rainfall, which may interfere with the volume and flow of the water bodies on which the hydroelectric power plants depend.

Eletrobras generates energy mostly from hydroelectric plants and has three reservoirs which are among the largest in the country: Sobradinho (on the São Francisco river), Furnas (on the Rio Grande river) and Tucuruí (on the Tocantins river).

## PERCENTAGE OF NATURAL FLOWS IN RELATION TO THE HISTORICAL AVERAGE OF FLOWS\*



\* Calculated from 1931 to 2018. Source: Electric System National Operator (ONS) Within this scenario, in the last five years the reservoirs of Sobradinho HPP and Furnas HPP did not reach the maximum volume. However, in 2018 they showed an increase in water volume compared to the previous year. As for the reservoir of the Tucuruí HPP, there was no total refill; only in the year 2016. In other years, there was maximum use of the reservoir.

It is important to emphasize that the reservoirs are operated centrally by the ONS, together with the agents, in order to optimize the use of the water resource, considering the hydrological characteristics of each region and the operational restrictions of the SIN. In the case of the Sobradinho HPP there are operational restrictions associated with exceptional measures of flow reduction practiced by the reservoirs located in the São Francisco river basin, with the authorization of ANA and Ibama.



Fish in the piracema. Itaipu Binacional/Alexandre Marchetti collection

#### Commitments and initiatives

We developed a Water Resources Policy since 2010, published on our website https://bit.ly/20blB66, with the aim of promoting the sustainable and rational use of these resources, considering their multiple uses in the energy sector.

To monitor and address issues related to water resources that influence business, since 2005 Eletrobras companies rely on the Working Group on Water Resources and Hydroelectric Potential of Eletrobras Companies (GTRH-EE). The group prepares annual reports with evaluations and follow-ups of the monthly average flows of the projects, creating an overview of the water resources used for energy generation. In 2018, the group held its first technical meeting, which was attended by several professionals who work with water resources of all Eletrobras companies, presenting technical articles related to topics such as: water resources management; safety of dams; good practices related to water; flow forecasting; technologies and sustainability in hydroelectric plants; besides hydrological and hydrosedimentological monitoring.

The Eletrobras companies maintain a hydrometric monitoring network to record upstream and downstream water levels and the influent flows to their reservoirs, among other parameters. The water quality of the reservoirs is also monitored by physical, chemical and biological parameters defined in the licensing process.

Considering the relevance of water resources for our business, Eletrobras also participate in several initiatives aimed at the development of water management of the National Water Resources Management System (SINGREH), such as the National Water Agency (ANA), the Hydrographic Basin Committees (CBH), the State Water Resources Councils (CERH) and the National Water Resources Council (CNRH). In addition, we participate in important forums and events related to the theme and in 2018, highlighting the 8th World Water Forum, held in Brazil.

During the 8th World Water Forum in 2018, Eletrobras voluntarily joined the Brazilian Business Commitment for Water Safety, launched at the event by the Brazilian Business Council for Sustainable Development (CEBDS). The commitment was signed by 20 large Brazilian business groups. Eletrobras companies participate, with their projects, in several commitment goals.

Learn more at: http://bit.ly/2W1uilA



## Water consumption

INTRODUCTION

#### Consumption profile

Water consumption in Eletrobras companies operations and administrative processes is usually withdrawn from surface water bodies or underground sources, as granted by the competent bodies, or, in the companies' administrative buildings located in urban areas is usually performed by a public service concessionaire.

At hydroelectric plants, water is used to power turbines and therefore does not add up to the total volume of water consumed.

At nuclear power plants, seawater is used for cooling the secondary system and is completely returned to the sea, with a slight temperature increase.

#### **INDICATORS IN 2018**

Water withdrawal by source (in thousands of m³)	2016	2017*	2018
Administrative activities	4,208.0	3,835.1	4,087.3
Surface water	3,396.7	3,150.0	3,146.8
Ground water	271.8	205.8	459.4
Water Supply Network	539.4	479.4	481.1
Thermoelectric power generation	3,315,378.4	3,384,706.9	3,301,929.8
Surface water	10,996.5	8,604.8	10,620.5
Ground water	3.6	-	-
Water Supply Network	0.20	0.1	0.2
Seawater	3,315,363.7	3,376,102.0	3,291,309.1
TOTAL water withdrawn	3,319,586.4	3,388,542.0	3,306,017.1

<sup>\*</sup> Data for 2016 and 2017 were recalculated, excluding distribution companies, to allow comparison with 2018.

For the purposes of comparability between the water consumption values from the public supply network in the last three years, the indicator composing PDNG 2018-2022, the data were recalculated to 2016 and 2017, excluding distribution companies.

In 2018, water consumption from the supply network in administrative activities was 0.35% higher than in 2017, while the goal for this indicator was a reduction of 0.30%. In 2017 Eletrobras companies had reduced water consumption in their administrative activities by 12.52% compared to 2016. In 2018, Eletrobras companies captured 600.92 m³ of rainwater.

The total water consumption was 4,807.3 m<sup>3</sup>, which basically includes the water used in the administrative activities and the water used in the Eletrobras Furnas fish farm. The volume of water boosted by the hydroelectric power plants reached 842,256,224,192 m<sup>3</sup>, which, together with the water collected by the nuclear power plants (3,291,309.1 m<sup>3</sup>), was returned to the rivers and the ocean in monitored quality conditions.

<sup>\*\*</sup> The distribution companies were excluded from the calculation in 2018, while in 2016 and 2017 they were included.

## **BIODIVERSITY**

GRI 103-1; 103-2; 103-3

#### Outlook

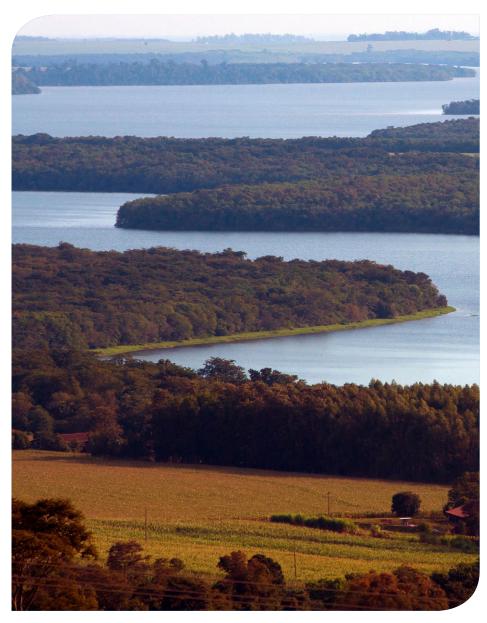
INTRODUCTION

GRI 304-2; 304-3

Biodiversity is directly related to the nature of the business and the management and minimization of our impacts are a relevant guideline and a priority in our strategy, which should be followed from the planning to the operational phase of the projects.

In the planning phase, Environmental Impact Studies (EIA) characterize, evaluate and map the biodiversity of the areas to be used for the implementation of the projects and identify possible impacts, with special attention to those related to rare, endemic and endangered species (according to national and international lists). For each identified impact, actions are proposed to avoid and prevent risks, reduce, mitigate, repair and / or compensate for these impacts, avoiding risks according to the principles and guidelines of the Eletrobras Environmental Policy.

In the following infographic, you may learn the most relevant impacts on biodiversity, both in the implementation and operation of the projects, as well as examples of monitoring, control, recovery and conservation actions. For details on the actions developed, access the section "Best management practices".



Protection strip in Itaipulândia. Itaipu Binacional collection / Nilton Rolin

Possible direct impacts	Possible indirect impacts	Type of Activity/ Project	Examples of actions/ programs
Change in water quality	Proliferation of macrophytes		Water quality monitoring programs
Vegetation loss	Forest fragmentation		Reforestation programs
Change in ecosystems/habitats	Decreased diversity of flora and fauna		Support for the creation or maintenance of conservation units
Interference with flora and fauna	Change in communities		Reforestation, wildlife rescue and monitoring Programs
Interference with the migration routes of aquatic fauna	Isolation of populations		Fish Transposition Mechanism
Interference with the migration routes and collision of birds	Reduction of migratory bird populations		Installation of signaling equipment to avoid collision
		hermoelectric Wind farms	Transmission lines

PERFORMANCE

**RESPONSIBLE** 

**MANAGEMENT** 

#### Commitments and initiatives

Since 2012, our Environmental Policy has specific guidelines regarding biodiversity, with the aim of improving management and including the topic in Eletrobras companies' decision-making processes. In line with public policies and international agreements to which Brazil is a signatory, Eletrobras companies seek to maintain a systematic and ongoing improvement process in management practices, with the support of the IGS system, a tool that allows monitoring of the environmental performance of the companies with relation to biodiversity.

This monitoring evidenced the need for research and innovation studies and projects development focused on the conservation of biodiversity. In this way, Eletrobras defined as a goal for biodiversity "To develop, between 2019 and 2023, annually a new study / research project that contributes to the conservation of biodiversity and ecosystem services."

We maintain a permanent working group

- Working Group on Water Resources and
Biodiversity - which has been analyzing the risks
and opportunities related to biodiversity and
ecosystem services. So far, the priority resources
and properties of Eletrobras companies have
been identified for the operation of their
businesses, and it is necessary to assess the
magnitude of this risk and its associated cost.
In 2018, we held the Biodiversity Conservation
Symposium at Eletrobras Furnas, focusing on
the relationship between the business of large
companies and biodiversity and ecosystem
services, issues of vital importance for the
rational use of natural resources.

**PERFORMANCE** 

In addition, we participate in external forums that address biodiversity issues, among which we highlight our presence at the Thematic Chamber on Biodiversity and Biotechnology (CTBio) of the Brazilian Business Council for Sustainable Development (Cebds).

By 2018, the biodiversity guidelines have been revised to include issues related to ecosystem services.

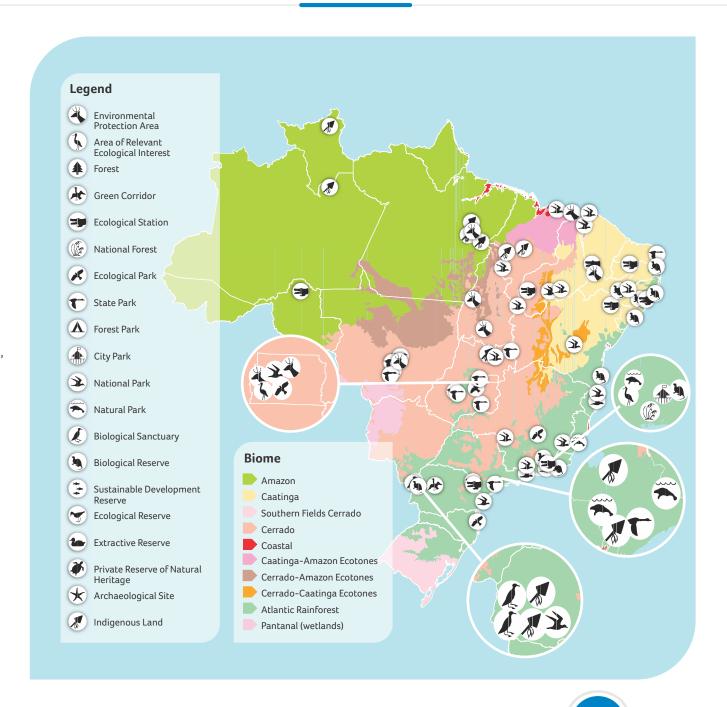
#### Best management practices

Through conservation actions, support to protected areas, protection and preservation of endangered species, Eletrobras companies seek to have a positive impact on biodiversity and water bodies in the areas in which they operate.

# Conservation Units and Protected Areas

Support for protected areas has proven to be an effective measure to contribute to biodiversity protection. Since 2012, Eletrobras companies have been supporting protected areas such as conservation units, indigenous lands and archaeological sites, located in the main Brazilian biomes (Cerrado, Atlantic Forest, Amazon, Caatinga and Pampa), which currently amount to about 9 million hectares and more than 60 areas.

Eletrobras companies also have their own protected areas, created with the aim of contributing to the conservation of the regional biodiversity, scientific research and environmental education. The Wildlife Preservation Areas, that make up the Mosaic of Conservation Units of the Tucuruí Lake, managed by Eletrobras Eletronorte, the Santa Maria Biodiversity Corridor, the Maracaju Biological Sanctuary and the Santa Helena Biological Sanctuary, managed by Itaipu Binacional and Trilha Porã, the Restinga de Mambucaba Park and the Cecremef Forest, managed by Eletrobras Eletronuclear, are examples of these protected areas.



Seven operating units of the Eletrobras companies are adjacent, inserted partially or totally in environmental protection areas. Only two of these protected areas were created prior to the installation of the projects - Iguaçu National Park and Serra da Bocaina National Park. The other protected areas with interference are subsequent to the implementation of the projects, created with Eletrobras companies support.

#### UNITS INSERTED OR ADJACENT TO PROTECTED AREAS (GRI 304-1)

Unit	Unit position in relation to the protected area	Operation type	Operating unit size (km²)	Protected Area
				Iguaçu National park
· · · · · · · · · · · · · · · · · · ·	ADIACENT	Hydropower	1 350 0	Ilha Grande National park
	generation	1,350.0	Cabeça de Cachorro State Park	
				Santa Maria Private Reserve of Natural Heritage
Angra 1		Energy generation		Serra da Bocaina National Park
Angra 2	ADJACENT  Hydropower generation  Energy generation  Energy generation  FULLY INSERTED  Hydropower generation  Hydropower generation  PARTIALLY INSERTED  Power generation  Power generation	from nuclear power	1.4	Tamoios Environmental Protection Area
Angra 3 (under construction)		source		Tamoios Ecological Station
HPP Tucuruí	FULLY INSERTED		3,008.1	Tucuruí Environmental Protection Area
HPP Samuel	PARTIALLY INSERTED		585.0	Samuel Ecological Station
HPP Balbina	FULLY INSERTED	Power generation and elevation	2,560.0	Uatamã Biological Reserve

The location of projects close to protected areas often allows companies to support these areas, with initiatives such as biodiversity conservation, research, environmental education and tourism in the Iguaçu National Park, carried out by Itaipu Binacional, and the demarcation and signaling actions of the Serra da Bocaina National Park by Eletrobras Eletronuclear.

#### Forest Germplasm Program

Developed by Eletrobras
Eletronorte at HPP Tucuruí, it aims
to manage and conserve native
forest species and contribute to
the reforestation and restoration
of degraded areas, mainly in
the Lower Tocantins (PA) region,
through conservation of native
forest seed collection areas and
the production and distribution of
seeds and seedlings.

Since its inception in 2017, 197 species have been collected and produced about 3 million seeds and 130 thousand seedlings, of which 1.5 million seeds and 100 thousand seedlings were donated.

#### Biodiversity programs (Itaipu Binacional)

Since 1985, Itaipu Binacional has developed the Management Program for Hydrographic Basins, which was responsible for planting 23 million trees in the area of the Paraná River basin by 2015, representing approximately 28% in the Atlantic Forest restoration in Brazil, in the period, according to the Atlas of the Forest Remains of the Atlantic Forest, produced by the SOS Mata Atlântica Foundation and by the National Institute of Space Research (INPE).

In 2018, Itaipu donated 100 thousand native forest seedlings for the restoration project of the Paraná River Biodiversity Corridor. In addition, it maintains eight Biological Refuges and two Biological Reserves in Brazil and Paraguay, which comprise more than 100 thousand hectares of protected areas, and the Wild Animal Breeding Center, responsible for the reproduction of endangered species in Brazil, such as harpy, the jaguar, the tapir and small felines.

#### Nascentes Project (Eletrobras Furnas)

The Nascentes project from Eletrobras Furnas aims at the reforestation of springs in the reservoir area of the Furnas HPP, aiming at maintaining the water supply in the reservoir, as well as reducing the risks of scarcity in the surrounding municipalities, in addition to contributing to the improvement of environmental quality in rural properties and mitigation and adaptation to climate change. Since its implementation in 2017, it has been responsible for planting 13 thousand seedlings in 69 springs in the Mata Atlântica and Cerrado biomes, in eight municipalities located near the Furnas HPP Reservoir.

# Biodiversity protection and research (Eletrobras Eletronorte)

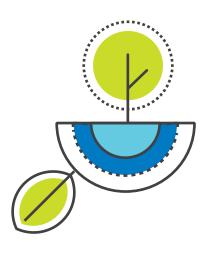
Eletrobras Eletronorte is responsible for the maintenance of areas dedicated to the preservation of biodiversity and for research. The Adolpho Ducke Forest Reserve is an Environmental Protection Area (APA) with 10 thousand hectares, located in Manaus, which serves as a research support for the National Institute of Amazonian Research (INPA) and other national and international institutions. The Mosaic of Conservation Units in the Lake of Tucuruí, located in Pará, is composed by the Lake of Tucuruí APA, with 568,600 hectares, two Sustainable Development Reserves (RDS), Alcobaça, with 36,100 hectares, and Pucuruí Ararão, with 29 thousand hectares, besides two Wildlife Preservation Areas, Release Areas 3, with 10 thousand hectares, and 4, with 20 thousand hectares, which are designated as Wildlife Preservation Areas, due the importance for biodiversity conservation. The Samuel Ecological Station has 72 thousand hectares dedicated to the protection of an area representative of the Jamari River Basin natural ecosystems.

# Reforestation and restoration programs in Pernambuco (Eletrobras Chesf)

In 2018, Eletrobras Chesf started reforestation and restoration programs in areas of the Caetés Ecological Station, the Saltinho Biological Reserve and the Laranjeiras Settlement, all in the State of Pernambuco. In the same year, 88 thousand seedlings of native species were produced in the Viveiro Florestal, maintained by Eletrobras Chesf in Xingó (AL), and donated 34.6 thousand seedlings of native species to various entities and projects for the recovery of degraded areas in Alagoas, Bahia and Pernambuco.

#### Preservation and recovery (Eletrobras Eletronuclear)

Trilha Porã is a 2.5 km long trail, located in a permanent preservation area owned by Eletrobras Eletronuclear in the city of Angra dos Reis (RJ). It has about 440 hectares, within the Atlantic Forest biome, and is an important tool for environmental education, recreation and research. Eletronuclear was also responsible for the recovery of almost 23 thousand m² of the Restinga de Mambucaba Park and the Cecremef Forest, owned by the company, with the planting of native seedlings. Currently, the company is recovering a restinga area of 4,000 m² in the residential village of Mambucaba, near the forest and the park.



# **CLIMATE CHANGE**

GRI 103-1; 103-2; 103-3; 201-2; 302-4; 302-5

#### Outlook

INTRODUCTION

The energy and fuel consumption of our operation and our chain generates Greenhouse Gases (GHG) emissions, considering the following scopes:

#### **ELETROBRAS COMPANIES' GHG INVENTORY**

#### **Emission Factors:**

- Electric Power (MCTI)
- Energetic content of fuels (BEN 2015);
- IPCC (2006)
- MMA (2011)

#### **SCOPE 1**

- Direct Emissions from Fixed Sources (TPPs)
- Mobile Fonts
- Fugitive emissions (SF<sub>6</sub>, cooling gases)
- Sanitary effluents
- Other fixed sources: LPG, natural gas, diesel from generator groups and auxiliary boilers

#### SCOPE 2

- Emissions related to the amount of energy acquired from the grid
- Transmission losses
- Distribution losses

#### **SCOPE 3**

- Independent power producers (IPPs)
- Air travel
- Transport of nonenergy products
- Fuel transportation
- Transportation of employees

#### Methodology:

- GHG Protocol
- IPCC (2006)
- Operational Control Approach

Gases:  $CO_2$   $CH_4$   $N_2O$   $SF_6$  PFC HFC

On the other hand, the irregular rainfall, caused by climate changes, has an impact our operation, and directly affects our hydroelectric power generation activities. The lower availability of water for water generation also brings another impact: an increase in thermal generation, based on fossil fuels and, therefore, intensifying GHG emissions.

The increase in extreme events also affects our transmission operations, causing disruption in the functioning of networks and impacts to society.

In addition, we may be negatively impacted by the creation of new legislation for GHG emission intensive sectors or activities, or by the adoption of carbon pricing as an efficient and effective alternative to reduce GHG emissions. This scenario is becoming increasingly likely, since Brazil, as a signatory to the Paris Agreement (COP 21/2015), aims to reduce its GHG emissions by 37% by 2025.

These issues are being considered as challenges to be faced by the Company through adaptation studies and analysis of risks and vulnerabilities to climate change. In order to anticipate this scenario, Eletrobras companies annually carry out a carbon pricing study in order to evaluate future financial impacts on their operations.

