

## **Contents**

#### 1. Introduction 2

About the report

Highlights

Message from Management

### 2. Corporate profile 11

Eletrobras

Industry overview

### 3. Strategy and vision of the future 17

Strategic planning

**R&D** and Innovation

Sustainability vision

How we generate value

### 4. Governance, ethics and compliance 37

**Evolution** 

Corporate governance

**Ethics and Compliance** 

Risks and Opportunities

### 5. Performance and results 59

Generation

**Transmission** 

Distribution

Sector programs

Financial results

Capital markets

### 6. Responsible environmental management 80

Management

Water

Climate changes

**Biodiversity** 

### 7. Relationships 97

Management

Employee development

**Customer Satisfaction** 

Aligned suppliers

**Community Engagement** 

#### **GRI Content Index 125**

Capital Map 135

**Assurance report 136** 

**Acknowledgments 139** 



**ANNUAL REPORT • 2017** 

The year 2017 was decisive for the company renewal, including its shares in the market, its image and brand, its services and its relation towards the public. The report will present what has been done during the year in order to maximize value creation.



# **About this report**

G4-30; G4-24; G4-25; G4-26; G4-27; G4-28, G4-32; G4-33

For the 17<sup>th</sup> consecutive year, we publish our Annual Report, providing transparency to the management and performance of Eletrobras companies operation between January 1<sup>st</sup> and December 31<sup>st</sup>, 2017.

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

### **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 G4),
   Core option;
- Principles of the Global Compact of the United Nations (UN);
- Sustainable Development Goals (SDG);
- Integrated Reporting (IR) Framework, adopted for the first time, in line with the international tendency of sustainability reports and the company's strategy.

#### Reliability

In line with our objective of presenting reliable information, as in recent years, the information published in the profile, strategy and governance chapters and the sustainability performance indicators 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 136.

#### **Materiality**

G4-18; G4-19; G4-23

For the 2017 Annual Report, we carried out a new materiality process to map the most important themes for business sustainability, that is, with greater potential for impact and relevance 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, Facebook and Twitter), 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

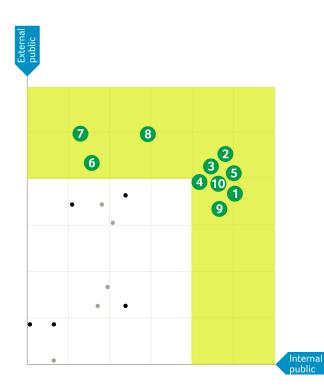
Workshop with sustainability coordinators of Eletrobras companies, based on the GRI guidelines and the Integrated Reporting for prioritizing material issues, considering their potential impact and relevance in the company's strategy.

#### 4. Prioritization with external expert review

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

#### 5. 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 2018-2020 period, as follows.



## Limits of impacts of relevant themes

G4-20; G4-21

Themes	Within Eletrobras (subsidiaries)	Outside Eletrobras (stakeholders)	Related GRI Indicators	
Retention and development of employees	All the company's business	Employees and investors	G4-10, G4-LA1, G4-LA2, G4-LA9, G4-LA10, G4-LA11, G4-LA13, EU14	
2. Relationship with communities	All the company's business	Communities, society and government	G4-HR8, G4-SO1, G4-SO2, EU-20, EU-21, EU-22	
3. Water (availability and quality)	All the company's business, except Eletropar	Communities, society and government	G4-EN8, G4-EN9, G4-EN10, EU-21	
4. Climate Change and Renewable Sources	All the company's business, except Eletropar	Investors, communities, society, suppliers, government and customers	G4-EC2, G4-EN15, G4-EN16, G4-EN17, G4-EN18, G4- EN19, G4-EN20, G4-EN21, EU-1, EU-2, EU-6, EU-10	
5. Biodiversity	All the company's business, except Eletropar	Communities, society, government and investors	G4-EN11, G4-EN12, G4- EN13, EU-21	
6. Relationship with suppliers	All the company's business	Suppliers, investors and society	G4-12, G4-13, G4-EC9, G4-HR1, G4-HR4, G4-HR5, G4-HR6, G4-HR12	
7. Ethical culture	All the company's Business	All	G4-56, G4-57, G4-58, G4-HR3, G4-SO4, G4-SO5, EU-21	
8. Health and safety (employees)	All the company's business	Employees and investors	G4-LA5, G4-LA7, 403-2, G4- LA7, G4-LA8, EU-16, EU-18	
9. R&D and innovation	All the company's business	Society, investors, government, suppliers and customers	EU-8	
10. Governance and risk	All the company's business	All	G4-2, G4-34 to G4-55	

#### Instruction

This report brings GRI disclosures related to all these issues, as well as other indicators, not necessarily related to our materiality matrix, complying with our commitment to report on other initiatives to promote sustainability.

## **Useful reading tools**

Throughout these pages you will see the symbol *GRI XXX-XX* indicating which disclosure we are responding to in that content.

At the end of the publication, the *GRI Content Index* references the disclosures and pages where they appear.

There you will also find a list of the disclosures with the **Sustainable Development Goals (SDG)** and with the **Global Compact**, initiatives of the United Nations (UN).

Right after the GRI Content Index, you will find the *Map of Capitals* that, in line with the Best Practices of the Integrated Report, indicates which capital / assets essential to the company's sustainability are addressed in each chapter of the report.

Enjoy your reading!



#### Value creation

This is the theme of our report this year, reflecting the period in which we have taken important steps towards valuing the company from several points of view:

- Valuing our image, brand and services;
- Valuation our actions as a reflection of increased confidence in the business management and strategy;
- Valuing relationships with our stakeholders: suppliers, customers and employees.

To tell this story, we have created a symbol that will accompany you along the content highlighting the initiatives and results achieved that supported our value creation in the year:



This symbol is a visual representation of the value creation movement: the expansion of a reality.

# **Highlights**



Strengthening and evolution of corporate governance, risk management and compliance practices

We have improved the process of selecting and qualifying leaders page 44

We have reviewed our Bylaws and other important governance instruments page 40

We have received two important recognitions for our achievements in governance page 38

We create a policy, a dedicated area and a committee related to Information safety page 52

We implemented an integrated reporting channel for all Eletrobras companies, managed by an independent third party page 48

We have established a due diligence process for critical suppliers focused on promoting integrity in the supply chain page 51

We received the maximum grade in the Anti-Corruption Program category of the Transparency in Corporate Reports ranking of the NGO Transparency International page 38

We have reduced the Material Weaknesses identified in relation to financial reporting internal controls from 4 in 2016 to 1 in 2017 page 19



# Development of sustainability practices in a line with best global practices

We prioritize the Sustainable Development Goals (SDG), in which the company has the highest potential to contribute together with its executives page 32

We have developed our value creation model and are working, on this report, in our adhesion to the Integrated Report page 36



#### Responsible social and environmental management

We invested R\$ 307.6 million in R&D&I, in a portfolio with projects directly linked to key aspects of the sector's sustainability, such as energy efficiency, climate change management and management of social and environmental impacts page 26

We held the first "Biodiversity and Ecosystem Services in Business Management" workshop page 90

We contributed with an estimated saving of 21.2 million MWh through Procel, equivalent to the annual consumption of 11.2 million households, avoiding the emission of 1.96 million CO<sub>2</sub>e page 71

## Financial discipline, cost reduction and improvement of the 2016 results vs 2017

We reduced the Net Debt/Managerial Ebitda ratio from 6.7x to 3.7x page 20

We reduced the ratio of the sum of Recurring Personnel, Material, Services and Other (PMSO)/Regulatory PMSO from 1.55x to 1.33x page 20

We concluded the preparation and analysis of the privatization process of all six distributors, and the sale model of the stake in 70 SPEs, totaling an amount of R\$2.5 billion at book value page 20

We have created an Integrated Trading Committee, that unifies and optimizes the energy trading strategy and process of all our generation companies page 76

# Career development, meritocracy and people appreciation

We have worked on the qualitative and quantitative analysis of our employees as a premise for a sustainable and efficient model, adhering to the company's strategic plan page 99

We have developed the "Eye on the Future", pilot project of succession mapping, supporting the performance management improvement, meritocracy and the identification of career development opportunities page 108



TL Construction Tucuruí-Manaus - Eletrobras holding / Jorge Coelho



# Message from the management

G4-1

Business sustainability is the ability to generate results at an optimal level over time. This is only possible if the company obtains and uses the necessary resources for its business - people, inputs, capital, relationships, etc. - in a correct and responsible way, keeping healthy its ecosystem and its capacity to generate value and results.

For Eletrobras, the year 2017 was a continuation of a broad work begun in the previous year to recover our operational and financial capacity and to strengthen the foundations of our sustainability and then generate and sustain the results.

Our Business and Management Master Plan (PDNG) 2018-2022, unfolding from the Strategic Plan 2015-2030 (PE 2015-2030), maintained the three strategic pillars of the previous edition (2017-2021) - Governance and Compliance, Financial Discipline and Operational Excellence - and brought two pillars essential to the moment of transformation and search for business sustainability and sustainability: Valorization of People and Sustainable Performance.

In 2017, we achieved important advances in relation to the initiatives planned for the PDNG 2017-2021:

We have strengthened Eletrobras' governance with the committed work of the employees, the Executive Board and the Board of Directors to rescue our credibility. Highlights in this regard in 2017 include the creation of a unified and independent external complaint channel, the restructuring of the policies and bodies responsible for promoting compliance and integrity culture in the company, the full revision of Eletrobras' By-Laws, and implementation of a single competence policy for the whole group.

All this has been recognized. We achieved two important certifications to recover our credibility: in November 2017, the Certification of the Governance Indicator - IG-Sest Level 1 (level of excellence), an innovation developed by the Secretariat of Coordination and Governance of State Companies (Sest) to bring more effectiveness and transparency in the follow-up of good governance practices by federal state-owned companies, and in March 2018, Eletrobras' certification in the State Companies Governance Highlight Program of B3 – Brasil, Bolsa, Balcão.

We have achieved important results in the promotion of operational excellence, which contribute to the financial discipline of the business. The Net Debt / Adjusted EBITDA ratio of 6.7 in 2016 went to 3.7 in 2017, with a reduction target of less than three at the end of 2018.

This process was based on cost reduction, based mainly on the resizing of our staff, which began in 2017, with voluntary termination plans, to be continued in 2018. These plans provided estimated annual savings of R\$ 855 million (90% of the target), in addition to the cut of 758 gratified functions, which led to a reduction of R\$ 74 million in annual costs in 2017. By 2018,

cost reduction will be intensified with the implementation of our Shared Services Center and the unification of our Integrated Enterprise Management System (Pro-ERP).

Other highlights in this pillar providing us with advances in 2018 in improving our capital structure are the beginning of the corporate restructuring between Eletrosul and CGTEE - to achieve gains in operational, tax, economic and financial synergy - and the completion of modeling for privatization of our energy distribution companies and for the sale of interests in Special Purpose Entities (SPCs), whose auction is expected to occur until the first half of 2018.

We also continue the expansion projects of our operation in generation and transmission. We invested R\$ 4.1 billion in corporate operations and interests in SPCs, with R\$ 1.6 billion in transmission and R\$ 2.5 billion in generation. In the expansion process, we emphasize the start-up - two months ahead of the deadline stipulated by the Brazilian Electricity Regulatory Agency (ANEEL) - of the first Belo Monte transmission system bipole and the start-up of the first hydroelectric turbine at the UHE São Manoel, more than five months in advance over the contracts' deadline. The project is an ultrahigh voltage direct current line with 2,100 km

connecting the Xingu (PA) substation to the Estreito (MG) substation, with capacity to transmit up to 4 thousand MW.

We also continued to invest in research, infrastructure and environmental quality, with a contribution of R\$ 167 million in the year.

Regarding sustainable performance – an irrevocable commitment to our business, which continually supports the UN Global Compact - in 2017 we have also worked on important initiatives. We promoted the prioritization of the Sustainable Development Goals (SDG) for which we will contribute aiming at implementing the Agenda 2030 in Brazil.

The highlight in the maturing of the company's socio-environmental management in the year was the evolution of our strategy to adapt to climate change. We signed the Open Letter "Private Sector Supports Carbon Pricing in Brazil", a private sector paper on carbon pricing, developed by the Climate Corporate Initiative, with support from the World Bank's Carbon Pricing Leadership Coalition (CPLC), and we adhere to the "Positioning on mechanisms of carbon pricing", document launched in 2016 by the Climate Corporate Initiative.

These results, achievements and recognitions were only possible with the trust of our stakeholders, who believed in the management plans and gave all the support so that we could work and present the data in this report, and the commitment of our employees, who were engaged in the transformation process.

The changes and advances prepare us to face the great challenge of democratizing the company's capital, announced by the Ministry of Mines and Energy in August 2017.

There is a lot of work to do, but the challenges overcome in 2017 show that the company is able to respond with courage, speed and efficiency to the changes required by the spirit of time.

Enjoy your reading,

Wilson Ferreira Junior Eletrobras CEO **José Guimarães Monforte**Board of Directors President



# We produce electric power, we deliver quality of life

Electricity, our main product, is aimed at all people indistinctly and contributes for their daily well-being. Public service and resource essential to the development of productive activities, electric energy for us is much more than a business.



## **Eletrobras**

G4-3; G4-4; G4-7; G4-8; G4-9; G4-13

Founded in 1962, Centrals Elétricas Brasileiras S.A. – Eletrobras controls 13 subsidiaries in electric power generation, transmission, and distribution, 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 175 Special Purpose Entities (SPEs), and minority interests in 26 companies.

## **2017 Eletrobras Overview**

The 16th largest energy company in the world in generating capacity

#### Generation

48.134 MW

of power generation capacity in 233 power plants

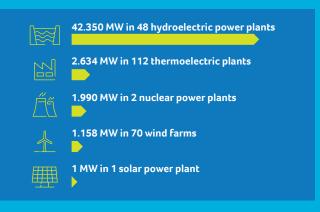


We are the

## 5<sup>th</sup> hydroelectric power generator

in the world considering installed capacity

> 95% of capacity from clean energy sources



#### **Transmission**

64.944 km

of transmission lines with voltages above 230kV



of Brazil's total

### **Distribution**

4,4 million customers



## Intangible assets overview









#### R\$ 260,9 million

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

## **International operations**

8

4,7 gw

900 km

international in generation projects projects

in transmission

#### 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.

#### **Competitive advantages**

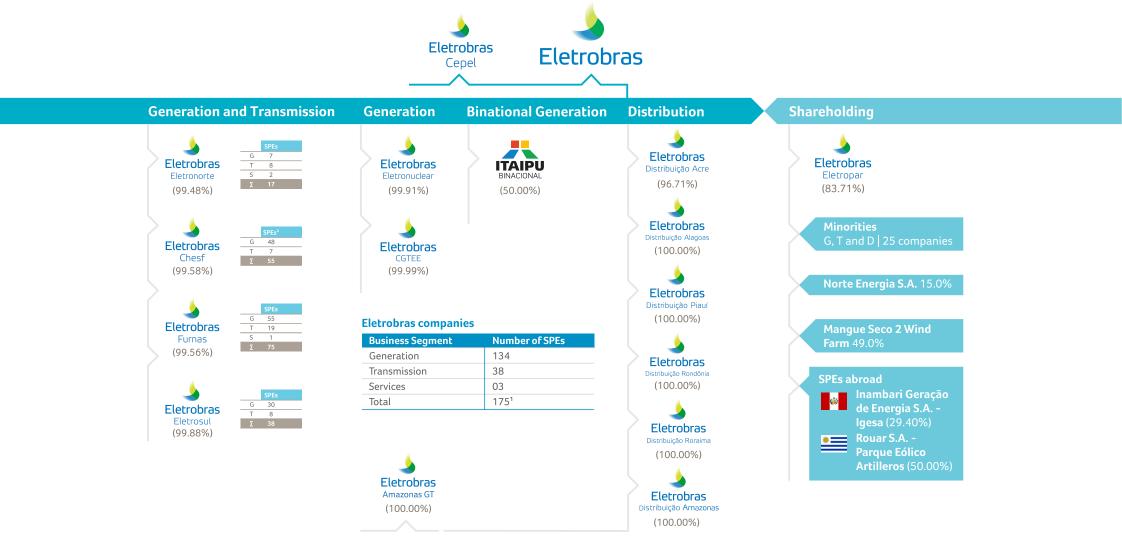
Expertise in large hydropower projects and regional integration, size and favorable geopolitical positioning.

#### **2017 Highlights**

- Under the agreement between Eletrobras, Bolivia's National Electricity Company (Ende) and the Development Bank of Latin America (CAF), a contract with the company winning bidder to develop of a binational hydroelectric power plant on the Madeira river was signed.
- We maintained a partnership with the Argentine state-owned company Ebisa (Emprendimientos Energéticas Binacionales Sociedad Anónima), to develop studies on hydropower development in the Uruguay River, on the border between Brazil and Argentina.

Learn more in our Management Report (page 63) available at https://bit.ly/2L2qBQv

#### **Corporate structure of Eletrobras companies**



(1) 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.

(2) The number of SPEs does not consider Serra do Mel I, II and III wind farms, since they are developed by consortia.

In 2017, Eletrobras sold its entire stake in CPFL Energia S.A. in the company's public offering of common shares, totaling 1,802,104 shares sold and raising R\$49.9 million.



We will sell our distribution companies by 2018, allowing us to focus on generation and transmission, and we will also carry out the sale auction of some of our holdings in Specific Purpose Entities (SPEs). These actions will significantly contribute to our commitment to financial discipline, essential for the sustainability of the business.

More information on these sales is available in our 2018-2022 Business and Management Master Plan, on page 21. To learn more about other corporate events for 2017, please access the Management Report (page 17), available at: https://bit.ly/2rFK0Hk.

## **Ownership structure**

G4-9

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 110), available at: https://bit.ly/2rFKOHk.

In 2017, the Brazilian Ministry of Mines and Energy (MME) proposed the democratization of Eletrobras' capital and, in January 2018, recommended that the process should be done by means of capital increase through public offering of common shares. Learn more about this issue in the "Regulatory Overview" section on the following page.

## 1,352,634,100 shares



## **Traded on 3 stock exchanges**



ELET3 and ELET6 Shares on the São Paulo Stock Exchange in Level 1 of Corporate Governance



American
Depositary Receipts
(ADR) NYSE EBR and
EBR-Bon the New
York Stock Exchange



XELTO and XELTB shares on the Madrid Stock Exchange through the Latibex program

Learn more about the distribution of the company's share capital at: https://bit.ly/2jzFV3J

# **Industry overview**

#### **Macroeconomic indicators**

Gross Domestic Product (GDP) closed 2017 with growth of 1.0%, the first high after two years of decline.

Inflation measured by the Extended Consumer Price Index (IPCA) reached 2.95%, compared to 6.29% in 2016, remaining below the National Monetary Council target.

The General Price Index IGP-DI ended 2017 with deflation of 0.42%, against 7.15% in 2016.

The trade balance registered a record surplus of US\$67.1 billion in 2017, compared to US\$47.7 billion in the previous year.

#### **Sector indicators**

The electric power sector reached total consumption of 463,948 GWh by December 2017, an increase of 0.8% compared to 2016, according to the Brazilian Energy Research Agency (EPE), with increased consumption in all classes and regions, except the Northeast.

Industrial: +1.3% Residential: +0.8% Commercial: +0.3% Northeast: -0.1% North: +0.6% Southeast: +0.3% Midwest: +1.9% South: +3.0%

## **Regulatory overview**

The highlight of 2017 was the Brazilian Ministry of Mines and Energy proposal to democratize Eletrobras' capital. The decision was approved by the Board of the Investment Partnership Program (CPPI). At the beginning of 2018, the draft Bill on Eletrobras privatization and sales model was sent to the National Congress. The document is fully available on the Ministry of Mines and Energy website http://www.mme.gov.br.

The execution of the operation is also subject to other governmental authorizations, to the evaluation of legal and regulatory authorizations, to the evaluation of the model to be adopted and compliance with other procedures, since it is a publicly-held government-controlled company with shares listed on the São Paulo Stock Exchange (B3 – Brasil, Bolsa, Balcão), the New York Stock Exchange (NYSE) and the Madrid Stock Exchange (Latibex), as well as to evaluation regarding the contractual obligations assumed by the Company.

In addition to the draft bill aimed at the privatization, the government issued Provisional Measure No. 814, dated December 28, 2017, which amends Law No. 12,111, of December 9, 2009, which provides for electric power services in Isolated Systems, and Law No. 10,438, of April 26, 2002, which provides for the expansion of emergency electric power supply and extraordinary tariff recomposition, establishes the Alternative Sources of Electric Energy Incentive Program (Proinfa) and the Energy Development Account (CDE) and provides for the universalization of the public electric power service.

This measure repeal Article 31 of Law 10,848/2004, which excluded Eletrobras and its subsidiaries – Furnas, Chesf, Eletronorte, Eletrosul and CGTEE – from the National Privatization Program.

The democratization of capital is one possible way to expand the Company's potential in order to promote the transformations initiated with the 2017-2021 Business and Management Master Plan and reaffirmed in the "Challenge 22: Sustainable Excellence", the 2018-2022 Business and Management Master Plan, essential for the business sustainability and continuity over time.

In July 2017, the Ministry of Mines and Energy released Technical Note 05, which suggests a number of legal measures to enable the sustainable future of the electric power sector in the long term. Eletrobras, as the other agents, significantly contributed to the improvement of the proposals for adjustments in the sector regulation.

More detail on other regulatory events that influenced the industry's generation, transmission and distribution in 2017 is available in our Management Report (page 20) at: https://bit.ly/2rFK0Hk.



Substation in Itaipu – Itaipu Binational/Caio Coronel

## We face challenges, deliver efficiency

To generate value for all stakeholders, we are facing a series of challenges. Our reinvention is based on projects and measures that will bring us closer to our business mission: to act in the energy markets in an integrated, profitable and sustainable way.

**ANNUAL REPORT • 2017** 

3
Strategy and vision of the future

# **Strategic planning**

G4-56, G4-42, G4-44

Our strategic planning was developed to identify trends, risks and uncertainties related to our business. The studies that supported targets and guided this plan considered current expectations and future events, as well as financial and non-financial trends within a 15-year time frame (2015-2030).

#### 2015-2030 Eletrobras strategic plan

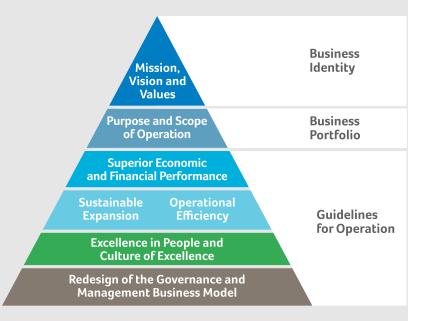
#### **Business identity**

**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.

#### Strategic guidelines



As a result of the 2015-2030 Strategic Plan, we developed the Business and Management Master Plan (PDNG), for the five-year period, based on corporate identity and strategic guidelines. 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 address the challenges of Brazil's current economic scenario and of the electric power sector, focusing on solidifying the business support bases.

Below are the main advances made under the PDNG prepared in 2016, with focus on the 2017-2021 period, and the new features and challenges of the current PDNG, prepared in 2017, with focus on the 2018-2022 period.

#### 2017-2021 PDNG achievements

Throughout 2017, the PDNG remained in line with its strategic objectives and achieved important results in the three strategic pillars considered priority in the next five-year period.

#### **Challenge 21: Sustainable Excellence**



#### **Governance and compliance**

**Objective:** increase transparency and investor confidence by improving internal controls and risk management.

#### **Highlighted Initiatives**

- Implementation of an independent and unified complaints channel page 48;
- Establishment of a due diligence process to ensure the integrity of critical suppliers page 51;
- Creation of a Committee and the Information Security area page 52.

2017 TARGET: ELIMINATE material weaknesses in our internal controls as identified by independent auditors.

RESULTS	RESULTS	STATUS AT THE	IDENTIFIED
IN 2015	IN 2016	END OF 2017	WEAKNESSES
6	4	PARTIALLY ACHIEVED	> 1

- Revision of our companies' Bylaws and implementation of the Board of Directors' Internal Policy page 40;
- At the beginning of 2018, we received certification in B3's Highlight Program on Corporate Governance of State-Run Companies and in the governance indicator of the Department of Coordination and Governance of State-Run Companies (IG/SEST) in Level 1 (Excellence) page 9.



ANNUAL REPORT • 2017 — CHAPTER 3 • STRATEGY AND VISION OF THE FUTURE — CONTENT



**Objective:** reduce operating costs, in line with the regulatory remuneration defined for the company and aligned to a healthy sustainable level for the business.

#### **Highlighted Initiatives**

- Actual reduction of 3.46%, or R\$441 million, with expected reduction of R\$1.7 billion by December 2018 with the adoption of initiatives that favored operational excellence;
- Organizational restructuring with a reduction of 758 gratified functions, exceeding the target by 29%, and saving R\$74.3 million per year, 10% above the target;
- 2,055 accessions to the Extraordinary Retirement Plan (PAE), resulting in estimated savings of R\$826 million per year page 99.

2017 TARGET: Align our Recurring Personnel, Material, Services and Other (PMSO) accounts, maintaining our PMSO equivalent to a maximum of 1.10 times the Regulatory PMSO.

**RESULTS IN 2016** 

STATUS AT THE END OF 2017

1.54 TIMES

PARTIALLY ACHIEVE 1.33 TIMES

- Accumulated gains of R\$287.9 million with integrated operations in Energy Trading page 76;
- Progress in preparations for the implementation of the Shared Service Center (SSC) and the Integrated Management System (PRO-ERP), which should lead to efficiency and synergy gains;
- Reduction of R\$75 million in administrative costs, overtime, hazard and on-call pay.

