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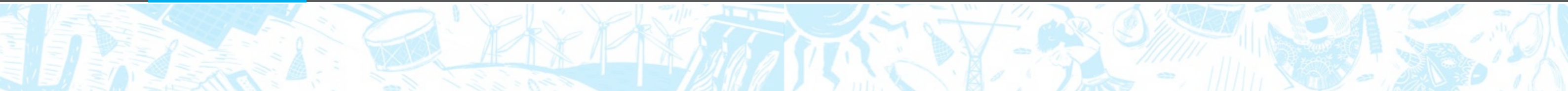
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APOLONIO SALES POWER PLANT

# MESSAGE FROM THE ADMINISTRATION

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## A MORE COMPETITIVE AND SUSTAINABLE CHESF

We are happy to start this message with the news that in 2018—the year Chesf turned 70—we began to see the results of our careful business restructuring process, with improvements in our efficiency and recovery of financial balance.

Following the plan drawn up for the year, we completed 19 projects. For us, this is an extremely relevant fact, since it shows that we maintained the pace in eliminating liabilities of projects behind schedule according to the concession agreement entered into with the Federal Government. In order to do so, intense work by the entire team was necessary to resume the works that had been interrupted, demanding a contractual renegotiation with suppliers. In 2019, we will continue working to eliminate delays in the projects, with the goal of completing 25 projects, a goal considered extremely challenging.

A result of all the effort of our employees, in 2018 we exceeded goals and broke records. Following our guidelines, strategies and work plans, we achieved an expressive result in our operational goals and in the improvements implemented in our electric energy system—throughout the year, there were 200 improvements in Transmission and 50 in Generation, in the modernization of transmission lines, substations, protection, automation, telecommunications and in Chesf’s power plants throughout the Brazilian Northeast.

In addition, we exceeded all goals related to operational availability. In Transmission, we reached 99.91%, third-best result in the Company’s history and exceeded the goal established of 99.85%. A similar performance was obtained in the availability of transformers, reaching the Company’s second-best result: 99.93%. In Generation, our accumulated availability in 12 months was 1.14, whereas the goal was 1, thus obtaining our best historical performance. For the accumulated 60-month availability, we reached 1.03, higher than the goal established of 1, once again obtaining our best result in history. We also recorded the smallest number of events with power outages in the Basic Network, with only 13 occurrences originating in Chesf’s assets, when the threshold was a maximum of 26. This is the best historical result in 20 years of monitoring.

Corporate investments for expansion and modernization of the entire Company totaled R\$ 936 million in the period.

In 2018, we exceeded goals and broke records

### Turnaround

The Company also completed the transfer of its ownership interest in Special Purpose Entities (SPEs), enabling the settlement of debts with Eletrobras, thereby improving financial leverage and our financial indicators with a reduction in the average cost of debt from 12.12% p.a. (Dec/17) to 8.62% p.a. (Dec/18). In addition, we secured the concession of tax incentives with SUDENE, which will allow for a 75% reduction in income tax.

As a result of these actions, Chesf's economic profile improved substantially.

### Modernity and integration

The Company continued to focus on strengthening management, improving performance, productivity gains and operational efficiency, as well as reducing waste and costs. The implementation of the Shared Services Center (SSC), both in Corporate and Financial Management, made it possible to restructure processes, which will provide gains in scale and the application of best practices, with the implementation of standardization policies and cost reduction.

The Consensual Termination Plan was adopted in order to reduce staff and implement a policy to better rationalize people management, by



Fábio Lopes Alves,  
CEO of Chesf

**The Company continued to focus on strengthening management, improving performance, productivity gains and operational efficiency**

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strengthening human resources processes, also including knowledge management through the implementation of the Programs called Knowledge Retention and Preparation for Retirement.

In order to enable all these guidelines and for the effective integration of the Company's main processes, there was a significant advance in structuring and preparing the teams, infrastructure and adequacy of procedures for the implementation of SAP's Enterprise Resource Planning (ERP). This project represents a major challenge in relation to changing attitudes, processes and the way people work, and this is an essential part of the Company's transformation. Chesf takes a large step towards modernization of management, efficiency and competitiveness.

### Investment in new forms of generation

The natural vocation of Brazil's Northeast region for new forms of renewable energy generation should be highlighted, especially for solar and wind sources. The high level of solar irradiance, which was once considered a problem for the region, today has become something good and profitable. The region also has excellent rates of wind circulation. When we take into account the Decennial Energy Expansion Plan 2027 (PDE 2027), which considers that a large portion of the expansion will be through these renewable sources and that 80% of this growth will be in the region, we can appreciate the great opportunity that lies ahead for the Company.

We already have in place several initiatives and studies to be at the forefront of this growth opportunity, especially in photovoltaic generation. In 2018, we began testing the first phase of a floating solar power plant at the Sobradinho reservoir, in a 10,000-sqm area of the surface of the reservoir, and with generation capacity of 1 megawatt-peak (MWp). In 2019, together with the studies of the efficiency of this technology, an additional 4 MWp will be added to the site, totaling 5 MWp.



Wilson Ferreira Junior  
Chairman of the Board of Directors



ABREU E LIMA SOLAR PLANT

We implemented the Solar Energy Reference Center of Petrolina (CRESP), with a photovoltaic generation plant and a research laboratory, which allows us to establish new partnerships for the development of technology, including with learning institutions. The Center has a solar power plant with 2.5 MWp capacity. In addition, CRESP will house a solar power plant using central-tower technology to capture the light reflected by the heliostats, and a solar plant using parabolic trough technology. It is worth mentioning that, in this segment of innovation, we obtained Chesf's first patent, with the *"Aplicativo para Regulação e Paralelismo de Transformadores de Potência"* ("Application for Regulation and Parallel Operation of Power Transformers").

All of these initiatives and our drive for innovation have helped put the Company back into a competitive scenario. The electricity sector is changing rapidly and is very different from the market we knew ten years ago. Therefore, we need to be agile in our decisions to continue improving processes efficiently and seeking innovation and development actions to maintain Chesf as a strong and competitive company.

Given the mission of operating in the electricity sector with excellence and in a sustainable manner, generating value for society, our challenge now is to keep delivering at this level, always focusing on efficiency of our operations, modernization of our business and development of our team—all without neglecting our commitments related to sustainability, including the Sustainable Development Goals (SDG), the Principles of the Global Compact.

Enjoy your reading!

**Fábio Lopes Alves** (CEO of Chesf)

**Wilson Ferreira Junior** (Chairman of the Board of Directors)



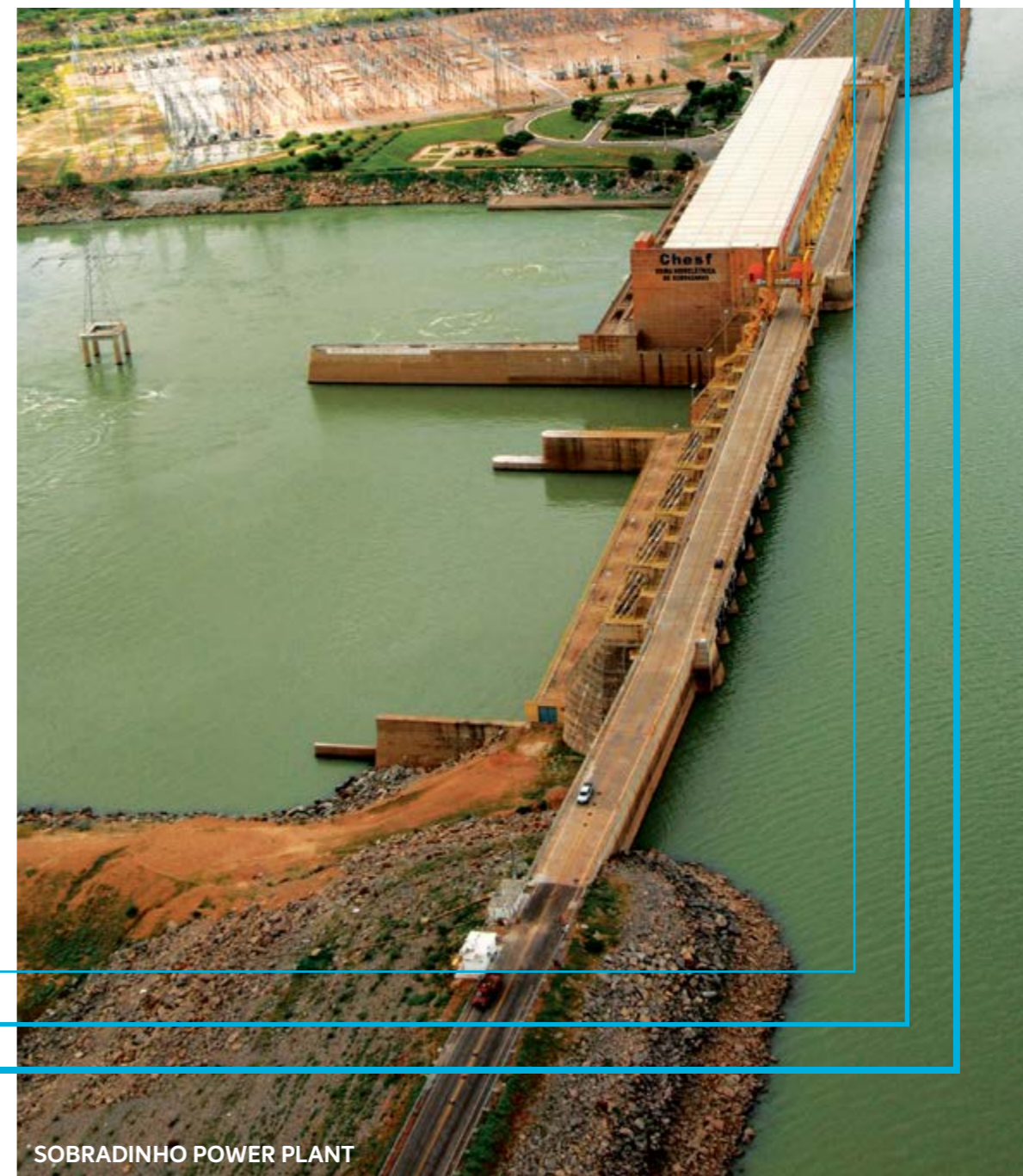
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# Innovation initiatives have helped to put the Company back into a competitive scenario



SOBRADINHO POWER PLANT



XINGÓ POWER PLANT

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Looking to maintain increasingly transparent and detailed reporting channels for its stakeholders, Chesf presents its Annual and Sustainability Report in accordance with the guidelines of the Integrated Reporting (IR) and with the GRI Standards, Core option. [102-54](#)

This document, approved by the Executive Board, contains information about our economic-financial and social and environmental performance in the period between January 1 and December 31, 2018. With this evolution in our reporting approach, we have taken a further step in improving our communication with all stakeholders and in presenting the progress of our business results. In line with our objective of ensuring reliable information, for the first time, we have submitted the information published in this report to external assurance, conducted by an independent company. Learn more in the Assurance Report, on page 73. [102-50 AND 102-56](#)

### Materiality [102-46](#)

In order to understand the main topics of the organization that can cause economic, social and environmental impacts, we carried out a new materiality survey in late 2018 through a desk-review process that included a survey of the main sector topics of RepRisk, SASB, in addition to the GRI publication “Sustainability Topics for Sectors: What do stakeholders want to know?” and benchmarks of leading companies in the sector. [102-46](#)

Based on this update, a consultation was conducted with key executives, leaders, employees and stakeholders of the organization, through online surveys and face-to-face interviews. This phase received response from 361 people associated with Chesf’s management and activities, identified as follows: five executives (President and Directors), 288 employees, and 68 external stakeholders. Materiality and priority topics were approved by the Executive Board and will be further discussed in this document. [102-47](#)



### WHO ARE OUR STAKEHOLDERS?

We consistently communicate with our stakeholders throughout the year through channels that can range from meetings, visits, phone contacts and emails, to communication newsletters, contact via supplier service center and customer satisfaction surveys. This dialogue is guided by the Stakeholder Communication and Engagement Policy of the Eletrobras Companies, which seeks to provide agility, accuracy, commitment and transparency, among many other principles.



CONSOLIDATED PRIORITIZATION	SCORE	RANKING	PRIORITIZED?
<b>Operational Performance</b>	2.29	1 <sup>st</sup>	yes
Infrastructure (Generation and Transmission)	59.8%	1 <sup>st</sup>	yes
Operational Safety	55.7%	2 <sup>nd</sup>	yes
Energy Efficiency	52.4%	3 <sup>rd</sup>	yes
Production of Energy	48.4%	4 <sup>th</sup>	yes
Trading of Energy	39.7%		no
<b>Regulatory Affairs*</b>	38.8%	5 <sup>th</sup>	yes
Response to Emergencies and Disasters	28.1%		no
Access to Electricity	22.0%		no
<b>Environmental Management</b>	2.21	2 <sup>nd</sup>	yes
Environmental impacts	58.8%	1 <sup>st</sup>	yes
<b>Water</b>	57.0%	2 <sup>nd</sup>	yes
Waste	40.5%		no
Biodiversity	35.7%		no
Ecoefficiency	35.4%		no
<b>Climate Change**</b>	32.3%	3 <sup>rd</sup>	yes
Greenhouse Gas (GHG)Emissions	30.2%		no
Effluents	26.0%		no
<b>People Management</b>	2.19	3 <sup>rd</sup>	yes
Employee Development	57.4%	1 <sup>st</sup>	yes
Education and Training	54.8%	2 <sup>nd</sup>	yes
Compensation Policy	50.6%	3 <sup>rd</sup>	yes
Occupational Health and Safety	45.4%	4 <sup>th</sup>	yes
Profit Sharing	43.4%	5 <sup>th</sup>	yes
Diversity and Equal Opportunities	41.7%		no
Relationship with Third Parties/Subcontractors	24.0%		no
<b>Supplier Management</b>	2.11	4 <sup>th</sup>	yes
Monitoring for Supply of Products and Services	50.4%	1 <sup>st</sup>	yes
Supplier Performance Indicators	47.8%	2 <sup>nd</sup>	yes
Legal Compliance	44.3%	3 <sup>rd</sup>	yes
Social and Environmental Criteria for Qualification	37.2%		no
<b>Human Rights</b>	1.82	5 <sup>th</sup>	yes
Incentive to Equal Opportunities	61.9%	1 <sup>st</sup>	yes
Combating Discrimination	49.3%	2 <sup>nd</sup>	yes
Combating Forced or Slave-Like Labor	33.2%		no
<b>Innovation, Diversification and R&amp;D</b>	1.78	6 <sup>th</sup>	yes
Alternative Energy Sources	60.9%	1 <sup>st</sup>	yes
Research in New Technologies	58.0%	2 <sup>nd</sup>	yes
New Business	40.8%		no
Product Development	33.8%		no
Product Portfolio	22.6%		no

\* Subtopics prioritized during the meeting, at the request of the Operations Department.  
 \*\* Subtopic prioritized during the meeting, at the request of the Engineering and Construction Department.