This scenario also brings opportunities for the creation of new technologies and business models towards a low-carbon economy. Our innovation, research and development projects seek to reverse climate change risks into new business and social value creation opportunities. Learn more in the **R&D and Innovation** chapter.

In partnership with the Federal University of Rio de Janeiro (UFRJ), Eletrobras Furnas developed, as part of its R&D projects portfolio, tested and validated prototypes for urban buses with traction 100% electric and hybrid (electric / ethanol and electric / hydrogen).

Innovation is of great importance because it brings - for mass transportation - high energy efficiency and state-of-the-art domestic technology, reducing environmental impact by eliminating sources of air and noise pollution while generating savings in fuel costs.

Altogether, there were 330 thousand people transported in the 8 thousand kilometers driven by the developed vehicles.



#### Guidelines and initiatives

We are committed to increasingly mitigate our negative impact and contribute to the transition to a new development model based on a low-carbon economy. The main pillar of our climate strategy is to prioritize energy generation from low emission sources, which represent more than 95.2% of our installed capacity.

Eletrobras companies' environmental policy presents nine guidelines to reduce emissions and energy consumption from nonrenewable sources, which have been publicly endorsed through the declaration of commitment on climate change, since 2012, in order to give a differentiated and preferential treatment to this issue.

To monitor and address climate change issues that influence business, we have two committees dedicated to energy efficiency and climate strategy, which have been working on monitoring, drafting studies and proposing actions on the issue.

# Eletrobras' Integrated Energy Efficiency Committee (Cieese)

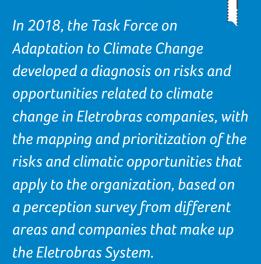
Composed of representatives of Eletrobras companies, with a focus on promoting business energy efficiency through the development of technological solutions for all subsidiaries, technical cooperation and excellence.

# Working Group on Climate Change Strategy (WG 3)

Linked to Eletrobras Companies' Environment
Committee (SCMA) and composed of representatives
of all Eletrobras companies, works on the
development of strategies and on proposal of GHG
emissions reduction targets and relies on task
forces that are developing adaptation studies on
climate change and quantifying CO<sub>2</sub> emissions and
reabsorption due to land use activities.

We are also connected to advance studies and external initiatives on the subject. Since 2013, we have adopted internal carbon pricing in our emissions-intensive operations to assess the financial impact of a possible  $\mathrm{CO}_2$  emissions taxation, which made us elected benchmark in the Carbon Disclosure Project

(CDP), and, since 2017, the Company adhered to the "Business Positioning on Carbon Pricing Mechanisms", launched by the Business Climate Initiative, and signed the "private sector support letter to pricing", prepared by the Business Climate Initiative with support from Carbon Pricing Leadership Coalition (CPLC), an initiative of the World Bank.



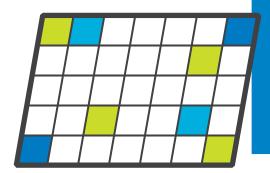
## **Energy consumption**

INTRODUCTION

In 2018, Eletrobras companies consumed 87,091,971 GJ, 16% less than in the previous year. Of this total, there were 81,249,710 GJ (97.3%) was direct consumption of energy and 5,842,261 (6.7%) was indirect consumption.

Energy consumption (GJ)	2016*	2017*	2018
Consumption from renewable sources	425,839.70	695,699.10	688,373.40
Fossil fuels consumption	77,638,953.50	68,360,431.10	80,561,336.90
Electricity consumption	6,417,312.40	5,856,095.60	5,842,260.80
Total	84,482,105.60	74,912,225.80	87,091,971.10

<sup>\*</sup> Data for 2016 and 2017 were recalculated without distributors to allow comparison with 2018.



Direct energy consumption:
consumption from renewable
sources (such as ethanol and
biodiesel) and non-renewable
sources (such as gasoline, coal,
liquefied petroleum gas, diesel
oil, fuel oil and aviation fuel). It
takes place in the operation of
thermoelectric power plants and
emergency diesel groups, as
well as in the supply of the own
fleet of vehicles.

Indirect energy consumption: consumption through intermediary sources, such as the energy consumed in the form of electricity.

#### **GHG** emissions

GRI 305-1; 305-2; 305-3; 305-4-305-5; 305-6; 305-7

In 2018, Eletrobras companies recorded total emissions of 6,063,440 tCO<sub>2</sub>e, considering scopes 1, 2 and 3.

GHG Emissions (tCO <sub>2</sub> e)	2016*	2017*	2018	Change 2018x2017 (%)
Scope 1	5,776,981	4,674,090	5,350,290	14.50%
Scope 2	922,045	923,056	670,337	-27.40%
Scope 3	67,176	81,726	42,813	47.6%
Total	6,766,203	5,678,872	6,063,440	6.3%

<sup>\*</sup>In order to compare GHG emissions in 2016, 2017 and 2018, the 2016 and 2017 values were recalculated, excluding distribution companies.

For more information, please see the full GHG Emissions Inventory table on our website at: https://bit.ly/2DK0IS1 -, published annually in accordance with the IPCC methodology (2006) and the guidelines of the Greenhouse Gas Protocol – GHG Protocol (WRI, 2004).

The emission intensity, considering Scopes 1 and 2, calculated in relation to the net generation of energy (MWh) and also the net operating revenue1 (NOR in R\$) allows for a uniform comparison between all our generation and transmission companies, regardless of their size and specificities.

The emission intensity by energy generated (not considering losses) and by Net Operating Revenue followed the increase, totaling  $0.256~\rm tCO_2e/MWh$  and  $0.037~\rm tCO_2e/R\$$  thousand, respectively.

Emission intensity (Scopes 1 and 2, without losses)	2016*	2017*	2018
By Net Operating Revenue (tCO <sub>2</sub> /NOR)	0.282	0.201	0.256
By Net Generation (tCO <sub>2</sub> /MWh)	0.039	0.033	0.037

<sup>\*</sup> For the comparison between the emission intensity of 2016, 2017 and 2018, the indicator composing the 2018-2022 PDNG, the values of 2016 and 2017 were recalculated, excluding distribution companies.

Considering Scope 3 (metric used in intensity indicators presented in 2018-2022 PDNG), the intensity has increased when compared to 2017.

Emission intensity (Scopes 1, 2 and 3)	2016*	2017*	2018
By Net Operating Revenue (tCO <sub>2</sub> /NOR)	0.290	0.201	0.247
By Net Generation (tCO <sub>2</sub> /MWh)	0.046	0.040	0.042

<sup>\*</sup> For the comparison between the emission intensity of 2016, 2017 and 2018, the indicator composing the 2018-2022 PDNG, the values of 2016 and 2017 were recalculated, excluding distribution companies. The recurring effect of the Existing System Basic Network (RBSE) was considered to calculate compliance with the corporate target of Total GHG Emissions on Net Operating Revenue for 2018.

#### **Overhaul Project (Eletrobras CGTEE)**

The Overhaul project is under development, which provides for the processing of dry coal, a process called jigging. The process improves the fuel quality and provides the reduction in consumption and, consequently, reduction in emission of atmospheric pollutants and operational costs, thus bringing efficiency gains.

Its development seeks to recover the TPP Candiota III Phase C of the Candiota Thermoelectric Complex, improving its availability and operational performance with lower generation costs, bringing supply guarantees to the Electric System of the South region of the country.

#### **Emissions of other Greenhouse Gases**

INTRODUCTION

In addition to GHG emissions, sulfur oxides (SOx), nitrogen oxides (NOx) and Particulate Matter (PM) emissions are also estimated in the Company's own TPPs. In 2018, these emissions totaled 11,344.11 tons, 4,644.47 tons, and 907.72 tons, respectively.

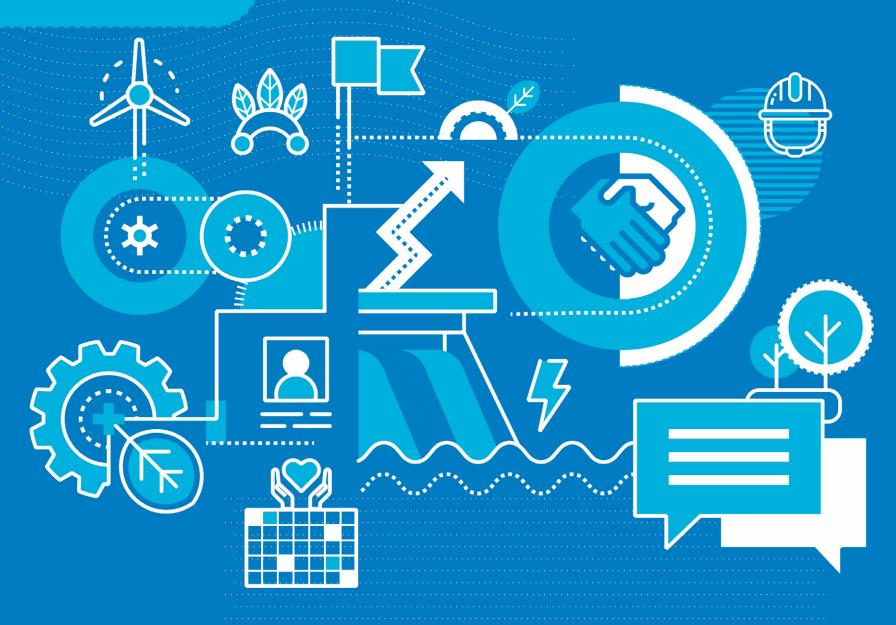
Monthly reports are submitted to IBAMA with the validated monitoring data, fault identification and conclusions on emissions from power plants.

#### Methodologies and premises

- Includes 100% of the GHG emissions from the units over which they have operational control and do not account emissions from the operations in which they only hold corporate interest (SPEs).
- Calculates emissions related to electricity consumption, transmission losses based on SIN emission factors - published by the Brazilian Ministry of Science, Technology and Innovation (MCTI) - and the energy content of the fuels consumed based on the conversion factors contained in the National Energy Balance (BEN).
- CO<sub>2</sub> emissions from biofuel consumption (biodiesel, ethanol added to gasoline and alcohol fuel) are not included in this inventory, as they are reabsorbed through photosynthesis in sugarcane and soybean crops, among other plants used in the production of these biofuels.

- GHG emissions from hydroelectric reservoirs that belong to Eletrobras companies are not considered because there is currently no international scientific consensus methodology to estimate these emissions and calculate emissions (or net emissions) from water bodies.
- Thermoelectric power generation emissions from Independent Power Producers (IPP), whose power is acquired by Eletrobras concessionaires and resold to the end consumers, are quantified under scope 3 and therefore recorded separately from Eletrobras companies' own thermoelectric power plants, recorded under scope 1.
- In order to continuously monitor coal-fired power plants emissions, the Company uses an extractive CEMS method based on NDIR absorption for SOx and NOx. On the other hand, for the isokinetic particle sampling, the Company uses the following methods: for SOx, Cetesb L9. 228; and for NOx, Cetesb L9. 229.
- Total particulate matter emission considers emissions from the Candiota Thermoelectric Complex, of Eletrobras CGTEE, which uses coal to generate electricity.

# RELATIONSHIPS



# DIALOGUE AND COMMUNICATION

GRI 102-33; 102-40; 102-42

INTRODUCTION

We maintain a continuous dialogue with our stakeholders, people that somehow impact or are impacted by our activities.

The identification of these stakeholders is in line with our strategy and Eletrobras companies' Code of Ethical Conduct and Integrity. Our dialogue and engagement are guided by Eletrobras companies' Stakeholder Engagement and Communication Policy.

In addition to the extensive and continuous communications with our stakeholders, we also survey them to identify the most material aspects related to our companies. The results are considered in the strategic planning, so that the business conduct meets the expectations of the stakeholders.

#### **CORPORATE EDUCATION MANAGEMENT**

- Institutional website (responsive and available to people with visual and listening disabilities);
- Direct survey with suppliers and investors
- Climate survey;
- Social media channels Twitter, Facebook, Instagram, Youtube and Linkedin:
- Ombudsman channels;
- Centralized Whisteblower Channel:
- IR Ombudsman for consultations, suggestions, complaints, criticisms or compliments regarding the capital market (available in Portuguese, English or Spanish); and
- Customer survey.

#### **STAKEHOLDERS**

- Employees and family members;
- · Customers;
- Communities;
- Society;
- Press and opinion leaders;

- Government, congressmen and regulatory bodies;
- Investors, shareholders and market analysts; and
- Partners, sponsors and suppliers.

In 2018, the Integrated Communication
Committee of Eletrobras Companies was
set up to improve the communication
actions and the engagement with
stakeholders and to give greater synergy
to the development of integrated
communication actions, coordinated by
the holding company and composed of the
superintendents of the Communication
areas of all the Eletrobras companies.

Another evolution in the year was the revision of the Eletrobras Companies 'Social Responsibility Policy, with the inclusion of integrity themes and sections of Thematic Guidelines, among them one of human rights, and the implementation of the Eletrobras Companies' Spokesperson Policy in order to perfect our relationship with the press. Access the documents in the links <a href="https://bit.ly/2RUFpA6">https://bit.ly/2RUFpA6</a> and <a href="

The chapters below present our practices for building long-term relationships that generate value for our main stakeholders.

## **EMPLOYEE DEVELOPMENT**

## Management

INTRODUCTION

GRI 103-1; 103-2; 103-3

Our employees are essential for the sustainability of the business and for the achievement of our strategy goals, targets and results. Therefore, our management is dedicated to continuously promote the improvement of workplace conditions, health and safety, quality of life and development of these professionals.

One of the strategic guidelines of our 2018-2022 PDNG, maintained in 2019-2023 PDNG, promotes the appreciation of people, reflecting the relevance of this public and our commitment to generate shared value, fostering a culture of appreciation of skills and recognition of our employees.

Eletrobras companies' People Management Policy brings the guidelines on providing the appropriate conditions for the development, appreciation and retention of talents. In 2018, the policy was reviewed and the Eletrobras companies' People Management Regulation was created, with the objective of "establishing common practices and rules for the integrated management of people management areas, aiming at the standardization of processes aligned with strategic guidelines of Eletrobras holding, potentializing synergies and contributing to the construction of the same corporate culture".

Eletrobras companies' People
Management Policy includes
guidelines on acting in an
integrated manner and monitoring
people management, ensuring
equal rights, opportunities and
obligations, while respecting the
specific characteristics of each
region, increasing the synergies
between employees and the
Eletrobras companies.



## **Profile**

INTRODUCTION

GRI 102-7; 102-8; 102-22; 401-1; 401-3; 405-1; 406-1

At the end of 2018, our personnel was composed of 15,658 employees.

Employment	Ge	nder			Region		
Employment contract	Female	Male	North	Northeast	Midwest	Southeast	South
Temporary	3,028	12,576	1,659	4,112	1,520	5,412	2,881
Permanent	17	37	0	0	5	27	22

102-8

Employment type	Gender				
type	Female	Male			
Full-time	2,870	10,882			
Part-time	175	1,731			

Parental leave	% of the employees who returned	Gender		
ended in 2018	to work	Female	Male	
563	at the end of licenses	99%	1 1410	
303	remained 12 months after the license ended	88%	93%	

	Gender		Age group			Minorities		
	Female	Male	Up to 30	Between 31 and 50	Over 51	Black, brown, asian and indigenous	PWD	
Leadership	21%	79%	0.2%	67%	32%	21%	0.5%	
Employees	19%	81%	3%	57%	40%	37%	2.3%	

	Gei	nder	Region				Age group			
Turnover	Female	Male	North	Northeast	Midwest	Southeast	South	Up to 30	Between 31 and 50	Over 51
Total of admissions	28	101	0	20	1	8	100	49	60	20
Admission rate	0.9%	0.8%	0.0%	0.5%	0.1%	0.1%	3.4%	11.9%	0.7%	0.3%
Total terminations	232	866	59	422	113	244	260	19	204	875
Turnover rate	7.6%	6.9%	3.6%	10.3%	7.3%	4.5%	9%	4.6%	2.3%	13.9%

Since 2017, we were aimed at re-adjusting the number of employees in accordance with our current assignments, generating increased efficiency in the processes, greater balance between the teams and a sustainable profile for the development of the business and employees in the coming years.

We have worked on the definition of qualitative and quantitative improvement actions of Eletrobras companies' personnel, according to position held, level of complexity, training, area of activity, macro process, organizational process and unit. It also considers the ongoing re-adjustment measures, such as the implementation of the Shared Services Center and the standardization of the integrated business management system (ERP), as well as the Consensus Dismissal Plan (PDC).

The PDC was implemented simultaneously in the holding company and in Eletrobras Amazonas GT, CGTEE, Cepel, Chesf, Eletronorte, Eletronuclear, Eletrosul and Furnas. The conditions were previously

approved by the Secretariat of Coordination and Governance of State-Owned Companies and the dismissals totaled 905 employees.

The correct re-adjustment of our personnel is essential to the sustainability and achievement of the Company's strategic planning. Initiatives in this regard generated savings of approximately R\$ 65.7 million in 2018 to Eletrobras companies, and the estimate is that the annual savings, starting in 2019, will be R\$ 309.3 million.

The total number of employees in 2018 is 31.7% lower than in the previous year, due to these initiatives and also to the sale of distribution companies.

The PDC had as one of its stages the Knowledge Transfer Program, designed to ensure that the employee's dismissal does not negatively affect the activities of his/her area and does not harm the company. In addition, the Talent and Opportunity Bank, an initiative created from 2018-2022

PDNG, enables the implementation of an adequate succession plan, while the People Management Policy and the People Management Regulation of Eletrobras Companies provide for the establishment of processes and criteria so that succession takes place in a planned manner, allowing for an adequate career transition.

Most of the Eletrobras companies have initiatives to support employees who are in process of preparing for retirement, such as the Retirement Preparation Program (PPA).

This program is aimed at supporting the reflection and planning process of retirement and the life changes that this new phase might bring. The PPA address financial aspects, family relationships and private pension, among others, as well as contemplating the transfer of knowledge to the employees who will succeed the retired professionals.

## **Diversity**

INTRODUCTION

As a publicly held government-controlled company, our employees are hired through public service entrance exams, pursuant to the 1988 Federal Constitution, and therefore, the diversity profile of our employees is random.

In line with our commitments to diversity, we seek to promote an organizational culture which is fair and with equal opportunities for all, regardless of gender identity, sex, skin color/race, ethnicity, age, sexual orientation, social background, physical or mental ability. This commitment is set forth in our Code of Ethical Conduct and Integrity and Social Responsibility Policy.

To enforce it, we have implemented actions to promote diversity among all our stakeholders through Eletrobras Companies' Gender and Race Committees, and since 2004, we have been participating in the Gender, Race and Diversity Committee of the Ministry of Mines and Energy and Related Entities (Cogemmev), coordinating and representing the participation of the entities of the sector.

Regarding gender equity, the 18-22 PDNG had the goal of maintaining at least the same percentage of women in management positions as the percentage of women in the company (effective workforce).

The goal was exceeded. Women are 19% in Eletrobras companies workforce but occupy 21% of leadership positions.

We also exceeded the goal of increasing the participation of women in hierarchical company positions by at least 10% between April 2016 and April 2018, agreed to the sixth edition of the Pro-Equity Gender and Race Program, and we advanced 14.61% in the period. Additionally, as the main advances in the Program, we also highlight the implantation of a breastfeeding room at headquarters and the creation of awareness workshops on occupations' gender stereotypes among students of municipal schools.

Regarding fair access to opportunities, we are in compliance with legislation that encourages the hiring of minorities, reserving 20% of the positions offered in public service entrance exams for black candidates and people with disabilities.

In 2018, Eletrobras participated and supported the organization of Fórum Cultura + Diversidade and invited its suppliers to participate. The event brought together large corporations and entities in debates on a more inclusive labor market for women, blacks, LGBTIs, people with disabilities and the elderly. Learn more at: http://bit.ly/2WbmaW6

## Communication and engagement

GRI 102-43

INTRODUCTION

In 2018, the actions aimed at the internal public that stood out were the communication campaigns for alignment on issues relevant to the business:

- Dissemination of the Challenge 22 2018-2022 PDNG projects' evolution, including a new series of videos with leaders of key master plan initiatives. The new PDNG intranet section added, until December, 1,599 hits, with a monthly average of 128 unique users;
- Campaign to inform about the renovation works progress on the new headquarters in Rio de Janeiro (RJ), with an exclusive section on the intranet with 2,999 accesses;
- Quiz celebrating the 3,000th edition of the Notícias Eletrobras (NE) daily news bulletin, with 15 questions about some of the milestones registered by the media, with 104 participations;
- 2018 Eletrobras Annual Meeting was held, for headquarters' employees, with the presence of 415 employees and a lecture by volleyball coach Bernardinho, with the theme "Excellence: Conquest and Sustainability"; and
- Execution of communication campaigns integrated with Eletrobras companies, under the coordination of the holding company, on the evolution of Eletrobras' integrity program, two editions of the Consensus Dismissal Plan (PDC), among others.