#### **Financial Discipline**

**Objective:** reduce the company's indebtedness through the sale of assets.

#### **Highlighted Initiatives**

- Adhesion to the new REFIS, a program for the payment of federal tax debts, and improvement of the federal tax offsetting process, which generated a benefit of R\$1.8 billion;
- Conclusion of the sale model of the stake in 70 SPEs, totaling R\$2.5 billion at book value:
- Completion of the preparation and analysis of the privatization process of all six distributors, with sale scheduled for May 2018.

2017 TARGET: REDUCE the net debt/EBITDA ratio to less than 4 times.

**RESULTS IN 2016** 

STATUS AT THE END OF 2017

**6.7**<sub>TIMES</sub>

ACHIEVED 3.7 TIMES

#### Raising of approximately R\$2.0 billion with:

- Sale of CELG D for R\$2.2 billion (R\$1.1 billion to Eletrobras);
- Sale of Energisa shares for R\$364.7 million;
- Sale of stake in CPFL R\$46.0 million;
- Sale of interest in the Tumarin hydroelectric project R\$70 million;
- Sale of SPE INTESA R\$282 million.



Repair work at TL – Eletrobras Furnas/Daniela Monteiro

Strategic objectives of the Business and Management Master Plan | 2018-2022 PDNG:

"Maximize competitive advantages in generation, transmission and trading, achieving corporate sustainability recognized by all stakeholders".

#### 2018-2022 PDNG

In 2017, we prepared the 2018-2022 PDNG, with updates from the last 2017-2021 PDNG to meet the rapid changes in the domestic scenario and to continue to tackle the challenges that will still persist in the next five years.

As in the previous plan, three strategic pillars – Governance and Compliance, Financial Discipline and Operational Excellence – were prioritized and two new pillars were included:

- People appreciation: prioritizes projects related to the management of people due to the large number of employees who have retired or left the Company under the Extraordinary Retirement Plan (PAE), the Consensual Dismissal Plan (PDC), and the implementation of the Shared Services Center (CSC) and the Unified Integrated Management System, scheduled for 2018.
- Company's commitment to the best practices of corporate sustainability, through the development of projects aligned with the UN's Sustainable Development Goals, launched in 2015, in the 2030 Agenda for Sustainable Development; the prospection of Green Bonds issuance opportunities; the improvement of the methodology for measuring R&D&I projects and the implementation of the integrated reporting model.

In order to achieve the strategic objectives, we set targets and developed the initiatives presented below.

#### **Challenge 22: Sustainable Excellence**

### **Financial Discipline**

- Privatization of Distributors
  Sale of the 6 distribution companies, improving Eletrobras' EBITDA indicator.
- Sale of administrative buildings
  Sale of real estate not linked to the Company's
  core activity by reducing administrative costs and
  raising funds to settle debts.
- Sale of holdings in SPEs and other divestments
  Sale of 77 SPEs, generating a revenue of
  R\$4.6 billion and reduction of the Company's debt.
- Corporate Restructuring (Eletrosul + CGTEE) and Deverticalization of Amazonas Distribuidora
  Aimed at greater operational, tax,
  economic-financial and corporate synergy between companies, generating cost reduction.
- Tax Optimization

  Better use of Eletrobras companies' tax credits, reducing financial expenses.
- Compulsory Loan

  Mitigate risks associated with legal proceedings with possible recovery of resources.
- Eletrobras Companies' Pension Fund
  Reduce and balance actuarial deficits in order
  to achieve a better performance in the results
  of pension plans
- Zero-based budgeting
  Implement a planning and budget methodology
  that establishes expenditure limits compatible with
  the Company's economic situation.
- Share Portfolio Strategy, held by Eletrobras, in Affiliated companies

  Actively manage the portfolio of shares in affiliates, allowing an increase in financial gains

## **People Appreciation**

- Qualitative and quantitative personnel
  Define Eletrobras companies' qualitative and
  quantitative personnel framework, seeking
  to balance the number of employees.
- Improvement of the Performance
  Management System
  Improve teams' performance management
  systems, promoting the meritocracy culture
  and motivating employees.
- Talent Bank and Opportunities
  Promote a structured program of internal and external mobility, enabling process efficiency and a more balanced distribution of the workforce.

#### **Sustainable Performance**

- Commitment to the 2030 Agenda
  Implement, monitor and report on actions related
  to the UN 2030 Agenda, increasing stakeholder
  value perception.
- Prospecting opportunities via Green Bond
  Evaluate the opportunities for the issuance of
  "green" bonds, allowing revenue increase with
  the implementation of sustainable projects.
- Methodology to measure R&D&I projects' results Elaborate a unified methodology for analyzing the results of R&D&I projects, seeking a better allocation of resources and identification of new business opportunities.
- Implementation of the Integrated Reporting
  Implement the Integrated Report model, in line with
  the International Integrated Reporting Council (IIRC)
  guidelines, making the Company's reports more
  solid and transparent.

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

#### **2018 TARGET:**

REDUCE the GHG
emission intensity
(ton of CO<sub>2</sub>e emitted
per thousand of R\$
of Net Operating
Revenue) from 0,348
in 2016 to 0.330.

2018 TARGET: REDUCE the net debt/EBITDA

3.7 times to less

than 3.0 times.

CHAPTER 3 • STRATEGY AND VISION OF THE FUTURE

#### CONTEN'

#### **Challenge 22: Sustainable Excellence**

#### **Operational Excellence**

Organizational Restructuring

New organizational structure due to the implementation of the SSC, simplifying the structure and reducing costs.

Implementation of the PRO-ERP system
Implementation of a unified information system
providing process standardization and cost reduction.

Shared Services Center (SSC)
Centralization of the administrative activities, generating the standardization and optimization of processes and allowing the reduction of operating costs.

Reduction of Personnel Costs
Implement the Dismissal Incentive Plan (PID), with the goal of reducing the number of employees by 3,017, as well as reducing expenses with manageable personnel accounts, which will lead to estimated savings of R\$959 million.

Regulatory strategy for G and T
Increase in revenues from generation and transmission, with the ongoing negotiations with ANEEL, and manage the portfolio of infractions with preventive action, aiming at reducing expenses with fines.

Electric Power Commercialization Committee
Increase efficiency on the commercialization of electric
power, seeking higher revenues through the capture of
synergies identified by the Commercialization Committee

Plan to resume works at Angra 3 Enable the resumption of works, allowing new revenues from the conclusion of the Angra 3 TPP, avoiding penalties.

**Transmission Facilities**Implement telephone-assistance resources in the facilities of the companies, increasing operational efficiency, reliability and cost reduction.

Modernization and Automation of Generation and

2018 TARGET:
REDUCE the ratio
between recurring
PMSO and Regulatory
PMSO from 1.33
times for 1.0 time.

2018 TARGET: NO MATERIALS WEAKNESSES

## **Governance and Compliance**

Consolidation of the 5 Dimensions Program

Adhere to good integrity management practices and corporate governance, increasing investor confidence.

Continuous Improvement of the Internal Control Environment Eliminate material weaknesses by mitigating critical risks and giving greater reliability to the Company's results.

Implementing Actions to list in Indexes and Obtain
Corporate Governance Seals
Improve business sustainability best practices by increasing

stakeholder value perception.

Preparation for the Democratization of Eletrobras' Capital Support for the public offering of common shares without the participation of the Federal Government, allowing new investments with the resources of the new members.

## **Performance monitoring**

Eletrobras continuously monitors its companies performance in achieving established strategies and planned results, favoring the accountability and identifying needs of adjustments and plan revisions. We also seek to contribute to the performance of the companies, supporting decision-making processes and encouraging cooperation, integration and articulation between companies and external bodies.

#### Management tools supporting performance monitoring



We agreed on the targets of each company and the plans of action to achieve them

The Business Performance Target Agreement (CMDE)
Based on our Strategic Plan and its developments in PDNG
and signed by each Eletrobras company.



We monitor the progress of the company's management and performance against these targets and plans

#### **Corporate Project Management Office (Corporate EGP)**

This monitors, analyzes and informs senior management of the progress of the relevant projects and programs of Eletrobras companies – such as those linked to the PDNG, the General Business Plans of each company and the RVA – through an integrated management tool.

The EGP follows the good practices of Project Management Body of Knowledge (PMBOK), as recommended by the Project Management Institute (PMI).

We reinforce management's commitment to these targets by linking variable compensation to them

#### **Management Variable Compensation Program (RVA)**

Each executive board of Eletrobras companies relies on at least one strategic project linked to the RVA for monitoring of the EGP. The RVA included financial, operational and social and environmental indicators from the CMDE, reinforcing the commitment of the companies' management with the strategic orientation of the Board of Directors and with the public policies to combat climate change.

The RVA also considers the results of the performance evaluation of the Board of Executive Officers held by the Board of Directors and by the Secretariat for Coordination and Governance of State-Owned Companies (SEST) and the achievement of the individual targets by the Board of Directors (learn more on page 46).

#### **Profit Sharing Program (PLR)**

The PLR is the variable compensation for Eletrobras companies' employees and is composed of a subgroup of economic and financial, operating, social and environmental, management and corporate governance indicators of the CMDE (learn more on page 108).

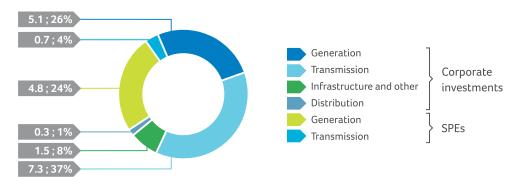
#### **Investments**

In 2017, Eletrobras invested R\$5.2 billion, corresponding to 58% of the budget estimated for the year. The main differences between investments planned and carried out were the implementation of Angra 3, with a 57.6% increase in the initially planned investing amount, due to the difficulties in relation to the tariff revision, and the implementation of the Chesf wind farms, with an unexpected increase of 244.9%.

In relation to the partnerships, the main investments were in the implementation of the Belo Monte HPP (R\$0.6 billion), in the Xingu-Estreito transmission line (R\$0.28 billion), in the São Manoel HPP (R\$0.23 billion) and in the Jirau HPP (R\$0.2 billion).

The PDNG provides for investments of R\$19.8 billion for the 2018-2022 period, a reduction of 45% compared to the 2017-2021 period.

#### 2018-2022 investments (in R\$ billion and% of total)



#### **Financing sources (%)**





Hand and graph – Eletrobras holding/Jorge Coelho

## **R&D** and Innovation

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.

K

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. In Eletrobras companies, this process has been ongoing for more than two decades before the legal obligation and goes beyond our Company, working as a multiplier of R&D&I benefits among the entire sector in the country.

Given the relevance of this innovation process, since 2000, companies in the electric power sector are required by law to apply 1% of their net operating revenue in R&D. At Eletrobras, the Electric Power Research Center (Cepel), an agency dedicated

to research, development and technological innovation, was launched in 1974, working to create solutions and products for the entire electric power sector in Brazil.

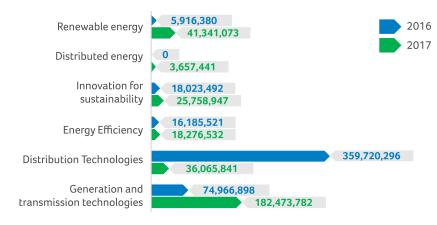
Founded by Eletrobras Holding, Chesf, Furnas, Eletronorte and Eletrosul, Cepel is the result of the strategic vision of Eletrobras and MME in relation to technological development and innovation.

Cepel conducts the Executive Secretariat for Research, Development and Innovation (R&D&I) and Technology of the Technological Policy Committee (CPT) of Eletrobras companies and its lines of research are defined according to technological challenges in their areas of activity.

Classified as a "Product Lab", Cepel has an advanced infrastructure for applied research in electrical systems and equipment, in the development and supply of technological solutions, specially related to the generation, transmission, distribution and trading of electric power in Brazil.

In 2017, we invested R\$307.6 million in R&D&I, including the projects of Eletrobras companies.

#### Investments in R& D+I (R\$ million)



ANNUAL REPORT • 2017 — CHAPTER 3 • STRATEGY AND VISION OF THE FUTURE — CONTENT

## Generation of value of the R&D&I process

#### We operate throughout the innovation chain Developing innovative products and specialized services that lead to important contributions to the electric power sector and the product in the market, with its application in the daily routine value and social, economic and environmental development for different stakeholders Feedback from the innovation chain with identification of new R&D&I demands New technology in successful operation Development of innovative and efficient solutions for: Knowledge support in Complete new technology, ready the interaction with manufacturers to start operation sector organizations universities and research institutions · other companies in the sector Prototype of new technology in an operational environment Prototype of the new technology 6 in a realistic environment New technology testing in a realistic environment Support for projects that New technology testing in the laboratory promote the access of **electricity** with installation Analysis, research and design of of solar panels Contribution to new technology Innovation process flow sustainability and environmental Creation of the concept and improvements is application of the new technology part of at least 60% of projects Development of models that optimize the energy operation Monitoring and reporting of the National Interconnected System (SIN) and support efficient management of water resources \* The development of an innovative technology goes through different maturation stages, according to NASA's TLR methodology.

ANNUAL REPORT • 2017 — CHAPTER 3 • STRATEGY AND VISION OF THE FUTURE — CONTENT

## **Contribution to sustainability**

We present below, among the several projects developed by Cepel in 2017, those that have the greatest potential to contribute to the social and environmental aspects for the promotion of sustainability.

To support the sustainability of its activities, Cepel was included in the 2018-2022 Business and Management Master Plan (PDNG), with four goals aimed at improving R&D&I management:

- % of investments in relation to net operating revenue
- · Financial autonomy
- Laboratory services satisfaction
- Implementation of the portfolio of institutional projects

Learn more on page 61 of the PDNG, available at: https://bit.ly/2wO6ETU

### **Industry and sector development**

**Expansion and operation planning:** we offer a series of methodologies and computer programs widely used in expansion and operation planning, and real-time operation.

**Benefits:** these tools are essential 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.

**Asset management:** products focused on the monitoring, diagnosis and management of the electric power system assets.



**Benefits:** increase the reliability and safety of system operation with great benefits related to avoiding failures and costs.

**Efficiency in transmission:** development of optimized transmission line projects.



Benefits: Higher transmission capacity over long distances with cost reduction of between 10% and 30%, and lower environmental impact.

#### 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).



**Benefits:** more effective training of the different agents of the electricity system, simulating the practice in the real management environmentema elétrico simulando a prática no ambiente real de gerenciamento.

## **Complementary generation**

**Brazilian Wind Potential Atlas:** Cepel updated data from the Brazilian Wind Potential Atlas of 2001, with information on wind speed and direction throughout the country and at different heights, and an estimate of its wind potential. The new atlas provides the results on thematic maps and is publicly available at: http://www.novoatlas.cepel.br/.

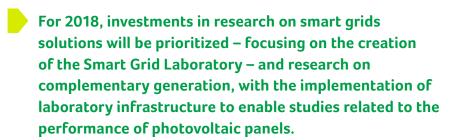


**Benefits:** generation of knowledge for the entire sector, promoting the planning and expansion of clean and renewable wind energy projects in the country.

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. Cepel prepares itself to tackle these challenges by investing in the evolution of operation management tools such as Newave (in order to incorporate these new sources) and Dessem, subjected to approval, to meet regulatory developments scheduled for 2019.



**Benefits:** support the transformation of the Brazilian electrical system into a more sustainable and efficient model.



#### Climate change management

Greenhouse Gases Emissions from Reservoirs (Balcar): a project that aims to produce quantitative assessment reference documents of GHG emissions from hydroelectric reservoirs, including a bibliographic review of the existing knowledge about

the carbon cycle in reservoirs and a document containing guidelines for the elaboration of quantitative analysis of net GHG emissions in reservoirs. Between 2011 and 2012, data analysis and modeling were carried out based on GHG flow measurements and variables in 44 field campaigns in 11 hydroelectric power plants, three still under construction (Belo Monte, Santo Antônio and Batalha) and eight in operation (Balbina, Tucuruí, Xingó, Três Marias, Serra da Mesa, Funil, Itaipu and Segredo).



Benefits: brings important data to the discussion on the emissions from the reservoirs, supporting the companies in the sector in the inventory analysis of the emissions from their operations. In 2014, the first results were published. To learn more, please access the document at:

http://www.cepel.br/data/pages/balcar/LivroBalcar.pdf.

Mudclima: project 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;
- Development of strategies and adaptation actions aimed at electric power companies.



**Benefits:** support the sector in the strategy to adapt to the impacts caused by climate change.

#### 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 models aimed at optimizing energy operations (such as the Matriz, Newave, Decomp and Dessem projects), officially adopted for the planning of the SIN operation.



**Benefits:** important contribution to the efficient management of water resources.

Flows forecasting and generating models: Cepel develops forecasting (Previvaz) 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).



**Benefits:** more efficient management of water resources, allowing the shared use of reservoirs.

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 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.



**Benefits:** mitigation of social and environmental impacts resulting from the construction of generation and transmission projects.



#### Promotion of the innovation culture

Eletrobras Holding develops the Corporate Innovation Program, aimed at promoting a culture of innovation among its employees and giving them a stronger voice, through registering ideas to improve the Company's performance, according to the themes established in each cycle. In 2017, the themes were: process improvement, revenue increase, reduction of material, services and others, and other ideas.

The ideas implemented and that generate results are certified and automatically compete for the Good Ideas Award, which happens every year.



# **Sustainability vision**

GRI G4-48

## **Strategic guidance**

Our business strategy seeks to balance the economic, financial, environmental and social aspects of our projects, preventing risks and ensuring the availability and quality of the resources needed for our business. continuity, in order to always maximize the value generated for our stakeholders.

In order to optimize our contribution to sustainability beyond our business and support priority causes for the country, we have been signatories to the **Global Compact since 2006 and** have integrated our strategy into the UN Sustainable Development Goals (ODS), demonstrating our commitment to sustainable development and strengthening our relationship with society and government bodies, working to promote and implement public policies.

The Global Compact is a United Nations (UN) initiative that mobilizes the international business community to adopt fundamental and globally accepted values related to human rights. labor relations, the environment and the fight against corruption. Learn more at www.pactoglobal.org.br.

The Sustainable Development Goals, also promoted by the UN, are a global agenda adopted by the UN's member states, comprising 17 goals and 169 targets to be achieved by 2030. This agenda includes actions related to poverty eradication, health, education, energy, water, among others. Learn more at

www.agenda2030.com.br.

## Learn more about the integrating process of our strategy with the SDGs in 2017

## 1. Mapping



Diagnosis and correlation between:





## 3. Targets and Indicators

For each prioritized SDG, the companies' Sustainability managers developed indicators and targets, included in the 18-22 PDNG.



## 4. Awareness and Engagement

Internally disseminate and raise awareness among Eletrobras companies for the 2030 Agenda and the prioritized SDGs

Internal Workshop on the SDG
Implementation Guide for companies

with the collaboration of the Global Compact Network in Brazil (RBPG), the Brazilian Business Council for Sustainable Development (CEBDS) and the Global Reporting Initiative (GRI)

#### **Strategic Partnerships**

The Federal Government's Secretariat invited Eletrobras and other institutions to learn about the proposal of Brazil's SDG Project and the opportunities for strategic partnerships to implement the 2030 Agenda.

### 2. Prioritization

Identify the SDGs with greater adherence to the strategy from the point of view of its correlation with:

**THE PRESENT** 

**Existing projects and programs** 

**THE FUTURE** 

Strategic Plan 2015-2030

#### 8 priority SDGs were initially identified

submitted to the evaluation of leadership in the development  $\$  of guidelines for the 18-22 PDNG



Eletrobras companies' CEOs, directors and executive officers filed out a form with questions about the comparative materiality between the eight SDGs and the business. The result was:

#### **5 SDGs were prioritized by the Board of Directors**

RANKING	PRIORITIZATION	16 PAZ JUSTICAE BESTITURORS EFICAZES	Peace, justice and strong institutions	19,11%
		7 EMERIALIMPA FACESSIVEI	Affordable and clean energy	16,91%
		9 NODSTRA NOVIGAO EMPRASTRETURA	Industry, innovation and infrastructure	14,78%
		8 TRABALHO DECENTE E CRISCOMENTO ECONÓMICO.	Decent work and economic growth	11,53%
		13 ACAD CONTRA A MIDIANAL CIDEAL DO CLIMA	Climate action	11,43%
		3 SAROEE  SEMESTAR	Good health and well-being	10,90%
		10 REDUCADEAS  ESTORALDADES	Reduced inequalities	8,60%
		12 CONSUME PRODUCAD PERFORMANCES	Responsible consumption and production	6,74%

Learn more about the integrating process of our business strategy with the SDGs in item 4.1.1 and 4.1.2 of our 2018-2022 PDNG, available at: https://bit.ly/2v1hfK2.

### Management structure

G4-36; G4-48

To ensure alignment between planning, strategy, performance and sustainability, Eletrobras relies on the Sustainability Management Executive Committee, which is linked to the Chief Executive Officer, reports to the Sustainability Committee 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 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.



Worker at Candiota – Eletrobras CGTEE

## **Voluntary commitments**

G4-15; G4-16

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.

Among them, we highlight:

- Pro-Equity Gender and Race Program, since 2005;
- UN Global Compact, since 2003 (when the first of Eletrobras companies, Eletrobras Furnas, joined the Compact);
- Declaration of Commitment to Fight Against Sexual Exploitation of Children and Adolescents, since 2010;
- Carbon Disclosure Project CDP, since 2010;
- Women's Empowerment Principles, since 2010;
- Sustainable Development Goals SDGs, since 2016;
- National Volunteer Program Viva Voluntário, since 2017.

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:

#### **Corporate sustainability**

- Brazilian Business Council for Sustainable Development CEBDS, participating in several technical chambers, such as Social, Climate, Biodiversity and Water;
- Global Compact Brazil Network CBPG;
- Global Reporting Initiative GRI Gold Community;
- Ethos Institute of Business and Social Responsibility.

#### **Business management**

- Brazilian Risk Management Association ABGR;
- National Association of Research, Development and Engineering of Innovative Companies – ANPEI;
- Brazilian Institute of Corporate Governance IBGC;

- · COGE Foundation:
- National Quality Foundation FNQ;
- National Forum on Ethics Management in State-owned Companies;
- Brazilian Institute of Corporate Governance IBGC.

#### **Environment**

- Brazilian Electricity Sector Environment Forum FMASE, participating in several working groups, such as Environmental Legislation, Real Estate Management, Social and Environmental Costs, etc.;
- Last Initiative for Earth LIFE.

#### Climate change

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

#### Water

- São Francisco River Basin Committee CBHSF;
- Rio das Contas River Basin Committee CBHRC;
- Rio Grande River Basin Committee CBH GRANDE;
- Parnaíba River Basin Committee CBH PARNAÍBA;
- Committee for the Integration of the Paraíba do Sul River Basin CEIVAP;
- Preto e Paraibuna River Basins Committee CBH Preto and Paraibuna Rivers;
- Corumbá, Veríssimo and São Marcos River Basins Committee CBH Corumbá, Veríssimo and São Marcos Rivers;
- Bahia da Ilha Grande River Basin Committee BIG;
- National Council of Water Resources CNRH;
- World Water Council WWC.

#### **Fuels**

- Brazilian Association of Mineral Coal ABCM:
- Brazilian Association of Engineering and Environmental Geology ABGE.

#### Social development

- Intersectoral Coordination Center of the Diálogo Empresas e Povos Indígenas Initiative;
- International Association for Volunteer Effort IAVE (Brazilian delegation);
- Brazilian Business Volunteer Council CBVE.

#### **Child and adolescent protection**

- · Childhood Brasil:
- · ABRINO Foundation.

#### **Diversity and Human Rights**

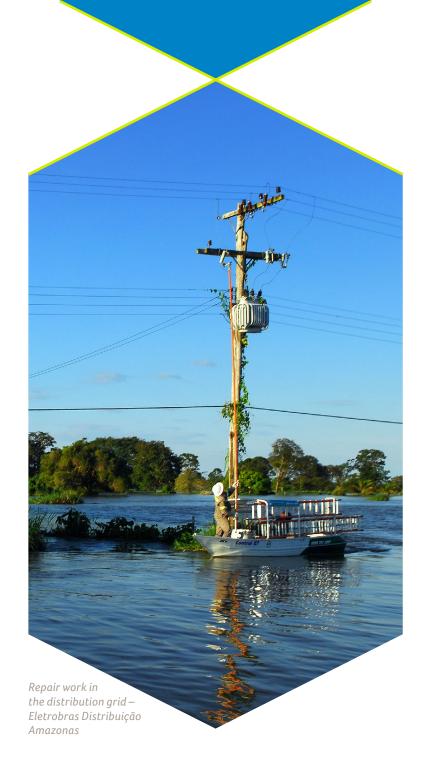
- CBPG's Working Group on Human Rights;
- Advisory Council on Women's Empowerment Principles (WEPs) UN Global Compact and UN Women;
- Permanent Committee for Gender Issues of the Ministry of Mines and Energy and Related Entities;
- United States-Brazil Joint Action Plan to Eliminate Racial and Ethnic Discrimination and Promote Equality;
- Committee between the Tri-Border Area (Brazil, Paraguay and Argentina) to Fight Violence and Trafficking of Women;
- · Executive Women's Association;
- Commission for Studies on Gender Violence OAB/PR;
- · Brazilian Women Leaders Network for Sustainability.

#### **Responsible Labor Relations**

- Brazilian Association of Quality of Life ABQV;
- National Pact for the Fradication of Slave Labor InPacto.