MATERIAL TOPICS	TOPICS GRI STANDARDS	TOPIC BOUNDARY (WHERE IMPACT IS GENERATED)	STAKEHOLDERS DIRECTLY AFFECTED BY THE IMPACT GENERATED
Operational Performance			
Energy Efficiency	Economic Performance	Inside and outside the company	Shareholders, Boards (Supervisory and Directors), Sustainability Coordinators of Eletrobras Companies, Clients, Employees, Suppliers, Press, Public Agencies and Programs, Social Organizations and Communities.
Infrastructure (Generation and Transmission)	Indirect Economic Impacts	Inside and outside the company	Shareholders, Boards (Supervisory and Directors), Sustainability Coordinators of Eletrobras Companies, Clients, Employees, Suppliers, Press, Public Agencies and Programs, Social Organizations and Communities.
Production of Energy	Economic Performance	Inside and outside the company	Shareholders, Boards (Supervisory and Directors), Sustainability Coordinators of Eletrobras Companies, Clients, Employees, Suppliers, Press, Public Agencies and Programs, Social Organizations and Communities.
Operational Safety	Strategy; Governance; Economic Performance	Inside and outside the company	Shareholders, Boards (Supervisory and Directors), Sustainability Coordinators of Eletrobras Companies, Clients, Employees, Suppliers, Press, Public Agencies and Programs, Social Organizations and Communities.



MATERIAL TOPICS	TOPICS GRI STANDARDS	TOPIC BOUNDARY (WHERE IMPACT IS GENERATED)	STAKEHOLDERS DIRECTLY AFFECTED BY THE IMPACT GENERATED
<b>Environmental Management</b>			
Water	Environmental Compliance	Inside and outside the company	Clients, Employees, Press, Public Agencies and Programs, Social Organizations and Communities.
Environmental Impacts	Materials; Energy; Water; Biodiversity; Emissions; Effluent and Waste	Inside and outside the company	Clients, Employees, Press, Public Agencies and Programs, Social Organizations and Communities.
Climate Change	Emissions; Energy	Inside and outside the company	Shareholders, Clients, Suppliers, Employees, Public Agencies and Programs, and Communities.
<b>People Management</b>			
Employee Development	Job; Training and Education	Inside the company	Employees.
Education and Training	Training and Education	Inside and outside the company	Employees and community.
Compensation Policy	Diversity and Equal Opportunities; Market Presence	Inside the company	Employees.
Occupational Health and Safety	Occupational Health and Safety	Inside and outside the company	Employees, Social Organizations, and Communities.
Profit Sharing	Job	Inside the company	Employees.
<b>Supplier Management</b>			
Legal compliance	Supplier Environmental and Social Assessment	Inside and outside the company	Shareholders, Boards (Supervisory and Directors), Suppliers, Press, Social Organizations, and Communities.
Supplier Performance Indicators	Supplier Environmental and Social Assessment	Inside and outside the company	Shareholders, Boards (Supervisory and Directors), and Suppliers.
Monitoring for Supply of Products and Services	Supplier Social Assessment; Customer Health and Safety; Marketing and Labeling	Inside and outside the company	Shareholders, Clients, Employees, and Suppliers.

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MATERIAL TOPICS	TOPICS GRI STANDARDS	TOPIC BOUNDARY (WHERE IMPACT IS GENERATED)	STAKEHOLDERS DIRECTLY AFFECTED BY THE IMPACT GENERATED
<b>Human Rights</b>			
Combating Discrimination	Non-Discrimination	Inside and outside the company	Trade Associations, Sustainability Coordinators of the Eletrobras Companies, Clients, Employees, Suppliers, Press, Public Agencies and Programs, Social Organizations, and Communities.
Incentive to Equal Opportunities	Diversity and Equal Opportunities	Inside and outside the company	Trade Associations, Sustainability Coordinators of the Eletrobras Companies, Clients, Employees, Suppliers, Press, Public Agencies and Programs, Social Organizations, and Communities.
<b>Innovation, Diversification and R&amp;D</b>			
Alternative Energy Sources	Strategy; Governance; Economic Performance	Inside and outside the company	Shareholders, Boards (Supervisory and Directors), Sustainability Coordinators of the Eletrobras Companies, Clients, Employees, Press, Social Organizations and Communities, Universities, and Research Centers.
Research in New Technologies	Strategy, Economic Performance	Inside and outside the company	Shareholders, Trade Associations, Boards (Supervisory and Directors), Clients, Employees, Suppliers, Press, Public Agencies and Programs, Social Organizations and Communities, Universities and Research Centers.

**Guidelines:**  
**Material Topics** are those that reflect the significant economic, environmental and social impacts of an organization or that substantially influence stakeholder assessments and decisions.  
**Topic Boundary** is the description of where the impacts of a material topic occur and the organization's involvement with those impacts.  
 In describing "where the impact is generated," the organization identifies the stakeholders influenced by the impacts generated.



For more details on how we communicate with each of these audiences, go to [www.chesf.gov.br](http://www.chesf.gov.br) > comunicação > relacionamento com partes interessadas (Portuguese only)

See our short versions (Portuguese only) at: [www.chesf.gov.br](http://www.chesf.gov.br)







The volume of water stored in our reservoirs has the capacity to fill 22,960,000 Olympic pools<sup>1</sup>

### Our business

102-1, 102-2, 102-3, 102-4, 102-5, 102-6, 102-7 AND 103-2

With 12 hydroelectric plants (UHEs) and 10 reservoirs totaling a storage capacity of 57.4 billion cubic meters of water, we are today one of the largest generators and transmitters of energy in Brazil. Founded in 1948, Chesf (Companhia Hidro Elétrica do São Francisco) is a publicly traded mixed economy corporation and a subsidiary of Eletrobras.

We have two wind farms (UEEs), which, together with the hydroelectric plants, total 10,323.43 MW of installed capacity, and 121 substations (included in this total are the substations of other transmitters in which Chesf has assets), corresponding to a transformation capacity of 47,642.19 MVA. Also included in our system are 14 step-up substations which, together with the substations, give the Company a total transformation capacity of 59,428.76 MVA.

With headquarters in the city of Recife (Pernambuco), our entire power generation is concentrated in Brazil's Northeast, but is distributed to the North, Northeast and Southeast/Midwest regions, which receive this energy through a transmission system composed of 20,585.2 km of AC transmission lines operating at voltages 500, 230, 138 and 69 kV and supplying the National Interconnected System (SIN).

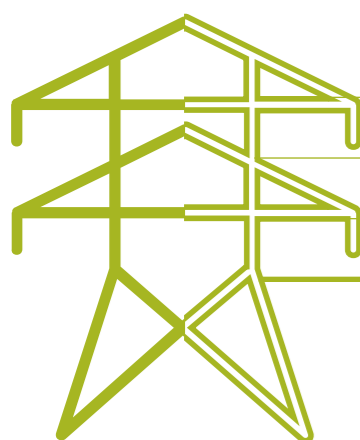


<sup>1</sup> Considering a pool of 50 meters long by 25 meters wide and 2 meters deep, it holds about 2,500 m<sup>3</sup>.



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## EXTENSION OF CHESF TRANSMISSION LINES BY VOLTAGE LEVEL



KV	LTS	KM
500	49	5.372,90
230	214	14.495,20
69/138	24	717,1
<b>Total</b>	<b>287</b>	<b>20.585,20</b>

### AWARDS AND RECOGNITIONS IN 2018

- **Velho Chico Medal:** The Company was honored, by the São Francisco River Basin Committee, for its outstanding performance in the preservation and defense of the São Francisco River.
- **SESI Race:** Chesf's female employees came in 3rd in the women's 5-km race and 4th in the women's 10-km race.

Chesf is investing in solar power generation and already has 2.62 MWp installed in mini and microgeneration.

The Company also holds interest in generation and transmission projects through Special Purpose Entities (SPEs).

### Context of the sector 102-29

According to the Institute of Applied Economic Research (IPEA - Instituto de Pesquisa Econômica Aplicada), in 2018 the economy began to show some signs of recovery, indicating a resumption of stability. After two consecutive years of contraction and a minor recovery of 1% in 2017, economic activity recorded growth of 1.3% according to Brazil's Central Bank, well below the forecast of 2.6% disclosed at the beginning of 2018—as a result of the truck drivers' strike in the second quarter and the uncertainty generated by the presidential elections regarding the political and economic agendas to be adopted by the new government.

In the electricity sector, as established by ANEEL Resolution No. 2,421/2018, the Annual Generation Revenue (RAG - *Receita Anual de Geração*) of the plants, whose concessions were renewed pursuant to Law 12,783/2013, now includes the portion intended to cover expenses with improvements to be performed in the generation facilities (*GAG Melhoria*), adding R\$ 678.3 million to Chesf's revenue in the 2018-2019 cycle. In addition, Ordinance 420/2018 of the Ministry of Mines and Energy terminated the concession of the Camaçari Thermoelectric Plant, exempting the reversal of the related assets.

In 2018, domestic electricity consumption<sup>2</sup> was 472.2 TWh, up 1.1% over 2017. Of this consumption, the Northeast region contributes with 17.3%, whose amount corresponds to 80.9 TWh, surpassing by 1.5% the consumption recorded in 2017. Thus, this result is still a reflection of a scenario of uncertainties in the Brazilian economy, associated with the political and electoral scenario, which failed to leverage growth in industry and other sectors.

In order to address the load of the Northeast submarket (Northeast region less the State of Maranhão), which corresponds to 10,820 average MW, Chesf's generation contributed 16%; the

**Our business is based on a consolidated strategic plan aligned with Eletrobras**

exchange with North and Southeast submarkets accounted for 15%; wind generation contributed with 43.8% and thermoelectric with 21.5%. The other sources (PCH, biomass and solar), located in said submarket, accounted for 3.7%.

### Corporate strategy 102-29 AND 102-30

Our business is based on a consolidated strategic plan aligned with Eletrobras' Strategic Plan and Business and Management Master Plan (PDNG - *Plano Diretor de Negócios e Gestão*)<sup>3</sup>. Considering a five-year horizon (2019-2023), the construction of this Strategic Map takes into account our identity (Mission, Vision and Values), the Strategic Results to be achieved, and the Strategic Objectives that enable these results.

The progress of the strategy planned is monitored monthly through meetings of the Executive Board, which assesses the strategic goals contained in the Strategic Map and the projects provided for in the PNG and in the indicators of the Business Performance Targets Agreement (CMDE - *Contrato de Metas de Desempenho Empresarial*), entered into between Eletrobras and its subsidiaries. In this way, it is possible to control deviations between goals and results, acting on occurrences and improving business performance.

<sup>2</sup> Source: Empresa de Pesquisa Energética (EPE).

<sup>3</sup> <https://eletrobras.com/pt/Paginas/Plano-Diretor-de-Negocios-e-Gestao.aspx>

## IDENTITY

### Mission

To contribute to the well-being of society by generating and transmitting energy

### Vision

To be corporately efficient and sustainable

## VALUES

- Safety
- Respect for People with fairness and equity
- Ethics and Transparency
- Innovation and Entrepreneurship
- Commitment to Society
- Environmental Conservation

## RESULTS



### SHAREHOLDER

Profitability, Rate of Return and Image



### CLIENTS

Energy Quality and Availability of the Facilities



### SOCIETY

Credibility and Social and Environmental Responsibility



### EMPLOYEES

Sense of belonging and Satisfaction

## STRATEGIC GOALS

1

To apply Best Practices for Managing Change, Knowledge and People

2

To increase the Organization's Profitability

3

To implement New Expansion and Improvement Projects Prioritizing Increased Profitability

4

To Perform Operation and Maintenance with Efficiency and Quality

5

To Improve Corporate Governance

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All of our Strategic Goals are broken down into Strategies, Measures and Indicators, allowing the involvement and participation of all organizational levels in business planning. To register and support Business Planning, we implemented Planest, a strategic management software that provides greater agility and reliability to the information consolidation process.