Throughout the year, the production and delivery of corporate TV products and the intranet (electronic mural and Eletrobras Newspaper) were maintained, also with an emphasis on strategic issues.

Eletrobras companies also carried out organizational climate surveys, biennially. In the edition 2018, 8,535 employees participated in the survey, which represented 51.06% adhesion, with a favorable index of 74.18%, showing an improvement of 7.46% in relation to the last survey. The survey was created with 83 assertions, distributed in 14 factors, distributed in 4 dimensions: Motivation, People Management, Philosophy of Management and Work Environment.



## Health and safety at work

GRI 103-1; 103-2; 103-3; 403-2; 403-3; EU16

Among the various activities carried out at the Eletrobras companies, risks of specific occupational diseases were identified that could be caused at the power plants due to exposure to noise and high temperatures and, in the field activities in transmission lines, due the overload of the upper limbs.

To mitigate negative impacts and to promote occupational health and safety, we focus on anticipating, identifying, evaluating and controlling hazards in the workplace and promoting employee health, in accordance with current legislation and technical, legal and ethical recommendations made by government bodies and scientific entities.

The developed actions are in line with the guidelines of the People Management Policy, which determines the continuous maintenance of good working conditions and employee well-being, as per Eletrobras companies' Sustainability Policy.

Our companies also rely on specific contingency plans and all employees working in risk areas wear individual and collective protection equipment. These actions comply with the rules and regulations of the Ministry of Labor and Employment (MTE), the Fire Department, Civil Defense and environmental entities.

The safety culture is a consolidated value among Eletrobras companies and it is integrated to all our activities. Providing a safe working environment with better quality of life for our employees is a permanent goal, translated by our corporate policies and several actions developed.



Nuclear power plant in Angra. Eletrobras Eletronuclear collection



# ROBUST AND TRAINED MANAGEMENT STRUCTURE

Specialized Occupational Health and Safety Engineering Service (SESMT) in the companies' facilities and/or strategic situations

Internal Accident Prevention Committees (Cipa) to prevent occupational accidents and diseases

#### Ergonomics committee

Environmental Risks Prevention Program (PPRA) to neutralize the potential risk of accidents, disease and/or unfavorable workplace conditions

Compliance with environmental risks and hazard standards



# **CLOSE DIALOGUE AND MONITORING**

Occupational accident and disease prevention programs

Annual medical examinations

Monitoring of employees that carry out external activities and construction work, projects and or service inspection

Internal Accident Prevention Week (Sipat) at least once a year

Rigorous and specific monitoring of risks related to nuclear energy at Eletrobras Eletronuclear workplace, including safety and emergency plans



#### 2018 indicators

INTRODUCTION

In 2018, we maintained compliance with the Environmental Risk and Hazard Standards, as well as the monitoring of employees performing external activities and physical inspections of construction works, projects and/or services.

In addition, we continued the work of the Ergonomics Committee, and the extension of the Occupational Safety and Ergonomics programs in the Brasília Office.

We reached an accident frequency rate of 2.86 lost-time accidents per million man-hours of risk exposure in Eletrobras companies, 28% higher than the rate recorded in 2017 (2.23), not reaching our target for 2018 (1.38)

The 2019-2023 PDNG has People Appreciation as a strategic initiative, which includes actions directed to occupational diseases and work-related accidents prevention in Eletrobras companies.

Improving safety at work through a prevention culture is one of our goals for 2019. We have established an initiative in our master plan to implement accident prevention actions in our work environments.

Our goal for 2019 is to reduce the accident frequency rate to 1.33 and the accident severity rate to zero.

Health and Safety indicators by gender	Men	Women
Injury rate	4.6	3.6
Occupational disease rate	0.1	0.0
Lost Days Rate	312.6	34.2
Absenteeism rate	5.8	6.0
Fatalities	1	0

## Career and development

INTRODUCTION

GRI 103-1; 103-2; 103-3; 404-1, 404-2, EU14

#### Corporate education management

Our corporate education model aims at developing employees' professional skills and boosting the strategic reach, being managed by two pillars: the Eletrobras System Corporate University (Unise) and the associated Corporate Education Units, corresponding to each of the companies.

Unise develops general, managerial and specific skills that are critical to the viability of the strategy, specific training in business, dissemination of the culture and the values of the group. In 2018, 193 educational actions were carried out by Unise, including actions foreseen in the Corporate Education Plan (PEC) and seminars sponsored by Eletrobras.

Corporate Education should be guided by the following guidelines:

- Integrated, cooperative and aligned performance of Eletrobras companies;
- Design, Structuring and Evaluation of Educational Programs / Actions;
- Alignment to the People Management Policy of Eletrobras companies;
- Employee skills development;
- · Organizational culture development;
- Leadership development and training;
- · Appreciation of the educator employee;
- Alignment with the performance management model;
- Interface and partnership with corporate libraries;
- Internal and external partnerships;
- Integration of Corporate Education with Research, Development and Innovation;
- Continuous improvement of the Educational Model;
- · Valuing diversity and promoting equity; and
- Meeting legal requirements related to the qualification of members of the Board of Executive Officers, Board of Directors and Supervisory Board.

#### Living and learning

The Vivendo e Aprendendo project, carried out by Eletrobras Chesf in partnership with the Social Service of Industry (Sesi), makes it possible to raise the employees' education level, who wish to join the initiative. The project contributes reduce wage and social inequalities, allowing access to college, besides generating improvement in complexity and agility levels when performing daily tasks at work. In all, 148 employees increased their educations levels through Living and Learning.

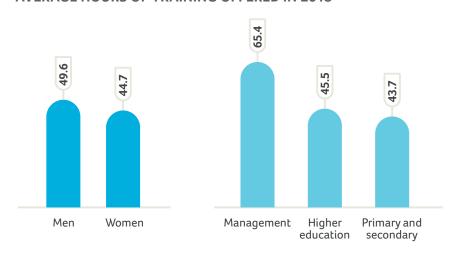


#### **CORPORATE EDUCATION MANAGEMENT**

	2016	2017	2018
Hours of training offered	1,135.8 thousand	777.5 thousand	763.9 thousand
Investment	R\$ 32.9 million	R\$ 23.7 million	R\$ 25.7 million
Total enrollments	68,827	51,679	50,941

The reduction in hours, investment and enrollment total is a natural consequence of the reduction in the number of employees, considering the companies sold and the workforce resizing plans.

#### **AVERAGE HOURS OF TRAINING OFFERED IN 2018**



#### Career development

GRI 404-3; 405-2

Since 2010, the Eletrobras companies' Career and Compensation Plan (PCR) brings together the guidelines and policies on positions, careers, compensation and performance, aligning people management policies and practices with strategic business drivers, aiming at enhancing the organizational performance, based on skills and focused on results.

The Career and Compensation Plan aims to ensure fairness and equal treatment regardless of gender, race, color, religion, disability, marital status, sexual orientation, family situation, age or any other condition.

The Performance Management System, within the scope of the Career and Compensation Plan (PCR), integrates the process of planning, monitoring, evaluation (goals and competencies) and development processes, allowing to compare the performance achieved with the planned, as well as other uses within the company.

In this context, we highlight the performance evaluation interface with the Corporate Education Plan, Talent and Opportunity Bank, Succession Plan, Knowledge Management, Merit Distribution and Career Planning. The SGD improvement, which will be implemented in

2019, will help Eletrobras companies to manage their employees, channeling their efforts to reach objectives that guarantee profitability, sustainability, competitiveness and value creation.

In line with the 2018-22 PDNG, which incorporated the appreciation of people into the strategy, we have worked in the last two years to improve the succession process. In total, more than 1,100 managers and potential leaders of Eletrobras companies underwent an assessment process, which contributes to identify potential leaders, to verify if current managers are suitable in their functions, to establish succession maps (mainly dismissal plans), support the professional improvement and foster the talent pool and opportunities.

#### **2018 INDICATORS**

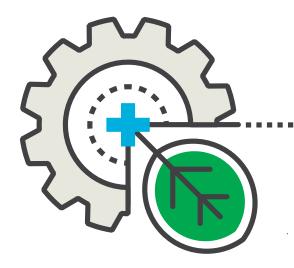
In 2018, we carried out several development actions for Eletrobras professionals, in topics related to governance, compliance, auditing, generation, transmission, finance, accounting, among others.

Performance evaluation is provided for in the PCR applicable to employees. It should be clarified that the statistics can be influenced by employees' dismissal date in the Dismissal Plans, licenses for long periods of time, assignment to other agencies and eventual changes in the evaluation processes dates.

## **EMPLOYEES WHO UNDERWENT PERFORMANCE EVALUATION**







## Compensation and Benefits

GRI 401-2

INTRODUCTION

Our compensation policy follows the same guidelines as the Career and Compensation Plan (PCR) and the variable compensation practice is still linked to the Profit-Sharing Program (PPLR) as long as the corporate indicators support its payment.

The PPLR is a variable compensation instrument linked to our strategy and uses part of the indicators in the Business Performance Target Agreement (CMDE) to calculate the variable compensation of employees, as can be seen in the following table.

Group	Strategic guideline of 2019- 2023 PDNG	Indicator	
Group 1 - Economic and Financial Target (Consolidated)	Financial Discipline	Consolidated Adjusted Net Income	
Group 2 - Economic	Financial Discipline	Adjusted Ebitda	
and Financial Goals (By Company)	Operational Excellence	Regulatory PMSO/PMSO	
Group 3 - Operational Goals (By Company)	Sustainable performance	Dow Jones Sustainability Index Global Score	
	Sustainable performance	Global Performance in the B3 Corporate Sustainability Index	
	Operational Excellence	Operating Result / Number of Employees	
	Operational Excellence	Relative generation availability (DISPGR)	
	Operational Excellence	Operational Availability of Transmission Lines (DISP. OLT)	

CORPORATE STRATEGY AND GOVERNANCE AND RESPONSIBLE

PROFILE VISION OF THE FUTURE COMPLIANCE PERFORMANCE ENVIRONMENTAL RELATIONSHIPS GRI CONTENT INDEX

As part of the employee appreciation and retention policy, in addition to fixed and variable compensation, we offer a series of benefits and advantages determined by law and/or under a Collective Bargaining Agreement. We also spontaneously add other benefits based on the assumptions of our human resources policy. Among them, we highlight the following:

funeral allowance:

INTRODUCTION

- extended maternity and paternity leave;
- medical care/health insurance and dental care;
- complementary pension plan and pension fund;
- daycare allowance;
- education allowance;
- meal/food allowance;
- vacation bonus;
- psychological and pedagogical assistance for employees and/or dependents with special needs; and
- caregiver program to reimburse caregiver expenses for employees or their dependents.

#### **2018 INDICATORS**

Ratio for Management level women/men		Higher education level		Primary and secondary level		
compensation	Salary	Compensation	Salary	Compensation	Salary	Compensation
Cepel	0.83	0.88	0.95	0.89	0.58	0.51
Chesf	0.97	0.88	0.87	0.78	1.10	1.02
Amazonas GT	1.21	0.85	0.96	0.91	1.03	1.28
CGTEE	1.06	0.88	0.89	0.74	0.96	0.85
Eletronorte	0.84	0.83	0.80	0.80	2.30	1.59
Eletronuclear	0.68	1.00	1.00	1.00	1.00	1.00
Eletropar	0.99	1.08	0.99	1.08	No employee in this functional level	
Eletrosul	1.00	0.95	0.88	0.86	1.04	1.00
Furnas	1.02	1.03	0.90	0.85	1.03	0.81
Holding	0.85	0.90	0.97	0.98	1.06	1.14
Itaipu	0.98	NA	0.91	NA	0.95	NA

MANAGEMENT

## \_ .

INTRODUCTION

## **CUSTOMER SATISFACTION**

## Satisfaction survey

GRI 102-43

Since 2014, Eletrobras has been conducting a unified biennial survey on the level of customer satisfaction with focus on the generation and transmission business.

The survey uses the Customer Window Quadrant model as a method to measure the customer satisfaction of the generation, transmission business and research, development and innovation, based on customer perception about value attributes and level of importance.

The 3rd edition, in 2018, had the participation of Eletrobras CGTEE, Chesf, Eletronorte, Eletronuclear, Eletrosul, Furnas, Amazonas GT and Cepel, the latter two being new inclusions in this edition of the survey.

#### **RESULTS OF THE 3RD CUSTOMER SATISFACTION SURVEY**





**of importance degree** for customers of the researched value attributes

Target: 85.31% of satisfaction **EXCEEDED** 

## ALIGNED SUPPLIERS

GRI 102-9; 102-10; 103-1; 103-2; 103-3; 204-1; 410-1; 412-3

#### **Profile**

Eletrobras companies' main suppliers are from sectors such as technology, information technology, telecommunications, engineering, manufacturing, transportation, resale, equipment for electrical power generation, consulting in different areas and cleaning and security services. These various-sized contractors – from micro companies to large multinationals – are spread throughout Brazil and abroad.

In 2018, Eletrobras companies' supply chain had 3,241 new suppliers contracted, a cost of R\$4.4 billion in the year.

By the end of the year, there were 12,906 contracts in force, of which 319 were related to significant investments – submitted to the approval of the Board of Executive Officers, in which the asset resulting from these contracts will be incorporated into the Company's equity. Of this total, 89.7% included clauses related to human rights.

## % of suppliers contracted locally (in the same region)

Northeast	33%
North	32%
Southeast	77%
South	27%

At Eletrobras, critical suppliers are those with contracts that have a direct impact on the final quality of its services, the environment, employees' health and safety, and human rights, as well as those with access to confidential information, as well as those that represents high risk to the Company's integrity.



## Management

INTRODUCTION

GRI 408-1, 409-1, 103-2

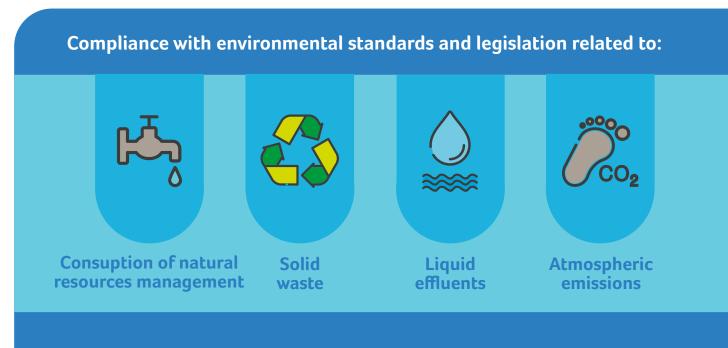
The Company is aware that the quality of its relationship with suppliers generates indirect impacts to society. Therefore, it believes in the importance of sharing good practices and aligning values with these stakeholders as a way to improve its value creation.

Eletrobras companies work towards maintaining a close relationship with their suppliers, from selection to tracking of their activities, maintaining a constant and transparent dialogue and sharing their ethical principles throughout the relationship cycle.

### Selection

In line with our Supply Logistics Policy and the Supplier Conduct Code, which guide our business based on internationally recognized management practices, we require a series of commitments from our suppliers, from the hiring process, with the promotion of sustainability and integrity.

### SOCIAL AND ENVIRONMENTAL COMMITMENTS ON SUPPLIER MANAGEMENT



Suppliers undertake not to carry out any practice contrary to the principle of the Code of Ethics and Conduct, the Corporate Integrity Program and the policies of the Eletrobras companies in their operations and their production chain.

Contractual obligations
determine that suppliers are
responsible for knowing and
complying, as appropriate, with
the principles and standards
of the Supplier Conduct Code,
as well as the Anti-Corruption
Program of Eletrobras
Companies, available at:
https://bit.ly/2qkypg5).

In addition, since April 2018, all contracting and acquisitions have been formalized based on the new Regulation on Bids and Contracts, which adapts the contracting guidelines for Eletrobras companies to that established in Law 13,303/2016 (State-Owned Companies Act) and establishes the supplier corporate integrity evaluation from the hiring process to its monitoring during contract execution.

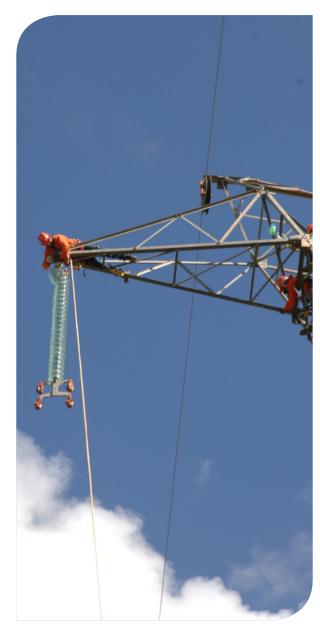
## Monitoring

Contracted suppliers are constantly monitored through management and supervision of the contracts throughout the duration of their relationship with the Company and, if any event is recorded, an administrative proceeding may be filed leading to the suspension of their right to participate in public bids with Eletrobras, and to the possibility of a formal complaint against the supplier to the Public Prosecutor's Office.

From the new Regulation on Bids and Contracts, effective since 2018, suppliers have also begun to fill out a integrity risk assessment form, which maps their relationship with government officials, their fraud or corruption conviction history and the existence of a Integrity Program.

From this mapping, we apply an analysis methodology to identify and classify integrity risk, generating an opinion that indicates possible alert points to be monitored, as well as the actions that should be taken for each type of risk (low, medium, high or very high). For very high-risk cases, for example, the background check service is used.

The consolidation of the integrity management process with suppliers was recognized through the "Business Ethics Award" with the Integrity Mechanisms for Third Parties project, won by the company in 2018.



Maintenance in transmission tower. Eletrobras Chesf / Severino Silva collection

## Dialogue and engagement

INTRODUCTION

The entire supplier management and relationship cycle is assisted by Eletrobras Companies' Strategic Supply Logistics Committee (Celse), which:

- analyzes and disseminates good sustainable procurement practices through guidelines, such as Eletrobras' Sustainable Bidding Practices Guide;
- establishes guidelines, rules and procedures for contracting processes in accordance with current legislation; and
- is responsible for the management of the Eletrobras Companies' Supply Logistics Policy.

The annual meetings with suppliers are also a practice aimed at maintaining and strengthening engagement with suppliers so that they are involved with the management and sustainability practices that permeate our hiring and acquisitions.

To foster sustainability in the supply chain, our PDNG foresees formal goals of engagement and relationship with this public:

MANAGEMENT

#### RESULTS OF THE PDNG 2018-2022 GOALS AND UPDATE TO THE PDNG 2019-2023 GOALS

PDNG 2018-2022 goal	PDNG 2018-2022 goal	PDNG 2018-2022 goal	PDNG 2018-2022 goal
To reach 60% of critical suppliers trained in anticorruption policies and procedures in 2018, and 100% by 2022.	To reach 40% of suppliers willing to adopt practices of appreciation of diversity in 2018, and 100% of suppliers in 2022.	To apply the due diligence form in 60% of critical suppliers by 2018, and 100% by 2022.	To reach 60% of commercial partners trained in anti corruption courses.
Status			
ACHIEVED with 90% of critical suppliers trained in anti-corruption policies and procedures.	ACHIEVED with 83.4% of suppliers stimulated to adopt practices of valorization and promotion of diversity.	ACHIEVED with 94% of critical suppliers submitted to the due diligence evaluation.	ACHIEVED with 99% commercial partners trained in anti corruption courses.
New PDNG 2019-2023 goal			
80% in 2019 and 100% in 2022.	60% in 2019 and 100% in 2022.	70% in 2019 and 100% in 2022.	ACHIEVED with 80% commercial partners made aware about the Integrity Program (Compliance) of Eletrobras companies.

### PDNG 2019-2023 goals

5% of Tier 2 suppliers assessed for sustainability risk in 2019 and 100% in 2023. 100% of critical suppliers assessed for human rights risk by 2021. 100% of Tier 1 suppliers trained in human rights in 2021.

## **COMMUNITY ENGAGEMENT**

GRI 103-1; 103-2; 103-3; 412-2; 413-1; 413-2

### Outlook

INTRODUCTION

Compliance with this objective is fundamental in all aspects of our activities, since, from the study stage through to operations, Eletrobras' projects can cause more or less impact, depending on the region where they will be implemented.

One of the objectives of our business performance is to ensure that the Eletrobras system projects are drivers of sustainable development in surrounding areas, building healthy and long-term relationships, minimizing negative impacts and generating value to communities.