#### **Industry development**

- National Nuclear Energy Commission Copron;
- Brazilian Association of Concessionaires ABCE:
- · 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;
- Utilities Telecommunication Council Latin America UTC-AL;
- Brazilian Committee for the Production and Transmission of Electric Power Cigré-Brasil;
- 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;
- International Center on Renewable Energies (CIBiogas);
- Brazilian Committee of the World Energy Council CBCME;
- International Hydropower Association IHA;
- Brazilian Association on Nuclear Energy ABEN;
- World Association of Nuclear Operators WANO;
- World Nuclear Association WNA.



# How we generate value

G4-56

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 long term, with greater competitiveness and continuity, generating value for investors and others stakeholders.

To do this end, we seek to identify resources, assets and capital that relate to our business and promote responsible and sustainable management, in order to our multiply and strengthen them.

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 figure below shows the assets identified and how Eletrobras' value creation model works.

# **ELETROBRAS VALUE CREATION MODEL**

Figure being among the 3 largest global clean energy companies and VISION: among the 10 largest in the world in eletricity with profitability comparable to the best in the industry and being recognized by all its stakeholders.



- Equity
   Third-party equity



- · Natural resources affected by company
- Biodiversity



#### SOCIAL AND RELATIONSHIP

- · Access to energy
- · Stakeholder Relationship



#### HUMAN

· Knowledge, skills, health and safety of employees



#### INTELLECTUAL

- · Research, development and innovation
- Intellectual property



#### MANUFACTURED

 Generation, transmission, distribution and administrative infrastructure



MISSION: Acting in the energy markets in an integrated, profitable and sustainable way.

- Return on invested capital



The added value to be distributed in 2017 was R\$ 24,521 million.



- Mitigation and offsetting of GHG emissions
   Biodiversity conservation
   Efficient use of water and consevation of water

Greenhouse gas emissions reduction in 2017 of 13% compared to 2016 / Procel Seal allowed savings of 21.2 million MWh (= annual consumption of 11.2 million households)



- · Implementation of an enterprise with lower
- environmental and social impacts
- Socioeconomic development of the population Participatory dialog with communities
- · Legal, ethical and transparent conduct and respect for human rights

Eletrobras' private social investment in 2017 was R\$ 260.9 million.



#### HUMAN

- Employee training and recognition
- Diversity promotion
- · Promotion of healthy, safety and welfare at work

In 2017, R\$ 23.7 million were invested in employee training.



#### INTELLECTUAL

- Efficiency and innovation in services and processes
- Encouraging the implementation of clean technologies Stimulating renewable sources and energy efficiency
- Scientific and technological developmen
- Sharing of knowledge with teaching and research
- institutions and other partner organizations

R\$ 307.6 million in R & D + I



#### MANUFACTURED

- Improvement of the infrastructure of the Country
- · Reliable power supply

Our installed generation capacity at the end of 2017 was 48,134 MW (31% of the total Brash and 64,944 km of transmission lines (49% of the total Brazil)



**VALUES:** 

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

CHAPTER 3 • STRATEGY AND VISION OF THE FUTURE -ANNUAL REPORT • 2017 · CONTENT Our management brings direct benefits to our shareholders. We have revised the bylaws, improved internal controls, and implemented a robust integrity program. With these actions, we have gained unprecedented recognition in governance and transparency.



# **Evolution**

In the last years, we have been working hard to increasily improve our governance processes and practices, risk management and internal controls compliance, in order to promote a transparent management, which is committed to:

Maintaining solid foundations for sustainability and business continuity

The generation of value to all shareholders and society and the strengthening of our credibility in the capital market

Continuous attention to compliance and reliability of our internal controls

#### **MANAGEMENT EVOLUTION HIGHLIGHTS IN 2017**

Intensification of the analysis process of professionals appointed for leadership positions

Leadership improvement

program

+ INTEGRITY

+ TRANSPARENCY

+ TRAINING

Update and institutionalize policies with the Board of Directors

+ COMMITMENT + ALIGNMENT OF **GOOD PRACTICES** 

#### **ACHIEVEMENTS AND RESULTS**

#### **HIGHLIGHTED STATE-OWNED COMPANY GOVERNANCE PROGRAM**

Certification by B3 as one of the 3 state-owned benchmark companies in corporate governance in the country

#### LEVEL OF EXCELLENCE

Certification at Level 1 (Excellence) in the first year of the Indicator of Governance of the Secretariat of Coordination and Governance of State-Owned Companies (IG-Sest)

#### Alignment and integration of the integrity agents of Eletrobras companies:

Integration of Whistleblower Channel and Penalties Policy

+ CONTROL

+ TRANSPARENCY

Evolution of critical supplier compliance management:

Revision of regulations, policies and conduct guidelines, and establishment of due diligence process

auditors in internal controls

+ CONTROL

**+ CHAIN BENEFITS** 

#### Solution of points with + TRANSPARENCY material weaknesses + TRUST identified by independent

+ STRENGTH

#### **HIGHEST GRADE IN THE ANTI-CORRUPTION PROGRAM CATEGORY**

We were one of the nine companies, among 110, that scored the highest grade in the **Anti-Corruption Program** category of the Transparency in Corporate Reporting ranking of the NGO Transparency International.

#### **ELIMINATING MATERIAL WEAKNESSES**

In two years, we reduced material weaknesses in internal controls from 6 in 2015 to 2 in 2017.



Certification by B3 - B3

# Governance

# **Policies and tools**

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

- Bylaws;
- Boards' Internal statutes and their committees:
- Annual Chart of Public Policies and Corporate Governance;
- Code of Ethics and Conduct of the Eletrobras Companies;
- Eletrobras Companies Competence Policy;
- Antitrust Policy;
- Antitrust Guidelines;
- Negotiation Policy between Related Parties;
- Appointment Policy for the Holding company and the Subsidiaries, Associates, Foundations and Associations of Eletrobras Companies;
- Manual for Disclosure and Usage of Relevant Information and Policy of Negotiation of Securities Issued by Eletrobras;
- Guidance Manual for Board Directors Representative of Eletrobras Companies;
- Guidance Manual for Tax Advisers Representative of Eletrobras;

- Manual for Participation in Eletrobras Shareholders Meetings;
- Manual of the Anti-Corruption Program at Eletrobras Companies;
- · Strategic Plan for Eletrobras Companies.

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

In 2017, we took an important step in improving our corporate governance practices: we reviewed Eletrobras' Bylaws, issued the Annual Chart of Public Policies and Corporate Governance, and reviewed other important instruments, such as the Manual of the Board of Directors Member Representative, the Manual of the Supervisory Board Representative, the Internal Regulations of the Board of Directors, the Supervisory Board and of the Committees of the Board of Directors, among others.

Improving the robustness of these documents and policies supports 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.

## Highlights of the bylaws revision

# Selection and monitoring of the board of directors



Greater qualification of leadership and alignment with the interests of all shareholders

- Institutionalization of criteria and objective impediments for the selection of managers, unfolded in the new Appointment Policy of Eletrobras Companies;
- Increase of 1 board member in the composition of the Board of Directors, of which 7 are appointed by the Ministry of Mines and Energy (MME), among which 2 must meet the requirements defined for members of the Audit Committee, according to State Law and its regulations;
- Minimum of independent members in the Board of Directors goes from 10% to 30%;
- Performance evaluation of the administrators, members of the Supervisory Board and members of the Committees according to the methodology elaborated by Eletrobras to be applied also in their companies.

# New responsibilities allocated to the board



Better structuring of processes and responsibilities for strategic alignment

- To resolve on the shareholders' agreements - to be signed by Eletrobras, its subsidiaries or controlled entities - before its signature;
- To approve the personnel regulations and define the number of functions in the upper management, as well as approve the maximum number of personnel and the public tender of Eletrobras and its subsidiaries;
- Approve corporate policies, being ratified by the Boards of Directors of its subsidiaries.

### Reorganization of committees



More integrated and qualified vision of strategic aspects for the business

Creation of the Audit and Risks
 Committee and the Management,
 People and Eligibility Committee
 as statutory, with scope of action
 covering the controlled companies
 and meeting the requirements
 of independence and professional
 experience compatible with
 the position.

#### Creation of new policies and practices



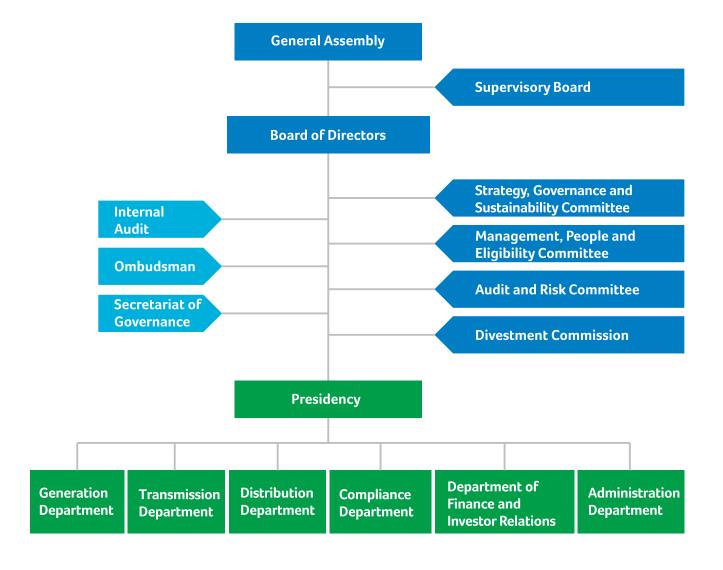
More clarity, reliability and alignment of processes and controls

- Creation of a Single Competence Policy for Eletrobras companies, aligning the responsibilities and limits in the decision-making process;
- In the Bylaws, creation of integrality, risk management and internal controls practices.

## Management structure

G4-34; G4-35; G4-38; G4-39; G4-40; G4-42

#### Management organizational chart



## **Shareholders Meetings**

**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 2017:** one AGO and threes AGEs were held.

#### **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 company's 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 shall be 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 #12,353/2010).

#### Eletrobras' Board of Directors in 2017

Director	Position*
José Guimarães Monforte	director and Chief Executive Officer (non-executive)
Carlos Eduardo Rodrigues Pereira	director representing the employees
Vicente Falconi Campos	director
Wilson Ferreira Junior	director and Chief Executive Officer (executive)
José Pais Rangel	director representing the minority shareholders holding common shares
Ariosto Nunes Culau	director
Edvaldo Luis Risso	director
Esteves Pedro Colnago Junior	director

<sup>\*</sup> The chair appointed by the minority shareholder holding preferred shares was not filled due to noncompliance with the requirements in the Bylaws (art. 17, item IV).

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

#### Frequency in 2017: 21 meetings.

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, which in 2017 held, respectively, 2, 4 and 1 meetings, 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 internal regulations.

In 2017, the Audit and Risk Committee met eight times, the Management, People and Eligibility Committee, seven times and the Strategy, Governance and Sustainability Committee, eight times.

Moreover, the Divestment Commission was created which has the objective of supporting the Board of Directors on their sales decisions of their interest in companies and has three board

members and two employees. In 2017, studies were initiated for the divestment process. For 2018, the intention is to proceed with the sale of Eletrobras' stake in 70 Specific Purpose Companies (SPCs).

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 shall be 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.

#### **Eletrobras' Executive Board in 2017**

Executive Officer	Position
Wilson Ferreira Junior	сео
Antônio Varejão de Godoy	chief Generation officer
José Antonio Muniz Lopes	chief Transmission officer
Luiz Henrique Hamann	chief Distribution officer
Armando Casado de Araujo	chief Financial and Investor Relations officer
Lucia Casasanta	chief Compliance officer
Alexandre Vaghi de Arruda Aniz*	management officer

<sup>\*</sup> Alexandre Vaghi de Arruda Aniz has stepped down as Management officer on 02/23/2018.

**Meetings:** weekly meetings.

Frequency in 2017: 58 meetings.



In 2017, Eletrobras' CEO, Wilson Ferreira Junior was elected at the 100 Most Influential in the Energy Sector Awards, in the Corporate Management category and received the Certificate of Achievement to Business Merit - Public Company in the World Company Award 2017, an event that integrated the Brazil-Portugal Economic Forum.

#### **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. One of the members must be a financial expert, according to the requirements of the Securities and Exchange Commission (SEC), and the 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).

## **Eletrobras' Supervisory Board in 2017**

Member	Position
Agnes Maria de Aragão da Costa	president
José Wanderley Uchôa Barreto	sitting member
Márcio Coelho Leão	sitting member
Patrícia Valente Stierli	sitting member - financial expert
Ronaldo Dias	sitting member

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

Frequency in 2017: 14 meetings.



Throughout the year we made strategic allocations of members of Eletrobras' Executive Board on the Boards of Directors of the subsidiary companies, focusing on the priority themes for each company evolution.

# Selection and development of leadership

G4-43; G4-44



With the publication of Law 13,303 (State Law) 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.

#### **Selection**

Our process of analyzing the nominees for positions at the Board of Directors, Executive Board and Supervisory Board, as well as complying with the company's legislation, Bylaw's and other normative documents, was improved in 2016.

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, to assess whether there are any breaches of integrity - and consultations with the ombudsmen of Eletrobras Companies.

In addition, in 2017, the Management, People and Eligibility Committee was created, which replaced the Transitional Internal Eligibility Commission (CITE), with the purpose of assisting shareholders in the appointment of managers and members of the supervisory board who meet the requisites and who do not have reservations regarding elections. The committee also verifies the conformity of the evaluation process of these directors and officers.

<sup>&</sup>lt;sup>1</sup>Brazilian Securities and Exchange Commission (CVM), Federal Court of Accounts (TCU), Supreme Electoral Tribunal (TSE) and State Court of Accounts (TCE).

To ensure a performance aligned to the company's strategy, each year the Board of Directors and executive directors members undergo a process of self-assessment and evaluation by the agents, with a unique methodology for all Eletrobras companies. The results are scored and consolidated in a report and the respondents participate in a feedback meeting.

In 2017, the Supervisory Board's first performance evaluation was carried out, and a performance evaluation is planned for 2018, which will include the committees of the Board of Directors, which evidences the continuous improvement of governance practices.

Each year, we also identify the training needs of governance members, which guide the promotion of training initiatives.

## **Development**

In 2017, we launched 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 2017, developed the following actions:

- Training "Supervisory Board in Practice", for Supervisory Board members;
- Lecture "Directors' Responsibilities" for Board of Directors and Supervisory Board members of Eletrobras in its subsidiaries and affiliates, during the 2017 Board Members Meeting;
- Participation of officers and directors at the 18th IBGC Congress in São Paulo;
- On-site course "Governance, Integrity and Capital Market" at the Brasília, Recife and Rio de Janeiro poles, to serve Officers, Board of Directors and Supervisory Board members, and also the same course, but in a hybrid mode, part face-to-face, part online, aiming to serve the SPC directors in 2018.

In all, these actions had 209 participations in 32 hours / class.

#### Compensation

G4-51; G4-52; G4-53

The governance bodies' compensation is disclosed, in an aggregated manner, in the Management Report and in the Reference Form, available on the Investor Relations website. The compensation of the Board of Directors and the Supervisory Board are individually reported in the Business Management Report of accountability to the Brazilian Government Accountability Office (CGU), which sends it to the Federal Court of Accounts (TCU). The values can be found in the Reference Form (link: https://bit.ly/2J1nXWj).

**Board of Directors and Supervisory Board:** 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 Variable Remuneration (AVR) can add up to 2.5 compensation and is conditioned to reach positive results in the year and the achievement of annual goals agreed between the Board of Directors and the Executive Board of each Eletrobras Companies. The goals agreed upon in the AVR consider the results of the Executive Board's performance evaluation and capture the management alignment to the long-term strategy and the Board of Directors' guidelines, noting the economic, environmental and social impacts and risks.



In 2017, the targets linked to AVR were directly linked to PDNG 2017-2021, ensuring the alignment of leadership with the business value creation strategy. In addition, the AVR is paid in four years - 60% in the first year, 20% in the second year, 10% in the 3rd and 4th years - and the payments for the 2nd to 4th years are only made if the merit for to compensation is maintained, reinforcing the commitment to corporate sustainability and the generation of perennial value.

#### **2017 Goals**

Category	Strategic cornerstone of the PDNG 2017-2021	Indicator	Unit	Individual weight
Corporate (performance	Operational Net Income on Excellence Shareholders' Equity		%	15%
indicators of the	Financial Discipline % of Investments Made		%	10%
company as a whole)	Sustainable Operation	Emissions of greenhouse gases / net operating revenue	tCO2e/R\$ thousand	5%
	Operational Excellence	Personnel, Material, Services and Other Accounts (PMSO) / net operating revenue	%	25%
	Financial Discipline	Net Debt / EBITDA	number of times	25%
Collegiate (indicators related to the	Governance and Compliance	Board of Directors Evaluation	%	5%
Collegiate Board)	Governance and Compliance	Compliance with regulatory deadlines	%	5%
Business unit <sup>1</sup> (specific indicators for each Board)	All	Project Performance Index	%	10%

<sup>&</sup>lt;sup>1</sup> Each of the boards is responsible for one of the strategic projects of the PDNG 2017-2021 and monitors its execution. The goal is achieved when the project is developed within the expected timeframe, taking into account the strategic goals.

# **Ethics and compliance**

## **Conflict of interests**

G4-41

Eletrobras is subject to Law 12,813 / 2013, which provides for situations that constitute a conflict of interests involving occupants of a position or employment within the scope of the Federal Executive Branch, the requirements and restrictions on occupants of position or employment who have access to privileged information, impediments subsequent to the exercise of the position or employment and the competences for inspection, evaluation and prevention of conflicts of interest.

As provided by Law, in addition to the Public Ethics Committee, the Comptroller General of the Union (CGU) also monitors and evaluates situations of conflict of interest.

In order to ensure compliance with the Law, we rely on rules and policies to guide our leaders and employees on situations of conflict of interest, as presented below:

#### **Board of Directors**

The Company's Bylaws determine the situations of conflict of interests that may arise among the members of the Board of Directors, who must register the conflict in minutes and abstain from discussing and voting.

The board member elected by employees does not participate in discussions and resolutions on matters involving union relations, compensation, benefits and advantages, including matters related to complementary welfare and assistance funds, since this practice represent a conflict of interests.

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.

#### **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, except 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 accordance with the provisions of Law No. 9,292, which regulates compensation and establishes the limit of only two compensations from public companies.

#### **Employees**

A consultation system, integrated to the Personnel Management department and the Ethics Committee, is available to all employees through the email address: **conflitodeinteresses@eletrobras.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.

## **Integrity**

G4-57; G4-58; G4-37; G4-49; G4-50; G4-SO4; G4-SO5

## **Evolution of management**

We promote a culture of ethics in business management through institutional and normative instruments that guide our performance and establish the principles, guidelines, rules, and commitments of conduct of companies and their employees, as well as the relationship with suppliers, business partners, customers and other stakeholders.

In addition to the guidance to sustain an ethical culture, the instruments used by Eletrobras also identify, resolve, treat and, in case of breach, penalize attitudes that are contrary to ethics and integrity. All departments undergo internal audits, which verify the adequacy and regularity of processes, internal procedures and contracts. The risk of fraud and unethical conduct is one of the risks currently prioritized for mitigation within Eletrobras companies' activities.



Over the last three years, we have been working to intensify our controls and investigation, compliance and integrity processes with the creation of the Compliance Department, the Compliance Program and the Integrity Program of Eletrobras Companies. This ongoing initiative reinforces our commitment to fight against corruption and fraud, mitigate risks and correct non-conformities. Therefore, we seek to ensure the sustainability of Eletrobras companies and the trust of our shareholders and society.

#### **Integrity Program**

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:

- Development of the management environment of the Integrity Program;
- Periodic risk analysis;
- Structuring and implementation of the Integrity Program policies and procedures;
- · Communication and training;
- Program monitoring, mitigating measures and penalties application.

In 2017, the program has made significant advances, among which we highlight:

Unification of integrity management and the Whistleblower Channel In August 2017, we unified the complaint management areas of all Eletrobras companies and our Whistleblower Channel, which is available to everyone at: www.canaldedenuncias.com.br/eletrobras.

In accordance with the best practices of the market, we also hired an external and independent firm to act in the centralized receipt of complaints. Outsourcing the channel was one of the initiatives planned in the new process of managing and handling complaints, and is aimed at improving the monitoring of complaints received, dealing with cases of fraud or corruption, as well as raising awareness of all employees about of topics related to ethics and legality.

The integrity management and complaint handling process was also centralized with the creation of internal regulation documents, procedures and a unified management body for the standardization of analysis and investigation, accountability and mitigation recommendations.

- The managing and handling of complaints regulation was created, which standardizes and guides the process of analysis and investigation of complaints, and the Penalties Policy, which establishes corporate commitments to fight corruption, anticompetitive practices, conflicts of interest and other infractions, and guides the application of penalties to non-compliance with the Code of Ethics and Conduct of Eletrobras companies, with the Eletrobras Integrity Program and with the internal and legal rules.
- The Integrity System Committee (CSI) was created, coordinated by the Compliance Department and made up of representatives of the Eletrobras companies, and is aimed at monitoring, in a standardized way, all the complaints received by the channel, classified by subject and criticality, as well as assisting in decision-making processes related to complaints, together with the companies' directors.

"Combating corruption and maintaining ethics must be values intrinsic to the organization. The behavior of the entire staff should be derived from ethical principles. At the moment we are living today, we realize that this issue is becoming more and more central for companies. "

Reive Barros dos Santos, director of the National Electric Energy Agency (Aneel), in an interview that based the materiality matrix that guides this report (learn more on page 3).

The unification and independence of the whistleblower channel and the creation of standards, policies and unified integrity management bodies led to a faster, more solid and reliable process of receiving and investigating complaints, and allowed a precise and consolidated diagnosis on management risks.



 ${\it Eletrobras\ directors\ meeting-Eletrobras\ holding/Jorge\ Coelho}$ 



THROUGH THE OMBUDSMAN AND WHISTLEBLOWER CHANNEL, ANY PERSON MAY ANONYMOUSLY REPORT VIOLATIONS OR SUSPICIONS OF VIOLATIONS TO THE INTEGRITY PROGRAM, CODE OF ETHICS AND CONDUCT AND/OR ANTI-CORRUPTION LAW. CONFIDENTIALITY IS MAINTAINED AND RETALIATION IS NOT TOLERATED.

CENTRALIZED WHISTLEBLOWER CHANNEL OF THE ELETROBRAS COMPANIES

It has a series of mechanisms that enable the traceability of the actions and consultations carried out by those involved in the handling of complaints.

REPORTS IN 2017

364 complaints\*:

164

were considered to be out of scope.

200

valid complaints:

22

concluded (went through all the decision-making stages regarding accountability and mitigation measures).

\* Considers data from August 2017, when the channel was launched.

Of the total number of reports

95.1%

were concluded and

4.9%

were ongoing at the end of the period.

OMBUDSMAN
OF ELETROBRAS
COMPANIES

27,309

reports, of which 2,679 were complaints.

Linked to their respective Boards of Directors, reporting periodically and eventually, in speci c cases, to the Audit Committee, the Fiscal Council and the Board of Directors.

As for fraud, corruption and other irregularities, Eletrobras companies received 55 complaints in 2017, 13 of which were concluded, 1 being valid and 1 partially valid, which went through accountability and mitigation measures.

Regarding incidents of discrimination, in 2017, the Company recorded three complaints in Eletrobras companies, two in Eletronorte and one in Eletrobras Distribuidora Rondônia. At Eletronorte, the cases were analyzed and considered not applicable. At Distribuidora Rondônia, the case was resolved with the management of the area and, as a corrective measure, a project will be developed to raise awareness of employees about ethics and human rights in 2018, as well as internal communication initiatives that promote a culture of respect.

# Improved integrity management in supplier relations

K

In 2017, we improved Eletrobras companies' supplier relations integrity management by establishing and reviewing policies, regulations and guidelines, engaging suppliers and management areas, and creating a critical supplier due diligence process. As well as strengthening our processes, we aim to multiply a solid culture of integrity and compliance within our supply chain.

Elaboration of Eletrobras' Bidding Procedures and Contracts Regulation:

in order to prevent fraud and illegal acts in bidding processes mediated by third parties, we approved the 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.

Eletrobras companies identified their most critical suppliers regarding the integrity aspect and that should be monitored. For this critical group of suppliers, a due diligence form was requested, as well as a signed statement of integrity. Learn more about the process on page 112.

Revision of the Supply Logistics Policy and launch of the Conduct

**Guide:** we revised our Supply Logistics Policy and launched the Conduct Guide for Suppliers of Eletrobras companies and included the Ethics and Corporate Integrity topic in both documents.

Engagement: we developed activities to improve our relationship with suppliers, together with Eletrobras companies – including the Supply and Compliance areas and other interested parties. Among these activities, we highlight the use of the Compliance Committee as a discussion forum, and the holding of events such as the Supplies Workshop and the Annual Meeting with Suppliers. Learn more about the events on page 112.

# Main advances achieved with the new regulation

- Simplified procedure for contracting construction work and specialized engineering services, reducing the average from 200 to 70 days;
- Faster processing due to the standardization of contracts and call for bids;
- Lower expenses with publication in large circulation newspapers and a more clear and transparent process, through the establishment of a risk matrix (requiring better budgeting by competitors, avoiding additives throughout the works and sharing the risks of the project with the future contractor), integrity criteria to guide the contracting of bidders (adhering to the 5 Dimensions program) and the dissemination of sustainable procurement practices.

#### **Information Security Policy of Eletrobras companies**

In 2017, we created a policy to guide Information Security governance and that will support the Information Security and Management area, linked to the Compliance Department (CD), aimed at coordinating the management and protecting documents and corporate information at acceptable risk levels, and Eletrobras' Information Security Committee, which monitors and supports all actions necessary for corporate security.