## Monitoring of business plan and management

RELATED STRATEGIC OBJECTIVE	ACHIEVEMENTS
Empowerment of People	<p><b>Action:</b> Sizing of the Quantitative Qualitative Staff (DQQ) <b>Result:</b> Start planned for January 2019.</p> <p><b>Action:</b> Employee Relocation Programs <b>Result:</b> Process conducted for the Presidency's Interest Bank and the Energy Trading Department, to fulfill the demand of the agency.</p> <p><b>Action:</b> Managerial Succession Plan <b>Result:</b> 30% completed.</p> <p><b>Action:</b> Organizational Change Management (GMO) <b>Result:</b> Actions to mitigate impacts, communication and process training in the implementation and maintenance of SAP, SSC and e-Social projects.</p> <p><b>Action:</b> Career and Compensation Plan (PCR) <b>Result:</b> In 2019, work will be initiated to review the PCR and the Performance Management System (SGD), together with the other Eletrobras companies.</p> <p><b>Action:</b> Corporate Education Plan (PEC) <b>Result:</b> Educational actions carried out, according to resources and prioritized demands.</p> <p><b>Action:</b> Knowledge Management Program <b>Result:</b> Actions with greater focus on the Knowledge Retention Program were carried out, considering the terminations of the Consensual Termination Plan. Other actions will take place in 2019 and 2020.</p>
Financial Discipline	<p><b>Action:</b> Operational Efficiency <b>Result:</b> 1.3% reduction in Operating Expenses compared with 2017.</p> <p><b>Action:</b> Sale of administration properties <b>Result:</b> 4% completed. Sale of eight properties, totaling approximately R\$ 1.6 million.</p>
Operational Excellence	<p><b>Action:</b> Solar Platform in Petrolina <b>Result:</b> 90% completed.</p> <p><b>Action:</b> Solar platform in the lakes of Eletronorte/Chesf hydroelectric power plants (1 + 4 = 5 MWp) <b>Result:</b> 1-MWp plant 85% completed.</p> <p><b>Action:</b> Process Quality Projects <b>Result:</b> 70% completed.</p> <p><b>Action:</b> Telecom Transport Network Project <b>Result:</b> Physical assembly of the PHASE I equipment of Project 100G, with a partnership of the Rede Nacional de Ensino e Pesquisa (National Education and Research Network).</p>
Increase organizational profitability	<p>Apply best practices in change management, knowledge and people</p>
Implement new expansion works and improvements prioritizing increased profitability	

RELATED STRATEGIC OBJECTIVE

ACHIEVEMENTS

Operational Excellence

- Action:** SAP ERP System Deployment Project  
**Result:** 80% completed.

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- Action:** Improvements in civil structures and signage of dams and power plants  
**Result:** 14% completed.

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- Action:** Termination Incentive Program  
**Result:** 58% completed, representing an estimated annual savings of R\$ 128.5 million.

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- Action:** Project for Remote Monitoring System  
**Result:** 95% completed.

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- Action:** Project for Operation and Maintenance Equipment  
**Result:** Installation of video monitoring for opening and closing of disconnectors.

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- Action:** Substation Observation and Control Project  
**Result:** 69.01% completed.

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- Action:** Expansion of Contracted Transmission  
**Result:** 77% completed. Implementation of 19 projects of the transmission portfolio, enabling an Annual Revenue Allowed (RAP - *Receita Anual Permitida*) of R\$ 36.14 million.

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- Action:** Measurement and mapping of direct solar irradiance in the Northeastern semiarid region  
**Result:** 90% completed.

Perform operation and maintenance with efficiency and quality

Governance and Compliance

- Action:** Elimination of material weaknesses  
**Result:** Planned 95%, performed 53%.
- Reasons:** The level of complexity of some weaknesses hindered a definitive resolution in 2018, and the external audit presented an even greater level of demand compared to the control requirements that had been considered effective in the previous year.

Improve Corporate Governance

Sustainable Development

- Action:** Commitment to the 2030 Agenda
- Results:** Conduction of the Supplier Meeting, modeling and standardization of the water, energy and fuel consumption management process and the disposal of material through waste sorting, indicators monitored and reported in institutional reports, SDG training to foster culture and integration of corporate sustainability, implementation of the Corporate Sustainability Information System, monitoring of action plans to improve GRI and ISE sustainability indicators.

All

This report contains the result of nine business indicators related to financial growth and operational stability of the business. The indicators will be monitored by the Company's Sustainability Committee.

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## Business Indicators

INDICATOR	GOAL 2018	REALIZED 2018	GOAL 2019
ISE B3 Global	63.3	63.12	65
Net Debt/EBITDA	0.71	0.70	0.97
Injury Frequency Rate	2.87	4.00	2.73
Remediation of Significant Deficiencies and Material Weaknesses	95%	53%	100%
Investment in R&D + I/NOR Parent Company	1.00%	1.70%	1.00%
Global Indicator Generation + Trading	0.90	1.177	0.95
Availability of Generation	1,118%	1,141%	1,000%
Operational Availability of Transmission Lines	99.85%	99.91%	99.85%
G&T Expansion Index	-	-	100%

### Results achieved in 2018

Through the Planning Committee, composed of various areas of the Company, our Business Planning has been reviewed and updated. For 2019, the definition of the breakdown of the Strategic Objectives and long-term planning will be consolidated. With this, the new management system will be fed, allowing for real-time monitoring of the indices and projects, preparation of charts, reports and action plans.

R\$ 720.1 MM  
EBITIDA

### THE FUTURE OF THE ELECTRICITY SECTOR

In order to establish a long-term strategic vision, in December 2018 we organized a seminar on the "Energy Outlook in Brazil," with live transmission to all Regional Offices. The event was attended by our entire management team and brought together key players and experts from the national electricity sector, debating the future of electric energy in the Northeastern region and in Brazil.



The debate discussed the scenarios of the energy market, of the regulation and of the operation of the system and the future outlook for the sector, focusing on long-term planning, inclusion of new technologies, impact of renewable energies with energy storage, strengthening of the interconnected system, regulatory changes, and the multiple use of water.

## BUSINESS MODEL 102-29

### OUR RESOURCES

<p><b>Financial</b> Investments <b>R\$ 1,293.7 MM</b></p> <p>Revenues <b>R\$ 5,788.5 MM</b></p> <p>Operating costs and expenses <b>R\$ 4,012.1 million</b></p> <p>Net debt <b>R\$ 1,219.8 million</b></p>	<p><b>Natural</b> Water used to generate energy <b>92.5 m<sup>3</sup>/second</b></p> <p>Restoration of biomes <b>94.9 (ha)</b></p>	<p><b>Human</b> Development programs <b>658</b> number of actions</p> <p>Investments <b>R\$ 1.2 MM</b></p> <p>Number of employees <b>3,816</b></p>	<p><b>Social</b> Investments in social projects <b>R\$ 39.2 MM</b></p> <p>Cultural sponsorship (number) <b>5 (4 of which through the Rouanet Act)</b></p>	<p><b>Infrastructure</b> <b>ERP</b> - project position on 12/31/2018 <b>69.01%</b></p> <p><b>SSC</b> - project position on 12/31/2018 <b>87.50%</b></p>
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### PROJECTS UNDER CONSTRUCTION\*\*

### PROJECTS IN OPERATION\*

26 — 27

<p><b>UHE</b> 2 projects 11.633,0 MW</p>	<p><b>UEE</b> 1 own + 11 SPEs 290 MW</p>	<p><b>UHE</b> 12 power plants 10,262.3 MW</p>	<p><b>UEE</b> 2 power plants 61.1 MW</p>	
<p><b>UFV</b> 8 projects*** 7,2 MWp****</p>	<p><b>LT</b> 12 own + 1 SPE 739 km expansion</p>	<p><b>UFV</b> 2 power plants 2.62 MW</p>	<p><b>LT</b> 287 transmission lines with 20,585.2 Km of extension</p>	<p><b>SE</b> 135 units with 59,428.76 MW available</p>

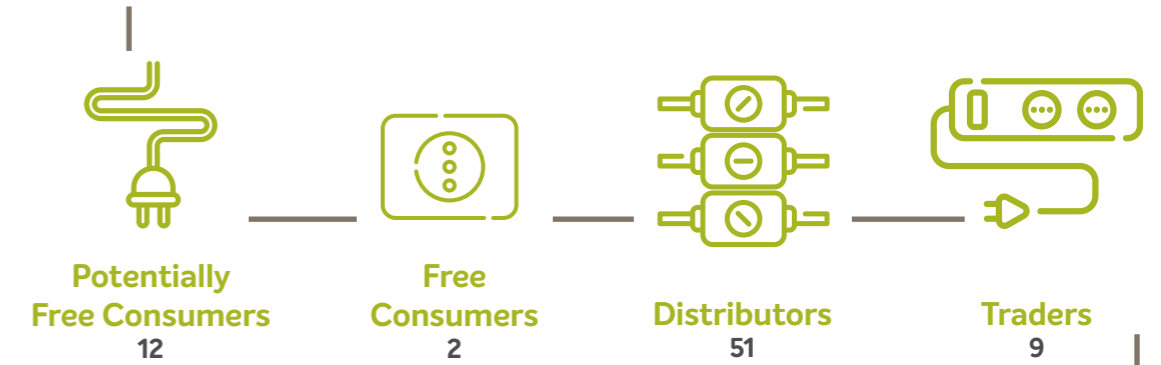
#### MAIN IMPACTS ON PROJECTS

Resettlements; Conflicts; Labor; Social; Patents (new)

#### MAIN IMPACTS ON PROJECTS

Water shortage; Wind Change/ Intensity; Lease Agreements; Regulation; Maintenance

### TRADING



### RESULTS

<p><b>Investidores/Acionistas</b> EBITDA <b>R\$ 720.1 MM</b></p> <p>Profit/Equity <b>R\$ 265.9 MM</b></p>
<p><b>Clients</b> Energy Generated <b>15,132.0 GWh</b></p> <p>Satisfaction <b>88.5%</b></p>
<p><b>Employees</b> Hours of Training <b>170,079.1</b></p> <p>Satisfaction: <b>Climate survey conducted but result not disclosed</b></p>
<p><b>Civil society</b> Monthly hours donated by Chesf for volunteer work during office hours <b>132</b></p> <p>Rural producers benefited (directly and indirectly) <b>13,000</b> (Sobradinho Reservoir project, since the beginning of the project)</p>

### VALUE CREATION

<p><b>Investors/Shareholders</b></p>
<p><b>Clients</b></p>
<p><b>Employees</b></p>
<p><b>Civil society</b></p>

\* Exclusive Chesf - own \*\* Including SPEs  
\*\*\* Conta Zero = 6, CRESF/Technological Plant in Petrolina = 1; and CRESF/Floating Sobradinho = 1  
\*\*\*\* 2.7 Conta Zero + 0.5 CRESF/Technological Plant + 4.0 CRESF/Floating

SUBTITLE: UHE - Power Plant; UEE - Wind power plant; UFV Solar Plant; PCH - Small Hydroelectric Plants; LT - Transmission lines; UTE - Thermal Power Plant; SE - Substations.



PA POWER PLANT

CORPORATE GOVERNANCE

28 — 29

ANNUAL AND SUSTAINABILITY REPORT | 2018

improvement of our processes to always create positive value for our stakeholders. Thus, all our practices are in line with the accountability to investors and society, and ethics in the relationship with our audiences.

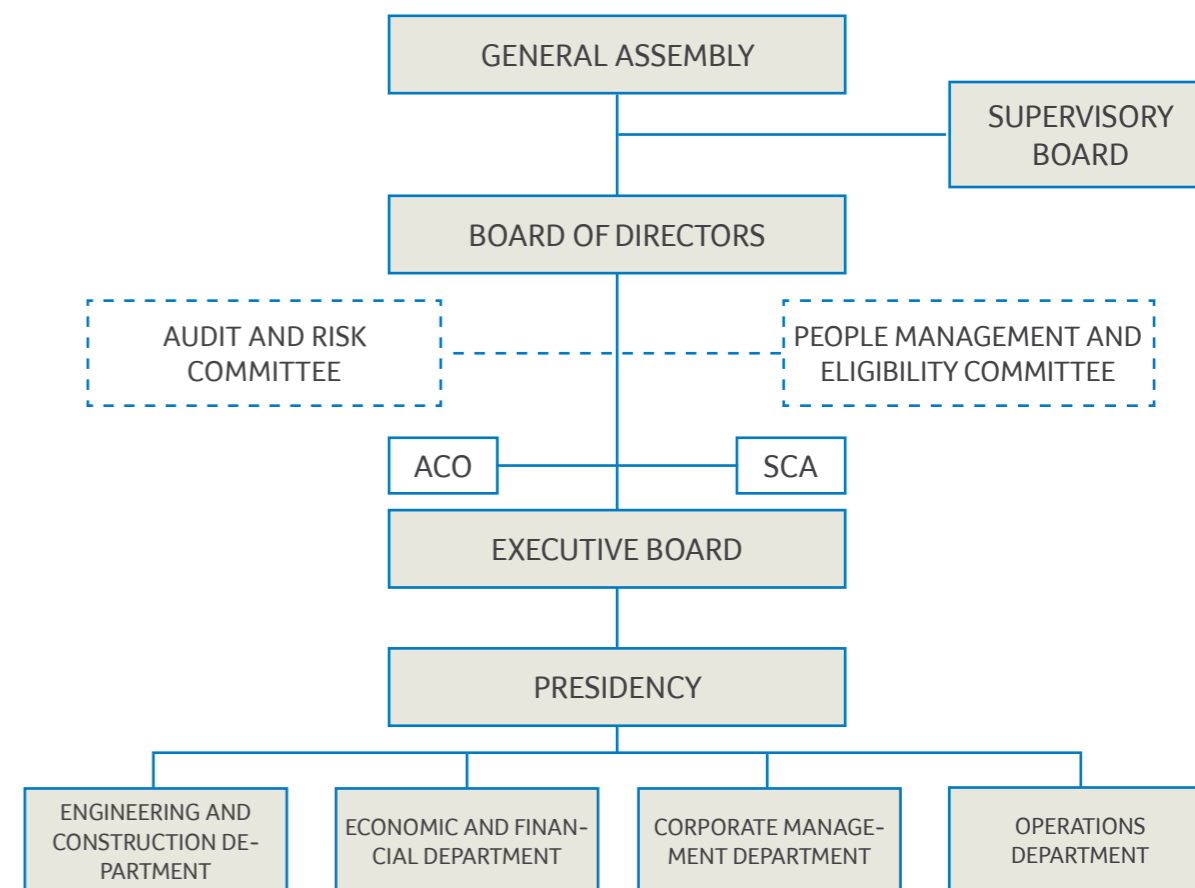
Our structure is composed of **General Assembly**—Chesf’s highest governance body—, whose main objectives include, among others, electing the Company’s senior management and establishing standards that must be followed in order to carry out our mission. The Assemblies are held within the first four months following the end of the fiscal year and, in 2018, three meetings were held, one ordinary and two extraordinary.