Local communities can be negatively impacted mainly by the need for displacement, by changes in the environment around the power plants and by the interference in the dynamics of indigenous and traditional groups of people.

In order to mitigate and offset these impacts, and based on the lessons learned from past operations, we always seek to update and renew our commitments, already expressed in the Environmental Master Plan and in the Process of Interaction of the Brazilian Electric Power Sector with Society, published in the early 1990s.

In line with the UN Global Compact, the Company is a signatory, and aligned with its Sustainability, Environmental, Social Responsibility and Communication and Engagement with Stakeholders policies, Eletrobras is seeks to promote ethical and transparent dialogues with the purpose of building engagement and qualified relationships with the communities in which we operate, recognizing their culture, forms of

social organization and the representatives appointed by them.

From a Human Rights point of view, the UN's Sustainable Development Goals (SDGs) were used as reference for the elaboration of other corporate policies, such as Eletrobras companies' Social Responsibility, updated in 2018. The SDG also guide the prioritization of projects that may be supported by the Company, always focused on overcoming inequality and promoting the sustainable development of the local communities where Eletrobras operates.

## COMMITMENTS IN THE RELATIONSHIP WITH THE COMMUNITIES



OPEN AND PERMANENT DIALOGUE



SAFETY AND PROTECTION
OF POPULATIONS IN
EMERGENCIES



AWARENESS OF THE SAFE,
EFFICIENT AND RESPONSIBLE USE
OF ENERGY

Eletrobras received the Human Rights Award 2018, granted by the then Ministry of Human Rights in recognition to the Letter Open from Companies for Human Rights commitment, signed by the company and other stateowned companies.



RESPECT FOR THE VALUES
AND INTERESTS OF EACH
COMMUNITY



PROMOTION OF IMPROVED QUALITY OF LIFE



RECOGNITION AND RESPECT
FOR THE CULTURE AND FORM
OF SOCIAL
ORGANIZATION OF ALL
IMPACTED COMMUNITIES,
INCLUDING TRADITIONAL AND
INDIGENOUS COMMUNITIES

During the year, we also invested in carrying out educational action on human rights involving professionals from social responsibility, sustainability and other areas.

Guidelines, mapping and prioritization of the main human rights risks were prepared in a workshop organized by Fundação Getúlio Vargas (FGV) to support the construction of the Human Rights action plan of Eletrobras companies, which will be initiated and concluded in 2019.

Throughout the period, Eletrobras companies' employees also underwent training on the subject, adding 11,021 hours of training offered to 2,342 employees (representing 15% of total employees).



In 2018, Eletrobras, the Bolivian state-owned Empresa Nacional de Electricidad (Ende) and Corporación Andina de Fomento (CAF) began hydroelectric inventory studies in the binational stretch of the Madeira River and its main tributaries, located in Bolivian and Brazilian territories.

An office was installed in the city of Guajará-Mirim (Rondônia), which will serve as a basis for the implementation of a Social Communication Plan (PCS) and as a support for technical field studies. It is the first time that a Social Communication Plan is carried out in the hydroelectric inventory studies stage.

In 2018, the PCS began mapping stakeholders with the objective of getting to know the social subjects, visualizing the networks of active relationships in the area of study while identifying the existing interests, questions, doubts, demands and social conflicts. From the information collected, it will be possible to rank the most relevant topics for the set of social subjects and to classify the interested groups in the questions related to the inventory studies that will probably communicate with the PCS over time. The mapping of stakeholders is an ongoing activity and will be updated throughout the execution of the work.

On the Brazilian side, in Rondônia (RO) and Acre (AC), in 2018 40 institutional interviews were held, 2,170 folders were distributed and 133 polling stations were installed to receive claims from the local population, as well as claims via WhatsApp and telephone. In all, 148 claims were recorded, all of which were answered. Information about the project was also disclosed at two regional events, promoted by institutions linked to municipal power and the federal university. PCS products also subsidize socioeconomic studies of inventory studies.

## Impact management

# Displacement of populations and changes in social dynamics

GRI 102-43; EU20

INTRODUCTION

Since 2015, we have incorporated guidelines on the displacement of the populations affected by projects in the power sector to the guidelines on the relationship with society and environmental communication of our Environmental Policy.

The guidelines establish, for example, that Eletrobras companies should monitor the evolution of social and economic conditions of the relocating and the host communities, based on quantitative and qualitative studies at least during the period established by the environmental licenses.

In addition to our internal guidelines, we comply with legal commitments and obligations during the environmental licensing process, such as Federal Decree 7,342/10 and Interministerial Ordinance 340/12, which deal with the social and economic assessment of the population affected by dams.

## Safety

EU21

## **Contingency**

Eletrobras companies rely on Emergency
Response Plans, which establish responsibilities,
measures and effective actions to be taken
during contingency situations. Each project has
a specific, constantly updated contingency plan
that includes social and environmental aspects
related to natural disasters, spills, fire, information
technology issues, workers' strikes, company
image crisis, among others. Emergency brigades
and employees working in areas considered to
be at risk are trained to implement such plans in
emergency cases.

At Eletrobras Eletronuclear, employees undergo annual drills. At Eletrobras Chesf, the hydroelectric power plants have basin flood, control manuals with instructions in case of flood events and the measures that must be taken should they happen. The emergency plan is established with the participation of different organizations such as Civil Defense, Military Police and the Fire Brigade.

Drills are performed on a regular basis and certified by the competent authorities.

Eletrobras Furnas, Eletronorte e
Eletrosul rely on the Emergency
Response Plans for Transmission Lines,
which establish actions to be taken in
order to restore, in the shortest possible
time, transmission lines, transformers
and other equipment that make up the
transmission networks, using own or
third-party resources, allowing for the
maintenance of the electricity supply.

## Traditional populations

GRI 411-

INTRODUCTION

In line with its commitments and policies, Eletrobras seeks to promote ethical and transparent dialogues with the traditional populations, more frequently with indigenous peoples at the area we operate, respecting their culture, forms of social organization and acknowledging representatives appointed by them.

The Eletrobras companies' Environmental Committee monitors the topic through the Indigenous Communities Commission, which is composed by companies specialists. In 2018, the relationship guidelines of Eletrobras companies with indigenous peoples were approved by the Committee for Incorporation in the Environmental Policy of Eletrobras Companies, which was approved in 2019.

Also, Eletrobras companies' Social Responsibility Policy emphasizes that in the process of building engagement and qualified relationships with stakeholders, companies should pay special attention to the vulnerable groups such as traditional and indigenous communities.

Eletrobras companies, as a rule of conduct, adopt procedures to avoid impacts on indigenous communities, resulting from the implementation and operation of electricity generation and transmission lines projects. When necessary, they adopt procedures to repair the damages suffered by these communities, as well as support their cultural development projects.

In addition, Eletrobras companies voluntarily participate in the Indigenous Business and Indigenous Peoples Dialogue Initiative from The Natural Conservancy NGO.

### Legislation

Brazilian legislation establishes several instruments that must be fulfilled at all stages in the projects' implementation cycle. Related to the environmental licensing of projects that cause socioenvironmental and cultural impacts to indigenous peoples and lands and quilombola

communities, we highlight the Interministerial Ordinance 60/2015 and Normative Instructions 2/2015 by the National Indian Foundation and 1/2018 by Palmares Cultural Foundation, which establish, respectively, the administrative procedures to be observed in the environmental licensing processes in which these institutions participate.



### **Cultural development**

INTRODUCTION

### Kayapó support projects (PA)

In 2018, Eletrobras continued its participation in the projects with the Kayapó indigenous communities in the Xingu region, in southern Pará. Comprised by 4,500 indigenous in 40 villages, the group is considered indirectly impacted by the Belo Monte power plant. The projects were developed in partnership with Funai, Norte Energia - which provides the necessary financial resources - and the representative institutions of the Kayapó - Instituto Kabu, for the Western Kayapó, and Associação Floresta Protegida (AFP), for the Eastern Kayapó - to better meet the demands of indigenous communities.

In April, after negotiations and participatory adjusts the work plan, the Kayapó Mekrãgnoti Program has started, the third project with the Western Kayapo/Institute Kabu, with five years duration and total financial contribution from Norte Energia in the amount of R\$ 11.3 million. It is Eletrobras' responsibility to monitor, supervise and manage the relationship with the communities.

The Eastern Kayapó Autonomy Support Plan (PAAKaL), the second project with the Eastern Kayapó / AFP communities, was extended until April 2019, through an additive term established in a participatory manner. With the deadline extension, schedule, budget and work plan were adjusted.

The main results of these experiments are the institutional strengthening of the entities that represent the Kayapó and execute the projects, the inspection and protection of indigenous lands, the promotion of sustainable economic activities and the cultural valorization of the ethnic group.

In addition, these communities have preserved the natural resources of the hydrographic basin that feeds the Belo Monte power plant in southern Pará. Kayapó projects contribute in a relevant way to the qualification of the dialogue and the relationship between Eletrobras and the communities, strategic stakeholder for the company's business in the region.

Projects to support traditional indigenous populations also lead to environmental preservation, since Kayapó lands, through which 31% of the Xingu river flows, have a 93% preservation rate, while the Xingu basin has a total of only 50%.



Waimiri Atroari Indigenous Program (AM), Parakanã Program (AM), Terra São Marcos Indigenous Program (RR) and Assurini Program (TO)

Eletrobras Eletronorte kept supporting programs executed in partnership with Funai in the Parakanã and São Marcos Indigenous Lands, carrying out actions to develop indigenous communities and offset social and environmental impacts caused by its projects.

In 2018, an agreement was also signed to implement the Assurini Program, to be developed over five years with the community of 560 indigenous people (census of 2013) in four villages, with 21.7 thousand hectares, with the objective of providing services to assist the needs pointed out by the community, seeking development in health, sanitation, education, culture, leisure, income generation, among other different aspects.

In the Waimiri Atroari indigenous land, located in the area of influence of the Balbina HPP in the state of Amazonas, in operation since 1989, the Company carries out health, education, protection and environmental programs, as well as actions to support local production within the community, focusing on its sustainability. The Waimiri Atroari indigenous land has 2.6 million hectares, with a population of 1,917 indigenous people, living in 45 villages.

When added, the Waimiri Atroari, São Marcos, Parakanã and Assurini programs received the transfer of R\$ 23.9 million from Eletrobras Eletronorte, allocated to mitigation and environmental compensation actions, completing the corrective measures determined by competent bodies.

The Waimiri Atroari Program is a benchmark in the sector and recognized worldwide for its actions. In 1987, in the beginning of the program, this indigenous group underwent a serious depopulation process and had a total of 374 indigenous people. Currently, it reaches about 2 thousand indigenous people.



# Support for the Avá-Canoeiros (GO) and for the Kaingang (PR)

At Eletrobras Furnas, since 1992, we have supported the Avá-Canoeiros community and since 2014 the Kaingang, through food donations, surveillance services, environmental monitoring and support for local festivities.

### Sanitation in the Bracuhy village (RJ)

In 2018, Eletrobras Eletronuclear started the pilot project to build evapotranspiration basins at the Karai Kuery Renda State Indigenous College, located at the Bracuhy village, in Angra dos Reis (RJ). The aim is to improve precarious sanitation conditions on the site.

### Support for the Avá-Guarani community (PR)

Itaipu Binacional develops the Sustainability of Indigenous Communities project, with the objectives of improving the infrastructure of the villages, strengthening their autonomy and ethnic and cultural identity and contributing to the appreciation of traditions.

*In 2018, the Eletrobras companies* participated in the Second Meeting of the Electric Sector Working Group, an initiative of the Indigenous Companies and Peoples Dialogue Forum. At the time, the methodology used by the electricity sector to carry out hydrographic basin inventory studies, especially socio-environmental studies, was presented and discussed with indigenous leaders. In the year, there were no incidents of violations involving rights of indigenous and traditional peoples in the Eletrobras companies' ombudsmen.



Native Caiapó. Eletrobras Eletronorte collection

## Development of local communities

We always seek to go beyond complying with legislation and mitigating impacts. We are committed to promoting the engagement and development of local communities, valuing the regions surrounding our operations and contributing to the improvement of social, economic, educational, environmental and health conditions.

In 2018, our private social investment totaled R\$ 326.9 million

- 80.4% allocated to social, environmental, cultural and sports projects, land development, the promotion of citizenship, children and adolescent rights, job opportunities and income generation, as well as health and food safety in surrounding communities;
- 0.2% in the form of donations to the Fund for Children and Adolescents and the National Program to Support Oncological Care;
- 0.3% in the employees' mobilization, support and time for voluntary actions;
- 4% in the form of cultural and sports sponsorships; and
- 9.9% with investments with own resources:
  - 1.3% in the form of donations for emergency situations or public calamity; and
  - 3.9% in the form of unusable goods donations for the company.

We present below Eletrobras companies' main programs to promote development in 2018.

## Volunteer Program

Linked to the Integrated Communication Committee of Eletrobras Companies, in 2018, the Subcommittee on Volunteering of Eletrobras Companies was created, aiming at the alignment and structuring of corporate volunteer programs, for efficient and shared management.

The holding company's Volunteer Program promoted 39 actions, in partnership with institutions that help socially vulnerable groups, benefiting more than 1,182 people, as well as five campaigns that engaged volunteers and employees in initiatives focused on the communities surrounding the Company's headquarters.

For more information about Eletrobras companies' volunteer programs, please visit their websites:

Furnas: https://bit.ly/2HiicTi Itaipu: https://bit.ly/2qspz05 Chesf: https://bit.ly/2Hu9Aqm Holding: https://bit.ly/2U6BpcL

# Social and Environmental Action Plan (PAS)

PAS is a shared environmental management process created by Eletrobras Chesf, together with the communities of the municipalities that are part of the Paulo Afonso Hydroelectric Complex, in 2008, and with the communities surrounding the Xingó HPP, in 2016. The aim is to develop an environmental management process capable of minimizing and/or offsetting the negative impacts and optimizing the plant's positive impacts.

PAS promotes education as a channel of social transformation by supporting projects in five courses of action: Social and environmental Educommunication Programs; Environmental Health and Education Programs; Natural Resource Conservation and Degraded Areas Recovery Programs; Institutional Strengthening and Sustainability Programs; Education, Art, Culture and Environment Programs.

## Agroecology and Fruit Processing Workshop (Eletrobras Eletrosul)

In order to encourage agroecology actions, Eletrobras Eletrosul - in partnership with the State School Father João Batista Réus, the City Hall and the Regional Association of Education, Development and Research (Arede) - held the Agroecology and Fruit Processing Workshop in the municipality of Dezesseis de Novembro (RS). Participants included 73 people, including students, teachers and school staff, who learned about native fruits as an economic and environmental alternative, organic production and a fruit processing workshop.

## Community Integration Centers (Eletrobras Furnas)

In 2018, Eletrobras Furnas signed a financing agreement with the National Bank for Economic and Social Development (BNDES) to provide funds for the creation of five Community Integration Centers in communities of Angra dos Reis and Resende (RJ), Mogi das Cruzes (SP), Foz do Iguaçu (PR) and Ibiraci (MG). The goal of the Nuclei is to promote new social coexistence models for local development, by supporting the creation of a reference project chosen by the community.

## Caminhos Project (Eletrobras Furnas)

It aims to promote citizenship and the rights of young people and teenagers, using sport as a means of inserting young people living in communities with vulnerability and social risk in Foz do Iguaçu (PR) in the Young Apprentice Program. In 2018, 45 young people were referred to the Youth Apprentice Program, hired in companies in the region.

## Fazenda São Bento Generation of Work and Income Project (Eletrobras Furnas)

The project seeks to support 13 families in social vulnerability in the municipality of Colinas do Sul, (GO), from the promotion of income generation, encouraging the cultivation and commercialization of fruits and vegetables with the support of the Regional Development Fund of Serra da Mesa and Cana Brava.

## Work and Income Opportunity Training Program (Eletrobras Furnas)

Developed in the city of Rio de Janeiro, it aims to train 645 young people and adults in courses in the areas of beauty, cooking, mechanics, technology, fashion and construction in order to expand their opportunities to enter the labor market or to set up a business to generate income, contributing to poverty reduction.

# Support to agricultural products and fishermen around the Sobradinho Dam (Eletrobras Chesf)

The project, developed by Eletrobras Chesf in partnership with Brazilian Agricultural Research Corporation (Embrapa), seeks to promote inclusive and sustainable economic growth and generate full and productive employment based on research, technology transfer and training of technicians, producers and fishermen. Thus, the project strengthens the infrastructure of agricultural activities, ensuring a level of productivity that allows the improvement of income of producers and the reproducibility of productive units of communities in the municipalities surrounding the Sobradinho dam.

## Sustainable cities (Itaipu Binacional)

The program is an initiative of a network of organizations, among them Itaipu Binacional as a sponsor, which offers public managers a complete agenda on urban sustainability, a set of indicators associated with this agenda and a database of reference practices in 12 axes:

- 1. Education for Sustainability and Quality of Life;
- 2. Culture for Sustainability;
- 3. Governance:
- 4. Common Natural Resources;
- 5. Equity, Social Justice and Culture and Peace;
- 6. Local Management for Sustainability;
- 7. Planning and Urban Design;
- 8. Local, Dynamic, Creative and Sustainable Economy;
- 9. Responsible Consumption and Lifestyle Options;
- 10. Better Mobility, Less Traffic;
- 11. Local Action for Health; and
- 12. From Local to Global.

Since 2011, Itaipu Binacional has promoted the dissemination of the program and the training of municipal technicians in the Western region of Paraná.

Learn more at https://bit.ly/2jpbZXe.

# BELO MONTE: ENERGY GENERATION AND SUSTAINABLE DEVELOPMENT FOR BRAZIL'S GROWTH

Since the beginning of the technical, economic and socio-environmental feasibility studies for the Belo Monte hydroelectric project (AHE), more than a decade ago, the implantation of the hydroelectric plant has been questioned by different stakeholders for the potential socio-environmental impacts.

Belo Monte will be the largest 100% Brazilian hydroelectric plant in installed capacity and the third largest in the world.

It is therefore natural and healthy that the implementation of such an enterprise – among ethnic, cultural and environmental diversity of the Xingu river basin in Pará – be the subject of constant inquiry and investigation from society.

Against this backdrop, Eletrobras, which has a stake in the project, and Norte Energia, the consortium responsible for it, have been working with a commitment to transparency and accountability while also mitigating and minimizing negative impacts to build an unprecedented positive socio-environmental legacy.

We have created the following special webpage to inform our readers about the key aspects of value creation of this venture.

In the website dedicated to Belo Monte you may learn, in detail, all the information about the venture and access a wide range of studies, plans and social and environmental documentation: http://bit.ly/315xyl9



Jatobá resettlement, in Altamira. North Energy collection

At the Belo Monte hydroelectric plant, where we have 49.98% stake in the consortium responsible, Norte Energia, the commitment is the same. The plant, installed on the Xingu River, when fully completed, will be the largest 100% Brazilian hydropower plant, with 24 generating units (UGs) and an installed capacity of 11,233.1 MW.

The venture is paramount to ensure the availability of clean and renewable energy source in the country meeting the increasing demand, coupled with a robust process to mitigate socio-environmental impact and promote the region's development.

To contribute to the energy generation in Brazil and to the sustainable development of the region where it operates, in the southwest Pará. This is the mission of the Belo Monte Hydroelectric Power Plant.

Investments in socio-environmental and indigenous programs are impressive: R\$ 6.3 billion in more than five thousand actions carried out in the five municipalities neighboring the project, defined in the Basic Environmental Project (PBA), composed of 117 plans, programs and projects intended to develop and improve local communities quality of life, as well as environment conservation and the scientific knowledge expansion on the Amazon.

In terms of total actions carried out, Belo Monte's PBA is already considered the largest environmental licensing process accompanied by the Brazilian Institute for the Environment and Renewable Natural Resources (Ibama).

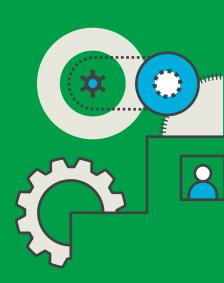
Moreover, Belo Monte has already generated R\$ 1 billion in taxes, 75% of which are municipal and 35% state, and R\$ 82 million in financial compensation for water resources use per year for the municipalities affected, which will allow city halls to maintain and to expand all the health, education and sanitation infrastructure legacy resulting from the Socio-Environmental Programs to the region.

Learn below the main impact on regional development and protection of indigenous culture.