We achieved, for the first time, the maximum level (improved) in the IT Governance Index (iGovTI), granted by the Brazilian Federal Court of Accounts (TCU). Only 12% of the 368 federal public administration organizations evaluated reached the same level. With this, we moved from 8th to 3rd place among energy companies.

#### **Communication of the Eletrobras 5 Dimensions Program**

We disseminated the Eletrobras 5 Dimensions Program through communications initiatives and training sessions tailored to each type of stakeholder, in all our companies, reaching employees and the Boards of Directors of the main subsidiaries. Among the initiatives, we highlight news broadcast via intranet, the Conformity Department's lectures and the "Minuto de Liderança" ("Leadership Minute" – short movies featuring the CEO and the Compliance Director about the program). We also consolidated the annually held Ethical Culture Week, which, in its fourth edition, addressed the conflict of interest issue and the progress of the Eletrobras 5 Dimensions Program.



In 2017, 769 of the holding company's employees were trained on principles and standards of the Code of Ethics and Compliance Program and the "Integrity and Ethics – Compliance" online training was utilized by 18,798 employees, representing 82% of the staff.

The Eletrobras companies participate in the National Forum on Ethics Management in State-Owned Companies, which carries out studies and maintains study groups, promotes the achievement of certifications and seals and holds the Annual Seminar, open to all employees of the participating companies, renowned professors, governmental authorities and the general public.

Anti-corruption awareness initiatives in 2017	Number of participants
governance agents	214
employees	20,719 (90% do total)
management level	1,494
higher education level	6,755
primary and secondary level	12,470
business partners	25

Anti-corruption training initiatives	Number of participants
governance agents	151
employees	18,798
management level	1,336
higher education level	6,293
primary and secondary level	11,169

## Internal investigation and audit

In addition to strenghtening compliance and integrity management, as previously mentioned, considering that some of the Eletrobras companies have been named in the Lava Jato Operation (an investigation conducted by the Brazilian Federal Police and by the Federal Prosecutor's Office) and the risk of violation to the Integrity Program, the Company launched an independent investigation and audit procedure in 2015, with the hiring of the U.S. law firm Hogan Lovells to assess possible 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 investigation is ongoing and, if a potential liability is identified, it may result in future prosecution.

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, sharing information gathered by the independent investigation and assisting the prosecutors in these criminal proceedings, as well as dismissing the suspects in 2016.

In 2017, no cases of corruption were identified within Eletrobras companies.

# Risks and opportunities

G4-14; G4-2; G4-45, G4-46, G4-47; G4-EC2; G4-SO4

The risk management process implemented in Eletrobras companies is integrated 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 principle of caution, seeking to anticipate and avoid negative impacts or be prepared to act if the identified risks materialize.

Governed by a single corporate policy, the risk management process is coordinated by the holding company, ensuring standardization across all companies and a systemic view of results.

Based on the COSO 2013 and ISO 31000:2009 methodologies, the management model aims to identify and consolidate, in a matrix, the strategic, operational, financial and compliance risks to which the companies are exposed to, for further analysis, treatment and follow-up through specific proprietary processes.

## **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

**Evaluation** 

#### **Treatment**

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

The process is 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 compan.

The results are submitted to the Board of Executive Officers and the Board of Directors, 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.



A Statutory Audit and Risk Committee was created in the beginning of 2018, in compliance with the Company's Bylaws, which should provide a new approach to risk management, receiving monthly reports from the Corporate Risk Management department, and bringing the process even closer to the Board of Directors.

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.

# Main risks analyzed

## **Compliance**

#### **Risk 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 Sarbanes-Oxley (SOX), the Foreign Corrupt Practices Act (FCPA) and the Brazilian Anti-Corruption Law, 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).

#### 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 2018-2022 Business and Management Master Plan (PDNG), monthly monitored by the Board of Executive Officers. More detail on the program is available on page 48.

## Management of SPEs and consortia

#### **Risk Scenario**

We carry out generation and transmission activities mainly through our subsidiaries, but also 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 in recent years, the operating and financial results of subsidiaries and SPEs have been negatively affected.

#### 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.

## **Budget and cash flow**

#### **Risk 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



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.

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, we have already achieved some positive results, such as the reduction of the debt ratio (see more on page 78), the development of relevant projects, such as the Extraordinary Retirement Plan (see more on page 99), 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 2017-2021 PDNG and the new goals of the 2018-2022 PDNG on page 19.

# Licensing and social and environmental management

#### **Risk Scenario**

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

#### Risk management and mitigation

From an environmental management point of view, Eletrobras companies have implemented environmental management systems with tested and formalized standards and procedures. Regarding the Company's social management approach, the indigenous issue stands out as one of the most striking issues. To mitigate its negative impacts, we formally included the matter in the second version of the 2016 Eletrobras Companies Social Responsibility Policy, and Eletrobras companies have been developing actions, in partnership with the Indigenous National Foundation (Funai). Learn more on page 119.

## **Climate Change Risk**

#### **Risk Scenario**

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;

• 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 2017, we had the goal of developing a study to evaluate the impact of climate change on Eletrobras companies' operations. During the year, this study proved to be ineffective, due to the amount of evidence of this impact on the hydrological regime of the Brazilian rivers. The Company is aware of this risk and already evaluates ways to mitigate it, whether studying alternative energy sources or deconcentrating its electricity matrix from the water source.

#### **Operating risks – Nuclear power generation**

#### **Risk Scenario**

Because it involves the use of radioactive materials, nuclear power generation activity presents negative social and environmental impact risks, even if very low, in case of accidents or incidents during the life cycle of the projects. 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 population or the environment of the region. 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



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.

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 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 and 28 projects and investments of approximately R\$300 million.

## **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.



Passo São João TPP – Eletrobras Eletrosul

We expand systems, deliver energy security

The expansion and constant improvement of our generation and transmission facilities are essential for our business. Our work contributes directly to the country's infrastructure and reliability on supply.



# Generation

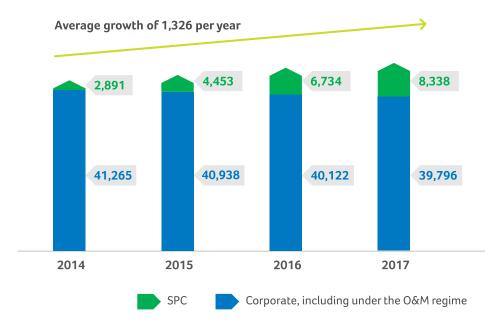
# **Installed capacity**

G4-EU1; G4-EU10

#### 2017 Outlook

Our installed generation capacity at the end of 2017 was 48,134 MW, which represents 31% of the 157,370 MW installed in Brazil. We have expanded this capacity, in the last three years, on average 1,326 MW per year, in terms of installed capacity, especially via SPCs.

## Increase in installed capacity by type of enterprise (MW)



Of this total, 32.5% (15,627 MW) are from Corporate Power Plants, 27.2% (13,094 MW) Corporate Power Plants Under the O&M Regime (Operation and Maintenance), 6.5% (3,132 MW) Corporate Power Plants Renewed by Law 13,182/2015, 16.5% (7,943 MW) from Shared Ownership Power Plants, 16,5% (7.934 MW) from Specific Purpose Companies (SPCs) and 0.8% 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 66,036 MW.

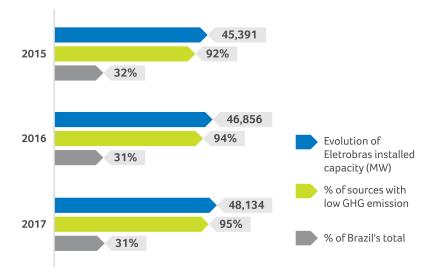
It is worth noting here, in 2017, the commercial start-up of the São Manoel HPP, the Casa Nova II wind farm and the first generating unit of the Mauá III TPP (591 MW). Also noteworthy is the start-up of new generating units at Belo Monte and Santo Antônio HPPs. On the other hand, the Sao José TPPs, in Amazonas, and Santarém, in Pará, and the A and B phases of the Candiota thermal power plant were deactivated, remaining only phase C. In total, in 2017 there was an increase in the installed capacity of the Eletrobras System of 1,278 MW.

As defined in our PDNG 2018-2022, in February, 2018 the divesture of 70 shares in SPCs held by Chesf, Furnas, Eletronorte, Eletrosul and holding company was approved. The initiative seeks to promote the debt settlement of controlled companies with Eletrobras, allowing the reduction of financial leverage and the improvement in the Net Debt / EBITDA indicator. The divestiture operation and the auction are scheduled to take place in June 2018.



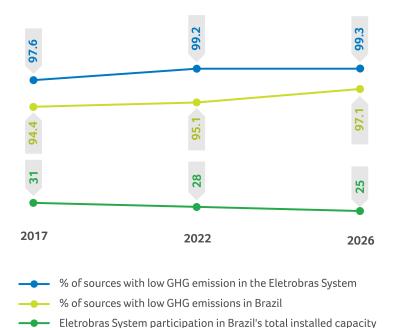
Solar Megawatt – Eletrobras Eletrosul/Hermínio Nunes

In recent years, we have increased our share in sources with low emission of greenhouse gases ("GHG") in our installed capacity. In 2017, it represented about 95% of the total, decisively contributing to place the Brazilian electrical matrix as one of the cleanest and most renewable in the world.



#### **Strategic expansion planning**

Our goal for 2022 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 8 GW of installed capacity to the brazilian electric matrix, reaching a planned capacity of 51.2 GW, while increasing the share in sources with low GHG emissions .



According to the forecast of the Ten-Year Energy Expansion Plan (PDE) 2017-2026, 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.

SOURCE	2017			2022	2022			2026		
	Brasil - SIN (MW)	Eletrobras System (MW)	Share (%)	Brasil - SIN (MW)	Eletrobras System (MW)	Share (%)	Brasil - SIN (MW)	Eletrobras System (MW)	Share (%)	
COAL	3,174	413	13	3,514	350	10	3,514	350	10	
OIL	5,251	752	14	5,251	30	1	2,386	30	1	
NUCLEAR	1,990	1,990	100	1,990	1,990	100	3,395	3,395	100	
NATURAL GAS	13,123	966	7	17,204	1,091	6	29.537	1,091	4	
HYDRO	100,898	42,350	42	109,108	46,109	42	111,624	46,109	41	
WIND	12,843	1,158	9	21,254	432	2	28,470	432	2	
BIOMASS	13,010	0	0	14,666	0	0	16,936	0	0	
SOLAR	960	1	0	5,660	1	0	9,660	1	0	
TOTAL	151,249	47,630	31	178,647	50.003	28	205,522	51,408	25	

#### Notes:

- 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.
- It was considered the deactivation of some thermal plants in the coming years, as forecasted by Eletrobras Companies.
- 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 2017 corresponds to 48,134 MW.

We have the goal of investing R\$ 9.5 billion between 2015 and 2019 in generation projects from clean sources. By the end of 2017 we had already invested R\$ 15.3 billion. In the year we also reviewed our goal of implementing the portfolio of contracted generation projects, going from 22.6 GW to 18.6 GW. From 2015 to 2017, Eletrobras and its partners implemented 10.55 GW of installed power, which represents 31% of the Brazilian power matrix. From 2018 to December 2019, Eletrobras and partners will incorporate 7.87 GW of installed capacity into the SIN, about 55% of Brazilian growth (14.31 GW).

In order to learn about the Eletrobras Companies power plant map in operation in 2017 (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 5.1, pages 45 to 48, available at: https://bit.ly/2rFK0Hk.

# **Electric power production**

G4-EU2



In 2017, we generated 182,147.7 GWh, an increase of 6.6% over 2016.

The most significant positive changes were observed in Eletrobras Companies, Eletronorte Eletrosul and Amazonas G & T. With regard to Eletrobras Companies and Eletronorte, the high growth is mainly due to the start-up of HPP Belo Monte. At Eletrosul, in turn, there was an increase in generation at HPPs Jirau and Teles Pires. In Amazonas G & T, the increase was caused by the high generation of HPP Balbina and the commercial start-up of the 1st generating unit of HPP Mauá 3.

On the other hand, the most significant negative change in power generation was in the CGTEE company, mainly due to the suspension of the commercial operation of phase B of HPP Candiota, as of the 2<sup>nd</sup> semester.

Generation by rce (GWh)	2015	2016	2017	Evolution 2016 x 2017 (%)				
Solar	0.0	0.8	1.3	68			d growth of the e	
Natural Gas	4,170.0	3,448.0	3,673.7	7		renewabl	e sources and wil	th low GHG
Wind	1,475.0	3,383.0	3,594.3	6	ļ			
Uranium	14,808.0	15,864.0	15,741.2	-1			<b>4</b> %	<b>89</b> :
Hydro	139,305.0	143,827.0	155,128.9	8		.2%	97.4	97.
Coal	2,212.0	2,281.0	1,589.5	-30		96	6	$\longrightarrow$
Oil	4,138.0	2,113.0	2,418.8	14				
TOTAL	166,108.0	170,916.8	182,147.7	7		2015	2016	2017

The data presented consider corporate plants, shared ownership and Itaipu Binacional.

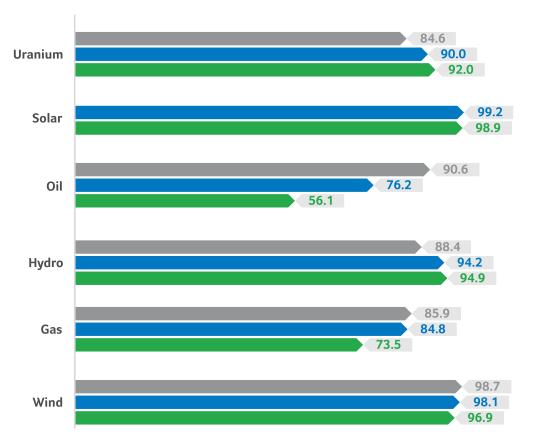
For details on the energy generated by company, access our Management Report, item 5.1, page 49, available at: https://bit.ly/2rFKOHk.

# **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.

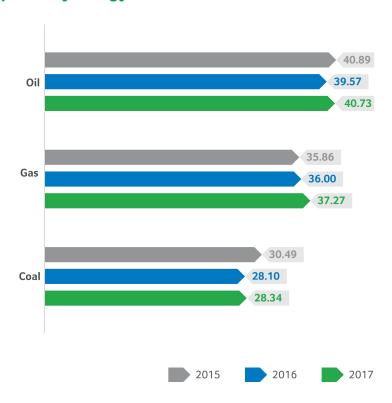
# Average plant availability factor by energy source (%)



For the SPCS, the availability factor by wind and water source was, in 2017, respectively 95.84% and 96.77%.

The data presented consider corporate plants, shared ownership and Itaipu Binacional.

# Yearly average generation efficiency of thermal plants by energy source (%)



# **Transmission**

# **Lines and substations profile**

#### 2017 Outlook

#### **Transmission lines**

G4-EU4

On December 31st, 2017, our transmission lines network totaled approximately 71,684 km. Of this total, 9.5% (6,823 km) are corporate, 79.5% (57,010 km) refer to corporate assets under O&M agreements and 10.9% (7,851 km) correspond to ownership interest in SPCs. Considering only the basic SIN grid, that is, voltages of ± 800, 750, ± 600, 525/500, 345 and 230 kV, we are responsible for 64,944 km of transmission lines, about 49% of all transmission lines in Brazil.

#### **Substations**

At the end of 2017, we had a transformation capacity of 250,493 MVA, of which 91.5% (229,192 MVA) through our corporate substations, and 8.5% (31,302 MVA) in SPCs. In a leveraged manner, that is, considering all the capacity of the SPCs in which we have a stake, Eletrobras contributed with 270,435 MVA in transformation capacity.

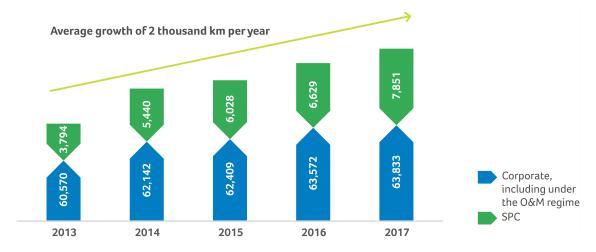
## **Strategic Expansion**



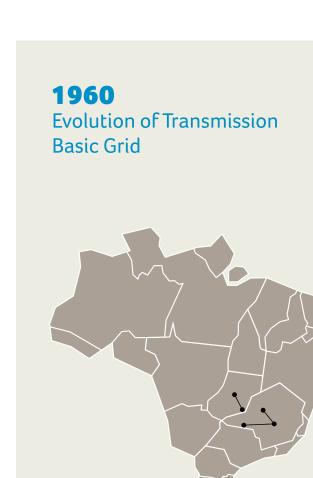
We are Latin America's largest transmitter, we have played a key role in the interconnection of Brazil in the last decades and in 2017 we accounted for almost half (48.9%) of the transmission lines above 230 kV in the country.

In 2017, we added 1,201 km of transmission lines in partnership (SPCs) and 274 km in corporate lines. In the last five years, we have expanded an average of 2 thousand km per year, especially through SPCs, reflecting our strategy of acting in a relevant way in the sector, maintaining the leadership.

## Expansion of transmission lines by type of project (km)



In 2017 we had the goal of implementing a portfolio of contracted transmission projects, equivalent to 12,667 km of transmission lines. From 2015 to December 2017, Eletrobras and its partners added 6,898 km of transmission lines to the National Interconnected System. From 2018 to December 2019, Eletrobras and its partners will incorporate 3,583 km of transmission lines.





The highlight in the transmission expansion in the year was the conclusion, two months ahead of the commitment to Aneel, of the construction project to build the largest direct current transmission line in Latin America and two converter substations (Xingu / PA and Estreito / MG), by SPE Belo Monte Power Transmitter.

With 2,092 km and unprecedented technology in Brazil (ultra-high voltage of 800 kV-CC), the line allows the transport of up to 4 thousand MW of power to the Southeast and the Midwest. The project, which had an estimated global investment of R \$ 4.5 billion, was established in the sector planning and is part of the Growth and Advancement Acceleration Program.

In addition to the expansion of our operations, our PDNG 2018-2022 provides for the modernization and automation of facilities from the deployment of teleassistance resources that should allow the remote operation of facilities to increase operational efficiency and reliability and reduce costs.



We have the goal of implementing the portfolio of contracted transmission projects that adds 12,667 km of transmission lines by 2022. From 2015 to 2017, we implemented 4,158 km of lines.

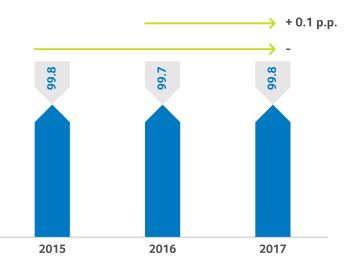
Learn in detail the extent of transmission lines and substations per company and regulatory regime in our Management Report, pages 52 and 53, available at: https://bit.ly/2rFK0Hk.

# **Quality and efficiency**

G4-EU6

In 2017, 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 99.81%, an increase of 0.12 pp in relation to the previous year.

## Transmission lines availability rate (%)



In order to monitor the quality and efficiency of the service provided, we monitor 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.

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 2017.

## Robustness indicator of the Eletrobras System (%)



#### Losses

G4-EU12

The transmission technical losses Index was 1.78%, improvement of 0.24 p.p. when compared to 2016. 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 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 (%)**





Worker at TL - Eletrobras Furnas/Daniela Monteiro

# **Distribution**

#### **Context**

Eletrobras' Electric Power Distribution Companies ("EDC") operate in two (02) states in the Northeastern area and in four (04) states in the Northern area, serving more than 4 million consumers. At the close of the reporting period, these companies used a low, medium and high voltage power distribution grid, 252,329 km long with a total of 229 substations, comprising 476 municipalities.

The first initiative of the "Financial Discipline" cornerstone of the PDNG 2018-2022 includes the privatization of the distribution companies. The leave of the distribution segment should contribute to the improvement of our EBITDA and avoid disbursement of funds to finance the cash deficit and the investments of these distributors, contributing to the strategy to reduce the net debt / EBITDA indicator.

In this sense, in February 2018 the sale of the six distributors was approved, through the assumption of debt of R\$ 11.2 billion.

# **Operation and trading**

Eletrobras' distribution companies generated a volume of energy in the captive market of 16,118 GWh, a 6% reduction when compared to 2016, mainly due to the economic slowdown, impacting the industrial and commercial classes by -32.8% and -6.7%, respectively.

#### **Trading of Electric Power of Distribution Companies**

Consumption Classes	Power Sold (MWh)					
	2016	2017	%			
Residential	7,080,356	7,185,000	1.48			
Industrial	2,555,741	1,718,713	-32.75			
Commercial	3,754,061	3,500,794	-6.75			
Rural	773,598	802,018	3.67			
Public Administration	1,427,283	1,419,756	-0.53			
Public Lighting	782,716	900,266	15.02			
Public Service	638,367	560,802	-12.15			
Own Consumption	70,632	30,426	-56.92			
TOTAL Captive	17,082,754	16,117,776	-5.65			
Supply*	388,789	394,963	1.59			
TOTAL P. Sold	17,471,543	16,512,739	-5.49			

<sup>\*</sup> The value of 2016 was changed after considering also the supply of Alagoas, Piauí and Rondônia.



Worker at distribution line – Eletrobras Dist. Alagoas/Lula Castelo Branco

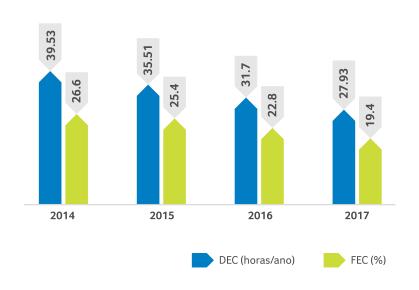
# **Quality and efficiency**

G4-EU28; G4-EU29

Quality of distribution services is monitored by changes in the DEC ratio (Equivalent Duration of Interruption), which measures how many hours a consumer unit experienced power outage; and the FEC ratio (Equivalent Frequency of Interruption), which indicates how many times, on average, there was a disruption in the supply of energy to consumers.

In 2016, the Eletrobras distribution companies achieved a positive evolution, reducing the DEC by 11.9% and the FEC by 14.7%, as shown in the following chart:

## **Evolution of quality in distribution**



#### Power losses and default

G4-EU12

Losses in the distribution of electric power are measured by the difference between the power injected in the distributor's network and the total power supplied, and may occur due to technical factors - those inherent to the transportation process, voltage transformation and metering of energy in the utility company's network; -or non-technical factors such as electricity theft or fraud, metering errors, billing errors, and unmetered consumer units.

In 2017, Eletrobras' distributors recorded 32.29% of consolidated losses, an increase over previous years as a consequence of the non-inclusion of CELG-D concessionaire numbers, sold at the end of 2016, which, due to its area of operation, has lower loss rates than when compared to our companies located in the North and Northeast.

### Technical and non-technical losses in distribution (%)



Get to know the distributors' operational indicators detailed by company in our Management Report, pages 59 to 63, available in: https://bit.ly/2rFK0Hk.

# **Sector programs**

G4-EU7; G4-EU23

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.

We had the goal of developing a portfolio of projects related to the sale of energy efficiency services. Between 2015 and December 2016, Eletrobras composed a contract for the sale of energy efficiency services in the amount of R\$ 408 thousand.

Get to know below the main programs developed by the government in 2017, the contribution from Eletrobras and the results achieved.

# National electric energy conservation program – Procel

What it is? Program coordinated by the Ministry of Mines and Energy destined at promoting the efficient use of electricity and fighting waste.

**Where?** Across the country, present in the various sectors of the economy.

**How?** 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 (Selo Procel).



Benefits: incentive to the technological development of electricity powered equipment, reduction in the emissions of carbon dioxide equivalent (CO<sub>2</sub>e), better consumption efficiency and therefore, greater energy availability, which allows to postpone investments in the sector expansion.

#### Main initiatives and results in 2017

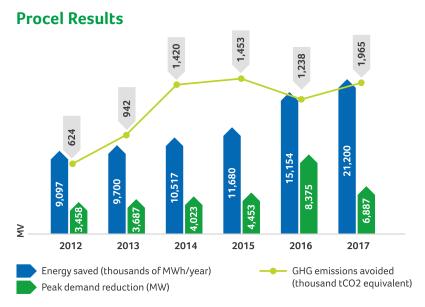
#### **Procel Seal**

The Procel Seal 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 maximum 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.



The Procel Seal, managed by Eletrobras with the support of Inmetro, produced in 2017 an estimated saving of 21.2 million megawatt-hours (MWh) - equivalent to the annual consumption of 11.2 million residences -, avoiding the emission of 1.96 million CO<sub>2</sub>e.



Note: 2017 data are estimated. Further information can be found at Eletrobras website.

**Procel Educação:** the program contributes to the construction of a knowledge base on energy efficiency and sustainability through the dissemination of information and the availability of 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, has developed and made 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. The actions of Procel in Schools are carried out through the Energy Efficiency Program (PEE), regulated by Aneel, and executed by the electric power distribution utilities in a partnership with state and city government education departments.



The Procel in Schools projects in 2017 benefited 3,360 schools, 10,640 teachers and 937,616 students. In that sense, 574,894 educational kits of the program were distributed.

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.

In 2017, there were 44 laboratories for teaching and research and three excellence centers in the network. Throughout the year, 25 master's dissertations and 32 undergraduate monographs were produced, 80 articles published in national and international congresses proceedings and in periodicals, as well as participation in 22 academic events, including seminars, workshops and lectures.

**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.

The website had reached, in 2017, 52,491 registered users, with 4,728 new users, 9.9% more than in 2016. In all, the website promoted 737 services contacts to the public, 535 of which were via email procel@ eletrobras.com and 202 by means of the Contact us of the Procel Info (procelinfo@eletrobras.com). Pageviews reached 1.5 million times, a monthly average exceeding 125 thousand views.