On an ongoing basis, the **Supervisory Board** is composed of three full members and an equal

number of alternates, one of whom is appointed by the Ministry of Finance as representative of the National Treasury. It is responsible for overseeing management acts, has in place an Internal Regulation that guides its operation. It convenes monthly and extraordinarily as requested by the Chairman of the Board. In 2018, a total of 13 meetings were held.

**Governance structure**

Our organizational model complies with the norms of the **General Assembly**, and the administration is under the responsibility of the Board of Directors and of the Executive Board, in addition to collegiate bodies with deliberative functions, with duties provided for by law and in the Bylaws.



# CORPORATE GOVERNANCE

102-18, 102-45 TO 102-56 AND 103-1/  
SDG: 8, 9, 16, 17/GLOBAL COMPACT: 6 AND 10





OMBUDSMAN SEMINAR 10 YEARS

**We value a culture of transparency, good practice and striving for continuous improvement of our processes**

As the highest body of our management structure, the Board of Directors monitors our activities through monthly meetings in which we discuss the proposed strategic topics and deliberate on the Company's guidelines. In 2018, a total of 20 Board meetings were held.

New in our structure and instated by Eletrobras, the **People Management and Eligibility Committee and the Audit and Statutory Risks Committee (CAE)** are directly

linked to our Board of Directors. The purpose of the former is to analyze and issue recommendations on risks and strategies to be adopted by companies of the Eletrobras System in relation to people management and eligibility of members of the administration and of the Supervisory Board. The latter is responsible for the analysis and recommendations on the work of internal audit, accounting and independent auditing, supervision, risks to be assumed by the Company, internal controls and risk management, and financial management, as provided for in Internal Regulation.

CORPORATE GOVERNANCE

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The main guidelines presented to the Board of Directors in 2018 were: **102-34**

AGENDA	OBJECTIVE	STATUS
Chesf Business Plan - PNG 2018-2022	Guarantee the fulfillment of the established goals, of the work plan for new projects and improvements of the existing electric energy system, allowing for increase in Company revenue and results.	Ongoing
SAP Implementation	Enable Company instrumentation with management tools to improve transaction traceability, information analysis and decision making.	Ongoing
Special Purpose Entities (SPEs)	Enable the implementation of the Wind Power Complexes of the Pindaí SPEs and the Sinop HPP and solve issues related to the TDG and ESBR SPEs.	Ongoing
UEE Casa Nova I	Solve problems arising from the bankruptcy process of the supplier and implementer of the plant.	Ongoing
Audit, Integrity and Risk Management	Ensure compliance and integrity of processes and business sustainability.	Ongoing
Ombudsman's Office and Ethics Committee	Ensure that the relevant issues of the various stakeholders are properly addressed.	Ongoing

The **Executive Board** is composed of the Chief Executive Officer and four additional officers and is responsible for ensuring the smooth operation of Chesf as per guidance set out by the General Assembly and the Board of Directors. The group convenes ordinarily once a week and extraordinarily upon request of the CEO. In 2018, the Executive Board, composed of the CEO and four directors, held 59 meetings.

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**GREATER LEGAL CERTAINTY**

In 2018, the Legal Superintendence started reporting directly to the Presidency. The purpose of this adjustment in the organizational chart is to monitor the risks to the Company resulting from legal liabilities. In addition, over the next few years, some of the legal procedures will be computerized and, concurrently, the database of the current litigation management system will be reorganized, optimizing the unification of data information for the new system to be implemented.



Further details on Chesf's governance can be found at [www.chesf.gov.br](http://www.chesf.gov.br) > A Empresa. **102-23, 102-24, 102-25, 102-26, 102-27, 102-28**

To learn about our Principles and Values, go to [www.chesf.gov.br](http://www.chesf.gov.br) > A empresa > Missão, Visão e Valores **102-16**

For more details on the organizational structure, go to [www.chesf.gov.br](http://www.chesf.gov.br) > The company > Organization chart

To learn more about our Directors and Board Members, go to > A empresa > diretoria e conselhos



### RELATIONSHIP WITH INDEPENDENT AUDITORS

Chesf's policy towards its independent auditors is based on principles that preserve the independence of these professionals. In compliance with CVM Instruction No. 381, of 1/14/2003. In compliance with CVM Instruction No. 381 of 1/14/2003, the administration informs that the audit firm hired, KPMG Auditores Independentes, did not provide any other services in addition to the verification of the financial statements, during the year 2018. Also, in compliance with Corporate Law, Chesf's financial statements are audited by an independent auditor, hired through a bidding process and approved by the Board of Directors, with restrictions on the provision of other services and adopting a five-year rotation system.

### Committees

102-18, 102-19, 102-20 AND 102-22

The **Risk Committee** is responsible for defining and monitoring internal and external risks that could affect the normal operation of our business. It is composed of a multidisciplinary team with representatives from all departments. In 2018, six meetings were held.

The **Business Planning Committee** works to evaluate and update our Strategic Planning, proposing monitoring indicators in line with best practices in the market. In 2018, the group held eight meetings.

We also have in our structure a **Corporate Sustainability Committee**, responsible for consolidating proposals to improve management and monitoring results of action plans in accordance with our sustainability policy. In 2018, a total of 12 regular meetings were held.

To complete this framework, the **Management Committee of the Chesf Research & Development + Innovation Program** is responsible for the development and management of our research program, for establishing relationships with external entities and for annually reviewing the activities that relate to the program. Three meetings were held in 2018.

**All our practices are aligned with investor and society accountability.**



### Internal Audit 102-30, 102-33

Reporting to the Board of Directors, the Internal Audit plans and executes independent, impartial and timely assessments of the effectiveness and adequacy of internal controls and compliance with the rules, regulations and legislation associated with its operations. The area follows the guidelines of the Company's bylaws and is overseen by the Internal Control System of the Federal Executive Branch.

All activities carried out are previously planned and formalized in the Annual Plan for Internal Audit Activities (PAINT - Plano Anual de Atividades de Auditoria Interna), submitted to the analysis of the Comptroller General of Brazil (CGU - Controladoria Geral da União) and the Supervisory Board and to approval by the Board of Directors. The Internal Audit does not carry out any activity beyond what is set out in the PAINT, thus guaranteeing exemption and impartiality in its function.

In 2018, a total of 24 Audit Reports were finalized, resulting in 148 recommendations. The result of the work was sent to the Board of Directors and Supervisory Board. A communication was also submitted to the CGU.

**In 2018, a total of 24 Audit Reports were finalized and referred to the Board of Directors and Fiscal Council.**

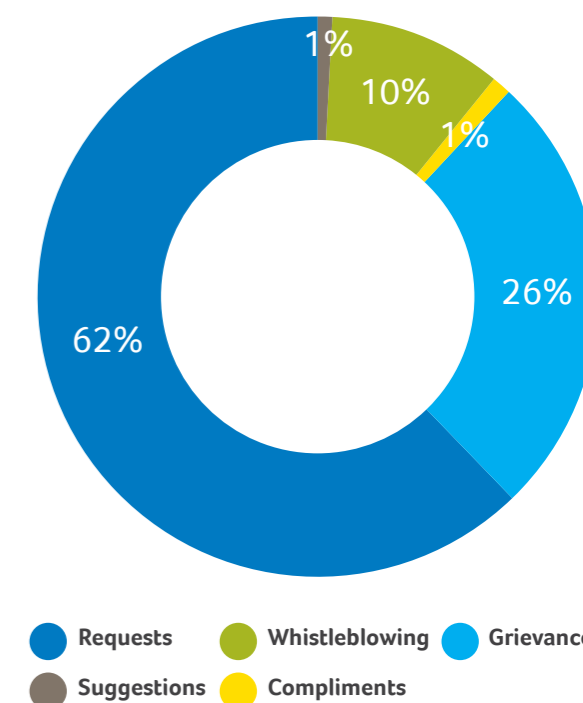


For more information on audit, go to [www.chesf.gov.br](http://www.chesf.gov.br) > Acesso à Informação > Auditorias > Auditoria Interna

### Ombudsman's Office 103-1, 103-2 AND 103-3

Transparency in communicating with our stakeholders is essential to the normal operation of our business. To this end, we have multiple channels so we can have close contact with all stakeholders. Our Ombudsman channel is one of these management tools that guides, transmits information and contributes to the continuous improvement of processes, always in accordance with ethics and current legislation. Through this channel, we operate in an exempt manner, usually when the other access channels have already been contacted, leading the negotiations to a satisfactory solution. In 2018, the Company recorded 599 claims escalated to the Ombudsman's Office, approximately 73% of which are related to Human Resources, Rights of Way, Procurement, General Services, Operation and Maintenance, and Corporate Communication.

REPORTS BY TYPE







CASA NOVA WIND POWER PLANT

Management of the Citizen Information System (SIC - *Sistema de Informação do Cidadão*) is also an assignment of the Ombudsman's Office. The SIC receives requests for information of private or collective interest, and the proper management of this system guarantees Company compliance with the Law on Access to Information, No. 12,527/2011, in force since 2012.

In 2018, the SIC answered 100% of the requests for information received with an average response time of 11 days, lower than that established by the Law on Access to Information (LAI), which is 20 days, and may be extended by another 10 days, in the case of express justification. No time extension was required.

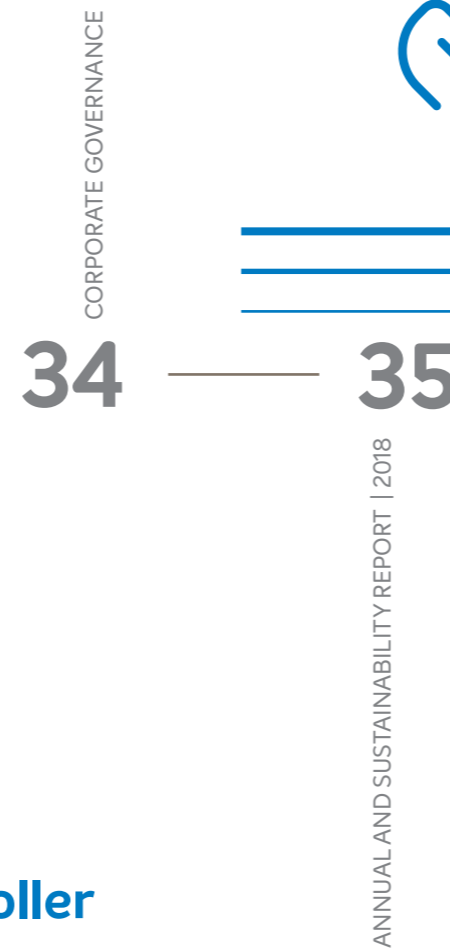
**54** Requests

**7** Appeal to the Direct Supervisor

**1** Appeal to a Maximum Authority

**1** Appeal to the Comptroller General of Brazil

**0** Appeal to the Joint Committee for Information Review (CMRI)



**CHANNELS TO COMMUNICATE WITH THE OMBUDSMAN'S OFFICE**

Email: [ouvidoria@chesf.gov.br](mailto:ouvidoria@chesf.gov.br)  
 Phones: +55 (81) 3229.2929 / (81) 3229.3815 / (81) 3229.4888  
 In person: through appointment  
 Mail: Rua Delmiro Gouveia, 333 - Edifício André Falcão - Bloco D - Sala 307 - San Martin - Recife (PE) - CEP 50761-901

**COMPLIANCE 102-17, 103-2, 103-3 AND 205-2**

Ethics and transparency are key attributes for managing our business. We operate in line with the Eletrobras Integrity Program and the Compliance Manual regarding the Eletrobras Companies Anti-Corruption Policy, applicable to all our employees. In addition, we participate in the Integrity Program of the Eletrobras companies, forming the Compliance Steering Committee (CDC), which meets in a weekly discussion forum by videoconference to continually improve our integrity practices and procedures.

In order to broadly disseminate our concepts of corporate integrity, in 2018 we conducted a new phase of online training on ethics and integrity, as well as other educational actions on the subject for Company management, events and lectures for suppliers, members of senior management (Directors and Board Members) and representatives of Chesf

**10 YEARS**

In 2018, our Ombudsman service completed 10 years. To celebrate, we held talks in the regional offices, promoting the interaction between employees and company, through debates on topics related to the Ombudsman service and dissemination of the scope of work. A commemorative seminar on "Ombudsman as a Tool for Participation and Management" and the "Power of Listening" was also held, transmitted by videoconference to all Regional Offices.

man as a Tool for Participation and Management" and the "Power of Listening" was also held, transmitted by videoconference to all Regional Offices.

in the Boards of the SPEs (Special Purpose Entities). We also implemented due diligence procedures and integrity risk classification for suppliers and for donations/sponsorships by carrying out a specific fraud and corruption risk assessment (FRA - Fraud Risk Assessment). This initiative resulted in the preparation of a Fraud and Corruption Risk Matrix.

The year was also marked by the consolidation of the Whistleblowing Channel of the Eletrobras companies, which, since 2017, has centralized the receipt of all reports regarding the group companies. Management of reports is the responsibility of the Integrity System Committee (CSI), which has representatives from all companies and ensures the uniform treatment of reports, seeking the best way to remediate any identified irregularities and improve internal processes and controls.



**RISK MANAGEMENT AND INTERNAL CONTROLS**  
102-11, 102-30, 103-2 AND 103-3

Nossa metodologia de gestão Our corporate risk management methodology follows the guidelines of the Risk Management Policy of the Eletrobras companies. In 2018 we updated the Risk Matrix that considers the economic, social and environmental aspects and shows the main risks to which we are exposed. We have in place a Risk

Committee that prioritizes the risks to be evaluated with their owners and monitors the mitigation procedures and results. The list of prioritized risks is approved at Executive Board level and includes, in addition to the risks defined by Eletrobras holding to be monitored in all group companies (called business risks), other risk events defined as priorities by Chesf.