## **QUALITY OF LIFE IN ALTAMIRA AND REGION**

- Construction of the sanitary sewage system with 18 thousand home connections to a modern network, expanding the population served from 14% in 2011, before Belo Monte, to 92% in 2018;
- Expansion of the water supply system;
- Construction of 30 basic health units (UBS) and three new hospitals;
- Construction, renovation and extension of educational units with 76 construction works;
- Urban renewal interventions, such as the revitalization of the main access highway to Altamira's urban area, construction of bridges and footbridges, roads paving and signaling;
- Creation of three permanent beaches;
- Creation of the Integrated Artisanal Fishing Center (CIPAR), with a market to sell fish and also other activities related to the fishing sector;

- Relocation of 3,6 thousand families, about 23 thousand people who lived on stilts, for collective urban resettlement, with the construction of 3,850 houses, supported by all these investments in health, education, leisure, infrastructure and quality of life;
- Construction of three sanitary landfills closing the dumps used until then;
- Contribution to public policies, with funding from the Malaria Control Action Program (PACM), which, in partnership with state and municipalities, reduced disease cases by 98% in the five municipalities. Before the PACM, the region recorded 6 thousand cases of malaria per year and in 2017 the program achieved an unprecedented feat: for the first time in the history of the region no cases of malaria with local transmission were recorded; and
- Support to public safety, with R\$ 123 million destined for the government of Pará and reverted to equipment such as video surveillance cameras, vehicles, helicopters and other investments to strengthen the public safety structure.



### **Commitment to indigenous communities**

Norte Energia develops a set of 10 programs and 27 projects called the Basic Environmental Project - Indigenous Component (PBA-CI), which serves more than four thousand indigenous people from nine ethnic groups that inhabit 12 traditional territories (11 indigenous lands and one indigenous area) totaling a territory with 5 million hectares.

With actions at the beginning of the program that depended on government action, there was an initial delay in its implementation until 2015. The National Indian Foundation (FUNAI), however, considered that the delays did not impede the operation license and demanded the execution of a Term of Commitment with new deadlines and actions.

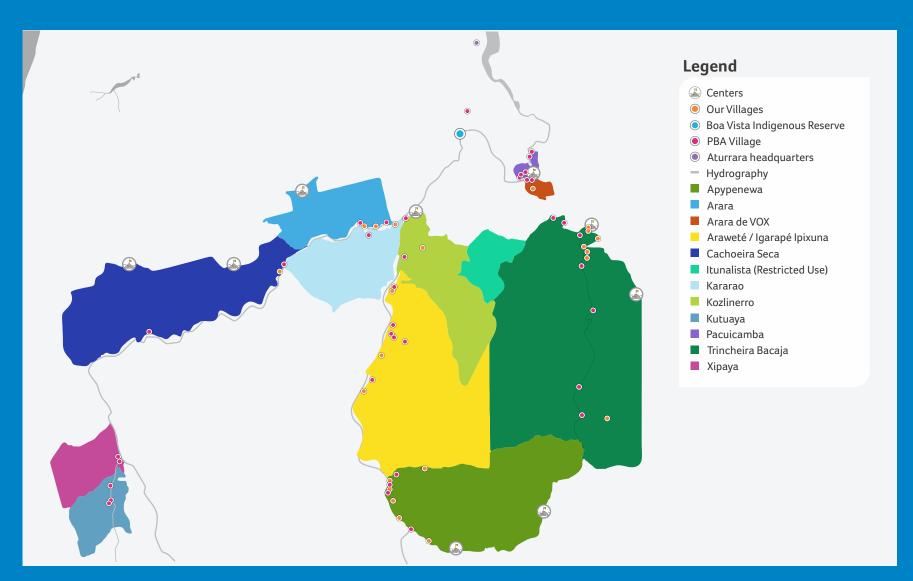
Since 2015, therefore, Norte Energia has implemented the program with no relevant failures.

Through it, Norte Energia carries out actions and supports public policies aimed at indigenous communities in conjunction with agencies and institutions operating in the region.

### Main Highlights of the Program

- No indigenous land was flooded by Belo Monte HPP reservoirs;
- No indigenous village was relocated;
- The number of villages increased from 26 in 2010 to 63 in 2018 according
  to Funai and the total number of indigenous people increased from 2,100
  to more than 4,000 in the period according to the Special Indigenous
  Sanitary District (DSEI);
- 18 indigenous schools were built;
- 26 basic units of indigenous health were built, equipped and transferred to the Special Indigenous Sanitary District of Altamira / PA (DSEI);
- Equipment and vehicles available for the public health agencies that work with the region's indigenous population;
- Construction of eight Territorial Protection Units (UPTs) and three UPTs in hiring process, with 56 professionals hired by Norte Energia to act on these grounds;
- Construction of 453 kilometers of roads and access roads to communities,
   16 runways and 26 water supply systems; and
- Projects focused on technical assistance, income generation and family subsistence.

## XIPAYA, KURUAYA, XIKRIN, JURUNA, ARARA, ASURUNI, ARAWETÉ, PARAKANÃ AND KAYAPÓ **ETHNICITIES REMAIN CULTURALLY ACTIVE IN THE REGION**



## GRI CONTENT INDEX

GRI 102-54, 102-47; 102-55

INTRODUCTION



For the Materiality Disclosures Service, the GRI Services have revised that the GRI content index is clearly presented and the references to Disclosures 102-40 to 102-49 are in line with the appropriate sections in the report body. This service was carried out in the Portuguese version of the report.

Disclosure	Description	Page/Direct Answer	Omissions
PROFILE			
GRI 101: Found	dation 2016		
GRI 102: Gene	ral Disclosures 2016		
Organizationa	al profile - 2016		
102-1	Name of the organization	Page 15.	
102-2	Activities, brands, products, and services	Page 15.	
102-3	Location of headquarters	Headquartered in Brasília – Distrito Federal: SCN Quadra 06 Torre "A" – Bloco "A" - 6 andar - Shopping IDEscritório Central no Rio de Janeiro, Rua da Quitanda, 196 - Centro	
102-4	Location of operations	Hydropower plant in Guiana, transmission systems in Guyana, French Guiana and Suriname, office & wind farms in Uruguay, binational hydroelectric (Itaipu) in Argentina and binational hydroelectric in Bolivia, as well as main operations in Brazil.	
102-5	Ownership and legal form	Page 15.	
102-6	Markets served	Page 15.	
102-7	Scale of the organization	Pages 15, 18, 96, 97, 99 and 130.	
102-8	Information on employees and other workers	Page 130.	

Disclosure	Description	Page/Direct Answer	Omissions
102-9	Supply chain	Page 143.	
102-10	Significant changes to the organization and its supply chain	Pages 15 and 143.	
102-11	Precautionary Principle or approach	Page 67.	
102-12	External initiatives	Pages 21 and 52.	
102-13	Membership of associations	Page 52.	
Strategy and a	analysis - 2016		
102-14	Statement from senior decision-maker	Page 14.	
102-15	Key impacts, risks and opportunities	Page 67.	
Ethics and inte	egrity - 2016		
102-16	Values, principles, standards, and norms of behavior	Pages 25, 55, 56 and 76.	
102-17	Mechanisms for advice and concerns about ethics	Pages 56, 76 and 180.	
Governance -	2016		
102-18	Governance structure	Page 56.	
102-19	Delegating authority	Page 56.	
102-20	Executive-level responsibility for economic, environmental, and social topics	Page 51.	
102-21	Consulting stakeholders on economic, environmental, and social topics	Page 76. In addition to the mechanisms described throughout the content, we have dedicated two channels to this end: IR Contact and the IR Ombudsman, both available on the website: https://bit.ly/2EiQ0dr	
102-22	Composition of the highest governance body and its committees	Pages 56 and 130.	
102-23	Chair of the highest governance body	Page 56.	

RESPONSIBLE ENVIRONMENTAL MANAGEMENT

RELATIONSHIPS

**GRI CONTENT INDEX** 

Disclosure	Description	Page/Direct Answer	Omissions
102-24	Nominating and selecting the highest governance body	Page 56.	
102-25	Conflicts of interest	Page 84.	
102-26	Role of highest governance body in setting purpose, values, and strategy	Pages 25 and 56.	
102-27	Collective knowledge of highest governance body	Page 61.	
102-28	Evaluating the highest governance body's performance	Pages 25 and 61.	
102-29	Identifying and managing economic, environmental, and social impacts	Pages 67 and 76.	
102-30	Effectiveness of risk management processes	Pages 56 and 67.	
102-31	Review of economic, environmental, and social topics	Page 67.	
102-32	Highest governance body's role in sustainability reporting	Pages 3, 48 and 51.	
102-33	Communicating critical concerns	Pages 76 and 128.	
102-34	Nature and total number of critical concerns	Page 76.	
102-35	Remuneration policies	Page 61	
102-36	Process for determining remuneration	Page 61.	
102-37	Stakeholders' involvement in remuneration	Pages 61 and 67.	
102-38	Annual total compensation ratio	4.81. Permanent wage types, annual supplementary bonus, functional bonus were considered.	
102-39	Percentage increase in annual total compensation ratio	0.80. Permanent wage types, annual supplementary bonus, functional bonus were considered.	

Disclosure	Description	Page/Direct Answer	Omissions
Stakeholder ei	ngagement - 2016		
102-40	List of stakeholder groups	<ul> <li>Workforce / family</li> <li>Investors / shareholders / market analysts</li> <li>Communities</li> <li>Company</li> <li>Press / opinion formers</li> <li>Partners / sponsors / suppliers</li> <li>Governments / parliamentarians / regulators</li> <li>Customers / consumers / distributors</li> </ul>	
102-41	Collective bargaining agreements	Freedom of association is the right of all employees of the company and all employees of Eletrobras companies are covered by collective bargaining agreements. In addition to permanent employees, the Collective Bargaining Agreement also covers all own and amnesty / reinstated employees, who are assigned to government agencies.	
102-42	Identifying and selecting stakeholders	Pages 3 and 128.	
102-43	Approach to stakeholder engagement	Pages 3, 133, 142 and 150.	
102-44	Key topics and concerns raised	Page 3.	
Identified mat	erial aspects and boundaries - 2016		
102-45	Entities included in the consolidated financial statements	Todas as empresas: Cepel, Chesf, Furnas, CGTEE, Eletrosul, Eletronorte, Itaipu, Amazonas GT, Eletronuclear e Eletropar.	
102-46	Defining report content and topic Boundaries	Page 5.	
102-47	List of material topics	Pages 5 and 163. The material aspects, related to the material themes, are presented throughout this GRI index.	
102-48	Restatements of information	Restatements of information are pointed out throughout the text.	

CORPORATE STRATEGY AND GOVERNANCE AND RESPONSIBLE

PROFILE VISION OF THE FUTURE COMPLIANCE PERFORMANCE ENVIRONMENTAL RELATIONSHIPS GRI CONTENT INDEX

MANAGEMENT

Disclosure	Description	Page/Direct Answer	Omissions
102-49	Changes in reporting	Page 5. The main change is the scope, which in 2018 does not include the distributors, sold throughout the year.	
Report profile	- 2016		
102-50	Reporting period	Page 3.	
102-51	Date of most recent report	2017	
102-52	Reporting cycle	Annual	
102-53	Contact point for questions regarding the report	sustentabilidade@eletrobras.com	
102-54	Claims of reporting in accordance with the GRI Standards	This report has been prepared in accordance with GRI Standards: Core option	
102-55	GRI content index	Page 163.	
102-56	External assurance	Pages 3 and 177.	

#### GRI 103: Management approach - 2016

INTRODUCTION

This reference to GRI 103: Management Approach 2016 and Disclosures 103-1, 103-2 and 103-3 apply to all material topics and "topic-specific Standards" referenced in the GRI content index: GRI 201: Economic Performance 2016, GRI 204: Procurement Practices 2016, GRI 205: Anti-Corruption 2016, GRI 303: Water and Effluents 2018, GRI 304: Biodiversity 2016, GRI 305: Emissions 2016, GRI 401: Employment 2016, GRI 403: Occupational Health and Safety 2016, GRI 405: Diversity and Equal Opportunity 2016, GRI 406: Non-Discrimination 2016, GRI 407: Freedom of Association and Collective Bargaining 2016, GRI 408: Child Labor 2016, GRI 409: Forced or Compulsory Labor 2016, GRI 410: Safety Practices 2016, GRI 411: Indigenous Rights 2016, GRI 412: Human Rights Assessment 2016, GRI 413: Local Communities 2016, GRI 415: Public Policies 2016 and EU Sector Supplement

103-1 Explanation of the material topic and its Boundary	Retention and development of employees: 129 Relationship with communities: 147 Water: 109 Climate Change and Renewable Sources: 121 Biodiversity: 114 Supplier Relationship: 143 Ethical culture: 76 Health and safety: 134 R&D and innovation: 39 Governance and risk: 67
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MANAGEMENT

Disclosure	Description	Page/Direct Answer	Omissions
103-2	The management approach and its components	Retention and development of employees: 129 Relationship with communities: 147 Water: 109 Climate Change and Renewable Sources: 121 Biodiversity: 114 Supplier Relationship: 143 Ethical culture: 76 Health and safety: 134 R&D and innovation: 39 Governance and risk: 67	
103-3	Evaluation of the management approach	Retention and development of employees: 129 Relationship with communities: 147 Water: 109 Climate Change and Renewable Sources: 121 Biodiversity: 114 Supplier Relationship: 143 Ethical culture: 76 Health and safety: 134 R&D and innovation: 39 Governance and risk: 67	
ECONOMIC PI	ERFOMANCE		
GRI 201: Econ	omic performance - 2016		
201-2	Financial implications and other risks and opportunities due to climate change	Pages 67 and 121.	
GRI 204: Proci	urement Practices - 2016		
204-1	Proportion of spending on local suppliers	Page 143.	
GRI 205: Anti-	-corruption - 2016		
205-1	Operations assessed for risks related to corruption	Page 76.	
205-2	Communication and training about anti-corruption policies and procedures	Pages 67 and 76.	

Disclosure	Description	Page/Direct Answer	Omissions
205-3	Confirmed incidents of corruption and actions taken	Page 76. In 2018 there was a document fraud case in a bidding process at Eletrobras Furnas, which originated an administrative misconduct process, filed against former executives of the company, in which Furnas works together with the Public Prosecution Office to determine the facts and responsibilities.	
ENVIRONMEN	NTAL		
GRI 303: Wate	er and Effluents - 2018		
303-1	Interactions with water as a shared resource	Page 109.	
303-2	Management of water discharge-related impacts	Page 109. Eletrobras companies do not significantly affect water sources by withdrawal.	
303-3	Water withdrawal	Page 109.	
303-4	Water discharge	Page 109.	
303-5	Water consumption	Page 109.	
GRI 304: Biodi	iversity - 2016		
304-2	Significant impacts of activities, products, and services on biodiversity	Page 114.	
304-3	Habitats protected or restored	Page 114.	
GRI 305: Emis	sions - 2016		
305-1	Direct (Scope 1) GHG emissions	Page 125.	
305-2	Energy indirect (Scope 2) GHG emissions	Page 125.	
305-3	Other indirect (Scope 3) GHG emissions	Page 125.	
305-4	GHG emissions intensity	Page 125.	
305-5	Reduction of GHG emissions	Page 125.	

Disclosure	Description	Page/Direct Answer	Omissions
305-6	Emissions of ozone-depleting substances (ODS)	Page 125.	
305-7	Nitrogen oxides (NOX), sulfur oxides (SOX), and other significant air emissions	Page 125 e 126.	
SOCIAL			
GRI 401: Emplo	pyment - 2016		
401-1	New employee hires and employee turnover	Page 130.	
401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	Page 140. The benefits presented apply to part-time and full-time contracts as well as to contracts of indefinite duration.	
401-3	Parental leave	Page 130.	
GRI 403: Occu	pational Health and Safety - 2016		
403-1	Occupational health and safety management system	100% of the employees of the Eletrobras companies are represented by health and safety committees	
403-2	Hazard identification, risk assessment, and incident investigation	Page 134.	No data by region or data related to third parties, not available.
403-3	Occupational health services	Page 134.	
403-4	Worker participation, consultation, and communication on occupational health and safety	All companies in the Eletrobras group present health and safety topics in 100% of the agreements	
GRI 404: Train	ng and Education - 2016		
404-1	Average hours of training per year per employee	Page 137.	
404-2	Programs for upgrading employee skills and transition assistance programs	Page 137.	

MANAGEMENT

Disclosure	Description	Page/Direct Answer	Omissions
404-3	Percentage of employees receiving regular performance and career development reviews	Page 138.	
GRI 405: Diver	sity and Equal Opportunity - 2016		
405-1	Diversity of governance bodies and employees	Page 130.	
405-2	Ratio of basic salary and remuneration of women to men	Page 138.	
GRI 406-1: No	n-discrimination - 2016		
406-1	Incidents of discrimination and corrective actions taken	Pages 80 and 130.	
GRI 407: Freed	om 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	There are no own operations with these risks. We have identified suppliers with contracts with third-party labor as a potential risk. There is no quantification of total suppliers. Processes adopted for risk management and mitigation are described in the Suppliers chapter and in the Compliance chapter.	
GRI 408: Child	Labor - 2016		
408-1	Operations and suppliers at significant risk for incidents of child labor	Page 144. There are no own operations with these risks. 41 suppliers were identified with potential risk, primarily those involving outsourcing of labor. Processes adopted for risk management and mitigation are described in the Suppliers chapter and in the Compliance chapter.	
GRI 409: Force	d or Compulsory Labor - 2016		
409-1	Operations and suppliers at significant risk for incidents of forced or compulsory labor	Page 144. There are no own operations with these risks. 41 suppliers were identified with potential risk, primarily those involving outsourcing of labor. Processes adopted for risk management and mitigation are described in the Suppliers chapter and in the Compliance chapter.	

Disclosure	Description	Page/Direct Answer	Omissions
GRI 410: Secur	ity Practices - 2016		
410-1	Security personnel trained in human rights policies or procedures	Page 143.	
GRI 411: Indige	enous Rights - 2016		
411-1	Incidents of violations involving rights of indigenous peoples	Page 151.	
GRI 412: Huma	n Rights Assessment - 2016		
412-2	Employee training on human rights policies or procedures	Page 147.	
412-3	Significant investment agreements and contracts that include human rights clauses or that underwent human rights screening	Page 143.	
GRI 413: Local	communities - 2016		
413-1	Operations with local community engagement, impact assessments, and development programs	100%. See 2018 programs description on page 147.	
413-2	Operations with significant actual and potential negative impacts on local communities	Page 147.	
GRI 415: Public	: Policy - 2016		
415-1	Political contributions	In compliance with the legislation, Eletrobras companies do not support or contribute to political parties or political campaigns of candidates for elected positions. This guideline is ratified in the Code of Ethics and Conduct of Eletrobras companies.	
SECTOR SUPP	LEMENT		
Organizationa	l Profile		
EU-1	Installed capacity, broken down by primary energy source and by regulatory regime	Page 87.	
EU-2	Net energy output broken down by primary energy source and by regulatory regime	Page 90.	

MANAGEMENT

Disclosure	Description	Page/Direct Answer	Omissions		
EU-4	Length of above and underground transmission and distribution lines by regulatory regime	Page 92.			
Availability an	Availability and Reliability				
EU-6	Management approach to ensure short and long-term electricity availability and reliability	Page 94.			
Research and Development					
EU-8	Research and development activity and expenditure aimed at providing reliable electricity and promoting sustainable development	Page 39.			
Availability and Reliability					
EU-10	Planned capacity against projected electricity demand over the long term, broken down by energy source and regulatory regime	Page 87.			
System Efficiency					
EU-11	Average generation efficiency of thermal plants by energy source and by regulatory regime	Page 91.			
EU-12	Transmission and distribution losses as a percentage of total energy	Page 95.			
Disponibilidade e Confiabilidade					
EU-14	Programs and processes to ensure the availability of a skilled workforce	Page 137.			
Employment					
EU-16	Policies and requirements regarding health and safety of employees and employees of contractors and subcontractors	Page 134.			

CORPORATE STRATEGY AND GOVERNANCE AND RESPONSIBLE
PROFILE VISION OF THE FUTURE COMPLIANCE PERFORMANCE ENVIRONMENTAL RELATIONSHIPS GRI CONTENT INDEX

MANAGEMENT

Disclosure	Description	Page/Direct Answer	Omissions	
Local Communities				
EU-20	Approach to managing the impacts of displacement	Page 150.		
EU-22	Number of people physically or economically displaced and compensation, broken down by type of project	There was no displacement and/or compensation in 2018		
Disaster/Emergency Planning and Response				
EU-21	Contingency planning measures, disaster/emergency management plan and training programs, and recovery/restoration plans	Pages 75 and 150.		
Access				
EU-30	Average plant availability factor by energy source	Page 91.		