ANNUAL REPORT • 2017 — CHAPTER 5 • PERFORMANCE AND RESULTS — CONTENT

# Programa Luz Para Todos (Light for all) - LPT

What it is? The Luz para Todos Program aims to provide by 2018 the service in electric energy to the rural portion of the Brazilian population that has no access yet to such public service.



The Luz para Todos program, operated by Eletrobras and coordinated by MME, was considered by the United Nations as one of the largest social programs in the world, promoting universal access to electricity.

Eletrobras manages contracts and monitors the execution of rural electrification works associated with the program.

Concessionaires and licensees of electricity distribution and companies providing public electricity distribution service carry out the works. The program also has the

participation of Caixa Econômica Federal (CAIXA), state governments and, since May 1<sup>st</sup>, 2017, the Electric Energy Commercialization Chamber (CCEE), as the sector funds manager.

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, in addition to investments from state governments involved and Executing Agents.

Where? Rural areas in the entire Brazilian territory.

How? Promoting universal access to electricity, free of charge, 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.



Benefits: in addition to bringing energy to the rural population, 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. Access to electricity facilitates integration with health services, education, water supply and sanitation, as well as federal government social programs. It favors the permanence of families in the countryside, improving the quality of life, since with the arrival of electric power, families are able to acquire rural electro equipment, allowing increasing their income.



Estimates of the MME indicate that more than 500,000 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.

#### Main initiatives and results in 2017

At the end of 2017, investments foreseen for the implementation of the program until 2018 totaled R\$ 25.16 billion, of which R\$ 18.26 billion (73%) related to sector resources (CDE and RGR), of which 82% were already available since 2004.

In 2017, 57,310 connections were made, adding to a total of 3,389,037 connections since 2004, which corresponds to more than 16.2 million people benefited in the Brazilian rural environment. The overall goal of 3,373,118 connections by the end of 2017 was exceeded, fulfilling the commitments of the executors with Eletrobras and the state governments.

Considering only the commitments with Eletrobras, there were 2,923,843 connections in 5,435 Brazilian municipalities since 2004, 93% of total contracted connections between the executing agents and Eletrobras, in addition to:

- Construction of 761,850 km of high and low voltage electrical grids;
- Implementation of 7.94 million poles;
- Installation of more than 1.11 million transformers;
- Installation of 2,499 photovoltaic systems.

Between 2010 and 2012, Eletrobras executed 18 agreements related to special projects with enabling agents (based on ordinance 60/2009 of the Ministry of Mines and Energy), using CDE resources for R\$ 7.61 million, serving 377 consumer units located in extremely remote areas using photovoltaic systems. By the end of 2017, 328 consumer units have been proven to be connected, according to onsite inspections, that is, reaching 87% of the established target.



Benefited by the Luz para Todos program – Eletrobras holding

# **Incentive Program to Alternative Electric Energy Sources - Proinfa**

What it is? Program created in 2004 to increase the participation of alternative renewable sources in the Brazilian energy matrix.

**How?** Adding projects based on wind, small hydroelectric power plants (SHP), and biomass sources to the SIN. The Ministry of Mines and Energy defines the annual amount to be contracted and evaluates the impact of costs to final consumers and Eletrobras carries 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.

**Benefits:** diversification of the Brazilian energy matrix, creation of about 150,000 direct and indirect jobs in the whole country, 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.

#### Main initiatives and results in 2017

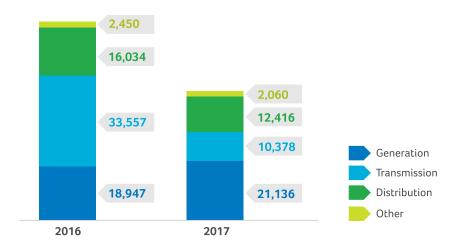
Proinfa added to the National Interconnected System a total of 131 new developments divided into 60 PCHs (1.159,24 MW), 52 wind farms (1.282,52 MW) and 19 thermal and biomass plants (533,34 MW), totaling an installed capacity of 2.975,10 MW. In 13 years, the program contributed to the system with 87.6 million MWh of energy generated, and in 2017, 8.6 million MWh were generated at a cost of R\$ 3.32 billion.

## **Financial results**

## **Operating revenue**

The net operating revenue in 2017 totaled R\$ 37,876 million, reduction of 37% in relation to the R\$ 60,316 million in 2016. Excluding the revenue from the Basic Network of the Existing System (RBSE), which positively impacted revenues in 2017, and revenues from the sale of Celg-D, which positively influenced the 2016 result, net operating revenue would present an increase of 17%, from R\$ 27,930 million in 2016 to R\$ 32,639 million in 2017.

## Gross Revenue Evolution by Business Segment (in R\$ million)



ANNUAL REPORT • 2017 — CHAPTER 5 • PERFORMANCE AND RESULTS — CONTENT

#### Generation

Generation revenues increased 13.4%, going from R\$ 18,632 million in 2016 to R\$ 21,136 million in 2017, mainly due to improved negotiations in the free contracting environment.

In 2017, we created an Integrated Trading Committee, which unifies the energy trading strategy and process in all our generation companies, bringing important optimization and synergies. We have also created an exclusive trading superintendence in the generation board that supports this process.

As a result, we gained greater bargaining power vis-à-vis the market and obtained better performance in energy auctions.

#### **Transmission**

Transmission revenues fell 69%, from R\$ 33,557 million in 2016 to R\$ 10,378 million in 2017, mostly due to the effect of the Ordinance of the Ministry of Mines and Energy, which established the payment conditions and compensation related to the (RBSE), enabling—in 2016—the accounting recording of the credit with impact on the transmission revenue in the account of indexation of Transmission return rates of R\$ 28,601 million.

Excluding the accounting effects of RBSE, transmission revenues would have grown by 10%, mainly driven by growth in revenue from return on investment in transmission, which increased by 42% from R\$ 806 million in 2016 to R\$ 1,140 million in 2017.

#### **Distribution**

Revenues from the distribution segment presented a decrease of 24.1%, going from R\$ 16,349 million in 2016 to R\$ 12,416 million in 2017, mainly due to the sale of CELG-D in the previous year.

## **Costs and expenses**

Operating costs decreased by 5.2%, from R\$ 16,211 million in 2016 to R\$ 15,374 million in 2017. Operating expenses, in turn, fell 35.4%, from R\$ 31,264 million in 2016 to R\$ 20,202 million in 2017.

## **Shareholding**

Shareholding recorded drop of 14% resulting from accounting of R\$ 3,114 million in 2016 and R\$ 2,692 million in 2017, with a special mention of R\$ 1,525 million from the sale of Celg-D in 2017 and the recognition of RBSE by the subsidiary CTEEP in 2016, with impact on the Eletrobras equity result of R\$ 1.603 million partially offset by the write-off arising out of investigation findings in SPC Belo Monte (R\$ 91 million).

### **Financial result**

The net financial result went from net expense of R\$ 3,931 million in 2016 to a net expense of R\$ 5,193 million in 2017. Such variation was caused mainly by the exchange variation in the period that affected financing agreements and with suppliers, and also the monetary update resulting from reduction of the rates of the main indexes (inflation and SELIC).

### Income tax and social contribution

The provision for income tax (IR) and Social Contribution (CSLL) went from an expense of R\$ 8,511 million in 2016 to an expense of R\$ 1,525 million in 2017, influenced by deferred taxes, mainly by the effect of accounting of the Basic Network of the Existing System (RBSE). The provision referring to RBSE was R\$ 9,724 million in 2016 and R\$ 1,674 million in 2017.

### Result

G4-9

In 2017, we had a net loss of R\$ 1,726 million, lower than the R\$ 3,513 million profit for 2016, mainly due to the impact of operating provisions of R\$ 5,747 (R\$ 1,101 million of operating provisions in the distribution segment) and the loss of R\$ 4,179 million in the distribution segment. The result of 2016 was mainly influenced by the Accounting of Remuneration related to the credits of the Basic Network of the Existing System (RBSE).

## Statement of income for the year (DRE)

	2017	2016	Δ
Net Operating Revenue	37,876	60,316	-37.2%
Energy Purchased for Resale	-11584.925	-11264.044	2.8%
Charges upon Use of Electric Network	-1611.398	-1805	-10.7%
Fuel for Electricity Production	-425	-760	-44.1%
Construction	-1752	-2382	-26.4%
Gross Income	22,502	44,105	-49.0%
Personnel, Material, Services, and Other	-12,539	-12,267	2.2%
Donations and Contributions	-164	-219	-25.1%
Depreciation and Amortization	-1751	-1844	-5.0%
Operating Provisions/Reversals	-5747	-16723	-65.6%
Investigation Findings	0.0	-211	-100.0%
Operating Result before Equity Interest	2,301	12,841	-82.1%
Equity Interest	2,692	3,114	-13.5%
Profit or Loss before Financial Result	4,993	15,955	-68.7%
Financial Income	5152	11223	-54.1%
Financial Expenses	-10345	-15154	-31.7%
Profit or Loss before Income Tax and Social Security	-200	12,024	-101.7%
Income Tax and Social Security	-1525	-8511	-82.1%
Net Profit or Loss for the Period	-1,726	3,513	-149.1%

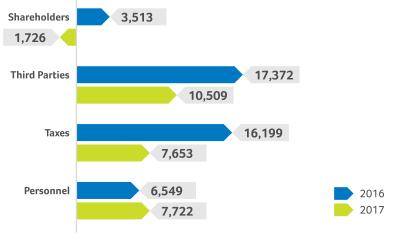
ANNUAL REPORT • 2017 — CHAPTER 5 • PERFORMANCE AND RESULTS — CONTENT

## Value-added statement (DVA)

G4-EC1

The added value to be distributed in 2017 was R\$ 24,521 million, 44% lower than in 2016. The decrease is explained by the aforementioned factors that influenced the company's revenues and results.

### (R\$ million)



#### **EBITDA**

EBITDA totaled R\$ 6,744 million in 2017, a 62% drop over 2016. Managerial EBITDA reached R\$ 5,554 million, an increase of 44% when compared to 2016.

### **EBITDA and Managerial EBITDA**



### **Consolidated debt**

G4-9

Net debt at the end of 2017 was R\$ 20,297 million, a reduction of 13.4% when compared to 2016. 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. The Eletrobras Companies Chesf, Furnas, Eletronorte and Eletrosul captured together a total of R\$ 1,433 million.

Get to know in detail the company's economic-financial results in the year in the Management Report, starting on page 97, available at: https://bit.ly/2vNKyAq.

## **Capital market**

## **Share performance**

The year 2017 was characterized by considerable changes in the political scenario and in Brazil's economic guidelines, having as main highlights the news related to Operation "Lava Jato" – Car wash – and the accusations affecting all infrastructure sectors in Brazil, businessmen and Brazilian political class. Another highlight was the news about the democratization process of Eletrobras' capital and the possible pension reform.

Nevertheless, the Ibovespa index, the main indicator of the stock market, advanced 26.9% in 2017, considering the closing score of December 28, 2017.

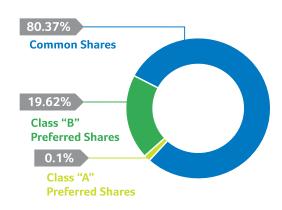
Eletrobras common shares (ELET3) recorded a depreciation of 15.2% in 2017, closing the year at R\$ 19.34. We believe that the devaluation of its shares in the year reflects the political instability, confirmed by the high volatility of the market in the year, as well as the uncertainties related to the recovery prospects of the economy.

Despite the decline in 2017, our shares have been significantly appreciated in recent years.

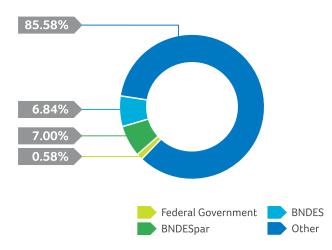
Between January 2016 and December 2017, our market value almost quadrupled, going from R\$ 7 billion to R\$ 27 billion.

See the company's share capital profile on page 14 and details on share performance on page 111 of our Management Report, available at: https://bit.ly/2rFK0Hk.

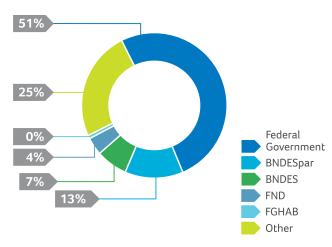
### **Shareholding Structure**



#### **Class "B" Preferred Shares**



#### **Common Shares**



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

ANNUAL REPORT • 2017 — CHAPTER 5 • PERFORMANCE AND RESULTS — CONTENT

We use environmental resources, deliver sustainable development

We generate electricity from an essentially clean and renewable matrix, preserve biodiversity and ecosystem services, and are building a strategy to adapt to climate change. Our pursuit for balance with the environment is constant.

**ANNUAL REPORT • 2017** 



## 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, ensuring the mitigation of negative impacts and the continuous identification of prevention and preservation measures.

**Environment Committee (SCMA)** 

### Eletrobras environmental management system

### **Environmental Policy**

# 0

## Corporate Sustainability Management Indicators System (IGS SYSTEM)



It guides the social and environmental management of the generation, transmission and distribution projects and administrative activities.

It supports the companies' actions to improve environmental quality, contributing to the maintenance of a balanced environment for present and future generations and for the construction of a transparent dialogue with all stakeholders.



Space for discussing practices and guidelines for the social and environmental issues.

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.



Since 2010, strategic tool monitoring the environmental indicators of all Eletrobras companies.

It covers topics such as water, energy, waste, biodiversity, volunteer actions, and compliance.

Currently, it has 225 performance indicators and 354 variables, with 484 registered users.

Internal checks of the data entered in the IGS Environmental System are performed.

Learn more about the Policy, the Committee and the IGS System at: https://bit.ly/2HtMkrE.



Eletrobras companies invested a total of R\$527.0 million in social and environmental actions in 2017.

Several Eletrobras companies' operations are also certified by ISO 14001, which specifies global best practices of corporate environmental management.

ISO 14001 certified operations: Tucuruí HPP, Samuel HPP, Coaracy Nunes HPP and associated 138ky transmission lines, I and II circuits and substations Central and Santana – of Eletrobras Eletronorte: and Substations Foz do Iguaçu and Ibiúnas – of Eletrobras Furnas: substation maintenance service of Paulo Afonso – of Eletrobras Chesf: Eletrobras Furnas thermoelectric power plants and Central Nuclear Almirante Álvaro Alberto (CNAAA) nuclear power plant – of Eletrobras Eletronuclear. External audits are also carried out as required by State Law 1,898/91 in Eletrobras Furnas thermoelectric power plants and Eletrobras Eletronuclear's CNAA.



Group of TL workers - Eletrobras Furnas/Daniela Monteiro

## **Sharing best practices**

In line with our commitment to sustainable development and social and environmental value creation, since 2011, the Best Practices Project has been gathering the most important social and environmental initiatives – mitigation, environmental compensation or voluntary actions are carried out by Eletrobras companies, bringing benefits to the region in which these projects are implemented.



As a result of the program, our voluntary environmental actions, which go beyond what is required by law, reflect the Company's growing commitment to sustainability.

Learn more about the Best Practices Project 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.

Learn more in this and the next sub-chapters about our water resources and biodiversity management and how we act to contribute to environmental protection, mitigation of negative impacts and development and generation of value.



## Management of

- Flow monitoring
- Participation in basis committees, water councils, etc.

## Relationship management

- Multiple use of reservoirs by riparian communities and other stakeholders.
- Respect for indigenous people

## Biodiversity protection

- Permanent
   Preservation Areas
   around the plants
   (PPAs)
- Programs for the preservation of terrestrial and aquatic flora and fauna

## Water

## **Impacts**

G4-EN8

#### Reservoirs

others through run-of-the-river systems. Hydroelectric power plant reservoirs are able to alter the volume of water downstream of dams, as they have the capacity to store water during flood periods. This way, they manage to control the water bodies downstream of dams, ensuring a minimum flow volume during periods of low inflow and flood control, which can avoid natural flooding. The hydroelectric power plants that run through run-of-the-river systems do not have the capacity to store water and are not able to change the downstream flow. All the water is turbinated or spilled and returns to the river with the same quality and quantity as it was when it reached the dam.

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.



"Water is a fundamental resource for everyone. Businesses and communities depend on it. "

Elmírio Eugênio Guimarães, community leader, in an interview that based the materiality matrix that guides this report (learn more on page 3).

Vegetation and river in Kaiapó territory - Eletrobras holding/Jorge Coelho

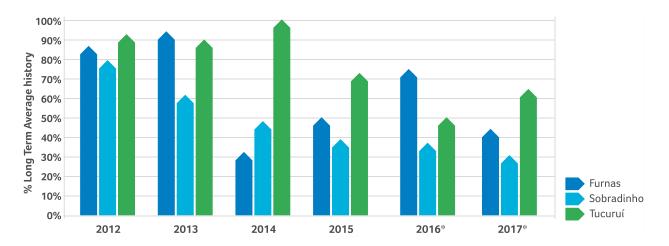
## The rational use of water resources

The rational use of water resources is essential for the execution of our operation, which is directly impacted by variations in rainfall, affecting the volume and flow of the water bodies on which the hydroelectric power plants depend.

Since 2012, the electric power sector has been facing problems related to hydroelectric generation due to the irregular rainfall of some river basins, which affects the flow of rivers. In 2017, the rainy season started with a slight delay, and the constant influence of atmospheric high pressure systems stopped the rain in the Tocantins and São Francisco river basins, keeping the rainfall volumes of these areas below the historical average until October 2017.

Three Eletrobras companies' hydroelectric power plants operate with 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 2017)



Source: Electric System National Operator (ONS) and National Water Agency (ANA) \*Flow data in 2016 and 2017 were obtained through the SAR system on ANA's website.

Within this scenario, Sobradinho and Furnas were not completely refilled in the last years and, in 2017, presented decrease in the volume of water compared to 2016. On the other hand, Tucuruí was completely refilled in 2017.

### **Financial Compensation**

Eletrobras companies pay financial compensation for the use of water resources in their hydroelectric power plants, pursuant to Law 7,990/1989. The Brazilian Electricity Regulatory Agency (Aneel) manages the collection and the distribution of these resources among the beneficiaries: states, municipalities and bodies run directly by the federal administration.

These amounts are calculated based on the energy generated each year. In 2017, a total of R\$389 million was paid – the lowest amount paid in recent years due to the already mentioned water crisis – which represents about 24% of the financial compensation paid in the country.

#### Water consumption

G4-22

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

In 2017, 3.9 million m<sup>3</sup> of water was used for administrative purposes, including the volume used in the Eletrobras Furnas fish farm. This volume is 9.15% lower than in the previous year. The administrative consumption of water supply network, an indicator in the PDNG, is 12% lower than in the previous year, due to the repair of leaks and the return of property facilities of some companies.

The table below presents a data correction of the volume of water directly withdrawn from water bodies in 2016. Regarding thermoelectric power generation, 3,394.0 million m<sup>3</sup> of water were used in 2017, 1.75% higher than in the previous year.

Volume of water consumed (in thousands of m³)						
Source	2015	2015 2016 <sup>1</sup> 2017 <sup>2</sup>		Var. 2016 x 2017 (%)		
Administrative activities						
Surface water	3,611.2	3,396.7	3,150.0	-7.3		
Ground water	230.4	275.7	205.8	-25.4		
Water Supply Network	598.5	643.5	565.1	-12.2		
Thermoelectric power general	tion					
Surface water	20,531.7	10,996.5	8,604.8	-21.7		
Ground water	193.2	3.6	-	-		
Water Supply Network	-	0.2	0.1	-50.0		
Seawater	3,176,016.9	3,315,363.7	3,376,102.0	1.8		
TOTAL	3,201,181.9	3,330,679.9	3,388,627.8	1.7		

<sup>&</sup>lt;sup>1</sup> There was correction in the 2016 data for Eletrosul (Administrative activities - ground water) and for CGTEE (Thermoelectric power generation - surface water)

The 22% reduction in the use of surface water in thermoelectric power generation in 2017 is due to the closure of Phase B of the Candiota TPP, due to the Conduct Adjustment Agreement (TAC) signed with the Brazilian Institute of Environment and Renewable Natural Resources (IBAMA), and the reduction in consumption of the Eletrobras Furnas' Santa Cruz TPP, due to a decrease in generation.

Seawater is used by Eletrobras
Eletronuclear for cooling the
secondary system of Angra 1 and 2
nuclear power plants and is completely
returned to the sea at Saco Piraquara
de Fora, with a slight increase
in temperature.

The water used by the hydroelectric plants for generating energy is only diverted to power turbines and therefore does not add up to the total volume of water consumed in the table above. It is important to highlight that operations are constantly monitored to ensure compliance with standards established by environmental legislation and do not affect aguatic fauna.

CONTENT

<sup>&</sup>lt;sup>2</sup> By 2017 all companies reported the volume of water withdrawn from the water supply network.

## **Best management practices**

## Reduced consumption in the Tucuruí Hydroelectric Power Plant

At the Tucuruí Hydroelectric Power Plant, in Pará, we implemented measures to reduce administrative and operational water consumption, such as: valve adjustments, improvements in equipment cooling towers, replacement of toilet flushes and faucets, and rainwater collection for cleaning and gardening.

As a result, we were able to reduce water treatment at the Water Treatment Plant (ETS) from 100 m<sup>3</sup>/day in 2015 to 28 m<sup>3</sup>/day in 2017, a significant reduction of 72%.



Beaches in São Miguel do Iguaçu - Itaipu Binational

### **Commitments and initiatives**

We developed a Water Resources Policy in 2010 with the aim of promoting the sustainable and rational use of these resources, considering their multiple uses in the energy sector.

In order to monitor the water issue, Eletrobras companies rely on the Working Group on Water Resources and Hydroelectric Potential of Eletrobras Companies (GTRH-EE), which since 2005 has been responsible for addressing water resources issues that impact their performance and results.

The group prepares annual reports, with an overview of the water resources used for energy generation in Eletrobras companies, with evaluations and follow-ups of the monthly average flows of the projects.

Considering the relevance of water resources for its business, Eletrobras also participate in several initiatives aimed at the development of water management, such as hydro basin committees, water councils, technical chambers and debates on the subject in other technical forums.

Eletrobras companies' Water Resources Policy is available at https://bit.ly/2Fg7JTb.

# **Biodiversity**

## **Impacts**

G4-EN11; G4-EN12; G4-EN13

Eletrobras considers that biodiversity is directly related to the nature of its operations. Therefore, managing and mitigating impacts on biodiversity are a priority in its strategy and a guideline that must be followed from the planning to the operational phase of the projects.

In the planning phase, Environmental Impact Studies (EIA) are responsible for the characterization, evaluation and mapping of the biodiversity of the areas to be used for the implementation of the projects and for the identification of the possible impacts. To mitigate the impacts on biodiversity, monitoring, control, recovery and conservation actions are developed according to the principles and guidelines of the Eletrobras Environmental Policy.

The most relevant impacts on biodiversity, which may take place during the implementation and operational phase of the projects, are listed in the table below, as well as the actions proposed to mitigate them.

Possible direct impacts	Possible indirect impacts	Activity	Type of project	Examples of actions/ programs	Actions developed by the companies
Change in water quality	Proliferation of macrophytes	Generation	Hydroelectric power plants	Water quality monitoring programs	Limnological and water quality monitoring program – Furnas
Vegetation loss	Forest fragmentation	Generation Transmission	Hydroelectric power plants Wind farms Transmission and distribution lines	Reforestation programs	Program for restoration of riparian areas in the lower São Francisco region – Chesf
Change in ecosystems/habitats	Decreased diversity of flora and fauna	Generation Transmission	Hydroelectric power plants Thermoelectric power plants Transmission lines	Support for the creation or maintenance of conservation units	Biodiversity corridor – Itaipu Binacional
Interference with flora and fauna	Change in communities	Generation Transmission	Hydroelectric power plants Thermal power plants Wind farms Transmission lines	Reforestation, wildlife rescue and monitoring programs	Sea turtle monitoring project Promontar – Eletronuclear
Interference with the migration routes of aquatic fauna	Isolation of populations	Generation	Hydroelectric power plants	Fish Transposition Mechanism	Spawning Channel – Itaipu Binacional
Interference with the migration routes and collision of birds	Reduction of migratory bird populations	Generation Transmission Distribution	Wind farms Transmission and distribution lines	Installation of signaling equipment to avoid collision	Higher transmission towers

## **Best management practices**

The analysis of risks related to biodiversity and water bodies is critical for the improvement of Eletrobras companies' management and performance. Based on this perception, the risks related to biodiversity were identified in the Company's Risk Matrix and reported to the Board of Executive Officers.

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

### **Protected areas support**

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). In 2017, Eletrobras companies supported 67 protected areas, totaling 8,941,349.00 hectares, including 8 Protected Areas that are in their areas of operation or surroundings.

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 Eletronuclear, are examples of these protected areas.

### Protected areas supported by Eletrobras in 2017



#### **Endangered species preservation**



Itaipu Binacional develops the *Harpia Harpyja*Reproduction Program, an endangered species, which in 2017 reached an unprecedented achievement: the birth of the second generation raised in captivity, a rare case in the world, with records only in zoos of the United States and Panama. With the new offspring, 31 harpy eagles gave births in the area, which makes the Itaipu Binacional's program the largest in the world.

Since 1998, Eletrobras Amazonas GT has been carrying out the release of chelonians with the participation of the riverside communities of the Uatumã river. The project includes conservation and protection of species, environmental education promoted through training courses for local communities and awareness of residents. Up to today, the project has been responsible for the release of nearly 200,000 hatchlings.