In 2018, the list of risks prioritized at Chesf included 12 corporate risks proposed by Eletrobras and two other risks prioritized locally at the Company.

RISK EVENTS	PRIORITIZATION
1. People Management	Chesf/Corporate
2. Energy Trading	Chesf/Corporate
3. Accounting and Financial Statements	Chesf/Corporate
4. Cash Flow	Chesf/Corporate
5. Preparation and Management of Litigations	Chesf/Corporate
6. Fraud and Corruption	Chesf/Corporate
7. Pension Funds	Chesf/Corporate
8. Corporate Business Management	Chesf/Corporate
9. Knowledge Management	Chesf/Corporate
10. Management of the SPE Business	Chesf/Corporate
11. Social and Environmental Management of Projects	Chesf/Corporate
12. Regulatory Framework	Chesf/Corporate
13. Transmission Operation and Maintenance	Chesf
14. Accounting Management of Assets	Chesf

Regarding internal controls, we participate annually in the SOX Certification process to ensure compliance with the requirements of the Sarbanes-Oxley Act. The Certification involves the stages for annual review of the documentation related to the business and governance processes previously defined in the scope, and the tests

performed by both the administration, under the responsibility of Chesf's Internal Audit, and by independent auditors to determine the effectiveness of internal controls. All companies in the group must be certified for Eletrobras to continue trading its shares on the New York Stock Exchange (NYSE).

CORPORATE GOVERNANCE

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**SUSTAINABILITY AS A STRATEGY**  
102-21

We work to balance our actions for the sustainable development of our business, aligning economic, social and environmental needs. To this end, we prioritize the production of clean and renewable energy, rational use of resources, acting as an agent for energy efficiency, commitment to ethics and transparency, respect for human rights, value added for stakeholders and the guarantee of proper working conditions and well-being for our employees.

With this in mind, in 2018 we conducted training to increasingly perform in accordance with the Sustainable Development Goals (SDG) and the Global Reporting Initiative (GRI) methodology. We also confirmed our adherence to

**MAIN ACTION FRONTS OF THE SUSTAINABILITY COMMITTEE IN 2018**

- Implementation of sustainability projects included in the Business and Management Plan (PNG).
- Continued standardization of management practices for water, energy and fuel consumption, and waste sorting, including the development of an information system (SGConsumo).
- Standardization of responsibility in the System of Indicators of Corporate Sustainability Management (IGS) of the Eletrobras companies.
- Study of the Certifications in Quality Management System Standards.

important commitments such as the Global Compact, the Women's Empowerment Principles (UN Women), the Gender and Race Pro-Equity Program (Department of Policies for Women of the Presidency of the Republic), the Declaration of Corporate Commitment to Combating Sexual Violence against Children and Adolescents (Department of Human Rights of the Presidency of the Republic), the National Pact for the Eradication of Slave Labor and the Eletrobras Commitment to Climate Change.



**ANNUAL CHARTER OF PUBLIC POLICIES AND CORPORATE GOVERNANCE**

In accordance with article 8, items I, III and VIII, of Law 13,303, of June 30, 2016; with article 13, items I, III and VIII, of Decree No. 8,945, of December 27, 2016; and with Articles 16 and 18 of the Rules of Procedure of the Governance Highlight Program of State-Owned Companies in Brazil's Stock Exchange (B3 - Brasil, Bolsa, Balcão), Eletrobras and Chesf develop their Annual Charters of Public Policies and Corporate Governance. Click below to view the Charters.



To view the Annual Charter, go to [www.chesf.gov.br](http://www.chesf.gov.br) > A empresa > Governança Corporativa > Carta Anual Governança Corporativa (Portuguese only)



XINGÓ POWER PLANT

38 VALUE MANAGEMENT

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# 4 VALUE MANAGEMENT

As a step forward in our management and reporting approach, we have organized our content in accordance with the Capital principles proposed by the International Integrated Reporting Council, developing a more cohesive and efficient approach, in line with the macro material topics prioritized in this cycle. **102-31**



**FINANCIAL CAPITAL:** set of resources available to be used in the production of goods or services, such as cash generation, financing, and debt.  
**Operational Performance**



**HUMAN CAPITAL:** skills, abilities and experiences of people and their motivations to innovate.  
**People Management, Human Rights**



**INFRASTRUCTURE CAPITAL:** manufactured physical objects available to an organization for use in the production of goods or services such as machinery, equipment, facilities, buildings, improvements, and land.  
**Operational Performance, Environmental Management**



**SOCIAL AND RELATIONSHIP CAPITAL:** institutions and relationships within and between communities, stakeholder groups and other networks, and the ability to share information to improve individual and collective well-being.  
**Human Rights, Supplier Management**



**INTELLECTUAL CAPITAL:** knowledge-based intangibles such as patents, copyrights, software, rights and licenses, as well as tacit knowledge, systems, procedures, and protocols.  
**People Management, Innovation, Diversification and R&D**



**NATURAL CAPITAL:** renewable and non-renewable environmental resources and environmental processes that provide goods or services that support the past, present and future prosperity of an organization.  
**Environmental Management**



# FINANCIAL CAPITAL

103-2, 103-3 AND 201-1

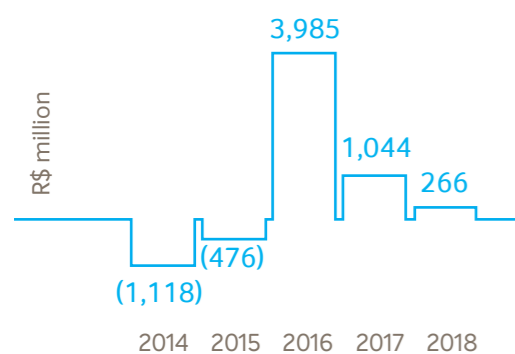


TAUA SUBSTATION

As a state-owned company, Chesf needs to include its investment budget in the Annual Budget Law (LOA), approved annually by the National Congress. In addition, its Global Expenditure Program (PDG - sources and uses) is approved through presidential decree each year. The total amount of Chesf's Investment Budget, approved in the Annual Budget Law - LOA 2018, Law 13,587, of January 2, 2018 - was R\$ 1,559,005,808.

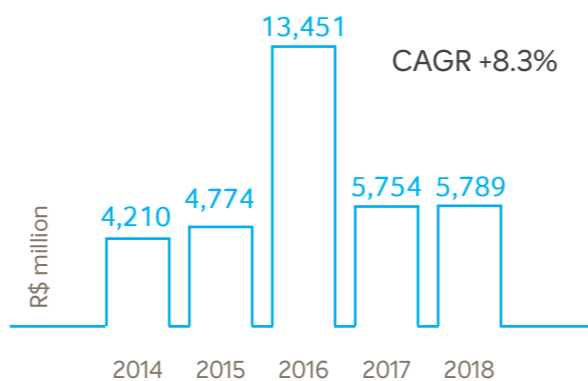
In 2018, we maintained the financial balance regained in the previous year. With a balanced revenue stream, we started to have a better leverage and, consequently, the market started to view us with more confidence, creating new opportunities for development and efficiency for the Company. We ended 2018 with net income of R\$ 265.9 million. Gross operating revenue was R\$ 5,788.6 million, up 0.6% compared with the previous year.

## Net Profit (Loss)



Net operating revenue (NOR), which considers deductions in taxes and sector charges, decreased by 2.7% in relation to the previous year. Since gross operating revenue remained stable in relation to the previous year, the reduction in net operating revenue was due to the increases, in relation to the previous year, of GOR deductions, i.e. of the Global Reversion Reserve (RGR

## Gross Operating Revenue

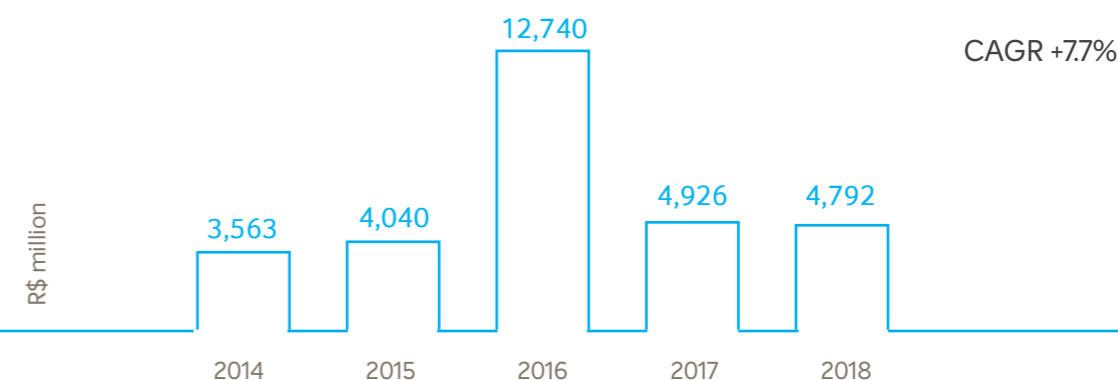


- *Reserva Global de Reversão*) in the amount of R\$ 20.7 million (+51.9%), of the Energy Development Account (CDE - *Conta de Desenvolvimento Energético*) in the amount of R\$ 36.6 million (+157.4%), and of the contribution to PIS/COFINS in the amount of R\$ 133.7 million (+30.9%). From 2014 to 2018, the Compound Annual Growth Rate (CAGR) was 7.7%.

VALUE MANAGEMENT  
40 — 41

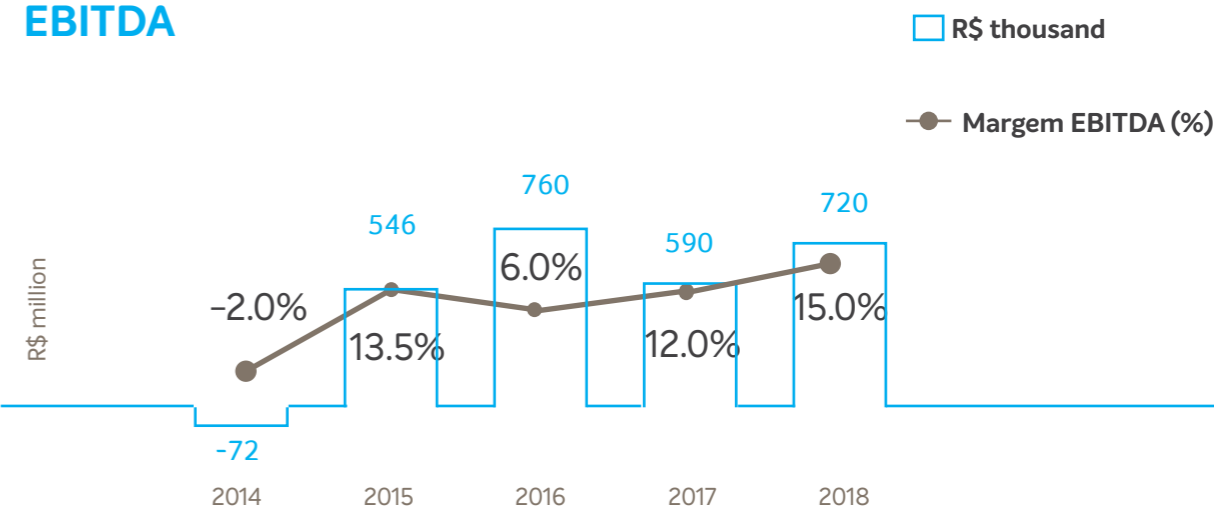
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## Net Operating Revenue



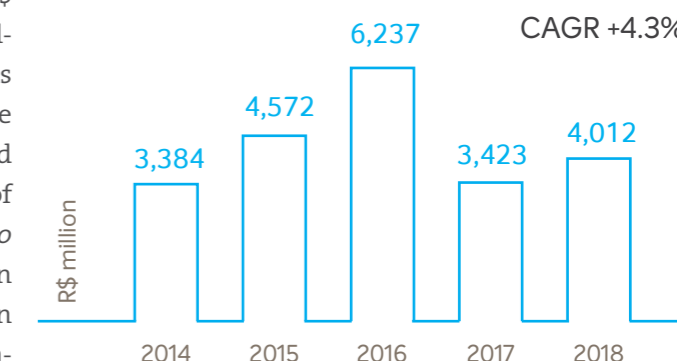
Operating cash generation, expressed through EBITDA, was R\$ 720.1 million in 2018, compared with R\$ 589.9 million in 2017. The EBITDA margin (ratio between EBITDA and net operating revenue) was 15% in 2018 versus 12% in 2017, an increase of 3 percentage points.

## EBITDA



## Operating Costs and Expenses

Operating costs and expenses totaled R\$ 4,012.1 million, an increase of R\$ 588.9 million (17.2%) compared with the previous year. This growth was mainly due to the variation of R\$ 126 million determined in recording the provisioning/reversal of mutual consideration contract (*contrato oneroso*), and the increase in construction costs in relation to the previous year, in the amount of R\$ 214.2 million, and improvement costs of R\$ 36.6 million.



### Value Added

In 2018, Chesf generated an economic value of R\$ 3,296.2 million, compared with R\$ 3,912.6 million generated in 2017. This amount was distributed as follows: wages, payroll charges and benefits to employees (32.5%); taxes, fees and contributions to federal, state and municipal governments (50.2%); third parties (9.1%); and shareholders' profit (8.1%).