To guide your reading through our capitals and to know more about each one, use the map below:



INTRODUCTION

#### **FINANCIAL CAPITAL**

Financial results pg. 96



### **HUMAN CAPITAL**

**Employee development** pg. 129 **Aligned suppliers** pg. 143



#### **INTELLECTUAL CAPITAL**

How we create value pg. 21

Strategic planning pg. 25

**R&D** and Innovation pg. 39

Commitment to sustainability pg. 48

Employee development pg. 129



#### **MANUFACTURED CAPITAL**

**About Eletrobras** pg. 15

Operation pg. 87



### **NATURAL CAPITAL**

Management System pg. 106

Water pg. 109

Biodiversity pg. 114

Climate Change pg. 121



#### SOCIAL AND RELATIONSHIP CAPITAL

About this report pg. 3

Industry overview pg. 19

Corporate governance pg. 54

Business integrity pg. 76

Dialogue and communication pg. 128

Employee development pg. 129

Customer satisfaction pg. 142

Aligned suppliers pg.143

Community engagement pg. 147

## **SDG MAP**

To guide your reading through SDG, learning about the main contributions of each aspect of our work with each SDG, use the following map:

## **Priority SDGs**



INTRODUCTION



**Strategy and vision of the future** pg. 24 to 52 Performance pg. 86 to 104



**Strategy and vision of the future** pg. 24 to 52 Employee development pg. 129 to 141 Aligned suppliers pg. 143 to 146



Climate Change pq. 121 to 126



Governance and compliance pg. 53 Community engagement pg. 147 to 162

## **Other SDGs**



Sector programs pg. 101 to 104





Community engagement pg. 147 to 162



Employee development pg. 129 to 141 Community engagement pg. 147 to 162



Employee development pg. 129 to 141



Water pg. 109 to 113



Sector programs pg. 101 to 104 Employee development pg. 129 to 141 Community engagement pg. 147 to 162



Sector programs pg. 101 to 104

Community engagement pg. 147 to 162



**R&D** and Innovation pg. 39

Responsible Environmental Management pg. 105 to 126

Aligned suppliers pg. 143 to 146



**Water** pg. 109 to 113



Biodiversity pg. 114 to 120



**Strategy and vision of the future** pg. 24 to 52





KPMG Financial Risk & Actuarial Services Ltda. Rua Arquiteto Olavo Redig de Campos, 105, 6º andar - Torre A 04711-904 - São Paulo/SP - Brasil Caixa Postal 79518 - CEP 04707-970 - São Paulo/SP - Brasil Telefone +55 (11) 3940-1500 - kpmg.com.br

# Limited assurance report issued by independent auditors

To the Board of Directors, Shareholders and Stakeholders

Centrais Elétricas Brasileiras S.A. – Eletrobras

Rio de Janeiro - RJ

#### Introduction

We have been engaged by Centrais Elétricas Brasileiras S.A. ("Eletrobras" or "Company") to apply limited assurance procedures on the sustainability information disclosed in 2018's Annual Report, related to the year ended December 31st, 2018.

## Responsibilities of Eletrobras's Management

The Management of Eletrobras is responsible for adequately preparing and presenting the sustainability information in the Annual Report 2018 in accordance with the Standards for Sustainability Report of Global Reporting Initiative – GRI (GRI-Standards), as well as the internal controls determined necessary to ensure this information is free from material misstatement, resulting from fraud or error.

## Independent auditors' responsibility

Our responsibility is to express a conclusion about the information in the Annual Report 2018 based on a limited assurance engagement conducted in accordance with the Standards for Sustainability Report of Global Reporting Initiative - GRI (GRI-Standards) and the methodology developed globally by KPMG for assurance of social and environmental information disclosed in sustainability reports denominated KPMG Sustainability Assurance Manual - KSAM, applicable to historical non-financial information.

These standards require compliance with ethical requirements, including independence ones, and the engagement is also conducted to provide limited assurance that the information disclosed in the Eletrobras's Annual Report 2018, taken as a whole, is free from material misstatement.

A limited assurance engagement conducted in accordance with the Standards for Sustainability Report of Global Reporting Initiative - GRI (GRI-Standards) and the KPMG Sustainability Assurance Manual - KSAM consists mainly of questions and interviews with the Management of Eletrobras and other professionals of the Company involved in the preparation of the information disclosed in the Annual Report 2018 and use of analytical procedures to obtain evidence that enables us to reach a limited assurance

conclusion about the sustainability information taken as a whole. A limited assurance engagement also requires additional procedures when the independent auditor acknowledges issues which may lead them to believe that the information disclosed in the Annual Report 2018 taken as a whole could present material misstatement.

The selected procedures were based on our understanding of the issues related to the compilation, materiality and presentation of the information disclosed in the Annual Report 2018, on other engagement circumstances and also on our considerations regarding areas and processes associated with material sustainability information disclosed where relevant misstatement could exist. The procedures consisted of:

(a) engagement planning: considering the material aspects for Eletrobras's activities, the relevance of the information disclosed, the amount of quantitative and qualitative information and the operational systems and internal controls that served as a basis for preparation of the information in the Eletrobras's Annual Report 2018. This analysis defined the indicators to be checked in details;

- (b) understanding and analysis of disclosed information related to material aspects management
- (c) analysis of preparation processes of the Annual Report 2018 and its structure and content, based on the Principles of Content and Quality of the Standards for Annual Report of Global Reporting Initiative - GRI (GRI-Standards);
- (d) evaluation of non financial indicators selected:
- understanding of the calculation methodolody and procedures for the compilation of indicators through interviews with management responsible for data preparation;
- application of analytical procedures regarding data and interviews for qualitative information and their correlation with indicators disclosed in the Annual Report 2018;
- analysis of evidence supporting the disclosed information;
- visits to Eletrobras's operations and to the corporate office for application of these procedures, and items (b) and (c);

 (e) analisys of whether the performance indicators omission and justification are reasonable to be accepted associated to aspects and topics defined as material in the materiality analisys of the Company;

We believe that the information, evidence and results we have obtained are sufficient and appropriate to provide a basis for our limited assurance conclusion.

## Scope and limitations

The procedures applied to a limited assurance engagement are substantially less extensive than those applied to a reasonable assurance engagement. Therefore, we cannot provide reasonable assurance that we are aware of all the issues that would have been identified in a reasonable assurance engagement, which aims to issue an opinion. If we had conducted a reasonable assurance engagement, we may have identified other issues and possible misstatements within the information presented in the Annual Report 2018.

Nonfinancial data is subject to more inherent limitations than financial data, due to the nature and diversity of the methods used to determine, calculate or estimate these data. Qualitative interpretation of the data's materiality, relevance and accuracy are subject to individual assumptions and judgments. Additionally, we have not examined data related to prior periods, to evaluate the adequacy of policies, practices and sustainability performance, nor future projections.

INTRODUCTION

### Conclusion

Based on the procedures carried out, described earlier in this report, we have not identified any relevant information that leads us to believe that the information in the 2018 Sustainabilityl Report of Eletrobras is not fairly stated in all material aspects in accordance with the Standards for Annual Report of Global Reporting Initiative - GRI (GRI-Standards), as well as its source records and files.

São Paulo, May 8th, 2019

KPMG Financial Risk & Actuarial Services Ltda.

Ricado Alps Polin

Ricardo Algis Zibas

Principal

## **ACKNOWLEDGMENTS**

GRI 102-3; 102-17

INTRODUCTION

Eletrobras – Centrais Elétricas Brasileiras S.A. has several channels open for contact with stakeholders.

### Headquarter

Rua da Quitanda, 196 - Centro - Rio de Janeiro/RJ

CEP: 20091-005

Phone: +55 (21) 2514-5151

#### Contact Us - Eletrobras Website > Contact Us

Website - www.eletrobras.com

Facebook - www.facebook.com/Eletrobras

YouTube - www.youtube.com/user/SistemaEletrobras

Twitter – a Eletrobras

Instagram - Deletrobrasoficial

LinkedIn – www.linkedin.com/company/eletrobras

### **Ombudsman**

Rua da Quitanda, 196/4º andar - Centro - Rio de Janeiro/RJ

CEP: 20091-005

Phone: +55 (21) 2514-4526/5895

www.eletrobras.com/ouvidoria

ouvidoria@eletrobras.com

Responsible person: Tathiana Martins dos Santos Silva President of the Ethics Committee: Andrea Rosa Villar

### Whistleblower Channel

www.eletrobras.com/canaldenuncia/

### **Branches**

Eletrobras offices abroad:

- Cone Sul (Montevidéu - Uruguai)

Av. Luis Alberto de Herrera 1.248 Torre 2, oficina 311, CP - 11.300

### **Investor Relations (IR)**

Phone: +55 (21) 2514-6331 ou +55 (21) 2514-6333

Fax: +55 (21) 2514-5964

Website - www.eletrobras.com.br/elb/ri

IR Contact - invest@eletrobras.com

Ombudsman RI - ombudsman-ri@eletrobras.com

### Depositary Institution and Administrator of the Stock Portfolio

Eletrobras

Banco Bradesco S.A.65

Share and Custody Department

Phone: +55 (11) 3684-9441

Fax: +55 (11) 3684-3811

CORPORATE PROFILE STRATEGY AND VISION OF THE FUTURE

GOVERNANCE AND COMPLIANCE

PERFORMANCE

RESPONSIBLE ENVIRONMENTAL MANAGEMENT

RELATIONSHIPS

**GRI CONTENT INDEX** 

For any enquires about the technical terms in this publication, please access the Eletrobras Electric Power Dictionary, available at: Eletrobras>Agência Eletrobras de Notícias>Comunicação Institucional

### GRI 102-53

INTRODUCTION

More information about the Report, please email: sustentabilidade@eletrobras.com

### Acknowledgments

The Annual Report is the result of the effort of the Eletrobras companies team. We appreciate the participation and commitment of all.

### **General Coordination**

Strategy, Business Management and Sustainability

#### **Editorial Center**

Communication and Institutional Relations of Eletrobras and RICCA Sustentabilidade

### **Sustainability Indicators Center and Assurance Report**

Executive Committee on Sustainability of Eletrobras Companies

### **Management and Data Collection**

IGS Relat System

### GRI indicators collection, consulting, writing and translation

RICCA Sustentabilidade

### Graphic project, layout and editing

RICCA Sustentabilidade

#### **Photos**

Alessandra Nunes

Alexandre Marchetti

Cláudio Ribeiro

Jorge Coelho

Jorge Luís da Fonseca

Nilton Rolin

Paulo Martins

Roberto Rosa

Severino Silva

We would like to thank all Eletrobras companies' professionals who provided the necessary information for the creation of the 2018 Annual Report and all stakeholders that participated in our research on the material topics and substantially contributed to this work.

## ANNEX I: CONTRIBUTION TO SDGS

### **Prioritized SDG**

Our commitment to the 2030 Agenda included the prioritization of 5 SDGs in 2017, for which we highlight the main efforts and results to follow:

The regular monitoring and analysis of the performance of Eletrobras companies against the agreed indicators and targets for each of the Sustainable Development Goals (SDG) defined as priorities allowed to create action plans, identify positive and negative impacts and promote and sustain value creation for stakeholders.

Reporting on the implementation of the 2030 Agenda in Eletrobras companies is a strategic tool to support decision-making processes and stimulate organizational development, reinforcing commitment to sustainability and to the SDG.

Discover below our contribution to each SDG.



Ensure access to affordable, reliable, sustainable and modern energy.

Eletrobras has an electric matrix with 95.2% of clean energy. It acts as the executor of the Light for All Program, which provided 16.4 million Brazilians with access to electricity from the National Incentive Program for Alternative Sources, which already generated 97.7 MWh of clean and renewable energy sources and the National Energy Conservation Program. In 2018 Procel saved 23 million kWh and avoided the emission of 1.70 million tons of CO2 equivalent. Learn more on page 101 of our report and see below the relationship of our business with this SDG.

SDG Goal	Value creation	Related SDG	Impacted Capital	Stakeholders	Main results 2018	
	Availability of energy for all, with less risk of socio-environmental impact	Human and Social and Relationship; Natural; Manufactured  Society; Government / Parliamentarians, Regulatory Bodies  Society, Community, Government / Parliamentarians and Relationship, Financial, Intellectual, Human, Natural and Manufactured  Society; Government / Parliamentarians and Regulatory Bodies		R\$ 3.8 billion invested in generation and transmission  R\$ 1.401 billion paid as CFURH and royalties		
	Contribution to sustainable development			3.0 million connections for the Luz Para Todos Program  184 million MWh of energy generated and 68 thousand new connections of the Luz Para		
7.1 - By 2030, ensure universal access to affordable, reliable and modern energy services.	Safety and reliability in operation (energy safety)	9, 11	Social and Relationship and Manufactured	Society, Community, Government / Parliamentarians and Regulatory Bodies	Todos Program.  9.3 million MWh generated in Proinfa in 2018 and 97.7 million since the beginning, in 2012.	
	Contracts at fair prices (sustainable)	1, 8, 9, 10	Financial and Social and Relationship	Society, Government / Parliamentarians, Regulatory Bodies and Customers	Management of 1,994 Union assets (goods taken over and expropriated).  98.81% availability in wind farms and 96.7% in hydroelectric plants  99.5% availability on transmission lines  Operational Availability of 99.66% Transformers	

SDG Goal	Value creation	Related SDG	Impacted Capital	Stakeholders	Main results 2018
7.2 - By 2030, increase substantially the share of renewable energy in the global energy mix.	Availability of energy for all, with less risk of socio-environmental impact	1, 2, 3, 7, 9, 10, 13, 14, 15	Human, Social and Relationship, Natural and Manufactured	Society, Government / Parliamentarians e Regulatory Bodies	R\$ 337.0 million invested in R&D
	Partnership in Public Policy Management	1, 2, 3, 8, 9, 12, 13, 17	Social and Relationship, Financial, Intellectual, Natural, Manufactured e Human	Government / Parliamentarians and Regulatory Bodies	Investment in generation expansion from renewable sources  95.2% from clean sources in the energy matrix
	Research, Development and Innovation	8,9	Intellectual	Society	
	Energy conservation	13	Intellectual and Natural	Society	
7.3 - By 2030, double the global rate of improvement in energy efficiency.	Partnership in Public Policy Management	1, 2, 3, 8, 9, 12, 13, 17	Social and Relationship, Financial, Intellectual, Natural, Manufactured e Human	Government / Parliamentarians and Regulatory Bodies	22.987 billion kWh/year of energy saved and by Procel initiatives

RELATIONSHIPS

MANAGEMENT

**GRI CONTENT INDEX** 

SDG Goal	Value creation	Related SDG	Impacted Capital	Stakeholders	Main results 2018	
7.3a - By 2030, enhance international cooperation to facilitate access to clean energy research and	Research, Development and Innovation	1, 7, 8, 13	Intellectual	Society		
technology, including renewable energy, energy efficiency and advanced and cleaner fossil-fuel technology, and promote investment in energy infrastructure and clean energy technology.	Partnership in Public Policy Management	1, 2, 3, 8, 9, 12, 13, 17	Social and Relationship, Financial, Intellectual, Natural, Manufactured e Human	Government / Parliamentarians and Regulatory Bodies	R\$ 59.3 million invested in R&D for renewable sources	
	Improvement to the country's infrastructure	17, 9	Social and Relationship, Manufactured e Financial	Society, Government / Parliamentarians e Regulatory Bodies	R\$ 3.8 billion invested in generation and transmission  Expansion of 1,3636 MW per	
7.3b - By 2030, expand infrastructure and upgrade technology for supplying modern and sustainable energy	Participation in Structural Projects	9	Social and Relationship and Manufactured  Government / Parliamentarians e Regulatory Bodies		year in installed generation capacity in the last six years  Installed capacity corresponding to 30.5% of the Country's total	
services for all in developing countries, in particular least developed countries, small island developing States, and landlocked developing countries, in accordance with their respective programs of support.	Partnership in Public Policy Management	1, 2, 3, 8, 9, 12, 17	Social and Relationship, Financial, Intellectual, Natural, Manufactured and Human	Government / Parliamentarians and Regulatory Bodies	Inventory Studies in Development;  Feasibility Studies on Generation Projects under development;  Feasibility Studies on Transmission Projects under development;	



### Promote inclusive and sustainable economic growth, employment and decent work for all.

We achieved a profitability of 23.8% in relation to our shareholders' equity, contributing to the country's economic growth. We have prioritized, in our critical complaints matrix, the treatment of complaints related to human rights violations, aiming to reach the target of 100% of complaints handled by 2020. In addition, committed to diversity, we reached the goal of women in management positions, surpassing the percentage of women in the company while intending to reduce the wage inequality level.

SDG Goal	Value creation	Related SDG	Impacted Capital	Stakeholders	Main results 2018
8.1 Sustain per capita economic growth in accordance with national circumstances and, in particular, at least 7 per cent gross domestic product growth per annum in the least developed countries	Financial return on invested capital	9, 16	Financial	Investors, shareholders and market analysts, Government / Parliamentarians and Regulatory Bodies	
	Distribution of Dividends		Financial	Investors, shareholders and market analysts, Government / Parliamentarians and Regulatory Bodies	ROE (Net Income / Shareholders' equity) of 23.84%  R\$ 33 billion in market value
	Contribution to sustainable development	1 to 17	Social and Relationship, Financial, Intellectual, Human, Natural and Manufactured	Society, Community, Government / Parliamentarians and Regulatory Bodies	R\$ 1,401 million paid as financial compensation for water use and royalties (in the case of Itaipu)
8.2 Achieve higher levels of economic productivity through diversification, technological upgrading and innovation, including through a focus on high value added and laborintensive sectors	Tariff moderateness - Energy at affordable prices	7, 9	Social and Relationship e Financial	Society, Government / Parliamentarians and Regulatory Bodies	Net Revenue per employee of R\$ 1.75 thousand  Operating Income / Net Revenue of 0.56
	Research, Development and Innovation	7, 9	Intellectual	Society	Teleassistance in 13 transmission and transformation facilities  9% reduction in transmission losses

SDG Goal	Value creation	Related SDG	Impacted Capital	Stakeholders	Main results 2018
8.4 Improve progressively, through 2030, global resource efficiency in consumption and production and endeavor to decouple economic growth from environmental degradation, in accordance with the 10-year framework of programs on sustainable consumption and production, with developed countries taking the lead	Partnership in Public Policy Management	7, 9	Social and Relationship, Financial, Intellectual, Natural, Manufactured e Human	Government / Parliamentarians and Regulatory Bodies	<ul> <li>0.4% increase in the administrative consumption from water supply network</li> <li>3.4% reduction in own energy consumption for use in administrative units.</li> <li>1.13% reduction in the consumption of fossil fuels of the terrestrial vehicle fleet</li> <li>9.3 million MWh generated by Proinfa in 2018 and 97.7 million MWh since the beginning of the program in 2012</li> </ul>
8.5 By 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value	Employment and income generation	1, 2, 4, 9, 10	Human and Social and Relationship	Workforce and family, Community	15,658 employees  Employee satisfaction index of 74.18%  Reduction of pay inequality: the highest
	Professional Growth / Capacity Building	1, 2, 4	Human and Intellectual	Workforce and family	wage is 12.3 times higher than the lowest salary, a difference that has been reduced, approaching to the goal of being less than 10 times by 2020
	Promotion of Diversity	5, 10, 12	Social and Relationship, Human and Manufactured	Workforce and Family and Society	763,900 hours of training per year 83.4 % of Tier 1 suppliers stimulated to adopt valorization and promotion of diversity practices

SDG Goal	Value creation	Related SDG	Impacted Capital	Stakeholders	Main results 2018
8.6 By 2020, substantially reduce the proportion of youth not in employment, education or training	Private social investment	1, 4, 13	Social and Relationship	Society	Private Social Investment of R\$ 326.9 million
	Promotion of culture, sport and events	3, 4	Social and Relationship	Society	1,199 trainees and 598 apprentices
8.7 Take immediate and effective measures to eradicate forced labor, end modern slavery and human trafficking and secure the prohibition and elimination of the worst forms of child labor, including recruitment and use of child soldiers, and by 2025 end child labor in all its forms	Fostering respect for human rights	4, 9, 10, 12, 16	Social and Relationship and Manufactured	Society, Partners, Sponsors and Suppliers	90% of critical vendors trained in anti- corruption policies and procedures 99% of trading partners trained in anti-
	Supplier training	4, 5, 10, 12, 13, 16	Human, Social and Relationship and Manufactured	Partners, Sponsors and Suppliers	corruption policies and procedures  84% of suppliers stimulated to adopt valuation practices and promotion of diversity
	Fostering a more		Human; Social and Relationship,	Partners, Sponsors	Prioritizing handling of human rights complaints violations in the criticality matrix
	sustainable supply chain	5, 8, 10, 12, 16	Manufactured, Financial e Natural	and Suppliers	Human Rights Award received from the Federal Government (Open Letter from Companies for Human Rights)

SDG Goal	Value creation	Related SDG	Impacted Capital	Stakeholders	Main results 2018
8.8 Protect labor rights and promote safe and secure working environments for all workers, including migrant workers, in particular women migrants, and those in precarious employment	Quality of life	3	Human and Social and Relationship	Workforce and family	
	Health and safety promotion	3	Human	Workforce and family, Partners, Sponsors and Suppliers	Absenteeism index of 6.0 for women and 5.8 for men  Employee Satisfaction Index in the Organizational Climate Survey of 74.18%
	Supplier training	4, 5, 10, 12, 13, 16	Human, Social and Relationship and Manufactured	Partners, Sponsors and Suppliers	<ul><li>6.8% turnover rate for men and 7.7% for women</li><li>2.86 accidents per million hours of risk exposure</li></ul>
	Fostering a more sustainable supply chain	5, 8, 10, 12, 16	Human, Social and Relationship Manufactured, Financial e Natural	Partners, Sponsors and Suppliers	84% of suppliers stimulated to adopt practices of valorization and promotion of diversity



INTRODUCTION

## Build resilient infrastructure, promote sustainable industrialization and foster innovation

One of the pillars of our PDNG is operational excellence, and we strive to generate excellence throughout the value chain. For this purpose, we set targets to reduce our own consumption of energy for use in administrative units by 0.2%, invested in R&D+I the equivalent to 1% of the Net Operating Revenue (ROL), reduced the administrative consumption of water from the supply network by 0.3% and reduced the consumption of fossil fuels of the land-based fleet by 0.2%.