Since 2013, Eletrobras Eletronuclear has been carrying out the Sea Turtle Monitoring Program – Promontar, with the aim of monitoring the sea turtles that spend part of their lives in waters near the Angra nuclear power plant. The program was created due to popular demand during public hearings in the licensing process of the Angra 3 plant, to assess a possible impact of the plant on sea turtles in the surrounding area. Today, it is the only monitoring project for sea turtles in the south of Rio de Janeiro, with a fundamental role in the collection of data on the behavior and physiology of these animals.

#### **Biodiversity protection**

The Biodiversity: Our Heritage Program, of Itaipu Binacional, includes seven biodiversity conservation projects. The company maintains eight reserves and biological sanctuaries with a total of 41,039 hectares. Since 1986, studies on wildlife have been carried out and estimate that there are 44 species of mammals, 305 of birds and 37 of reptiles – many of which are endangered – In the reservoir protection area, in the reserves and in the sanctuaries located on the Brazilian side of the Itaipu Lake. In addition, Itaipu develops the largest reforestation program in the world implemented by a hydroelectric power plant. Since 1979, it has promoted the planting of more than 44 million seedlings in the Brazilian and Paraguayan shores.

Since 2012, Eletrobras Furnas has been developing the Natureza Doce project at Pedra Branca State Park in Rio de Janeiro, with the aim of conserving the native fauna of the Atlantic Forest biome, especially wild bees, which are responsible for the local ecosystem balance. In 2016, Eletrobras Furnas implemented the Honey Trail initiative, with environmental education actions on biodiversity conservation. 100 seedlings of native plants such as Ipê Roxo, Ipê Amarelo, Angico and Pau Brasil, were planted in the area with the participation of children from a nearby school.

Eletrobras Eletronorte promotes actions for biodiversity preservation and appreciation of the knowledge of traditional populations in the area around the Tucuruí HPP. Under the Germplasm Program, the reforestation of native species is carried out, with the participation of the local community and the Parakanã indigenous tribe. It also promotes, together with the Waimiri Atroari indigenous tribe, the fight against fauna and flora predatory actions, the monitoring of the quality of water bodies in indigenous land and the protection of the reproductive process of chelonians, in order to maintain the balance of these population.

Since 2003, Itaipu has been developing the Cultivando Água Boa Program, in partnership with 29 municipalities of the Paraná Watershed 3, for water quality management projects, focusing on the protection, management, conservation, preservation of biodiversity through the recovery of the riparian forest, as well as the social and economic development of local communities. Learn more about the program at: https://bit.ly/2IKKBhV.



In 2015, the Água Boa Program was recognized by the UN in the 5th edition of the Water for Life Award as the best water management practice in the world.

### **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 and a "zero violations" target with relation to biodiversity.

We maintain a permanent working group – Working Group on Water Resources and Biodiversity – to address biodiversity issues. Since 2016, the group has been developing a study on risk exposure related to biodiversity and ecosystem services and the opportunities of this interaction, aimed at improving the companies' management and performance.



In 2017, GT concluded the phase of identifying impacts and dependencies related to biodiversity and ecosystem services and held the Biodiversity and Ecosystem Services in Business Management workshop, whose main focus was the relationship between the business of large companies and biodiversity and ecosystem services, which are vital issues for the rational use of natural resources. State of the art knowledge about this relationship and the best management practices within companies was one of the targets of the event, from the exchange of experiences on projects that have succeeded in protecting the ecosystems and the essential services they provide to society.

In addition, we participate in external forums that address biodiversity issues. We can highlight the Thematic Chamber on Biodiversity and Biotechnology (CTBio) of the Brazilian Business Council for Sustainable Development (Cebds), which, in 2016, developed a White Paper containing a critical analysis of the GRI biodiversity indicators.

We also highlight our participation in the pilot project developed by the Cambridge Institute for Sustainability Leadership (CISL) of the University of Cambridge for the creation of the "Natural Capital Protocol" that aims to help businesses identify, measure and value their direct and indirect impacts and dependencies on natural capital.

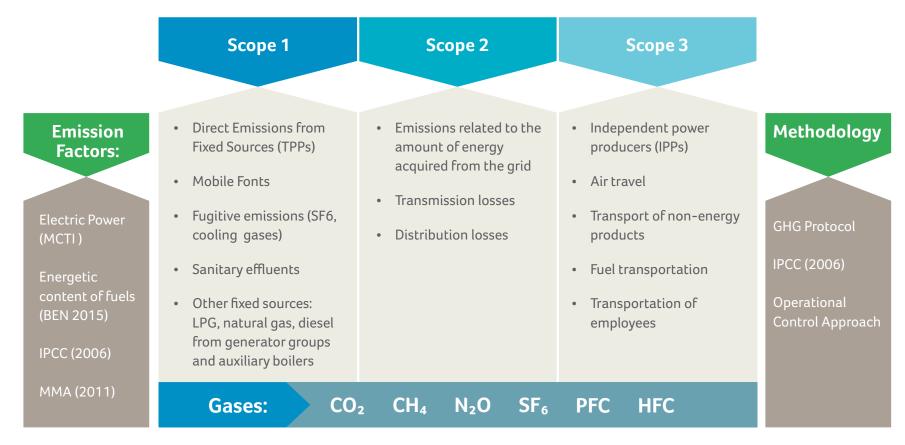
# **Climate change**

G4-EN6; G4-EN7

## **Impacts**

The energy and fuel consumption of our operation and our chain generates greenhouse gases (GHG) emissions, considering the following scope:

### **Eletrobras Companies' GHG Inventory**



On the other hand, the irregular rainfall, caused by climate changes, has an impact our operation, and directly affects our hydroelectric power generation activities - due to the volumes and flow of the river basins of our plants. 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.

Our transmission and distribution activities are also affected by climate changes that generate natural disasters and extreme events, interrupting the operation of networks and causing social and economic damages.

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. 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.

### **Energy consumption**

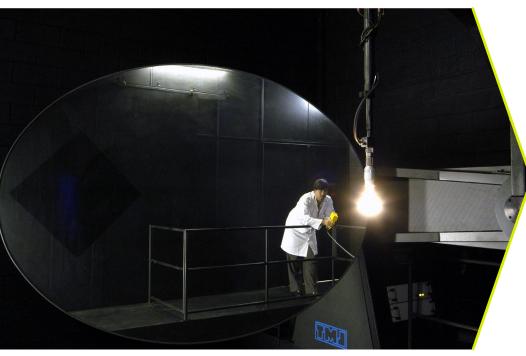
In 2017, Eletrobras companies consumed 126,891,875 GJ, of which 84,390,618 GJ (66.5%) was direct consumption of energy and 42,501,257 GJ (33.5%) was indirect consumption.

**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.

K

The 2017-2021 PDNG goals of reducing fossil fuel consumption and electricity consumption between 2016 and 2017 were achieved, with decreases of 11.3% and 27.1%, respectively.



Goniophotometer at Cepel - Eletrobras Cepel/Marcus Almeida

#### **GHG Emissions**

G4-EC2; G4-EN15; G4-EN16; G4-EN17; G4-EN18; G4-EN19; G4-EN20; G4-EN21

In 2017, Eletrobras companies recorded total emissions of 9,735,754 tCO<sub>2</sub>e, considering scopes 1, 2 and 3.

GHG Emissions (tCO <sub>2</sub> e)	2015	2016	2017	Var. 2016x2017 (%)
Scope 1	8,413,795	6,954,216	5,803,061	-16.6
Scope 2	1,839,372	2,109,075	1,885,581	-10.6
Scope 3	2,991,807	2,112,499	2,047,112	-3.1
Total	13,244,974	11,175,790	9,735,754	-12.9

For more information, please see the full GHG Emissions Inventory table on our website at: https://bit.ly/2r0ZUeW.



We reached a significant reduction in emissions, mainly due to the lower thermoelectric generation activity, and met the goal of reducing GHG emissions between 2016 and 2017, established in the 2017-2021 PDNG, with a decrease of 12.9% in emissions considering scope 1, 2 and 3.

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, transmission and distribution companies, regardless of their size and specificities.

In 2017, the emission intensities calculated in both metrics presented a drop of 18.4% (tCO<sub>2</sub>e/ROL) and 10.9% (tCO<sub>2</sub>e/MWh), respectively.

Emission intensity (scopes 1 and 2, without losses)	2016	2017
By Net Operating Revenue (tCO <sub>2</sub> /NOR)	0.217	0.177
By Net Generation (tCO <sub>2</sub> /MWh)	0.046	0.041

<sup>1</sup> For calculations of the emission intensity, the value of the Net Operating Revenue disregards the indemnities referring to the Basic Network of the Existing System (RBSE).

Considering Scope 3 (metric used in intensity indicators presented in PDNG 2018-2022), intensity increased in comparison to revenue and decreased in comparison to energy generated:

Total emission intensity (scopes 1, 2 and 3)	2016	2017
By Net Operating Revenue (tCO <sub>2</sub> /NOR)	0.348	0.295
By Net Generation (tCO <sub>2</sub> /MWh)	0.074	0.068

**Reduction Targets:** Our 2017-2021 Business and Management Master Plan (PDNG) set targets for reducing energy and fuel consumption and emission intensity:

Base year 2016 Targets	2018	2019	2020	2021	2022	Cumulative target 2018-2022
Own consumption of electricity	-0.2%	-0.2%	-0.2%	-0.2%	-0.2%	-1%
Consumption of fossil fuels	-0.2%	-0.2%	-0.2%	-0.2%	-0.2%	-1%
GHG Emission intensity TCO <sub>2</sub> /NOR (considering scopes 1, 2 and 3)	6%	6%		e projecti d Net Op		reduction of evenue

Regarding the goal of progressively reducing the use of fossil fuels in on-road mobile sources, in 2017, we achieved a drop of 11.3%. In relation to the goal of reducing greenhouse gas emissions, we achieved a drop of 12.9% in 2017. The two results exceed the target set for the five-year period, ending in 2021.

#### **SOx and NOx emissions**

G4-EN21

In addition to GHG emissions, sulfur oxides (SOx), nitrogen oxides (NOx) emissions and Particulate Matter (PM10) are also estimated in the Company's own TPPs. In 2017, these emissions totaled 16,403.7 tons, 9,058.1 tons, and 1,565 tons<sup>1</sup>, respectively.

#### **Methodologies and premises**

Subsidiaries account for 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).

The information needed to prepare the inventory is provided by the companies' representatives in the Working Group on Climate Change Strategy (WG 3) of the Eletrobras Companies' Environment Committee (SCMA).

To calculate emissions related to electricity consumption, transmission and distribution losses, the Company uses the SIN emission factors, which are calculated monthly and published by the Brazilian Ministry of Science, Technology and Innovation (MCTI).

<sup>&</sup>lt;sup>1</sup>The particulate matter measurements are carried out continuously by the monitoring system installed directly at Eletrobras CGTEE smokestacks to determine the concentration of particulate matter in the atmospheric emissions from the coal combustion process in Generating Units.

 ${
m CO}_2$  emissions from biofuel consumption (biodiesel, ethanol added to gasoline and alcohol fuel) are reported separately from the calculations in this inventory, as they are reabsorbed through photosynthesis in sugarcane and soybean crops, among other plants used in the production of these biofuels.

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.

The total energy content of the fuels consumed is calculated based on the conversion factors provided by the National Energy Balance (BEN).

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.

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.

### **Accountability**

Eletrobras' GHG Emissions Inventory is published annually and follows the IPCC (2006) methodology and the Greenhouse Gas Protocol (GHG) guidelines (WRI, 2004), and considers the holding company and all subsidiaries.

Regarding emissions from thermoelectric power plants, printed hard-copy monthly reports, with validated monitoring data, fault identifications and conclusions, are sent to Ibama, authenticated with the seal of the responsible area. Isokinetic particle samplings are performed monthly in every chimney, subject to the operational availability of each generating unit, in order to validate the continuous monitoring performed.

## **Best management practices**

Ensuring the proper management of GHG emissions, prioritizing renewable energy projects and promoting studies are some of our commitments, especially when we know that important climate changes can impact the availability of water in the country and, consequently, the generation of energy by hydroelectric power plants, requiring a more intensive use of thermoelectric power plants, especially those powered by fossil fuels.

The Company has two committees dedicated to energy efficiency and climate strategy that have been working on monitoring, preparing studies and proposing actions on the topic:

**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, the WG 3 monitors 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.



Since 2013, we have adopted internal carbon pricing in our emissions-intensive operations to assess the financial impact of a possible CO<sub>2</sub> emissions taxation. This initiative has ranked us as a benchmark in the Carbon Disclosure Project (CDP) in the Utilities category.

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, on page 26.

### **Commitments 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 90% of our installed capacity.

Eletrobras companies' environmental policy presents eight commitments to reduce emissions and energy consumption from non-renewable 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.



In 2017, the Company adhered to the "Business Positioning on Carbon Pricing Mechanisms", launched in 2016 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.



"It is about practicing a more economic production with rational use of all resources. Companies have to do their homework, first of all, using the energy in the best way possible. In addition, efficiency in energy generation and consumption is an important bridge to communicating with society."

Marina Grossi, President of the Brazilian Business Council for Sustainable Development (CEBDS) in the interview that based the materiality matrix that guides this report (learn more on page 3).



We are signatories to the UN Global
Compact and have a strong commitment
to the Sustainable Development Goals.
Our operation encourages ongoing
dialogue with stakeholders to generate
and share value indistinctly.



## Management

G4-49; G4-24; G4-25

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

The process of identifying and selecting these stakeholders is in line with our business strategy and Eletrobras companies' Code of Ethics and Conduct. Our dialogue, engagement and relationship are guided by Eletrobras companies' Stakeholder Engagement and Communication Policy.

#### Eletrobras' stakeholders

<ul><li>Workforce</li><li>Family members</li></ul>	<ul><li>Investors</li><li>Shareholders</li><li>Market analysts</li></ul>
<ul> <li>Communities</li> </ul>	• Society
<ul><li>Press</li><li>Opinion leaders</li></ul>	<ul><li>Partners</li><li>Sponsors</li><li>Suppliers</li></ul>
<ul><li>Governments</li><li>Congressmen</li><li>Regulatory bodies</li></ul>	<ul><li>Customers</li><li>Distributors'</li><li>Consumers</li></ul>

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, using mechanisms such as a climate survey, ombudsman channels, the institutional website, a direct survey with suppliers and investors, as well as social media channels such as Twitter, Facebook and Linkedin. The results are considered in the strategic planning, so that the business conduct meets the expectations of the stakeholders. Learn more on page 3.

The holding company and all other Eletrobras companies have several channels open for contact with stakeholders.

In order to improve our communication with stakeholders further, we unified Eletrobras companies' Whistleblower Channel (learn more on page 48) and launched the IR Ombudsman in 2017. The new Eletrobras Portal was launched in the same year, with improvements in user experience and navigation, responsive layout and accessibility for the visually and hearing impaired.

The Ombudsman aims to strengthen corporate governance and improve internal processes by offering an exclusive channel for consultations, suggestions, complaints, criticisms or compliments regarding the capital market. The channel is responsive, is available in Portuguese, English or Spanish, and allows the monitoring of SMS requests.

To learn more, please visit: https://bit.ly/2wlLb4u.

ANNUAL REPORT • 2017 — CHAPTER 7 • RELATIONSHIPS — CONTENT



In 2017, for the second consecutive year, we were elected the most prestigious company in the energy sector, winning the MarCo award, by the Época Negócios magazine, in partnership with the Troiano Branding consultancy firm. The top three companies awarded in the sector are part of the Eletrobras group: the holding company, Itaipu Binacional and Eletrobras Furnas, second and third place respectively.

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

#### #EletrobrasEsclarece

Considering the scenario of changes and evaluation of the democratization of the Company's capital, Eletrobras launched the #EletrobrasEsclarece portal in 2017, which provides data and official information, in a direct, accessible and friendly approach, through posts and videos, to keep society informed on issues involving Eletrobras companies. The portal is available at: https://bit.ly/2FMXICO.

# **Employee development**

We understand that 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.

In this regard, Eletrobras companies' People Management Policy establishes the guidelines on providing the appropriate conditions for the development, appreciation and retention of talents. The holding company is responsible for aligning these guidelines and seeking the best market practices.



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.

## **Employee profile**

G4-9; G4-10; G4-HR3; G4-LA12

In line with our 2017-2021 PDNG, in 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.

To this end, 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), which will be concluded in 2018, as well as the Extraordinary Retirement Plan (PAE) of Eletrobras companies and the Extraordinary Voluntary Resignation Plan (PDV) of CGTEE.



The correct re-adjustment of our personnel is essential to the sustainability and achievement of the Company's strategic planning. In 2017, initiatives in this regard generated savings of approximately R\$85 million. In 2018, we expect these savings to reach R\$855 million.

The PAE was implemented simultaneously in the holding company and in Eletrobras CGTEE, Cepel, Chesf, Eletronuclear, Eletronorte, Eletropar, Eletrosul and Furnas, subject to conditions previously approved by the Secretariat of Coordination and Governance of State-Owned Companies. With the reduction of the operation of the Candiota plant, we also launched the Extraordinary Voluntary Resignation Plan (PDVE), aimed at the employees of the subsidiary CGTEE. A total of 2,055 employees joined the Retirement and the Voluntary Resignation Plans.

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) and the Reflection on Retirement Program (PRA).

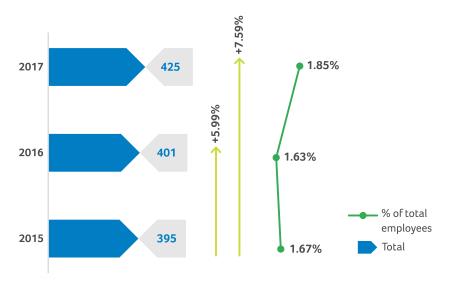
These programs are aimed at supporting the reflection and planning process of retirement and the life changes that this new phase might bring. The PPA and the PRA address financial aspects, family relationships and private pension, among others, as well as contemplating the transfer of knowledge to the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

In 2017, we had the goal of implementing Eletrobras companies' Mobility Plan. Due to the significant changes in the personnel structure, we opted to implement a one-off mobility initiative rather than a definitive plan, which will depend on the future qualitative and quantitative survey on employees.

### **Diversity profile of employees**

As a publicly-held government-controlled company, our employees are hired through public service entrance exams, pursuant to the 1988 Federal Constitution. Therefore, the diversity profile of our employees is random. However, we are in line with legislation that encourages the hiring of minorities, reserving 20% of the positions offered for black candidates and people with disabilities.

## **Employees with Disabilities**



ANNUAL REPORT • 2017 — CHAPTER 7 • RELATIONSHIPS — CONTENT

In line with our commitments to diversity (learn more on page 34), we seek to promote an organizational culture of equal opportunities for all, regardless of gender, skin color, ethnicity, age, sexual orientation, social background, physical or mental ability, as set forth in our Code of Ethics and Social Responsibility Policy.

Reinforcing our commitment, the 18-22 PDNG target is to maintain at least the same percentage of women in management positions as the percentage of women in the Company (headcount). From a consolidated point of view, in 2016, women represented 19% of Eletrobras companies' personnel, and women in leadership positions accounted for

21% of the total. However, the target also provides

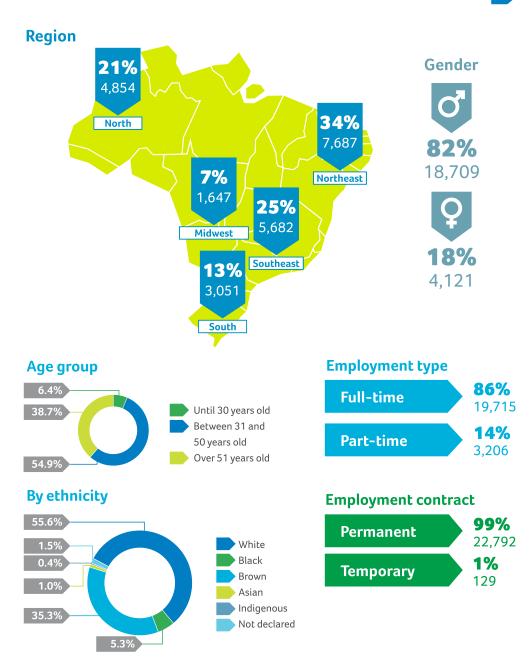
that these percentages are balanced in each of the

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).

companies.

In 2017, we joined the Corporate Citizen Program, an initiative of the federal government that seeks to eliminate discrimination and inequality in the workplace, and extended the paternity leave from 5 to 20 days.

Considering these premises, at the end of 2017, our personnel was composed of 22,921 employees:



ANNUAL REPORT • 2017 — CHAPTER 7 • RELATIONSHIPS — CONTENT

In 2017, a total of 2,055 employees left the Company, due to the retirement and voluntary resignation plans. Excluding these plans, turnover rate was 1.33 in the year.

Eletrobras' employee turnover rate excluding retirement and resignation plans	2015	2016	2017
Total excluding Itaipu	1.55	3.04	1.33
Itaipu	3.50	7.40	3.30

## **Communication and engagement**

Eletrobras TV, an internal communication channel, produced 48 videos in 2017 and reached a 36% increase in its audience. A series of four interviews with the Company's CEO were the most watched videos in the year.

We also produced 11 videos for the promotion of specific actions via the intranet, among which the video with the CEO's message celebrating Eletrobras' 55th anniversary was the most watched.

In the intranet, the wall available to all the employees maintained its interactivity level, with 713 interactions, highlighting the Company's 55th anniversary campaign.

In December, the 2017 Eletrobras Annual Meeting was held, in which the CEO and executive officers answered questions from employees.

## Health and safety at work

G4-LA7, G4-EU16



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.

In order 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.



## 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 bazard 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

In 2017, 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, the maintenance of the Unified Occupational Safety Portal and the extension of the Occupational Safety and Ergonomics programs in the Brasília Office.

#### **Good practices in Eletrobras companies**

In line with our guidelines, in 2017, Chesf developed new prevention actions, such as the Project to Reduce Dismissals due to Human Error (DEH), for which the main objective is to reduce human error infractions in the Electroenergetic Operating System, and the Previna-se program, which seeks to strengthen the safety culture and improve the working conditions of employees.

In order to ensure a healthy and safe environment for its employees, Eletrosul has maintained, since 2008, the Eletrosul Plan for Occupational Health and Safety and Social Assistance (People), which includes several programs related to health and safety at the workplace, such as the Medical Occupational Health Control (PCMSO) and the Quality of Life Program.



Accident prevention meeting - Eletrobras holding/Jorge Coelho

Eletronorte has improved Health and Safety management with the help of technology. In the reporting period, the company implemented an SAP EH&S (Environment, Health and Safety) system which promoted the integration of Occupational Health and Safety data and, therefore, increased efficiency in the management of occupational exams and in monitoring the health of each employee.

Furnas offered training in occupational health and safety to its employees and contractors, focusing on risk prevention, and it annually implements a program that addresses issues such as first aid, accident prevention and risks in the workplace.

At Eletronuclear, safety is believed to be an ongoing process that involves not only components and structures, but also people and organizations. Nuclear plants rely on passive safety features, which automatically come into action to prevent accidents, as well as barriers that protect the nuclear reactor from external factors such as earthquakes, tsunamis, floods and explosions, and high pressure inside the plant.

#### **Risk activities**

G4-LA7

Among the several activities performed by Eletrobras companies, we identified risks of occupational diseases regarding the noise level in the plants, the exposure to flammable materials and transmission and distribution lines field activities.



Our goal is to reduce the number of accidents per million man-hours of risk exposure in Eletrobras companies from 2.23 in 2017 to 1.38 in 2018.

#### **Quality of life**

In order to promote more health and quality of life for our employees, in 2017, we maintained actions such as the Eletrobras Healthy Program, which encourages healthy eating, stimulates sports, cultural and leisure activities, promotes vaccination campaigns and raises awareness of physical and mental illness.

In the reporting period, Chesf maintained the "Café e Prosa" initiative, which demystifies mental health disorders through conversation and support, in order to promote more quality of life. The company also continued to hold activities to promote the health and well-being of employees, such as sports tournaments, running groups and walks in the courtyard of the building in Pituaçu (BA) – in an initiative called "Move yourself".

Eletrosul was also recognized with an honorable mention in the National Congress of Social Health Care (CONASS) because of the maternity support group developed by the company, which provides more support to mothers who return to their jobs after the maternity leave.

## Career and people development

G4-LA10; G4-EU14



Our employees are agents and beneficiaries of organizational strengthening, contributing to competitiveness, profitability and business sustainability. Therefore, our people management must be aimed at solutions that provide adequate conditions for the development, appreciation and retention of talent.



## **Corporate education** G4-LA9

Our corporate education model is based on the integrated and cooperative performance of companies, aligned with the Company's strategic objectives in terms of integration, competitiveness, profitability and sustainability and the challenges arising from the Brazilian electric power sector's regulatory, technological and structural environment.

In order to develop employees' professional skills to boost the strategic reach of the Eletrobras companies, our corporate education is managed through 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 order to enable activities in all Eletrobras companies, in 2017, Unise focused its activities in the following:

- Congresses and seminars by Schools/Pillars and Macro processes;
- AUpdates on complementary pension plans;
- Leadership Advanced Management Program;
- Improvement Program for Eletrobras Directors and Officers;
- ProERP Training Program.

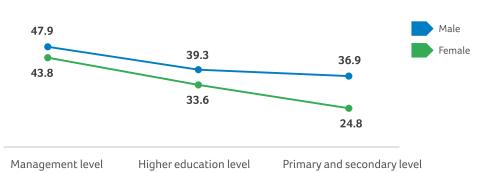
Corporate education units, also promote the management of general and specific skills related to the business of each company and the continuous training of employees, through lectures and capacity building programs.