To learn more about our results, go to [www.chesf.gov.br](http://www.chesf.gov.br)  
> Investidores > Demonstrações Financeiras (Portuguese only)

201-1

	2018	2017	2016
<b>VALUE ADDED STATEMENT</b>	<b>IN THOUSANDS OF REAIS</b>	<b>IN THOUSANDS OF REAIS</b>	<b>IN THOUSANDS OF REAIS</b>
1. Revenue	5,642,799.00	5,732,458.00	13,303,731.00
2. Inputs Acquired from Third Parties (includes taxes - ICMS, IPI, PIS and COFINS)	(2,526,558.00)	(1,892,705.00)	(4,923,603.00)
3. Gross Value Added (1-2)	3,116,241.00	3,839,753.00	8,380,128.00
4. Depreciation, Amortization and Depletion	(94,448.00)	(96,083.00)	(101,753.00)
5. Net Value Added Produced by the Entity (3-4)	3,021,793.00	3,743,670.00	8,278,375.00
6. Value Added Received in Transfer	274,455.00	168,956.00	739,631.00
7. Total Value Added for Distribution (5 + 6)	3,296,248.00	3,912,626.00	9,018,006.00
8. Value Added Distribution	3,296,248.00	3,912,626.00	9,018,006.00
8.1. Personnel	1,073,847.00	1,231,374.00	867,732.00
8.2. Taxes, fees, and contributions	1,655,185.00	1,165,046.00	3,881,802.00
8.3. Remuneration of third-party capital	301,274.00	472,157.00	283,089.00
8.4. Remuneration of own capital	265,942.00	1,044,049.00	3,985,383.00

VALUE MANAGEMENT

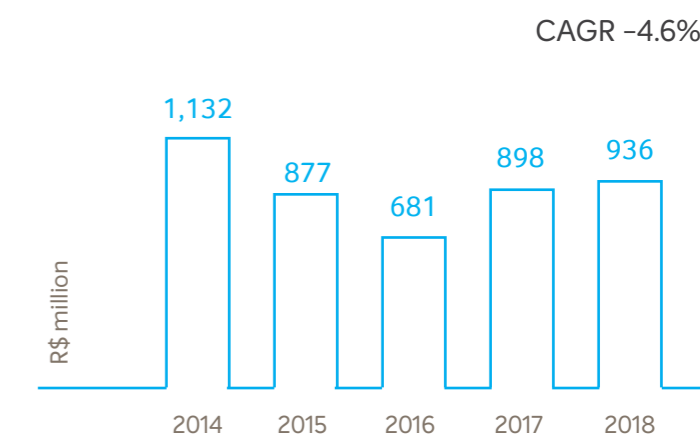
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### Own Assets

In 2018, our corporate investments for expansion and modernization of the Company's production capacity totaled R\$ 935.7 million. Of this total, R\$ 65.3 million was allocated to the generation system, R\$ 815.1 million was invested in works in the transmission system, and R\$ 55.3 million in other infrastructure expenses. In the period between 2014 and 2018, the Compound Annual Growth Rate (CAGR) was -4.6%.

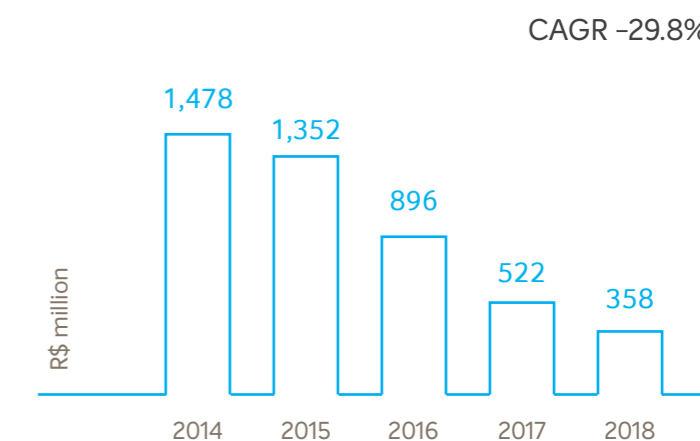
### INVESTMENT IN OWN ASSETS



### Investment through Special Purpose Entities (SPEs)

In 2018, investments made in Special Purpose Entities, through Paid-In Capital and through Advances for Future Capital Increase, totaled R\$ 358 million. This amount represented a reduction of 31.4% in relation to 2017, due to the start-up of the majority of SPEs. In the period between 2014 and 2018, the Compound Annual Growth Rate (CAGR) was -29.8%.

### INVESTMENTS IN SPECIAL PURPOSE ENTITIES - SPE



### Disposal of Assets

Focusing on increasing our revenue and reducing costs, in 2018 we continued the Annual Demobilization Plan. Started in 2017, the Plan has already accounted for eight divested properties, totaling R\$ 1.6 million. Two auctions of unserviceable moveable assets were held, totaling R\$ 2.1 million.

In addition, we proceeded with the process to transfer the Nair Alves de Souza Hospital (HNAS) to Universidade Federal do Vale do São Francisco, transforming it into a university hospital. By decision of the Company's senior

management, following instructions from the Audit and Statutory Risks Committee (CAE) of the Board of Directors of Eletrobras, Chesf will no longer manage HNAS, ending its participation in the hospital by December 2020. HNAS will become a hospital institution under the Unified Health System (SUS), allowing communities around the municipality of Paulo Afonso (BA) to continue to have access to hospital medical services, linked to a Medical School that, in addition to providing knowledge, can generate employment and income.



Further details on Chesf's governance can be found at [www.chesf.gov.br](http://www.chesf.gov.br)  
> Investidores > Demonstrações Financeiras (Portuguese only)



PAULO AFONSO COMPLEX



## INFRASTRUCTURE CAPITAL

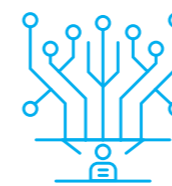
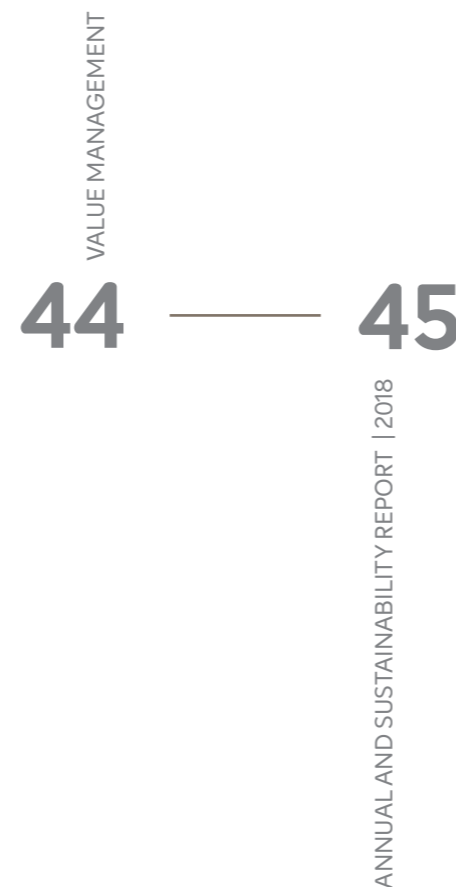
EU1 AND EU30

Our infrastructure involves all power plants—hydroelectric, wind or solar—as well as substations, distribution units and transmission lines throughout Brazil’s Northeast. As most of our generation comes from hydroelectric sources, we recorded a reduction of 0.5% (15,132 GWh) in the amount of energy generated compared with the previous year.

This is due to low rainfall in the 2017/2018 wet season, requiring thermal and wind generation in the region and receiving energy input from other regions via the National Interconnected System (SIN). In addition, given the unfavorable water situation in the São Francisco River Basin, our main reservoir in the Northeast region (Sobradinho) reached only 35.02% of its useful volume in December.

### Investment and modernization

We incorporated nine remotely assisted assets into our Operations Center in 2018 and included new monitoring points in order to comply with ONS’s Grid Procedure 2.7. According to our Corporate Planning, since 2015 we have been working on the implementation of a new model for remotely assisted assets, which have migrated to the strategy of local services provided by professionals trained to perform both Operation and Maintenance activities. By the end of 2018, a total of 58 substations operated and maintained by Chesf were already



following this new model of more integrated and decentralized technical-operational management. It is expected that the process improves servicing of minor maintenance tasks and the recovery in assets caused by unavailability of simple nature.

Investments were also made in automation, by modernizing the operational measurement of SS Messias and the replacement of 46 SAGE Servers in 23 facilities. With this, we expanded our capacity and quality to monitor the system, with a total of 246,136 control points. In this modernization process, we also implemented

a firewall in ten facilities, thus complying with the Cyber Security Program, and extended the operation and maintenance support systems in the areas of Automatic Voltage Regulation, Supervision of Protection Systems, Energy Quality and Oscillography.

**+9**  
**REMOTELY ASSISTED ASSETS IN 2018**

### IMPROVEMENTS IN THE TELECOMMUNICATIONS SYSTEM IN DATA NETWORK, TELEPHONY AND VIDEO

- Implementation of a new system of communication consoles for the Electric Operation Centers, with modern and redundant voice recording and transcription systems.
- Implementation of operational video monitoring at SS Garanhuns II, Olindina, and Igarorã III for monitoring the opening and closing of switches, optimizing processes and streamlining decision making.
- Modernization of the business videoconference system.
- Replacement of the digital radio routes Funil - Usina de Pedra, Milagres - Coremas, Camaçari - Cotegipe - Jacaracanga.
- Improvements in communication services for Penedo and Tauá.
- Installation of new routers in 68 operational and administrative facilities, part of the project to modernize the IP Network.



### Generation System

In 2018, we invested R\$ 35 million to maintain the satisfactory operational levels of continuity and availability needed to meet the demand of our hydroelectric plants under concession and quota regime. The implementation of the digital systems was completed in the generating units and in the substation of the Hydroelectric Plant (UHE) Boa Esperança, as well as of the basic project for implementation of this system in the generating units in the UHE Sobradinho.

In addition, we began modernizing the overhead cranes at UHE Paulo Afonso IV and the gantries at UHE Apolônio Sales, and started the development of the basic project for implementation of the digital systems and modernization of the generating units of UHE PA-IV, and performed several retrofitting and maintenance services in the generation system in operation to eliminate technical, legal and environmental issues. Also, in 2018, we began the preliminary studies of the technical, operational and environmental impacts to evaluate the feasibility of future implementation of reversible machines at UHE Luiz Gonzaga.

In Wind Power Generation, in 2018 we invested R\$ 28.8 million to complete the implementation of own wind farms (UEE) of Casa Nova II (32.9 MW) and Casa Nova III (28.2 MW) in Bahia. We also conducted an assessment at the Wind Farm Casa Nova I A (27 MW) to determine the costs necessary for its completion and energization by December 2019. In Solar Power Generation, we are advancing the development of a photovoltaic generation complex in the city of Bom Jesus da Lapa (Bahia), with a capacity of 720 MWp, implemented in 120-MWp phases. The development of another photovoltaic project of 35.6 MWp, located in the municipality of São José do Belmonte, in Pernambuco, was also completed.



LUIZ GONZAGA POWER PLANT

Aiming to increase our share in photovoltaic generation, taking full advantage of the natural potential of the Northeast region, we expanded our study areas and performed measurements in 20 solar monitoring stations installed in the Northeastern semi-arid region. We are also installing solar panels in the substations in the region to replace the energy supplied from the network of the utility company. The first installation was completed at the beginning of 2018 at SS Messias (Alagoas), with 120 kWp. In 2019, another 2.4 MWp is planned to be implemented in substations of six states (AL, CE, PB, PE, PI, and RN).

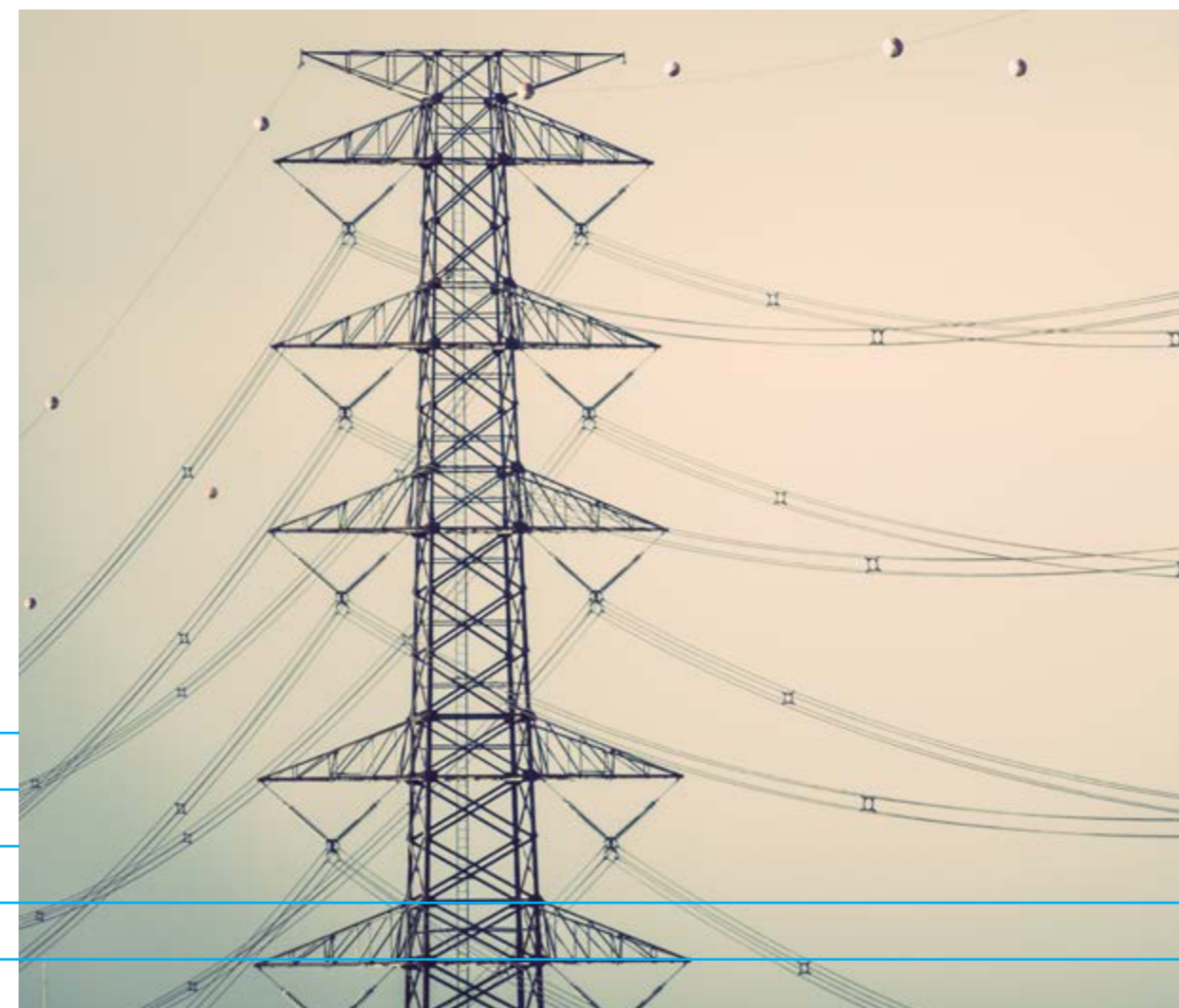
**In 2018, we posted a record of four reinforcement projects completed ahead of schedule: SS Goianinha, SS Senhor do Bonfim II, SS PICI II, and SS Pau Ferro.**