SDG Goal	Value creation	Related SDG	Impacted Capital	Stakeholders	Main results 2018
9.1 Develop quality, reliable, sustainable and resilient infrastructure, including regional and transborder infrastructure, to support economic development and	Biodiversity Conservation	3, 7, 8, 11, 13, 14, 15 and 16	Natural, Manufactured, Social and Relationship and Human	Society, Community, Government / Parliamentarians and Regulatory Bodies	Support for 9 million hectares of conservation units, indigenous lands and archaeological sites, located in the main Brazilian biomes.
	Improvement to the country's infrastructure	9 and 17	Social and Relationship, Manufactured and Financial	Society, Government / Parliamentarians e Regulatory Bodies	9% reduction in transmission losses  Feasibility studies totaled 18,870 MW of installed generation capacity in
	Availability of energy for all, with less risk of socioenvironmental impact	1, 2, 3, 7, 9, 10, 13, 14, 15	Human, Social and Relationship, Natural and Manufactured	Society, Government / Parliamentarians e Regulatory Bodies	Average of 1,363 MW added in installed generation capacity since 2013
human well-being, with a focus on affordable and equitable access for all	Populations relocation	1, 3, 9 and 11	Social and Relationship	Community	R\$ 3.8 billion invested in generation and transmission
	Participation in Structural Projects	7	Social and Relationship and Manufactured	Government / Parliamentarians e Regulatory Bodies	We participated in the deployment of 2,450 km of transmission lines (Considering% of interest in SPEs).  Emission intensity of 0.247 tCO2e / R\$ thousand, exceeding the goal of 0.330 tCO2e / (R\$ thousand) of 2018
	Safety and reliability in operation (energy safety)	7 and 11	Social and Relationship; Manufactured	Society, Community; Government / Parliamentarians, Regulatory Bodies	

SDG Goal	Value creation	Related SDG	Impacted Capital	Stakeholders	Main results 2018
	Contribution to sustainable development	1 to 17	Social and Relationship, Financial, Intellectual, Human, Natural and Manufactured	Society, Community, Government / Parliamentarians and Regulatory Bodies	
	Tariff moderateness - Energy at affordable prices	7 and 9	Social and Relationship and Financial	Society, Government / Parliamentarians and Regulatory Bodies	95.2% of clean sources in the energy matrix
	Contracts at fair prices (sustainable)	7 and 16	Financial, Social and Relationship	Society; Government / Parliamentarians; Regulatory Bodies and Customers	R\$ 1.401 billion paid as CFURH and royalties  ROE (Net income / Shareholders'
	Financial return on invested capital	8 and 16	Financial	shareholders and Teleassistance in 1	equity) of 23.84%  Teleassistance in 13 transmission and transformation facilities.
	Receiving / reliability confidence	7, 8, 11 and 16	Financial, Social and Relationship, Natural and Human	Ilnvestors, shareholders and market analysts, Society, Government / Parliamentarians, Regulatory Bodies and Customers	

SDG Goal	Value creation	Related SDG	Impacted Capital	Stakeholders	Main results 2018
9.2 Promote inclusive and sustainable industrialization and, by 2030, significantly raise industry's share of	Biodiversity Conservation	13 to 15	Natural	Society	
	Employment and income generation	1,2, 4, 9 10	Human, Social and Relationship	Workforce and Family and Community	Support for 9 million hectares of conservation units, indigenous lands and archaeological sites, located in the main Brazilian biomes.
	Predictability of Hires	1 to 3, 12 and 16	Manufactured, Social and Relationship	Workforce and Family and Community	15,658 employees, to whom it distributed R\$ 6.5 billion in added value in the year.
employment and gross domestic product, in line					Prioritizing handling of human rights complaints violations
with national circumstances, and double its share in least developed countries					R\$ 4.4 billion in expenses with 12,906 contracts in force.
	Fostering respect for human rights	8, 10 and 16	Social and Relationship	Society	Human Rights Award 2018, granted by the then Ministry of Human Rights in recognition of the Open Letter from Companies for Human Rights.

SDG Goal	Value creation	Related SDG	Impacted Capital	Stakeholders	Main results 2018
9.4 By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities	Improvement to the country's infrastructure	7	Natural; Manufactured	Society	0.4% increase in the administrative consumption of water supply network
	Private social investment	1, 4 and 13	Social and Relationship	Society	3.4% reduction in own energy consumption for use in administrative
	Partnership in Public Policy Management	1 to 3, 7, 8, 12, 13 and 17	Social and Relationship, Financial, Intellectual, Natural, Manufactured and Human	Government / Parliamentarians and Regulatory Bodies	1.13% reduction in the consumption of fossil fuels of the terrestrial vehicle fleet  Private Social Investment of R\$ 326.9
	Availability of energy for all, with less risk of socioenvironmental impact	1 to 3, 7, 9, 10, 13 and 15	Human and Social and Relationship, Natural and Manufactured	Society, Government / Parliamentarians and Regulatory Bodies	Private Social Investment of R\$ 326.9 million.  Estimate of approximately R\$ 8 billion with hiring expenses in 2019.

SDG Goal	Value creation	Related SDG	Impacted Capital	Stakeholders	Main results 2018
9.5 Enhance scientific research, upgrade the technological capabilities of industrial sectors in all countries, in particular developing countries, including, by 2030, encouraging innovation and substantially increasing the number of research and development workers per 1 million people and public and private research and development spending	Research, Development and Innovation	1, 7, 8 and 13	Intellectual	Society	1.4% of Net Revenue invested in R&D+I Private Social Investment of R\$ 326.9 million.  Support for 9 million hectares of conservation units, indigenous lands and archaeological sites, located in the main Brazilian biomes.  R\$ 337.0 million invested in R&D
	Private social investment	1, 4 and 13	Social and Relationship	Society	
	Private social investment	13 to 15	Natural	Society	



INTRODUCTION

## Take urgent action to combat climate change and its impacts

We are committed to a sustainable performance and we want to be recognized as a Generation and Transmission company that is socially, environmentally and financially responsible. Our main contribution in this regard is to have a 95.2% energy generation matrix made up of clean and renewable energy sources. In addition, by 2018, we had the goal of reducing total greenhouse gas emissions by Net Operating Revenue (ROL) to 0.33 and we reached a total of 0.25.

SDG Goal	Value creation	Related SDG	Impacted Capital	Stakeholders	Main results 2018	
	Safety and reliability in operation (energy safety)	7, 9 and 11	Financial, Natural; Human	Society, Government / Parliamentarians and Regulatory Bodies	Emission intensity of 0.247 tCO2e / R\$ thousand, exceeding the goal of 0,330 tCO2e / (R\$ thousand) of	
13.1 Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries	Availability of energy for all, with less risk of socio-environmental impact	1 to 3, 7, 9, 10, 13 to 15	Human and Social and Relationship, Natural and Manufactured	Society, Government / Parliamentarians and Regulatory Bodies	2018  95.2% of clean sources in the energy matrix	
	Contribution to sustainable development	1 to 17	Social and Relationship, Financial, Intellectual, Human, Natural and Manufactured	Society, Community, Government / Parliamentarians and Regulatory Bodies	Maximum Score on Sest Governance Indicator Level I of Excellence  Maximum Score on Sest	
	Brand and business reputation appreciation	16	Social and Relationship	Investors, shareholders and market analysts, Government / Parliamentarians, Regulatory Bodies, Customers, Partners, Sponsors and Suppliers	Governance Indicator Level I of Excellence Company listed in the B3 Corporate Sustainability Index	
	Private social investment	1, 4 and 13	Social and Relationship	Society		
13.3 Improve education, awareness-raising	Promotion of culture, sport and events	3, 4, 8, 9 and 13	Social and Relationship	Society	Private social investment of	
and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning	Partnership in Public Policy Management	1 to 3, 8, 9, 12 and 17	Social and Relationship, Financial, Intellectual, Natural, Manufactured and Human	Government / Parliamentarians and Regulatory Bodies	R\$ 326.9 million  83.4% of suppliers made aware on the sustainability aspects	
	Supplier training	4, 5, 8, 9, 12 and 13	Human, Social and Relationship and Manufactured	Partners, Sponsors and Suppliers		



INTRODUCTION

## Promote just, peaceful and inclusive societies

One of the pillars of our PDNG is Governance and Business Integrity Enhancement, through strengthening internal controls and governance to ensure integrity in the business and throughout its value chain. So, we set training, engagement and evaluation of integrity and ethics goals among our employees, partners and suppliers.

SDG Goal	Value creation	Related SDG	Impacted Capital	Stakeholders	Main Results 2018
16.1 Significantly	Fostering respect for human rights	8 to 10 Social and Relationship		Society	90% of critical vendors trained in anti- corruption policies and procedures 99% of trading partners trained
reduce all forms of violence and related death rates everywhere	Supplier training	4, 5, 8, 10, 12 and 13	Human, Social and Relationship and Manufactured	Partners, Sponsors and Suppliers	in anti-corruption policies and procedures  84% of suppliers stimulated to adopt practices of valorization and promotion of diversity

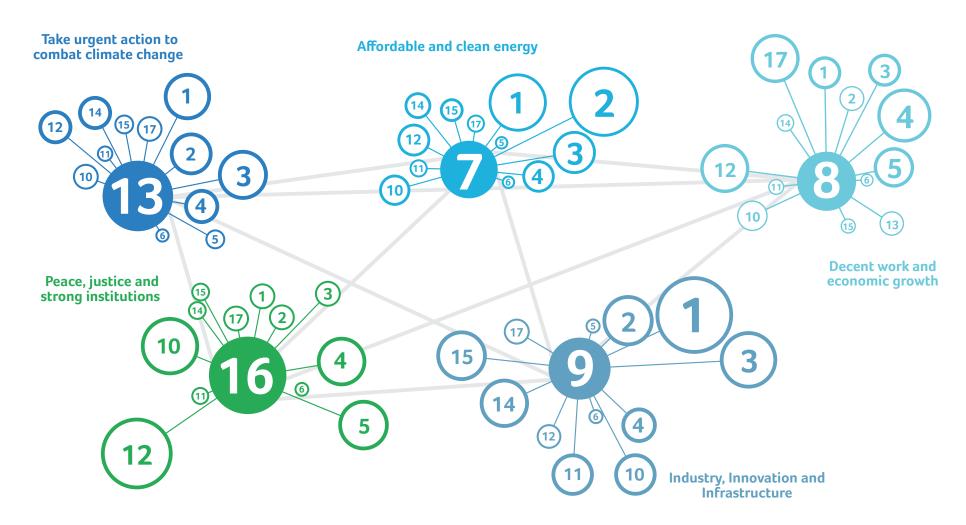
SDG Goal	Value creation	Related SDG	Impacted Capital	Stakeholders	Main Results 2018
	Ethical, transparent and equal relationship		Social and Relationship	Investors, shareholders and market analysts, Press and Opinion Leaders	94% of critical Tier 1 suppliers with active contract who were submitted to Due Diligence process
	Integrity (ethical, legal and transparent conduct)		Human and Social and Relationship Market analysts, Press and Opinion Leaders 90% of critic corruption p		Approval of the Anti-Corruption Policy 90% of critical vendors trained in anti- corruption policies and procedures 99% of trading partners trained
16.5 Substantially reduce corruption and bribery in all their forms	ProfessionalGrowth / Capacity Building	4 and 8	Human and Social and Relationship	Workforce and family	in anti-corruption policies and procedures  96% of employees trained in anti-
	Supplier training	4, 5, 8, 10, 12 and 13	Human, Social and Relationship and Manufactured	Partners, Sponsors and Suppliers	corruption policies and procedures  Maximum score in Governance index of Sest (IG-Sest)  Maximum score in the International
	Fostering a more sustainable supply chain	5, 8, 10, 12 and 16	Human, Social and Relationship, Manufactured, Financial and Natural	Partners, Sponsors and Suppliers	Transparency Survey  Winner of the Business Ethics Award

SDG Goal	Value creation	Related SDG	Impacted Capital	Stakeholders	Main Results 2018
	Partnership in Public Policy Management	1 to 3, 7 to 9, 12, 13 and 17	Social and Relationship, Financial, Intellectual, Natural, Manufactured and Human	Government / Parliamentarians and Regulatory Bodies	ROE (Net Income / Shareholders' Equity) of 23.84%.
	Supplier training	4, 5, 8, 10, 12 and 13	Human, Social and Relationship and Manufactured	Partners, Sponsors and Suppliers	Winner of the Business Ethics Award 90% of critical suppliers trained
	Fostering a more sustainable supply chain	5, 8, 10, 12 and 16	Human, Social and Relationship, Manufactured, Financial and Natural	Partners, Sponsors and Suppliers	in anti-corruption policies and procedures.  99% of trading partners trained
16.6 Develop	Predictability of hires	4,9, 10 and 12	Social and Relationship and Manufactured	Partners, Sponsors and Suppliers	in anti-corruption policies and procedures.  96% of employees trained in anti-
effective, accountable and transparent institutions at all levels	Financial return on invested capital	8 and 9	Financial	Investors, shareholders and market analysts; Government / Parliamentarians and Regulatory Bodies	corruption policies and procedures.  Management of 1,994 Union assets (goods taken over and expropriated)
	Brand and business reputation 13 appreciation		Social and Relationship	Investors, shareholders and market analysts, Government / Parliamentarians Regulatory Bodies, Customers, Partners, Sponsors and Suppliers	Maximum Score on Sest Governance Indicator Level I of Excellence.  Company listed in the B3 Corporate Sustainability Index  R\$ 8.15 billion in the 2019 Annual
	Integrity (ethical, legal and transparent conduct)		Social and Relationship	Investors, shareholders and market analysts, Government / Parliamentarians Regulatory Bodies, Customers, Partners, Sponsors and Suppliers	Acquisition Plan Investment Plan of R\$ 30.2 billion foreseen in the 2019-2023 PDNG

SDG Goal	Value creation	Related SDG	Impacted Capital	Stakeholders	Main Results 2018	
16.7 Ensure responsive, inclusive, participatory and	Contribution to sustainable development	1 to 17	Social and Relationship, Financial, Intellectual, Human, Natural and Manufactured	Society, Community, Government / Parliamentarians and Regulatory Bodies	4,241 claims received at the Ombudsman's Office, 93% of which were concluded, and 595 in the Ombudsman, investor relations channel.	
representative decision-making at all levels	Participatory dialogue	1 to 17	Social and Relationship, Financial, Intellectual, Human and Natural	Society, Community, Government / Parliamentarians and Regulatory Bodies		
16.10 Ensure public access to information and protect fundamental	Ethical, transparent and equal relationship		Social and Relationship	Investors, shareholders and market analysts and the Press and Opinion Makers	683 requests for information, relating	
frotect fundamental freedoms, in accordance with national legislation and international agreements	Partnership in Public Policy Management	1 to 3, 7 to 9, 12, 13 and 17	Social and Relationship, Financial, Intellectual, Natural, Manufactured and Human	Government / Parliamentarians and Regulatory Bodies	to the Access to Information Act, in 2018, 98% answered and 2% in process to be answered.	

## **CONNECTION WITH THE OTHER SDG**

The actions developed by Eletrobras for the prioritized SDGs, whether in its facilities or in the territories of coexistence, present high connectivity with the other Sustainable Development Goals, reinforcing the integration of the 2030 Agenda. See below the main goals of the other SDGs connected to Eletrobras' businesses.





## Main SDG 1 Goals that are related to Eletrobras business (areas of influence)

- 1.1) By 2030, eradicate extreme poverty for all people everywhere, currently measured as people living on less than\$1.25 a day.
- 1.2) By 2030, reduce at least by half the proportion of men, women and children of all ages living in poverty in all its dimensions according to national definitions.
- 1.4) By 2030, ensure that all men and women, in particular the poor and the vulnerable, have equal rights to economic resources, as well as access to basic services, ownership and control over land and other forms of property, inheritance, natural resources, appropriate new technology and financial services, including microfinance.



# Main SDG 2 Goal that is related to Eletrobras business (areas of influence)

2.1) By 2030, end hunger and ensure access by all people, in particular the poor and people in vulnerable situations, including infants, to safe, nutritious and sufficient food all year round.



# Main SDG 3 Goal that is related to Eletrobras business (areas of influence)

3.4) By 2030, reduce by one third premature mortality from non-communicable diseases through prevention and treatment and promote mental health and well-being.



# Main SDG 4 Goals that are related to Eletrobras business (areas of influence)

- 4.4) By 2030, substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship.
- 4.7) By 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development.



## Main SDG 5 Goals that are related to Eletrobras business (areas of influence)

- 5.1) End all forms of discrimination against all women and girls everywhere.
- 5.5) Ensure women's full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic and public life.



# Main SDG 6 Goals that are related to Eletrobras business (areas of influence)

- 6.3) By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally.
- 6.4) By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally.
- 6.6) By 2020, protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes.



# Main SDG 10 Goals that are related to Eletrobras business (areas of influence)

- 10.1) By 2030, progressively achieve and sustain income growth of the bottom 40% of the population at a rate higher than the national average.
- 10.2) By 2030, empower and promote the social, economic and political inclusion of all, irrespective of age, sex, disability, race, ethnicity, origin, religion or economic or other status.
- 10.4) Adopt policies, especially fiscal, wage and social protection policies, and progressively achieve greater equality.



# Main SDG 11 Goals that are related to Eletrobras business (areas of influence)

- 11.1) ) By 2030, ensure access for all to adequate, safe and affordable housing and basic services and upgrade slums.
- 11.4) Strengthen efforts to protect and safeguard the world's cultural and natural heritage.

11.5) By 2030, significantly reduce the number of deaths and the number of people affected and substantially decrease the direct economic losses relative to global gross domestic product caused by disasters, including water-related disasters, with a focus on protecting the poor and people in vulnerable situations.

11.6) By 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management.



INTRODUCTION

# Main SDG 12 Goals that are related to Eletrobras business (areas of influence)

12.2) By 2030, achieve the sustainable management and efficient use of natural resources.

12.4) By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment.

12.5) By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse.

12.6) Encourage companies, especially large and transnational companies, to adopt sustainable practices and to integrate sustainability information into their reporting cycle.

12.7) Promote public procurement practices that are sustainable, in accordance with national policies and priorities.

12.8) By 2030, ensure that people everywhere have the relevant information and awareness for sustainable development and lifestyles in harmony with nature.



# Main SDG 14 Goals that are related to Eletrobras business (areas of influence)

14.1) By 2025, prevent and significantly reduce marine pollution of all kinds, in particular from land-based activities, including marine debris and nutrient pollution.

14.2) By 2020, sustainably manage and protect marine and coastal ecosystems to avoid significant adverse impacts, including by strengthening their resilience, and take action for their restoration in order to achieve healthy and productive oceans.

14.3) Minimize and address the impacts of ocean acidification, including through enhanced scientific cooperation at all levels.