In total, in 2017, Unise and the corporate education units reached 777.5 thousand hours of training offered to 51,679 participations, with an investment of R\$23.7 million, which represents an average of R\$1.2 thousand per participant.

	2016	2017
Hours of training offered	1,135.8 thousand	777.5 thousand
Investment	R\$32.9 million	R\$23.7 million
Number of participants	68,827	51,679



# Average hours of training offered in 2017 by gender and position



In 2017, the Vivendo e Aprendendo Program, developed by Chesf, was placed 10<sup>th</sup> in the ranking of "15<sup>th</sup> Benchmarking Brasil" event, which rewards the best social and environmental initiatives in Brazil. The Program is aimed at raising the employees' level of education by mobilizing people around the possibility of learning, continuous improvement and personal growth.

ANNUAL REPORT • 2017 — CHAPTER 7 • RELATIONSHIPS — CONTENT

### **Career development**

G4-LA11; G4-LA13

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

K

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.

An integral part of the PCR, the Performance Management System (SGD) defines the planning, skill monitoring and result evaluation processes, based on business and team goals, aligned with the Company's and Eletrobras companies' strategies.

The SGD evaluation process is an opportunity to directly contribute to improve business results, promote employees' development and career growth and, consequently, organizational growth. The evaluation results also integrate a series of people management actions (compensation, career, internal selection and development).

Ratio between salary and compensation for men and women	Management level		Higher education level		Primary and secondary level	
	Salary	Compensation	Salary	Compensation	Salary	Compensation
Acre	0.81	0.66	0.83	0.81	0.96	1.08
Alagoas	0.76	0.78	0.85	0.79	1.03	0.83
Amazonas	0.94	0.94	0.68	0.68	0.83	0.83
Amazonas GT	1.01	0.96	1.04	0.95	0.98	0.91
CEPEL	0.81	0.74	0.93	0.86	1.18	1.01
CGTEE	0.82	0.74	0.91	0.70	0.97	0.81
Chesf	0.94	0.84	0.87	0.78	1.11	1.04
Eletronorte	0.84	0.82	0.86	0.75	0.99	0.87
Eletronuclear	0.75	0.81	0.78	0.64	0.95	0.84
Eletropar	1.15	1.09	1.15	1.09	Não há	Não há
Eletrosul	1.03	0.94	0.87	0.75	1.04	0.85
Furnas	1.08	1.01	0.90	0.80	1.01	0.68
Holding	0.91	0.91	0.93	0.91	1.09	1.18
Itaipu	0.95	0.97	0.87	0.89	0.98	0.96
Piauí	0.89	0.99	0.97	0.99	1.27	1.23
Rondônia	0.83	0.91	0.87	0.76	0.93	0.93
Roraima	1.22	1.15	0.92	0.96	1.53	1.46

ANNUAL REPORT • 2017 — CHAPTER 7 • RELATIONSHIPS — CONTENT

In line with the 2018-22 PDNG, which incorporates the appreciation of people into the strategy, in 2017, we worked on the beginning of a succession plan, the "De Olho no Futuro" pilot project. The project initially evaluated 300 employees of the holding company in order to identify potential leaders, verify if current managers are suitable in their functions, establish succession maps and support the improvement of the Performance Management System and management succession procedures.

K

The pilot project of a succession plan and talent bank, called "De Olho no Futuro", has brought important contributions to individual and corporate development plans and will be expanded to Eletrobras companies.

### **Compensation and Benefits**

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 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, and based on the assumptions of our human resources policy. Among them, we highlight the following:

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



Tourists at the Itaipu hydroelectric plant – Itaipu Binational/Alexandre Marchetti

# **Customer satisfaction**

# Clear and transparent communication G4-EU24

The main business of Eletrobras companies that deal with a large number of customers is distribution. These companies, which serve more than four million customers, value transparency and accessibility to information about their services, and adopt a standardized electricity bill template, which details consumption, tariffs, taxes, quality indicators, contact details, among other useful and important data.

The bill also features practical information and explanatory images on the safe use of electricity and any additional information considered important on issues such as risks associated to electricity, theft of electricity, low-income social tariff, etc.

As a way to reach different stakeholders and ensure that safety information reaches all customers, Eletrobras distributors also invest in periodic publications with safety tips on the use of electricity; visit educational institutions and participate in state and municipal events promoting lectures with topics such as conscious consumption of electricity, environment and power grid risk prevention.



In March, Eletrobras launched a campaign on its official Facebook page seeking to engage our customers and society about the rational use of electricity.

## **Satisfaction survey**

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

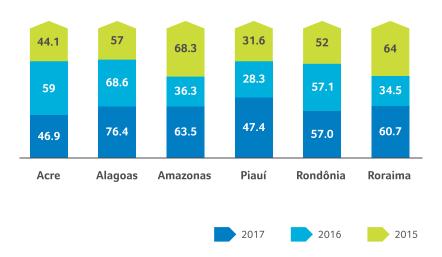
The survey uses the Customer Window Quadrant model as a method to measure the customer satisfaction of the generation and transmission business, based on customer perception about value attributes and level of importance.

The last survey, in 2016, had the participation of CGTEE, Chesf, Eletronorte, Eletronuclear, Eletrosul and Furnas, and showed a consolidated satisfaction rate of 85.31% and level of importance of 93.05%.

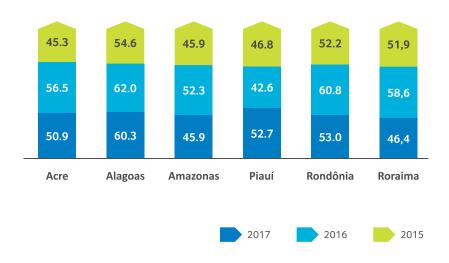
In order to measure the satisfaction rate and, more importantly, implement improvements in customer relationship management, we will conduct Eletrobras companies' 3rd Integrated Customer Satisfaction Survey in April 2018. This new survey, as well as the companies that participated in 2016, will also include Amazonas GT and Centro de Pesquisas de Energia Elétrica (Cepel), which will consult users of the Technological services and Product Licensing units.

Every year, all six Eletrobras distribution companies evaluate the satisfaction of their customers/consumers through surveys conducted by ANEEL, based on the ANEEL Consumer Satisfaction Index (IASC), and by ABRADEE, based on the Perceived Quality Satisfaction Index (ISOP).

# **Abradee Research - Overall Satisfaction Index (ISG) in%**



### **Aneel Consumer Satisfaction Index (%)**



# Citizenship and social inclusion G4-EU24

Committed to citizenship and social inclusion, in 2017, Eletrobras Distribuição Rondônia has been developing a series of initiatives to promote human rights and the inclusion of people with disabilities:

- Creation of stickers with useful telephone numbers such as "136 – Dial Health", "100 for Human Rights" and "180 for the Call Center for Women", also available in Brazilian Sign Language (LIBRAS), bringing the opportunity for people to talk about gender and race violence.
- Publication of different communication materials to raise awareness about human rights in LIBRAS.
- A series of videos with the theme "Social Responsibility. Not to discrimination and yes to inclusion".
- Promotion of a carnival song created with lyrics about the Maria da Penha Law, also available in LIBRAS.
- Video posted on Facebook about the campaign "All against homophobia".
- Dissemination of accessible materials, in LIBRAS, on safe and rational use of energy, such as the "The World of Light Multimedia KIT" and the video "Conscious use of electricity (safe use and without waste)".

# **Aligned suppliers**

G4-12; G4-EC9; G4-HR11

### **Outlook**

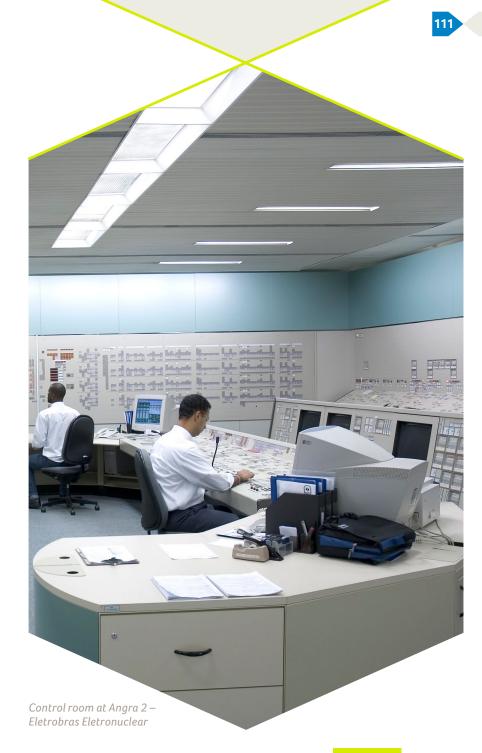
In 2017, Eletrobras companies' supply chain had 3,428 new suppliers contracted, a cost of R\$6.8 billion in the year. By the end of 2017, there were 15,900 contracts in force.

	% of suppliers contracted locally (in the same region)
Northeast	20%
North¹	50%
Southeast	69%
South	79%

It does not include Eletrobras Rondonia, which until 2017 did not monitor this information.

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.

Of the total number of contracts signed in the year, 670 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, 97.2% included clauses related to human rights.



## **Management**

# Alignment of values and principles

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, keeping track of their activities, maintaining a constant and transparent dialogue and sharing their ethical principles throughout the relationship cycle.

### **Engagement and exchange of knowledge**

In 2017, we launched the Supplier Conduct Code, which guides Eletrobras suppliers on standards to be adopted for the supply of materials and the provision of services, clearly and objectively defining its attributions and responsibilities, as well as indicating hiring procedures in a clear and transparent way.

The code is an important supplier engagement tool, and promotes sustainability and integrity. All suppliers interested in maintaining or establishing business with Eletrobras must observe and comply with the criteria, requirements and rules of conduct set forth in the code. The document is available at: https://bit.ly/2qkJIFf

We also held the "VII Meeting with Suppliers of Eletrobras Companies of Rio de Janeiro", which brought together Cepel, Eletropar, Eletronuclear and Furnas, aimed at disseminating good practices, exchanging information and clarifying doubts about the contracting and supply management processes with the Social Responsibility, Human Rights, Environment and Corporate Integrity areas.

The event addressed the new Regulation on Bids and Contracts of Eletrobras Companies and the interaction between supply management and Social Responsibility, Human Rights, Environment and Corporate Integrity – topics associated with the Sustainable Development Goals (SDGs), proposed by the United Nations.

Another important alignment action was held internally, in order to define concepts, values and principles, as well as to disseminate the best supplier management practices among Eletrobras companies: the I Supply Workshop of Eletrobras Companies, which brought together the Supply, Compliance and Sustainability areas of all companies in the group.

In line with our Supply Logistics Policy, which guides our business based on internationally recognized management practices, we require a series of social and environmental commitments from our suppliers, as presented below.

### **Selection and monitoring**

G4-HR12

To ensure compliance with these commitments since the contracting process, suppliers must be in line with the laws and principles required by the Company:

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.

### Social and environmental commitments on supplier management





Consumption of natural

resources

management

Solid

waste



<u>Q</u>



Liquid Atmo

Atmospheric emissions

Support for social development and respect for human rights by means of a contractual clause prohibiting:



Night, dangerous or unhealthy work for individuals under 18 years old

Any work for children under 16

Execution of degrading or forced labor in the productive chain

This management process is assisted by Eletrobras' Strategic Supply Logistics Committee (Celse), which analyzes and disseminates good sustainable procurement practices through guidelines, such as Eletrobras' Sustainable Bidding Practices Guide, and annual meetings with suppliers.

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



When registering or participating in bids, every supplier must attach to the documents a formal commitment demonstrating that it does not carry out these practices.

### **Critical suppliers**

G4-HR5; G4-HR6; G4-HR12

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, exclusive suppliers, as well as those that represents high risk to the Company's integrity.



In 2017, we improved our processes and policies to identify the supplier criticality regarding integrity and ensure the dissimination of the culture of ethics, compliance, and integrity throughout the chain.

The Board of Directors and the Board of Executive Officers approved the Regulation on Bids and Contracts, which aligns Eletrobras companies' contracting guidelines to the provisions of Law 13,303/2016 (State-Owned Companies Act) and provides for the assessment of the supplier's corporate integrity from the contracting process until the execution of

the contract. From April 2018, all contracts and acquisitions will be formalized based on the new regulation.

The regulation brings a significant preventive measure in relation to contracts with outsourced service suppliers with an allocated work force: these companies can't formalize more than two contracts of this nature with Eletrobras in order to protect employees' social and labor rights, avoiding, for example, problems in receiving their compensation due to the financial problems of the contracted company.

- 2. Eletrobras companies' Supply Logistics Policy was also reviewed, with the inclusion of the Sustainability, Ethics and Corporate Integrity topic.
- 3. We have established a new due diligence process:
- Critical providers completed a due diligence form, which maps out relationships with public agents, history of allegations of fraud or corruption, and the existence of an Integrity Program.

- We applied an analysis of results methodology to identify and classify their integrity risk as low, medium, high and very high.
- For each of the four risk classifications, monitoring actions will be applied.
- 4. In addition, the 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.

 To stimulate the advances in the promotion of sustainability in the supply chain, our 2018-2022 Business and Management Plan establishes formal goals of engagement and relationship with these stakeholders:

- 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
- These indicators will be available on our website in the second half of 2018.

# **Community engagement**

G4-S01; G4-S02

### Outlook



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.

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. 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.

### **Commitments**

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 2016, and 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



Awareness of the safe, efficient and responsible use of energy



Safety and protection of populations in emergencies



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

### Impact management

Displacement of populations and changes in social dynamics G4-EU20

Since 2015, we have incorporated guidelines on the displacement of the populations affected by projects in the electric power sector to the guidelines on the relationship with society and environmental communication of our Environmental Policy.

The rules 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.

### Interaction with communities

**Environmental Impact Studies (EIA):** 

responsible for the analysis of the social aspects of the areas of influence of the projects, as well as the evaluation of impacts. The EIA relies on the participation of local communities and their representatives, through interviews and meetings. The results of these studies and the planned programs are presented at meetings with local communities and their representatives and also at public hearings, as determined by the environmental agency.

Social and economic assessment: identifies the vulnerable groups that can be impacted by the projects and allows the Company to develop, with their help, actions that meet their needs. These actions should be described in the environmental impact assessments and also in the preventative actions that the Company might carry out or promote along with the competent authorities.

Social and environmental actions: abased on the social and economic assessment, the EIA and the requirements of environmental legislation, social and environmental actions to be developed in the region are

defined. The responsibilities and financial resources to carry out these actions are determined during the elaboration of the Basic Environmental Project, which is also submitted to environmental agencies for analysis. As for the holding company, which is responsible for the environmental licensing of projects such as hydroelectric power plants and transmission lines, the engagement actions take place during the Environmental Impact and Feasibility Studies and are usually based on a specific Social Communication Plan for each project or set of projects (in the same area of study).

Social Communication Plan: social communication actions, including the set-up of local offices, toll-free (0800) telephone numbers, mapping of stakeholders, creation and dissemination of communication materials such as folders, videos and radio programs, and meetings with the several social groups, in order to hear their opinions, disseminate information and stimulate social interaction.

We also monitor the media and conduct opinion polls to identify expectations of the population and to resolve any social conflicts that may arise.

At the meetings with the local communities, the holding company makes its relationship channels, such as Ombudsman and Contact Us, available to the population. Eletrobras also encourages the creation of local committees – spaces where the community and their appointed representatives can participate.

For the first time, Eletrobras, in partnership with the Bolivian state-owned company ENDE, will develop social communication actions within the scope of the Madeira River inventory studies. This is a good practice, since the Social Communication Plan is not provided for in the Hydroelectric Inventory of Hydrographic Basins Manual, that guides such studies.



# **Safety** G4-EU21

### **Contingency**

In order to manage the existing risks in each business segment, 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 and company image crisis, among others.

So that all employees can implement those plans in emergency situations, some Eletrobras companies invest in training and education, involving emergency brigades and employees who work in risk areas.

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.

### Safe use of the electricity grid

As a way of raising awareness to the dangers of energized equipment, the companies carry out several communication actions, such as the use of warning signs and posters. Learn more on page 118.

### **Traditional populations**

G4-HR8

In line with its commitments and policies, Eletrobras seeks to promote ethical and transparent dialogues with traditional populations, more frequently with indigenous peoples at the communities where it operates, acknowledging their culture, forms of social organization and the representatives appointed by them.

The Eletrobras companies' Environmental Committee addresses the indigenous peoples' rights issue through the Indigenous Communities Commission, created in 2012, which prepared an article gathering the good practices of Eletrobras companies with indigenous peoples.

Eletrobras companies' Social Responsibility Policy emphasizes that in the process of building engagement and qualified relationships with stakeholders, companies should pay special attention to vulnerable groups such as traditional and indigenous communities.

As a rule of conduct, Eletrobras companies comply with legal requirements to repair damages caused to the indigenous communities from the implementation of electric power generation and transmission line projects, in addition to support cultural development projects at those communities.

### Legislation

Before applying for environmental licenses, Eletrobras companies must comply with the Interministerial Ordinance 60/2015, which establishes guidelines and criteria that environmental license applications submitted to Ibama (Brazilian Institute of Environment and Renewable Natural Resources) must follow, along with the participation of agencies

such as the National Indian Foundation (Funai) and the Palmares Cultural Foundation. They must also comply with Article 231 of the Federal Constitution, with regard to the rights of the indigenous peoples involved in the licensing processes.

Projects that started operating before the National Environmental Policy was created, are required to conduct Indigenous Component Studies during their licensing renewal process, under the coordination of Funai, as well as to adopt measures to mitigate potential impacts.

### **Cultural development**

### Kayapó support projects (PA)

Eletrobras continued the social responsibility projects carried out with financial and technical support from Eletrobras and Norte Energia, in partnership with Funai, with 32 Kayapó indigenous communities in the Xingu region, in southern Pará. These Kayapó communities, considered to be indirectly impacted by the Belo Monte power plant, are divided between the East and West of the Xingu river, and the first cycle of projects was completed with both sides in 2012. The second cycle of projects began in 2013, and is in its final stage. The third cycle is already being implemented with the Western Kayapó community.

The projects invest in:

• the institutional strengthening of the indigenous associations implementing the projects, with equipment, maintenance resources and the hiring of teams;

- support for territorial surveillance, with reports produced from expedition and satellite monitoring data, to identify the presence of trespassers and the illegal use of natural resources on indigenous lands;
- the promotion of sustainable economic activities, with goods, inputs and working capital to support the collection of Brazil nuts and other socio-biodiversity products of the Kayapó communities;
- culture appreciation, especially the production of local handicrafts and the training of indigenous filmmakers; and
- infrastructure support, with the construction of houses and other improvements of collective use.

Our investments in these indigenous communities have promoted the institutional strengthening of the entities representing the Kayapó community, the promotion of sustainable economic activities such as the 273% volume increase in Brazil nuts collected by the Western Kayapó group, and appreciation of the local culture, with a fourfold increase in the amount of handicrafts produced and sold by the Eastern Kayapó, and the production of learning material in the Mebêngôkre language.

In June 2017, the project with the Western Kayapó community completed three years and nine months and was extended to another five years, with an estimated budget of R\$11.25 million, helping 11 villages and 1,500 people.

In January, we also participated in a preparatory workshop for the activities of the Kayapó Autonomy Support Plan in Ourilândia do Norte (PA), which should help 4,500 people in 22 Kayapó indigenous villages in the Xingu region for a year and a half.



Kaiapó art - Eletrobras holding/Jorge Coelho

Projects to support traditional indigenous populations also lead to environmental preservation, since Kayapó lands, where 31% of the Xingu river flows, have a 93% preservation rate, while the Xingu basin has a total of only 50%.

The projects are built through a partnership between Eletrobras technical team, indigenous communities and their leaders, consultants specialized the indigenous cause (in the second cycle) and Funai, including workshops with indigenous leaders in the region and visits to villages for validation of contents. This methodology aims to ensure that the projects are developed around the needs and demands that all the groups involved understand as legitimate and pertinent, especially the indigenous communities.

Eletrobras monitors the projects' accountability, in order to supervise the relationship with the Kayapó communities, as they are part of the Company's strategic stakeholders. Eletrobras regularly visits associations and villages, and invites Kayapó representatives to the events in which it participates.



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, Parakanã Program and Support to the Krikati Indigenous Community (AM)

Eletrobras Eletronorte has programs in partnership with Funai in the Parakanã, São Marcos and Krikati Indigenous Lands, carrying out actions to develop indigenous communities and offset social and environmental impacts caused by its projects.

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 2,585,611.96 hectares, with a population of 1,917 indigenous people, living in 45 villages.

In 2017, the Waimiri Atroari, Parakanã and Krikati programs received R\$17.1 million

from 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. In 2017, with the support of the program and an effective indigenous action, the community exceeded 1,940 people.

In 2017, the company was in negotiation with the Waimiri Atroari community to define the conditions for the implementation of the Tucuruí transmission line between Manaus (AM) and Boa Vista (RO).

### Support for the Kaingang community (PR)

Eletrobras Furnas has been supporting the Kaingang community since 1992 through donations, surveillance services and the acquisition of land as compensation for the use of transmission lines on its land.

# Support for the Avá-Guarani community (PR) Itaipu Binacional develops the Sustainability

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.

### Dissemination of the Guarani culture (SC)

Inclusion of the indigenous culture in the activities of Eletrosul's Environment Week, with an exhibition of Guarani handicrafts by indigenous artisans and talks mediated by the nationally recognized Guarani leadership.

# Support to the quilombola community of Patioba

Eletrobras Chesf promotes the engagement of the quilombola community of Patioba regarding social and environmental issues chosen by them and promotes community organization workshops to support its sustainable development.



Meeting in Kaiapó village - Eletrobras holding/Jorge Coelho



In 2017, there were no incidents of violations involving rights of indigenous and traditional peoples in the Eletrobras companies' ombudsmen.

# Social and environmental engagement and development programs

We always seek to go beyond complying with legislation, mitigating social and environmental impact or offsetting possible impacts in the regions where we operate. 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.



Children in the environmental education program - Itaipu Binational / Nilton Rolin

In 2017, we invested approximately R\$260.9 million¹ in 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.

We present below Eletrobras companies' main programs to promote development in 2017.

### **Volunteer Program**

In 2017, Eletrobras companies further developed their actions and volunteer programs, supporting the exercise of citizenship and encouraging their employees to be transformation agents in the communities of the areas impacted by the projects.

In 2017, the holding company's Volunteer Program promoted 41 actions, in partnership with institutions that help socially vulnerable groups, benefiting more than 1,502 people, as well as six 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 Eletrosul: https://bit.ly/2GTxn1J

# **Social and Environmental Action Plan** (PAS)

PAS is a shared environmental management process created by 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.

<sup>1.</sup> The difference from the R \$ 149.9 million reported in the Management Report is due to the inclusion of the amount invested by Itaipu here in the Sustainability Report but not included in the Management Report.

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. In total, the program reached more than 5,000 people in 2017, with an investment of R\$7.3 million.

### **Community Gardens (Eletrosul)**

The Community Gardens program offers an alternative income to the communities surrounding the transmission lines and encourages the proper use and preservation of the easement strips, avoiding irregular occupations. The program is being developed in the states of Paraná, Santa Catarina and Rio Grande do Sul, and in 2017, was included in the FAO's Good Practices Platform for Sustainable Development, an agency of the United Nations specialized in combating hunger and poverty. Eletrosul implemented Community Entrepreneurship Centers (CECs) in eight municipalities impacted by projects, seeking to stimulate the local development of communities through entrepreneurship, income generation and the empowerment of women and/or historically discriminated people.



The Community Gardens Program is an example of how the relationship with different stakeholders, observing their needs and demands, can support the transformation of risks into value generation opportunities.

### **Development and generation of income (Eletrobras Furnas)**

In partnership with the Arba multi-incubator, focused on technical and management training for innovative and sustainable business, since 2015, Eletrobras Furnas has supported the development of the community bakery in the João Carro Women Community Association, and wheat flour production in the Agricultural Cooperative of Small Producers of Chapada dos Guimarães (MT). The organizations were trained and prepared to produce and sell the products to the City Hall, through federal government programs for school meals, generating qualification, work and income for members and associates and fostering local development based on processes which included local residents. With this support, they started to produce about 700 loaves of bread a day to meet the demand in seven municipal schools in the region. Considering the whole network, more than 300 producers benefited.

### Sustainable rural development (Itaipu)

Since 2008, the program has been aimed at supporting farmers from some 26,000 family farms in the Paraná 3 Basin, who experienced the modernization of production in the last decades, which degraded sustainability and generated potential for environmental deterioration and public health risk with the use of pesticides and chemical fertilizers.

Through participatory methodologies, the program offers small producers options for the development of the entire chain, seeking to create a sustainable productive matrix based on five actions: crop diversification, organic agriculture, technical assistance and rural extension network, family farming and rural tourism.

Among the main achievements of the project are: the number of organic farmers in the region increased from 100 to 135, the number of agro-ecological fairs increased from 4 to 22, three new agro-industries were inaugurated, 98 farmers were benefited with seedlings, demonstration units were implemented in pedagogical gardens in 56 institutions, and technical assistance in rural settlements increased from 130 to 400 families.

### **Medicinal Plants Program (Itaipu)**

Through the program, Itaipu has been supporting the development of the herbal medicine production chain in the western region of Paraná for more than 14 years, promoting the training of thousands of public health agents and people from the community in general, as well as working in the distribution of seedlings and medicinal plants for use in the Unified Health System (SUS).

Currently, the focus of the program is fostering production, research and the use of medicinal plants aimed at the public health agents of the Paraná Basin 3 involved in the herbal medicine productive chain.