### Transmission System

Seeking continuous improvement of project management processes, we changed the way we manage projects, and the changes have already yielded historical results for the Company. In 2018, investments were made in 61 transmission projects to expand and strengthen the network, 19 projects were completed—with 14 km of lines and a new substation—and 16 new transformers were acquired, increasing the transformation capacity by 2,417 MVA. We also implemented two new substations - SS Nossa Senhora do Socorro and SS Maceió -, adding 700 MVA, and completing additional 166 km of lines that were energized under no-load conditions: TL 230 kV Messias/Maceió II CD and TL 230 kV Eunápolis/Teixeira de Freitas II C2. These two completed

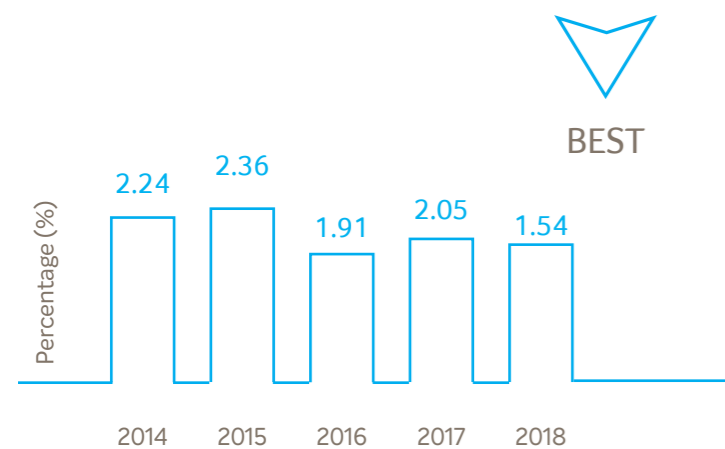
projects are awaiting approval of the basic project from ANEEL.

In addition, we highlight the completion of the reinforcement that allowed for load increase in the backlands of Pernambuco, with supply through the Bom Nome substation, and the expansion of the North and East axes of the integration project of the São Francisco River with the basins of the Northern-Northeastern (PISF). Work was also completed to address contingencies in the states of Piauí, Pernambuco and Bahia, and serve the metropolitan regions of Salvador and Fortaleza. The reinforcement of the Igaporã III (Bahia) substation was completed, allowing for the integration of the new wind farms planned for the region in the existing transmission system.



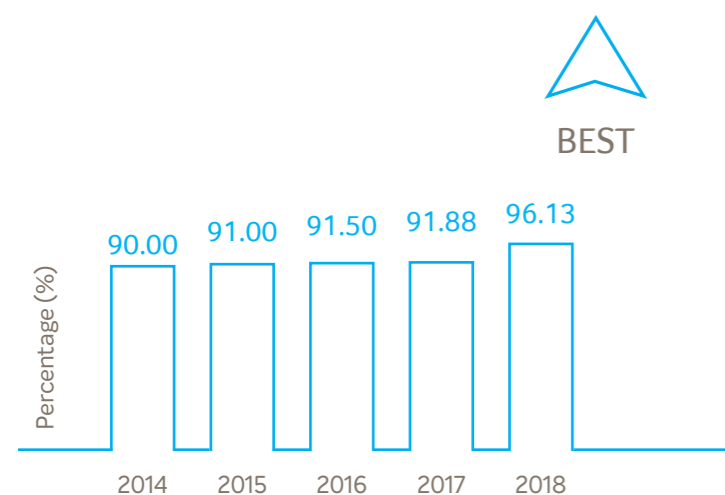
### Variable Portion

The indicator shows the discount percentage of the Annual Revenue Allowed (RAP) of the Transmission Functions, due to unavailability of the Basic Network equipment of Chesf's concessions, according to ANEEL legislation. In 2018, the result was the best in the last six years and, among other aspects, positively contributed to reducing the Variable Portion, with a reversal of approximately R\$ 5 million, through administrative resources with the National Electric System Operator (ONS).



### System Robustness Indicator

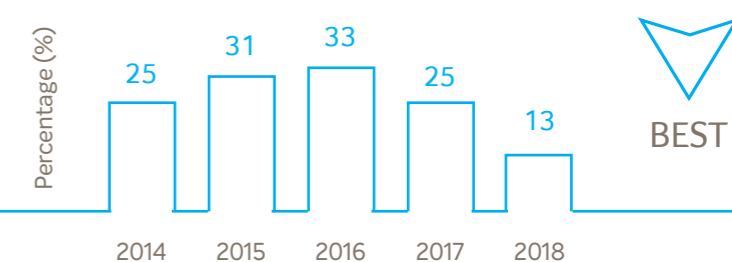
Maintaining the trend, the indicator showed the best result in the last five years. This result indicates an evolution of the Chesf System (Basic Network) in relation to the occurrences involving interruption of the electric power supply. The IRS assesses the capacity of Chesf's Basic Network to support contingencies without interrupting the supply of electricity to consumers (loss of load).



CHAPADA DO PIAUÍ WIND POWER PLANT

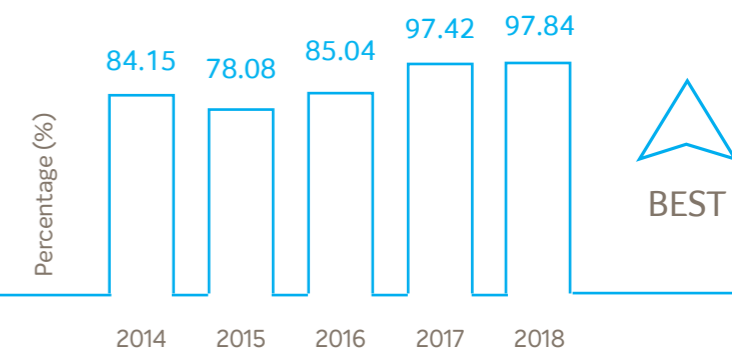
### Número de Eventos com Interrupção de Carga na Rede Básica (NEIC-RB)

The indicator referring to the Number of Events with Load Disruption in the Basic Network (NEIC-RB) presented the best result in the last 20 years.



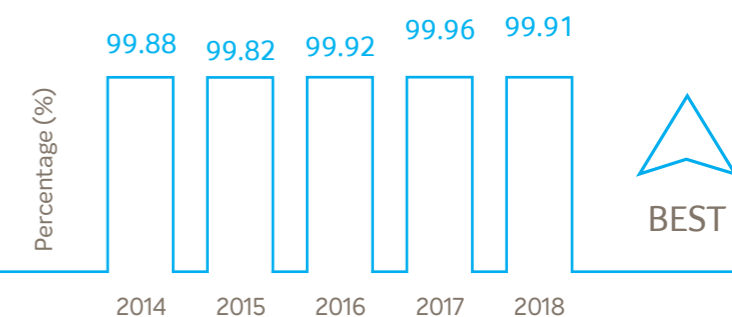
### Operational Availability in Generation

The Operational Availability indicator shows the likelihood that, at any given time, the equipment is either operating, performing its function or ready to operate. In 2018, the Operational Availability in Generation presented the best result in the last five years.



### Operational Availability in Transmission Lines

The Operational Availability in Transmission Lines indicator presented the third-best result in history, reflecting an excellent performance in the service provided and maintaining the availability level above 99.90%.







## Special Purpose Entities

### GENERATION

Our interest in generation projects through SPEs totals 16,006.43 MW, corresponding to 2,799.49 MW equivalent.

SPES	LOCATION	MW	INTEREST	MW EQUIVALENT	START OF OPERATION
<b>HYDROELECTRIC GENERATION</b>					
Energética Águas da Pedra S.A.	Aripuanã/MT	261.00	24.50%	63.95	Aug-11
ESBR Participações S.A.	Porto Velho/RO	3,750.00	20.00%	750.00	Nov-16
Norte Energia S.A.	Altamira/PA	11,233.10	15.00%	1,684.97	Dec-15
Companhia Energética SINOP S.A.	Sinop/MT	401.88	24.50%	98.46	Mar-19
<b>WIND POWER GENERATION</b>					
Complexo Eólico Vamcruz	Serra do Mel/RN	93.00	49.00%	45.57	Nov-15
Complexo Sento Sé II	Sento Sé/BA	98.70	49.00%	48.36	Sep-15
Complexo Sento Sé III	Sento Sé/BA	58.75	1.60%	0.94	Mar-16
Complexo Eólico Pindaí I	Pindaí/BA	68.00	99.95%	67.97	Mar-19
Complexo Eólico Pindaí II	Pindaí/BA	26.00	99.97%	25.99	Mar-19
Complexo Eólico Pindaí III	Pindaí/BA	16.00	83.01%	13.28	Apr-19
<b>Chesf Total Power and Equivalent in SPEs</b>		<b>16,006.43</b>		<b>2,799.49</b>	

Total Capacity of hydroelectric projects in partnership = 15,645.98 MW

Total capacity of wind farms in partnership = 360.45 MW (position on 12/31/2018)

In 2018, we invested R\$ 358 million in partnerships, of which R\$ 245 million was invested in Special Purpose Entities (SPEs) in hydroelectric projects and R\$ 113 million in SPEs in wind farms. We also expanded support actions and field activities to complete the implementation of 11 wind farms of SPEs linked to the wind farms in Pindaí, with completion planned for 2019.

At UHE Belo Monte, five generating units entered into commercial operation at Belo Monte Site, totaling 3,055.5 MW of installed capacity. Chesf's ownership interest in this project is 15%. Accordingly, the actions developed by Chesf in Special Purpose Entities allowed for an increase of 3,055.5 MW of installed generation capacity in the Brazilian electricity system, and the power equivalent to Chesf's interest in these entities corresponds to 458.33 MW.

VALUE MANAGEMENT

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### TRANSMISSION

We have transmission projects through SPEs that total of 3,911 km, corresponding to 1,334.5 km equivalent to our interest. In 2018, no transmission projects entered into commercial operation.

PROJECT	LOCATION	KM	INTEREST	KM EQUIVALENT	START OF OPERATION	
Sistema de Transmissão Nordeste S.A. – STN	TL 500 kV Teresina II - Sobral III - Fortaleza II, SS Teresina II, SS Sobral III, SS Fortaleza II.	CE/PI	546.0	49.0%	267.5	Jan-06
Interligação Elétrica do Madeira S.A.	TL 600 kV Porto Velho - Araraquara II; Rectifier Station - 500/600 kV - 3150 MW; Inverter Station - 600/500 kV - 2950 MW.	RO/MT/MS/SP	2,375.0	24.5%	581.9	Aug-13
Transmissora Delmiro Gouveia S.A. – TDG	SS 230 kV São Luís II - São Luís III; SS Aquiraz II and SS Pecém II (in operation).	MA/CE	39	49.0%	19.1	Oct-13 (230 kV São Luís II - São Luís III - forecast Apr/20)
Interligação Elétrica Garanhuns S.A. – IEG	TL 500 kV Luís Gonzaga - Garanhuns, TL 500 kV Garanhuns - Campina Grande III, TL 500 kV Garanhuns - Pau Ferro, TL 230 kV Garanhuns - Angelim I, SS Garanhuns, SS Pau Ferro.	PE/PB	666.0	49.0%	326.3	Nov-15
Interligação Elétrica Garanhuns S.A. – IEG	TL 500 kV Luís Gonzaga - Garanhuns, TL 500 kV Garanhuns - Campina Grande III, TL 500 kV Garanhuns - Pau Ferro, TL 230 kV Garanhuns - Angelim I, SS Garanhuns, SS Pau Ferro.	PE/PB	666.0	49.0%	326.3	Nov-15
Extremoz Transmissora do Nordeste S.A. – ETN	TL 500 kV Ceará Mirim - João Câmara II, TL 500 kV Ceará Mirim - Campina Grande III, TL 230 kV Ceará Mirim - Extremoz II, TL 230 kV Campina Grande III - Campina Grande II, Secc. TL 230 kV J. Camara II - Extremoz - Ceará Mirim Secc. TL 230 kV C. Grande II - Extremoz II, SS João Câmara II, SS Campina Grande III, SS Ceará Mirim.	PB/RN	285.0	49.0%	139.7	Oct-14
<b>Total Transmission Lines in operation - SPE</b>			<b>3,872.0</b>		<b>1,315.4</b>	
<b>Total Transmission Lines under construction - SPE</b>			<b>39.0</b>		<b>19.16</b>	
<b>GRAND TOTAL</b>			<b>3,911.0</b>		<b>1,334.5</b>	

## REGULATION

In 2018, our regulatory area was restructured, raising it from Regulation Advisory to Regulation Superintendence. Linked to the Operations Department, the new Superintendence is responsible for integrating regulatory processes with the various areas, connecting with regulators, especially with ANEEL, and internally strengthening the regulatory culture in accordance with the guidelines set out by the Executive Board.