# Main SDG 15 Goals that are related to Eletrobras business (areas of influence)

15.1) By 2020, ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains and drylands, in line with obligations under international agreements.

15.2) By 2020, promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests and substantially increase afforestation and reforestation globally.

15.5) Take urgent and significant action to reduce the degradation of natural habitats, halt the loss of biodiversity and, by 2020, protect and prevent the extinction of threatened species.

15.9) By 2020, integrate ecosystem and biodiversity values into national and local planning, development processes, poverty reduction strategies and accounts.



# Main SDG 17 Goals that are related to Eletrobras business (areas of influence)

17.7) Promote the development, transfer, dissemination and diffusion of environmentally sound technologies to developing

countries on favorable terms, including on concessional and preferential terms, as mutually agreed.

17.14) Enhance policy coherence for sustainable development.

17.16) Enhance the global partnership for sustainable development, complemented by multi-stakeholder partnerships that mobilize and share knowledge, expertise, technology and financial resources, to support the achievement of the sustainable development goals in all countries, in particular developing countries.

17.17) Encourage and promote effective public, public-private and civil society partnerships, building on the experience and resourcing strategies of partnerships.

## ANNEX II: PDNG 2019-2023 GOALS

		History	History				Analysis of	2019 Goals -
Indicator Name	Unit	2016	2017	2018	2018	2019	results 2018	Initiatives in progress
Relative generation availability – DISPGR	Index	0.888	0.923	0.995	0.933	1.000	Goal Achieved	Preventive action in order to meet the availability of generation determined by the regulatory body.
Operational Availability of Transmission Lines – DISPOLT	%	-	99.92	99.90%	99.82%	99.82%	Goal Achieved	Performing preventive maintenance, in search of transmission business efficiency. The targets for transmission performance indicators consider the aging of transmission assets, which in many cases exceed 30 years of service, which directly affects the periodicity and duration of scheduled maintenance.
"Global Indicator (Generation + Sale)"	Index	-	-	1.04	0.90	0.95	Goal Achieved in 2018. The indicator is now part of the 2018-2022 PDNG.	This project is being developed to make the management of energy commercialization more efficient, through the promotion of transparency, integration and improvement of the workflow between Eletrobras companies.

INTRODUCTION	CORPORATE PROFILE	STRATEGY AND VISION OF THE FUTURE	GOVERNANCE AND COMPLIANCE	PERFORMANCE	RESPONSIBLE ENVIRONMENTAL MANAGEMENT	RELATIONSHIPS	GRI CONTENT INDEX

		History			Goal		Analysis of	2019 Goals -
Indicator Name	Unit	2016	2017	2018	2018	2019	results 2018	Initiatives in progress
Reduction in Significant Deficiencies and Material Weaknesses	%	60%	88%	68%	95%	100%	The goal was not achieved mainly due to structural changes such as the implementation of the unified ERP system for all Eletrobras companies and the implementation of the Shared Services Center, which will lead to continuous improvements from the next cycle.	Project under development for the implementation of the Process Control system, in conjunction with controls optimization.
Employee satisfaction	Index	71.10	71.10	74.18	70.92	72.76	Goal Achieved	Occupational Health and Safety Program, with actions directed to the prevention of occupational diseases and accidents at work in Eletrobras companies, considering employees and outsourced workers.
Accident frequency (with leave)	No. of Accidents per million hours of risk exposure	2.08	2.22	2.86	1.38	1.33	Goal not achieved. It is observed the increase in total records, related to the greater awareness and; the increase in hours of exposure to risk, due to the increase in the number of installations in the production system (plants, substations and transmission lines).	Occupational Health and Safety Program, with actions directed to the prevention of occupational diseases and accidents at work in Eletrobras companies, considering employees and outsourced workers.
Maturity in project management	Index	-	-	2.33	-	2.49	The global maturity of Eletrobras companies was measured for the first time in 2018.	Improve project management in Eletrobras Companies

		History			Goal		. Analysis of	2019 Goals -
Indicator Name	Unit	2016	2017	2018	2018	2019	results 2018	Initiatives in progress
GHG emissions from own TPPs for net generated energy (tCO <sub>2</sub> e/ MWh)	%	0.91	0.76	0.67	0.75	1% reduction in relation to the previous year	We reduced by 12% GHG emissions from our own TPPs for net generated energy (tCO <sub>2</sub> e / MWh).	We have in our project portfolio a specific one to develop actions to reduce the consumption of fossil fuels, scope 1, 2 and 3 GHG emissions and the emissions of other pollutants and wastes.
GHG emissions from the use of fossil fuels in the vehicle fleet	tCO <sub>2</sub> e	12,965	12,285	12,141	12,248	0.3% decrease over the previous year	We reduced our GHG emissions from the use of fossil fuels in the vehicle fleet by 1.2%.	We have in our project portfolio a specific one to develop actions to reduce the consumption of fossil fuels, scope 1, 2 and 3 GHG emissions and the emissions of other pollutants and wastes.
Transformer Operational Availability - DISPOTR	%	99.47%	99.68%	99.66%	99.40%	99.40%	Goal Achieved	Performing preventive maintenance, in search of the transmission business efficiency.
Weaknesses Remediation Control	%	80%	91%	69%	95%	95%	The goal was not achieved mainly due to structural changes such as the implementation of the unified ERP system for all Eletrobras companies and the implementation of the Shared Services Center, which will lead to continuous improvements from the next cycle.	Continuous Improvement of the Internal Control Environment.
Result of Management Testing (certified Companies)	%	NA	10.0%	NA	7.0%	7.0%	The result for 2018 is not available.	Continuous Improvement of the Internal Control Environment.

	CORPORATE	STRATEGY AND	GOVERNANCE AND		RESPONSIBLE		
INTRODUCTION	PROFILE	VISION OF THE FUTURE	COMPLIANCE	PERFORMANCE	ENVIRONMENTAL	RELATIONSHIPS	<b>GRI CONTENT INDEX</b>
					MANAGEMENT		

		History			Goal		Analysis of	2019 Goals -
Indicator Name	Unit	2016	2017	2018	2018	2019	results 2018	Initiatives in progress
Supplier Due Diligence Exposed to Fraud and Corruption Risk	%	-	-	94%	60%	70%	Goal Achieved in 2018. The indicator is now part of the 2018-2022 PDNG.	Consolidation of Eletrobras companies' Integrity Program.
Employees trained in anti-corruption policies and procedures	%	16%	74%	96%	100%	100%	Goal Achieved in 2018. The indicator is now part of the 2018-2022 PDNG.	Consolidation of Eletrobras companies' Integrity Program.
Suppliers exposed to fraud and corruption risks made aware regarding the Integrity Program (Compliance) of Eletrobras companies	%	-	-	90%	60%	80%	Goal Achieved in 2018. The indicator is now part of the 2018-2022 PDNG.	Consolidation of Eletrobras companies' Integrity Program.
Trade partners made aware regarding the Integrity Program (Compliance) of Eletrobras companies	%	-	-	99%	60%	80%	Goal Achieved in 2018.	Consolidation of Eletrobras companies' Integrity Program.
Number of fatalities (employees + third- parties)	Numerical	2	1	1	0	0	We had a fatality in 2018 and we will focus our efforts to ensure safety to our employees and third-oarties.	Occupational Health and Safety Program, with actions directed to the prevention of occupational diseases and accidents at work in Eletrobras companies, considering employees and outsourced workers.

INTRODUCTION	PROFILE	VISION OF TE	IE FUTUKE	COMP	LIANCE	PERFORMANCE	ENVIRONMENTAL RELA MANAGEMENT	TIONSHIPS GRI CONTENT INDEX
Indiantos Nama	II-ir	History			Goal		_ Analysis of	2019 Goals -
Indicator Name	Unit	2016	2017	2018	2018	2019	results 2018	Initiatives in progress
Management positions held by women	%	20.0%	21.0%	21.1%	21.0%	21.0%	Goal Achieved in 2018.	To continue the Eletrobras Gender Equity Program. Maintain our commitment to gender equity and respect for human rights, as well as to the UN Women Women's Empowerment Principles.
Reports of human rights violations Resolved	%	-	-	18%	To address, by 2020, 100% of allegations of human rights violations received.	To address, by 2020, 100% of allegations of human rights violations received.	We are on track to reach our goal by 2020. The consolidated result for 2018 (18%) demonstrates the challenge we will face to reach our commitment.	Eletrobras prioritized the theme in its complains' criticality matrix. This initiative comprises the list of actions for the constant improvement in the human rights violations complains handling process, received up to 2020.
Wage Difference	times	-	-	12.30	To reach, by 2020, the value of up to 10x.	To reach, by 2020, the value of up to 10x.	We're on the right path. The consolidated result indicates that the highest salary is still 12.3 times higher than the lowest salary. This difference is still greater than the target set for 2020, equal to or less than 10 times. However, it should be noted that there has already been a significant reduction compared to the result in the first half of the year and a trend towards a reduction of the difference has been confirmed. The indicator is now part of the 2018-2022 PDNG.	Our people performance management system (SGD) is in the process of being updated, being one of the actions of our Business and Management Master Plan, which will, among other objectives, reduce wage inequalities.

RESPONSIBLE

**ENVIRONMENTAL** 

RELATIONSHIPS

**GRI CONTENT INDEX** 

CORPORATE

**PROFILE** 

INTRODUCTION

STRATEGY AND

VISION OF THE FUTURE

GOVERNANCE AND

COMPLIANCE

INTRODUCTION	CORPORATE PROFILE	STRATEGY AND VISION OF THE FUTURE				PERFORMANCE	RESPONSIBLE ENVIRONMENTAL RELA MANAGEMENT	RELATIONSHIPS GRI CONTENT INDEX	
Indicator Name	Unit	History		Goal			Analysis of results 2018	2019 Goals - Initiatives in progress	
Reduction in power consumption for the administrative activity from the public distribution network (MWh)	%	8.3%	5.9%	3.4%	0.2%	0.2%	Goal Achieved in 2018. Reduction of 3.4% in own electricity consumption for use in administrative units.	Implementa	tion of Energy Efficiency as consumption Programs.
Reduction in fossil fuel consumption from vehicle ground fleet (GJ)	% 1	-	5.1%	1.15%	0.2%	0.2%	Goal Achieved in 2018. The companies that presented the highest fuel reduction rates have implemented Energy Efficiency Programs and conscious consumption.		ion of Energy Efficiency us Consumption Programs.
Reduction in water supply network consumption in administrative activity	%	11.8%	11.1%	-0.4%	0.3%	0.3%	Goal not achieved in 2018. Even considering the implementation of Conscious Consumption programs by the companies, there was an increase in water consumption in relation to the previous year, mainly due to some leaks, which were solved at the end of the year.	Implementa Consumptio	cion of Conscious n Program.
Tier 1 suppliers stimulated to adopt valorization and promotion of diversity practices	%	-	-	83.40%	40%	60%	This consolidated result exceeds the 40% target for 2018, showing that most companies are advanced on this issue, suggesting that the 100% target would be reached well before 2022. The indicator is now part of the 2018-2022 PDNG.	83.4% of the contracts in some action and promoti stimulus act companies cadoption of on the subje	ated result indicates that Tier 1 suppliers with force in 2018 already took to stimulate the valuation on of diversity. The main on used by Eletrobras ontinues to be the clear contractual clauses ct, constituting an efficient he 2,532 suppliers his year.

		History			Goal		Analysis of	2019 Goals -	
Indicator Name	Unit	2016	2017	2018	2018	2019	results 2018	Initiatives in progress	
Tier 2 suppliers Evaluated on Sustainability Risk	%	-	-	-	-	5%	No target was set for this indicator in 2018, and it was inserted as a strategic indicator based on the 2019-2023 PDNG.	Promote actions aimed at developing the human rights issue in the relations with the various stakeholders of Eletrobras companies. This is one of the initiatives of our Business and Management Master Plan.	
Critical Suppliers Evaluated on Human Rights Risks	%	-	-	-	-	Evaluate, by 2021, 100% of Critical Suppliers, on Human Rights Risks	No target was set for this indicator in 2018, and it was inserted as a strategic indicator based on the 2019-2023 PDNG.	Promote actions aimed at developing the human rights issue in the relations with the various stakeholders of Eletrobras companies. This is one of the initiatives of our Business and Management Master Plan.	
Partners in Joint Venture Evaluated in HR Risk %	%	-	-	-	-	Evaluate, by 2022, 100% of Joint Venture, on Human Rights Risks	No target was set for this indicator in 2018, and it was inserted as a strategic indicator based on the 2019-2023 PDNG.	Promote actions aimed at developing the human rights issue in the relations with the various stakeholders of Eletrobras companies. This is one of the initiatives of our Business and Management Master Plan.	
Tier 1 suppliers Trained in Human Rights %	%	-	-	-	-	Train, by 2021, 100% of Tier 1 suppliers, on Human Rights	No target was set for this indicator in 2018, and it was inserted as a strategic indicator based on the 2019-2023 PDNG.	Promote actions aimed at developing the human rights issue in the relations with the various stakeholders of Eletrobras companies. This is one of the initiatives of our Business and Management Master Plan.	
Employees trained in Diversity and Human Rights	%	-	-	-	-	Train, by 2021, 100% of Employees, in Diversity and Human Rights	No target was set for this indicator in 2018, and it was inserted as a strategic indicator based on the 2019-2023 PDNG.	Promote actions aimed at developing the human rights issue in the relations with the various stakeholders of Eletrobras companies. This is one of the initiatives of our Business and Management Master Plan.	

INTRODUCTION	CORPORATE PROFILE	STRATEG VISION OF TH		GOVERN <i>A</i> COMPI		PERFORMANCE	RESPONSIBLE ENVIRONMENTAL R MANAGEMENT	RELATIONSHIPS	GRI CONTENT INDEX
	1126	History			Goal		_ Analysis of	2019 Goals	5 <b>-</b>
Indicator Name	Unit	2016	2017	2018	2018	2019	results 2018	Initiatives	in progress
Participation of clear energy sources (solar wind, hydro, nuclear in the company's energy matrix	ır,	93.6%	94.8%	95.2%	94.6%	94.6%	Goal Achieved	expansion	ne contribution to the of the Brazilian energy ough clean and/or sources.
Investment in R&D+ / ROL Holding	l %	1.5%	0.8%	1.4%	1.0%	1.0%	The result achieved in 2018 of 1.4% exceeded the 1.0% target, demonstrating our investment in research, development and innovation above the sector regulatory limits.	Measure re Develop the	turn on R&D+I Projects; e Culture of Innovation.
Total GHG emission / Rol	s tCO <sub>2</sub> e/(R\$ thousand)	0.350	0.295	0.247	0.330	0.181	The result of 0.247 tCO <sub>2</sub> e / (R\$ thousand) exceeded the target of 0.330 tCO2e / (R\$ thousand) in 2018, confirming the trend of reducing total emissions / ROL since 2016.	specific on reduce the scope 1, 2 a	our project portfolio a e to develop actions to consumption of fossil fuels, and 3 GHG emissions and ons of other pollutants and
Adjusted Scope 1 emissions	%	-	-	-	-	1% reduction in relation to the previous year	No target was set for this indicator in 2018, and it was inserted as a strategic indicator based on the 2019 2023 PDNG.	specific on reduce the scope 1, 2 a	our project portfolio a e to develop actions to consumption of fossil fuels, and 3 GHG emissions and ons of other pollutants and
Adjusted Scope 2 GHG emissions	%	-	-	-	-	1% reduction in relation to the previous year	No target was set for this indicator in 2018, and it was inserted as a strategic indicator based on the 2019	specific on reduce the	our project portfolio a e to develop actions to consumption of fossil fuels, and 3 GHG emissions and

the emissions of other pollutants and

wastes.

was inserted as a strategic indicator based on the 2019-

2023 PDNG.

INTRODUCTION	PROFILE	VISIOIVO	F THE FUTURE		MPLIANCE	PERFORMANCE	ENVIRONMENTAL R MANAGEMENT	ELATIONSHIPS GRI CONTENT INDEX	
Indicator Name		History			Goal		_ Analysis of	2019 Goals -	
indicator Name	Unit	2016	2017	2018	2018	2019	results 2018	Initiatives in progress	
GHG emissions from the electric power consumption of the public distribution network for the administrative activity	%	-	-	-	-	1% reduction in relation to the previous year	No target was set for this indicator in 2018, and it was inserted as a strategic indicator based on the 2019-2023 PDNG.	We have in our project portfolio a specific one to develop actions to reduce the consumption of fossil fuels, scope 1, 2 and 3 GHG emissions and the emissions of other pollutants and wastes.	
Coverage Expansion of the Scope 3 GHG Emission Sources	%	5	5	5	-	Include 2 new sources in the GHG emissions inventory by the year 2023	We maintained, for the year 2018, the same range of sources of greenhouse gas emissions from Scope 3.	We have in our project portfolio a specific one to develop actions to reduce the consumption of fossil fuels, scope 1, 2 and 3 GHG emissions and the emissions of other pollutants and wastes.	
Total NO <sub>x</sub> Emissions	(t/year)	10,707	8,052	4,645	24,821	24,821	We reduced our total nitrogen oxide emissions by 42% and remained well below the reference value, considering the characteristics of our plants and the requirements of the current environmental legislation	We have in our project portfolio a specific one to develop actions to reduce the consumption of fossil fuels, scope 1, 2 and 3 GHG emissions and the emissions of other pollutants and wastes.	
Total SOx Emissions	(t/year)	26,761	15,722	11,344	27,127	27,127	We reduced our total sulfur oxide emissions by 28% and remained well below the reference value, considering the characteristics of our plants and the requirements of the current environmental legislation	We have in our project portfolio a specific one to develop actions to reduce the consumption of fossil fuels, scope 1, 2 and 3 GHG emissions and the emissions of other pollutants and wastes.	

CORPORATE

**PROFILE** 

INTRODUCTION

STRATEGY AND

VISION OF THE FUTURE

GOVERNANCE AND

COMPLIANCE

RESPONSIBLE

**ENVIRONMENTAL** 

RELATIONSHIPS

**GRI CONTENT INDEX** 

							MANAGEMENT	
Indicator Name	IIis	History			Goal		_ Analysis of	2019 Goals -
mdicator Name	Unit	2016	2017	2018	2018	2019	results 2018	Initiatives in progress
Total PM Emissions	(t/year)	4,364	1,565	908	4,229	4,229	We have reduced our total particulate matter by 42%, and we remain well below the reference value, considering the characteristics of our plants and the requirements of the current environmental legislation	We have in our project portfolio a specific one to develop actions to reduce the consumption of fossil fuels, scope 1, 2 and 3 GHG emissions and the emissions of other pollutants and wastes.
Fugitive emissions of SF <sub>6</sub>	(tCO <sub>2</sub> e)	19,292	18,494	32,576	157,371	157,371	We increased our total SF6 emissions by 76%, but we still remain well below the reference value, considering the characteristics of our plants and the requirements of the current environmental legislation	We have in our project portfolio a specific one to develop actions to reduce the consumption of fossil fuels, scope 1, 2 and 3 GHG emissions and the emissions of other pollutants and wastes.
Accident frequency Rate of Third-Parties (with leave)	No. of Accidents per million hours of risk exposure	3.86	3.54	2.32	-	Reduce the frequency rate of third-parties (with leave) in relation to the previous year	We present a reduction in the accident frequency rate of third-parties in the last two years. In 2018 we reduced the accident rate by 34%.	Occupational Health and Safety Program, with actions directed to the prevention of occupational diseases and accidents at work in Eletrobras companies, considering employees and outsourced workers.

RESPONSIBLE

ENVIRONMENTAL

RELATIONSHIPS

GRI CONTENT INDEX

CORPORATE

PROFILE

INTRODUCTION

STRATEGY AND

VISION OF THE FUTURE

GOVERNANCE AND

COMPLIANCE

Indicator Name		MANAGEMENT								
	Unit	<b>History</b> 2016 2017 2018			<b>Goal</b> 2018	2019	Analysis of results 2018	2019 Goals - Initiatives in progress		
Energy saved by Procel initiatives	Billion kWh/year	15.2	21.2	23.0	23.8	25.7	Partially achieved goal, with a 8% increase in the amount of energy saved.	Eletrobras has been investing in actions to fight Procel waste and energy efficiency. The energy results obtained by the program actions contribute to the efficiency of the goods and services, as well as allow the		

RESPONSIBLE

ENVIRONMENTAL

RELATIONSHIPS

**GRI CONTENT INDEX** 

CORPORATE

**PROFILE** 

INTRODUCTION

STRATEGY AND

VISION OF THE FUTURE

GOVERNANCE AND

COMPLIANCE