The Medicinal Plants Program was first in the ranking of "15<sup>th</sup> Benchmarking Brasil" event, which rewards the best social and environmental initiatives in the country.

### **Community Production Centers (CCPs)**

CCPs are projects that result from Eletrobras' partnership with small producers and provide conditions for the improvement of local production through the efficient use of electricity. The CCPs start a virtuous development cycle of the producers, giving them access to other markets and increasing income from their activities, allowing improvements in the social condition of their families and the strengthening of social relations among the project participants.

For example, the CCP in the Cachoeira do Cambuí Community, in the municipality of Muzambinho-MG, benefits a group of 12 small coffee growers, enabling producers to dry, clean and select coffee beans to produce a better quality of, and more valuable products, resulting in a reduction of 50% in the costs of the coffee treatment process, increased income, greater access to credit and independence in the execution of certain activities, which had to be contracted previously.

To learn more about the CCPs, please visit: https://bit.ly/2lfM03w.



 $Group\ of\ seams tresses\ at\ CCP-Eletrobras\ holding/Jorge\ Coelho$ 



# **GRI Content Index**



	GRI Indicator	Page / Direct Answer	SDG	Global Compact
PROFIL	E CONTROL OF THE CONT			
Strategy	and analysis			
G4-1	Statement from the most senior decision-maker of the organization about the relevance of sustainability to the organization	Page 8		
G4-2	Description of key impacts, risks, and opportunities	Page 53	16	
Organiza	ational profile			
G4-3	Name of the organization	Page 12		
G4-4	Primary brands, products, and services	Page 12		
G4-5	Location of the organization's headquarters	Headquartered in Brasília – Distrito Federal: SCN Q 4 BL B – sala 203 - Asa Norte; and its main office is located in Rio de Janeiro: Av. Presidente Vargas, nº 409 – Centro.		
G4-6	Number of countries where the organization operates	Hydropower plant in Guyana, 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.		
G4-7	Nature of ownership and legal form	Page 12		
G4-8	Markets served	Page 12		
G4-9	Scale of the organization	Pages 12, 14, 77, 78 and 99		
G4-10	Total number of employees	Page 99	8	6 • ‡
G4-11	Percentage of total employees covered by collective bargaining agreements	All employees of the 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.	400	3

	GRI Indicator	Page / Direct Answer	SDG	Global Compact
G4-12	Describe the organization's supply chain	Page 111		
G4-13	Significant changes during the reporting period regarding the organization's size, structure, ownership, or its supply chain	Page 12	<b>17</b> <b>₩</b>	
G4-14	Report whether and how the precautionary approach or principle is addressed by the organization	Page 53	16	
G4-15	List externally developed economic, environmental and social charters, principles, or other initiatives to which the organization subscribes or which it endorses	Page 33		
G4-16	List memberships of associations (such as industry associations) and national or international advocacy: organizations in which the organization, holds a position on the governance body, participates in projects or committees, provides substantive funding beyond routine membership dues	Page 33		
Identified	material aspects and boundaries			
G4-17	List all entities included in the organization's consolidated financial statements	Cepel, Chesf, Furnas, CGTEE, Eletrosul, Eletronorte, Itaipu, Distribuição Acre, Distribuição Alagoas, Distribuição Piauí, Distribuição Rondônia, Distribuição Roraima, Distribuição Amazonas, Amazonas GT and Eletropar.		
G4-18	Explain the process for defining the report content and the Aspect Boundaries	Page 3		
G4-19	List all the material Aspects identified in the process for defining report content	The material aspects, related to the material themes presented on page 3, are presented throughout this GRI index.		
G4-20	For each material Aspect, report the Aspect Boundary within the organization	Page 4		
G4-21	For each material Aspect, report the Aspect Boundary outside the organization	Page 4		
G4-22	Report the effect of any restatements of information provided in previous reports, and the reasons for such restatements	Page 85		
G4-23	Report significant changes from previous reporting periods in the Scope and Aspect Boundaries	Page 3		

	GRI Indicator	Page / Direct Answer	SDG	Global Compact
Stakehold	er engagement			
G4-24	List of stakeholder groups engaged by the organization	Pages 3 and 98		
G4-25	Report the basis for identification and selection of stakeholders with whom to engage	Pages 3 and 98		
G4-26	Report the organization's approach to stakeholder engagement, including frequency of engagement	Page 3		
G4-27	Report key topics and concerns that have been raised through stakeholder engagement, and how the organization has responded to those key topics and concerns	Page 3	10 11	
Report pro	file			
G4-28	Reporting period	Page 3		
G4-29	Date of most recent previous report	2016		
G4-30	Reporting cycle	Annual		
G4-31	Contact point for questions regarding the report or its contents	sustentabilidade@eletrobras.com		
G4-32	Report the 'in accordance' option the organization has chosen, GRI Content Index and External Assurance Report	Page 3		
G4-33	Report the organization's policy and current practice with regard to seeking external assurance for the report	Page 3		
Governand	ce			
G4-34	Report the governance structure of the organization, including committees	Page 41		
G4-35	Report the process for delegating authority for economic, environmental and social topics from the Board of Directors to senior executives and other employees	Page 41		
G4-36	Report whether the organization has appointed an executive-level position or positions with responsibility for economic, environmental and social topics, and whether post holders report directly to the Board of Directors.	Page 33		
G4-37	Report processes for consultation between stakeholders and the Board of Directors on economic, environmental and social topics	Page 48		
G4-38	Report the composition of the Board of Directors	Page 41		

ANNUAL REPORT • 2017 -CONTENT

	GRI Indicator	Page / Direct Answer	SDG	Global Compact
G4-39	Report whether a Board of Directors member is also an executive officer (and, if so, which one?)	Page 41		
G4-40	Report the nomination and selection processes for the Board of Directors and its committees	Page 41		
G4-41	Report processes for the Board to ensure conflicts of interest are avoided and managed. Report whether conflicts of interest are disclosed to stakeholders	Page 47		
G4-42	Report the Board's and senior executives' roles in the development, approval, and updating of the organization's purpose, value or mission statements, strategies, policies, and goals related to economic, environmental and social impacts.	Pages 18 and 41		
G4-43	Report the measures taken to develop and enhance the Board's collective knowledge of economic, environmental and social topics	Page 44		
G4-44	Report the processes for evaluation of the Board of Directors' performance and governance	Pages 18 and 44		
G4-45	Report the Board of Directors' role in the identification and management of economic, environmental and social impacts, risks, and opportunities. Report whether stakeholder consultation and materiality are taken to Board.	Page 53		
G4-46	Report the Board of Directors' role in reviewing the effectiveness of the organization's risk management processes	Page 53		
G4-47	Report the frequency of the Board's review of impacts, risks, and opportunities.	Page 53		
G4-48	Report the highest committee or position that formally reviews and approves the organization's sustainability report and ensures that all material Aspects are covered	Pages 31 and 33		
G4-49	Report the process for communicating critical concerns to the Board	Pages 48 and 98		
G4-50	Report the nature and total number of critical concerns that were communicated to the Board and the mechanism(s) used to address and resolve them.	Page 48		
G4-51	Report the remuneration policies for the Board of Directors and senior executives	Page 45		
G4-52	Report the process for determining remuneration Board of Directors and senior executives	Page 45		

	GRI Indicator	Page / Direct Answer	SDG	Global Compact
G4-53	Report how stakeholders' views are sought and taken into account regarding remuneration	Page 45		
G4-54	Report the ratio of the annual total compensation for the organization's highest-paid individual in each country of significant operations to the median annual total compensation for all employees (excluding the highest-paid individual) in the same country	4,90. Permanent wage types, annual supplementary bonus, functional bonus and other additional items were considered.	10	
G4-55	Report the ratio of percentage increase in annual total compensation for the organization's highest-paid individual in each country of significant operations to the median percentage increase in annual total compensation for all employees (excluding the highest-paid individual) in the same country	0,09. Permanent wage types, annual supplementary bonus, functional bonus and other additional items were considered.	10	
Ethics and	dintegrity			
G4-56	Describe the organization's values, principles, standards and norms of behavior such as codes of conduct and codes of ethics	Pages 18, 35 and 39	16	10
G4-57	Report the internal and external mechanisms for seeking advice on ethical and lawful behavior, and matters related to organizational integrity, such as helplines or advice lines	Page 48	16	10
G4-58	Report the internal and external mechanisms for reporting concerns about unethical or unlawful behavior, and matters related to organizational integrity, such as escalation through line management, whistleblowing mechanisms or hotlines	Page 48	16	10
ECONO	MIC PERFORMANCE			
Economic	Performance			
G4-EC1	Report the direct economic value generated and distributed	Page 79	1 8 <b>117 8</b>	
G4-EC2	Financial implications and other risks and opportunities for the organization's activities due to climate change	Pages 53 and 93	13	7

	GRI Indicator	Page / Direct Answer	SDG	Global Compact
Procureme	ent Practices			
G4-EC9	Proportion of spending on local suppliers at significant locations of operation	Page 111	8	
ENVIRON	IMENTAL			
Water				
G4-EN8	Total water withdrawal by source	Page 83	12 CO	7 8
G4-EN9	Report the total number of water sources significantly affected by withdrawal by type	Eletrobras companies do not significantly affect water sources by withdrawal.	12 CO 13 14 E	8
Biodiversit	у			
G4-EN11	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	Page 86	15 • **	7 8
G4-EN12	Description of significant impacts of activities, products, and services on biodiversity in protected areas and areas of high biodiversity value outside protected areas	Page 86	15 • **	7 8
G4-EN13	Habitats protected or restored	Page 86	15 ••**	7 8
Emissions				
G4-EN15	Direct greenhouse gas (GHG) emissions	Page 93	7 12 (X)	7 8 \$\vec{1}{2}

**GRI CONTENT INDEX** ANNUAL REPORT • 2017 -CONTENT

	GRI Indicator	Page / Direct Answer	SDG	Global Compact
G4-EN16	Energy indirect greenhouse gas (GHG) emissions	Page 93	12 13 <b>①</b>	7 8 \$\hat{1}\$
G4-EN17	Other indirect greenhouse gas (GHG) emissions	Page 93	12 13 CO	7 8 \$\int\tau\tau\tau\tau\tau\tau\tau\tau\tau\ta
G4-EN18	Greenhouse gas (GHG) emissions intensity	Page 93	12 CO 13	8
G4-EN19	Reduction of greenhouse gas (GHG) emissions	Page 93	12 \( \infty \)	8
G4-EN20	Emissions of ozone-depleting substances (ODS)	Page 93	3 -W• CO	<b>7</b> 8
G4-EN21	NOX, SOX, and other significant air emissions	Pages 93 and 94	7 12 ©	<b>7</b> 8
SOCIAL				
Occupatio	nal Health and Safety			
G4-LA5	Percentage of total workforce represented in formal joint management–worker health and safety committees that help monitor and advise on occupational health and safety programs	100% of the employees of the Eletrobras companies are represented by health and safety committees, except Eletrobras Distribuição Alagoas.	8	
G4-LA7	Workers with high incidence or high risk of diseases related to their occupation	Pages 102 and 104	3 -\(\sqrt{\phi}\)	
G4-LA8	Health and safety topics covered in formal agreements with trade unions	All companies in the Eletrobras group, with the exception of CGTEE and Eletropar, present health and safety topics in 100% of the agreements.	8	3
Training a	nd Education			
G4-LA9	Average hours of training per year per employee by gender, and by employee category	Page 105	5 8 <b>≈</b> €	6 +û

	GRI Indicator	Page / Direct Answer	SDG	Global Compact
G4-LA10	Programs for skills management and lifelong learning that support the continued employability of employees and assist them in managing career endings	Page 104	8	
G4-LA11	Percentage of employees receiving regular performance and career development reviews, by gender and by employee category	Page 107	5 <b>©</b> 8 <b>⋒</b>	
Diversity a	nd Equal Opportunity			
G4-LA12	Composition of governance bodies and breakdown of employees per employee category according to gender, age group, minority group membership, and other indicators of diversity	Page 99	5 <b>€ 1 1 1 1 1 1 1 1 1 1</b>	6
Equal Rem	uneration for Women and Men			
G4-LA13	Ratio of basic salary and remuneration of women to men by employee category, by significant locations of operation	Page 107	5 <b>©</b> ≈ 1	6 + 👸
Investmen	t			
G4-HR1	Total number and percentage of significant investment agreements and contracts that include human rights clauses or that underwent human rights screening	In total, 651 significant investment contracts include human rights clauses, representing 97.2% of the total.	16	2 <b>(i)</b>
Non-discri	mination			
G4-HR3	Total number of incidents of discrimination and corrective actions taken	Page 99	5 8 mm	6
Freedom o	f Association and Collective Bargaining			
G4-HR4	Operations and suppliers identified in which the right to exercise freedom of association and collective bargaining may be violated or at significant risk, and measures taken to support these rights	81 suppliers	8	3
Child Labo	r			
G4-HR5	Operations and suppliers identified as having significant risk for incidents of child labor, and measures taken to contribute to the effective abolition of child labor	39 suppliers	8 16	5

GRI CONTENT INDEX — ANNUAL REPORT • 2017 -CONTENT

	GRI Indicator	Page / Direct Answer	SDG	Global Compact
Forced or 0	Compulsory Labor			
G4-HR6	Operations and suppliers identified as having significant risk for incidents of forced or compulsory labor, and measures to contribute to the elimination of all forms of forced or compulsory labor	39 suppliers	8 <b>11</b>	4
Indigenous	s Rights			
G4-HR8	Total number of incidents of violations involving rights of indigenous peoples and actions taken	Page 119	2 (((	1 +µ̂
Supplier H	uman Rights Assessment			
G4-HR11	Significant actual and potential negative human rights impacts in the supply chain and actions taken	Page 111		1 2 +µ̂ <b>(</b> )
Human Rig	hts Grievance Mechanisms			
G4-HR12	Number of grievances about human rights impacts filed, addressed, and resolved through formal grievance mechanisms	In the various channels of the companies, 21 grievances were received, 31 were processed during the year, 16 were received and settled in 2017 and 3 were received before 2017 and settled in the year. In the consolidated denunciation channel of Eletrobras companies, 29 grievances were received and one settled in the year.	16	1 +µ
Local com	munities			
G4-S01	Percentage of operations with implemented local community engagement, impact assessments, and development programs	Page 115		1 +ĝ
G4-S02	Operations with significant actual and potential negative impacts on local communities	Page 115	1 2 111	1 +ĝ
Anti-corru	ption			
G4-S04	Communication and training on anti-corruption policies and procedures	Pages 48 and 53	16	10

**GRI CONTENT INDEX** ANNUAL REPORT • 2017 -CONTENT

	GRI Indicator	Page / Direct Answer	SDG	Global Compact
G4-S05	Confirmed incidents of corruption and actions taken	Page 48 Indicator scope: 1- Considers only the scope of the independent internal investigation conducted by the law firm Hogan Lovells, excluding the cases of the ombudsman and the reporting channel. 2 - Considers only acts that involve public agents, disregarding practices of bribery, facilitating payments, fraud, extortion, collusion and money laundering, not monitored in the indicator.	16	10
G4-S06	Total monetary value of financial and in-kind political contributions made directly and indirectly by the organization by country.	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 of Eletrobras companies.	16	10
Sector S	upplement			
Organizat	tional Profile			
EU-1	Installed capacity, broken down by primary energy source and by regulatory regime	Page 60	7	
EU-2	Net energy output broken down by primary energy source and by regulatory regime	Page 63	7	
EU-3	Number of residential, industrial, institutional and commercial customer accounts	Residential units: 3.7 million Industrial units: 11.8 thousand Commercial units: 300,6 thousand Rural units: 239.8 thousand Institutional Units (public power, public service and public lighting): 53.3 thousand Own consumption: 714 Total Customers: 4.26 million		
EU-4	Length of above and underground transmission and distribution lines by regulatory regime	Page 65		
Availabilit	ty and Reliability			
EU-6	Management approach to ensure short and long-term electricity availability and reliability	Page 67	7	

	GRI Indicator	Page / Direct Answer	SDG	Global Compact
Research a	and Development			
EU-8	Research and development activity and expenditure aimed at providing reliable electricity and promoting sustainable development	Page 26	7 9 17 8	
Availabilit	y and Reliability			
EU-10	Planned capacity against projected electricity demand over the long term, broken down by energy source and regulatory regime	Page 60	7	
System Ef	ficiency			
EU-11	Average generation efficiency of thermal plants by energy source and by regulatory regime	Page 64	7 8 12 13 ∞ 14 14 14	
EU-12	Transmission and distribution losses as a percentage of total energy	Pages 68 and 70	7 8 mm 12 13	
Employme	ent			
EU-14	Programs and processes to ensure the availability of a skilled workforce	Page 104	4 8 <b>**</b>	
EU-16	Policies and requirements regarding health and safety of employees and employees of contractors and subcontractors		8	

**GRI CONTENT INDEX** ANNUAL REPORT • 2017 -

	GRI Indicator	Page / Direct Answer	SDG	Global Compact
Local Communities				
EU-20	Approach to managing the impacts of displacement	Page 116	1 2 3 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	
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 2017.	1 2 (((	
Disaster/Emergency Planning and Response				
EU-21	Contingency planning measures, disaster/emergency management plan and training programs, and recovery/ restoration plans	Page 118	1 11 市中中市	
Provision of Information				
EU-24	Practices to address language, cultural, low literacy and disability related barriers to access and safely use electricity and customer support services	Pages 110 and 111	1 #:##:#	
Access				
EU-28	Power outage frequency in the year (FEC)	Page 70	1 #:##:#	
EU-29	Average power outage duration (DEC)	Page 70	1 #:##:#	
EU-30	Average plant availability factor by energy source	Page 64	1 7 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	

# **Capital map**



### **FINANCIAL CAPITAL**

**Financial results** pg. 75 **Capital markets** pg. 79



### **MANUFACTURED CAPITAL**

Eletrobras pg. 12
Performance and results pg. 59
Generation pg. 60
Transmission pg. 136
Distribution pg. 69



### **HUMAN CAPITAL**

**Employee development** pg. 99 **Aligned suppliers** pg. 11



### **NATURAL CAPITAL**

Responsible environmental management pg. 80



### **INTELLECTUAL CAPITAL**

Strategic planning pg. 18
R&D and Innovation pg. 26
Sustainability vision pg. 32
How we generate value pg. 35
Employee development pg. 99



### **SOCIAL AND RELATIONSHIP CAPITAL**

CONTENT

About the report pg. 3 Industry overview pg. 15 Corporate governance pg. 39 Ethics and Compliance pg. 47 Sector programs pg. 71 Relationships pg. 97

ANNUAL REPORT • 2017 — CAPITAL MAP

# Limited assurance report issued by independent auditors



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, Fax +55 (11) 3940-1501
www.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 ("Eletrobras" or "Company") to apply limited assurance procedures on the sustainability information disclosed in Eletrobras' 2017 Annual Report, related to the year ended December 31st, 2017.

### Responsibilities of Eletrobras' Management

The Management of Eletrobras is responsible for adequately preparing and presenting the sustainability information in the Eletrobras' 2017 Annual Report in accordance with the Global Reporting Initiative (GRI) Sustainability Reporting Guidelines (GRI-G4), and the "Electric Utilities Sector Supplement", 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 Eletrobras' 2017 Annual Report based on a limited assurance engagement conducted in accordance with Technical Communication (TC) 07/2012, which was prepared based on NBC TO 3000 (Assurance Engagements Other Than Audits and Reviews), both issued by the Brazilian Federal Accounting Council - CFC and equivalent to international standard ISAE 3000, issued by the International Federation of Accountants and applicable to Non-Financial Historical 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' 2017 Annual Report, taken as a whole, is free from material misstatement.

ANNUAL REPORT • 2017 — ASSURANCE REPORT — CONTE

A limited assurance engagement conducted in accordance with NBC TO 3000 (ISAE 3000) 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 2017 Annual Report 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 Eletrobras' 2017 Annual Report 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 Eletrobras' 2017 Annual Report, 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' 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' 2017 Annual Report. This analysis defined the indicators to be checked in details;
- b. Understanding and analysis of disclosed information related to material aspects management;

- Analysis of preparation processes of the Eletrobras' 2017 Annual Report and its structure and content, based on the Principles for Defining Report Content and Quality of the Global Reporting Initiative - GRI (GRI-G4);
- d. Evaluation of non-financial indicators selected:
  - Understanding of the calculation methodology 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 Eletrobras' 2017 Annual Report;
  - Analysis of evidence supporting the disclosed information;
  - Visits to Eletrobras' operations and offices for application of these procedures, and items (b) and (c);
- e. Analysis of whether the performance indicators omission and justification are reasonable to be accepted associated to aspects and topics defined as material in the materiality analysis of the Company;
- f. Comparison of financial indicators with the financial statements and/or accounting records.

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, they do not assure 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 Eletrobras' 2017 Annual Report.

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 reported for prior periods, evaluated the adequacy of the company's policies, practices and sustainability performance, nor future projections and targets.

### **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 Eletrobras' 2017 Annual Report is not fairly stated in all material aspects in accordance with the Global Reporting Initiative Guidelines- GRI (GRI- G4), and the "Electric Utilities Sector Supplement", as well as its source records and files.

Sao Paulo, May 25th, 2018

KPMG Assessores Ltda. CRC 2SP034262/O-4 F-SP

**Eduardo V. Cipullo** 

Contador CRC 1SP135597/O-6

KPMG Financial Risk & Actuarial Services Ltda.

Ricardo Algis Zibas

Sócio-Diretor

# **Acknowledgments**

Eletrobras - Centrais Elétricas Brasileiras S.A. have several channels open for contact with stakeholders.

#### Headquarter

Av. Presidente Vargas, 409 - 13° andar -Centro - Rio de Janeiro - RJ - CEP 20071-003 Phone: (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 LinkedIn – www.linkedin.com/company/ eletrobras

#### Ombudsman

Av. Presidente Vargas, 409 - 17° andar Centro - Rio de Janeiro - RJ - CEP 20071-003 Phone: (21) 2514-4526 www.eletrobras.com/ouvidoria ouvidoria@eletrobras.com

#### Whistleblower Channel

www.eletrobras.com/canaldenuncia/

#### **Branches**

Eletrobras offices abroad:

- Cone Sul (Montevideo - Uruguay) Av. Luis Alberto de Herrera 1.248 Torre 2, oficina 311. CP – 11.300 - Eina (Lima – Peru) Calle Basadre 310 Oficina 601 B - San Isidro

#### Investor Relations (IR)

Phone: (21) 2514-6331 or (21) 2514-6333 Fax: (21) 2514-5964 Website - www.eletrobras.com.br/elb/ri IR Contact - invest@eletrobras.com

#### Depositary Institution and Administrator of the Stock Portfolio

Eletrobras Banco Bradesco S.A.65 Share and Custody Department Phone: (11) 3684-9441 Fax: (11) 3684-3811

For any enquires about the technical terms in this publication, please access the Eletrobras Electric Power Dictionary, available at: https://bit.ly/2FU3ooU

#### Cover Photos

- 1. HPP Itaipu Itaipu Binational/Alexandre Marchetti
- 2. Canoists on the Itaipu Lake Itaipu Binational/ Alexandre Marchetti
- 3. Bracuhy Indigenous people Eletrobras Eletronuclear
- 4. Worker on live line Eletrobras Furnas/José Lins
- 5. Canoists on the Itaipu Lake (detail) Itaipu Binational/Alexandre Marchetti
- 6. Fisherman in the Sobradinho reservoir Eletrobras Chesf/Severino Silva
- 7. Hands and water Eletrobras holding/Jorge Coelho

#### Photos of chapter openings

- 1. Girl plays the violin Eletrobras holding / Iorae Coelho
  - Girl with foliage Eletrobras holding/Jorge Coelho
- 2. Worker performs maintenance Eletrobras Distribuição Alagoas/Lula Castelo Branco Geribatu wind farm – Eletrobras Eletrosul
- 3. Worker at Santo Antônio TL Eletrobras Furnas/ losé Lins
  - Technicians in Angra Eletrobras Eletronuclear/ Ricardo Beliel
- Waimiri-Atroari child Eletrobras holding/ Jorge Coelho Workers and soldering in the Simplicio HPP-Eletrobras Furnas/Daniela Monteiro

- 5. Worker in Angra 1 Eletrobras Eletronuclear Workers at Santo Antônio HPP - Eletrobras Furnas / losé Lins
- 6. Vegetable garden in CCP Eletrobras holding/Jorge Coelho Waterfall in Kaiapó territory - Eletrobras holding/Jorge Coelho
- 7. Group of quilombolas Eletrobras holding / Jorge Coelho Family benefited by the Luz para Todos program – Eletrobras
- 8. Maintenance in distribution line Eletrobras Dist. Alagoas / Lula Castelo Branco Workers assemble a turbine at Tucuruí - Eletrobras holding/ Jorge Coelho

#### **General Coordination**

Strategy, Business Management and Sustainability

### GRI indicators collection, consulting and writing

Ricca Sustentabilidade

### **Management and Data Collection**

IGS Relat System

#### **Sustainability Indicators Center and Assurance Report**

Executive Committee on Sustainability of Eletrobras Companies

#### Graphic project, translation, layout, and editing

Ricca Sustentabilidade

#### **Editorial Center**

Communication and Institutional Relations of Eletrobras and Ricca

#### Acknowledgments

The Annual Report is the result of the effort of the Eletrobras companies team. We appreciate the participation and commitment of all.

We would like to thank all Eletrobras companies' professionals who provided the necessary information for the elaboration of the 2017 Annual Report and all stakeholders that participated in our research on the material topics and substantially contributed to this work.

#### G4-31

More information about the Report, please email: sustentabilidadeaeletrobras.com

**ANNUAL REPORT • 2017**