The new structure has three departments, Asset Management, Management of Transmission Contracts, and Regulatory Aspects. Thus, in addition to the activities already carried out, the regulatory area has accumulated management of transmission contracts and management of assets (generation and transmission).

Also noteworthy are the following results:

- 9.69% reduction in the number of fines reviewed by ANEEL during the year, due to administrative appeals filed by Chesf, which represents a savings of approximately R\$ 1.7 million.
- Increase by more than R\$ 670 million/year in generation revenue from Chesf's quota power plants ("usinas cotistas").
- Increase in transmission contracts: total of 1,288 contracts with other agents connected to our assets.
- Participation in the preparation of the asset registry structure to be implemented in ProERP/SAP, with standardization and upload of the equipment registry considering the maintenance and accounting aspects and in the creation/coordination of the asset management and certifications.

## SHARED SERVICES CENTER

In order to ensure greater efficiency of internal services and in view of Eletrobras' PDNG, in May 2018 our Board of Directors approved the creation of the Shared Services Center (SSC). The approved structure maintained the eight macroprocesses defined by the holding company and divided them between the Administrative and Financial Departments. The former is composed of activities related to Human Resources, Infrastruc-

ture, Information Technology, Logistics, Procurement, and Legal. The latter encompasses the macroprocesses of Treasury, Finance and Accounting.

The operation of this new model began in July 2018 and, by the end of the year, 85% of the planned staff had already been migrated to the SSC. Among the expected macroprocesses, only the Legal Department was not yet subordinated to the SSC on December 31, 2018.



To learn more about our system, go to [www.chesf.gov.br](http://www.chesf.gov.br) > Sistemas Chesf (Portuguese only)

VALUE MANAGEMENT

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# INTELLECTUAL CAPITAL

Innovation in the electricity sector is increasingly essential to meet the growing demand for consumption and to help reduce the adverse effects on the environment. That's why we constantly invest in research, development, innovation and state-of-the-art technology to modernize our processes and seek the best solutions for our business and all our stakeholders.

In recent years, much of our efforts have been focused on new forms of clean energy generation—such as wind and solar. In addition, we work with lines of research aimed at improving the process to convert and integrate these new forms of generation to the electric system, and with solutions for its storage. With this in mind, in 2018 we put out a Call for Projects that develop technologies and studies of hybrid plants, including thematic areas such as the development

of equipment and systems to improve the energy conversion process, the joint operation with solar generation systems (hybrid parks), integration of hybrid generation with energy storage systems, monitoring and control of critical unavailability factors, reduction of the most critical impacts from intermittency in generation, among others.

In 2018, we invested approximately R\$ 58.4 million in research<sup>4</sup>, development and innovation, including the regulatory contribution to the National Fund for Scientific and Technological Development (FNDCT) of the Ministry of Science, Technology, Innovation and Communication (MCTIC) and the Ministry of Mines and Energy (MME), and the institutional research projects executed by Cepel. With a focus on the ANEEL project portfolio, R\$ 57.4 million was invested in five research projects under the following themes:

INVESTMENT THEMES R&D	R\$ MILLION
Alternative Sources of Electric Power Generation	56.3
Planning and Operation of Electric Power Systems	0.4
Project Management, Best Practices, Decision Making and Analysis	0.1
New Materials and Components	0.6
<b>Grand total</b>	<b>57.4</b>

## Application for Regulation and Parallel Operation of Transformers

The system for parallel operation and regulation for transformers has an extremely important function in the electric system, since it is responsible for regulating the level of voltage delivered by Chesf to utility companies. This system can automatically increase or decrease the voltage where the system is applied, always keeping the voltage constant for end consumers.

Until about 2010, the regulation and parallel operation system in use at Chesf was composed of panels and connecting cables in the yard and a variety of equipment—which required time and resources for equipment acquisition, factory testing and deployment in the field. To streamline the energization of some substations and achieve savings in several projects, we started to develop a system using existing equipment in the substation supervision system.

<sup>4</sup> R\$ 1 million used to manage all projects in the portfolio.

Prepared together with Cepel, the tested system has shown good results. The Application for Regulation and Parallel Operation has proven to be an innovative option in the market and is currently in operation in more than 25 substations with voltage levels 500, 230, 138 and 69 kV, using equipment and software already available and providing savings of approximately R\$ 120,000 per substation.

The system has become a viable option and has brought technical knowledge to the Protection and Control teams, further showing our ability to create efficient and unprecedented solutions for Brazil and for the National Interconnected System. Given its successful application at Chesf, we filed for a patent in Brazil, the United States,

Europe and China and obtained the first patent of the “ Application for Regulation and Parallel Operation of Transformers” from the United States.

### Chesf Solar Program

Following the plans of our corporate guideline, in 2018 we intensified our strategic actions to leverage power generation from alternative sources. These include centralized photovoltaic solar generation, distributed solar generation and research, development and innovation initiatives for all forms of solar power generation. With this purpose, the Chesf Solar Committee was created, Company’s headquarters, to monitor all the necessary initiatives to expand the generation of energy from this important source.



### REFERENCE PROJECTS

In 2018, we completed the civil and electromechanical installations of the headquarters building of the Solar Energy Reference Center of Petrolina (CRESP - Centro de Referência em Energia Solar de Petrolina), which, today, is developing four projects: two with photovoltaic technology and two with concentrating solar power. The first stage (2.5 MWp) of the Photovoltaic Plant of the reference center was completed, and the concentrating solar power plant with central tower is in the conceptual project phase. The concentrating solar power plant with parabolic trough is currently under study between Chesf and Cepel for the preparation of a Call for Projects and hiring the executing company and research institutions.



### FLOATING ENERGY

In November 2018 the assembly and anchoring of the 1 MWp floating photovoltaic plant was completed, together with the construction of a large part of the civil infrastructure to support the connections of the system. The 1 MWp plant starts operating in the first quarter of 2019, when the technical evaluation studies of the technology will be initiated. The second phase of this project will also begin in 2019 and will total 5 MWp when fully completed.

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### Management of Information Technology

Process innovation, facilitating decision making, agility of operations and data security is also an important development that helps business growth and reliability. Thus, in 2018 we invested R\$ 18.6 million in projects to implement technological resources and continued the implementation schedule of the SAP System in a Single Instance, which will provide greater control and assertiveness in administrative and operational reports.

In addition, 18 information systems were delivered that meet legal requirements and optimize important business processes through tools that support decision-making (BA -Business Analytics), such as the eSocial project for payroll and issuance of Electronic Invoice, Price Registry Management System (SGBP), the Analytical System for Management of Telecom Alarms (SAGAT), the Summarized Analytical Personnel Control System (SCARP) and the Transmission Project Monitoring System (SAET). And, to consolidate the decision-making process by the Company’s management body, we acquired unlimited licensing of the *Qlik Sense* data analysis platform.

### CHALLENGE OVERCOME

The implementation of the SAP integrated enterprise management system was one of the projects with the greatest engagement of teams at Chesf. With approximately 150 people participating in its implementation, the operation of the system—recognized for its complexity—began in record time: only 11 weeks. A part of an Eletrobras project, which involves the standardization of systems for all companies in the group, SAP implementation also involved a change management work throughout the Company, which was prepared to adapt to the new processes brought about by the tool.



Implementation (1<sup>st</sup> phase) in

Approximately

3.160

11 weeks

150 people involved

hours of training, with 414 employees trained



# HUMAN CAPITAL

The professionals who are part of our team are those mainly responsible for our achievements and for the resumption of Chesf's growth. In these 70 years of operation, there have been many challenges, many of which have been overcome thanks to the effort and engagement of employees.

We ended 2018 with 3,816 employees, 3,807 of which were from the company's own staff and nine were requested from public administration bodies or companies. Of this total, there were 738 women and 3,078 men. In this same period, the turnover rate was 4.34%, with 19 hires (by court order), return to the workforce of an employee who had retired for disability and 338 terminations.

This reduction in the number of employees is mainly due to the Consensual Termination Plan (PDC), implemented simultaneously in Eletrobras companies as part of the initiatives foreseen in Challenge 22: Sustainable Excellence, of the Business and Management Master Plan (PDNG 2018-2022). At Chesf, 323 employees were terminated through the PDC between June and December 2018. [102-8 AND 102-37](#)

[103-1, 103-2, 103-3 AND 401-1](#)

## TOTAL NUMBER OF EMPLOYEES

2018	2017	2016
3,816	4,122	4,547

## TURNOVER RATE

2018	2017	2016
4.34	5.39	0.59



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## NEW HIRES, BY GENDER

	2018	2017	2016
Male	17	7	28
Female	2	0	3

## PERCENTAGE OF EMPLOYEES BY EMPLOYMENT CATEGORY, BY GENDER 405-1

Category	2018	2017
Positions that require higher education	20.36%	7.99%
Positions that do not require higher education	56.11%	10.25%
Management position	4.19%	1.10%

FLOATING SOLAR PLANT - SOBRADINHO DAM



**Remuneration and benefits**  
102-35, 102-36, 102-37, 102-38, 102-39, 103-1, 401-2 AND 405-2

COMPENSATION POLICY FOR DIRECTORS AND MEMBERS OF THE BOARD OF DIRECTORS

The compensation of Chesf's Directors (Executive Board and Board Members) is established through the Company's Annual General Assembly (AGO). The amount defined globally is effective from April of the current year to March of the subsequent year. Items that should form the Directors' compensation are also defined, with the Board of Directors and Supervisory Board receiving 10% of the average monthly salaries and of the 13th salary received by the Executive Board, pursuant to Law No. 9,292 of July 12, 1996, considering only the amounts paid as salaries, excluding the other items.

The parameters to approval the global amount, such as readjustment percentages, are defined by Eletrobras, which, since 2012, has established a difference between the salaries of the Directors and of the CEO, as a way of reflecting the hierarchy among the members of the Executive Board. The difference was set at 5%. The approved amounts, according to the minutes of the AGO, are submitted to the Ministry of Planning, Development and Management, which, through the Department for Coordination and Governance of State-Owned Companies (SEST), issues a technical note validating or revising and redefining the amounts to be implemented.

The remuneration based on performance indicators or targets is called RVA (Annual Variable Pay of Directors), in accordance with the guidelines established by the holding company and in accordance with SEST guidelines, and is an important tool to foster productivity, management focused on results, and commitment of the administration to good organizational performance and to the Company's goals.

VALUE MANAGEMENT

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The professionals who are part of our team are those mainly responsible for our achievements

**Employees**

Our employees have a number of benefits focused on quality of life and well-being. These benefits are set out in regulations and collective bargaining agreements and are guaranteed to full-time and part-time workers. Among the main benefits are the Employee Assistance Plan, covering medical-hospital, dental and other health services; Educational Assistance; Educational Assistance for Higher Education; Food/Meal Allowance; Group Life Insurance; Private Pension Plan, through the Chesf Foundation for Assistance and Social Security (Fachesf); among others.

Remuneration is based on a salary table, with salary levels distributed according to the positions and their corresponding levels of complexity, according to the Career and Remuneration Plan, unified within the Eletrobras companies. This Plan also foresees salary movements with vertical and horizontal progression, such as recognition and merit mechanisms, based on criteria for evaluating employee performance, which consider aspects related to competencies and results.

Employees are also entitled to the Level Advance System or promotion for seniority, which corresponds to the advance of ½ step in the salary table if the employee remains for 24 months in the same step. Also regarding remuneration, the employees are assured an additional pay for time of service, in the form

of an annual supplementary bonus (*anuênio*), equivalent to 1% of the sum of the salaries, for each year of service provided to Chesf, limited to 35 years. Managers, Advisors and Heads of Department receive bonus for exercising a paid function and some employees receive legal benefits such as hazard pay, health hazard premium, overtime, among others.

With regard to the variable portion of employee remuneration, criteria are set for Profit Sharing for the year, which establish the integration between capital and labor and whose objective is to drive productivity, as provided for in art. 7, item XI of the Federal Constitution, of Law No. 10,101 of December 19, 2000, based on rules agreed upon with trade unions, pursuant to the guidelines of the Department for Coordination and Governance of State-Owned Companies (SEST) and other legal provisions in force.

- Chesf value realized in 2016 = 5.19 times
- Chesf value realized in 2017 = 5.27 times
- Chesf value realized in 2018 = 5.13 times

The company applies isonomic treatment on the remuneration of women and men and, in addition, has a Gender and Race Committee, which, for many years, has been conducting actions to raise awareness and value the role of employees in all spaces and levels of the organization. 103-1, 103-2 AND 103-3



**Training and development**

103-1, 103-2, 103-3, 404-1, 404-2 AND 404-3

Continuous development is essential if we are to be an increasingly innovative and efficient company. Thus, we invest in training our employees and monitor the performance indicators quarterly based on the information generated by the Integrated Human Resources System (RHSin).

In 2018, a total of 3,412 employees participated in internal and external education programs, totaling 183,725 hours, of which 52,022 were dedicated to long-term courses (graduate degrees, specializations, master's and doctoral degrees). The average number of training hours per employee reached 44.57, surpassing the Company's 40-hour target. These results were possible due to an increase in the use of creative solutions such as the incentive to the educator employee, the use of videoconferences, the increase in the number of places per educational action and partnerships with other institutions.

Our Corporate Education Plan offers educational opportunities that can contribute to the development of competencies related to the Company's business guidelines. In preparing the plan, we consider Strategic Planning as the main guideline to develop the technical and managerial capabilities required for employees to deal with organizational challenges.

Within this plan we can highlight the Program called *Vivendo e Aprendendo* (Living and Learning), developed by Chesf and aimed at improving employee education focused on Elementary, Middle and High School Courses. This pro-

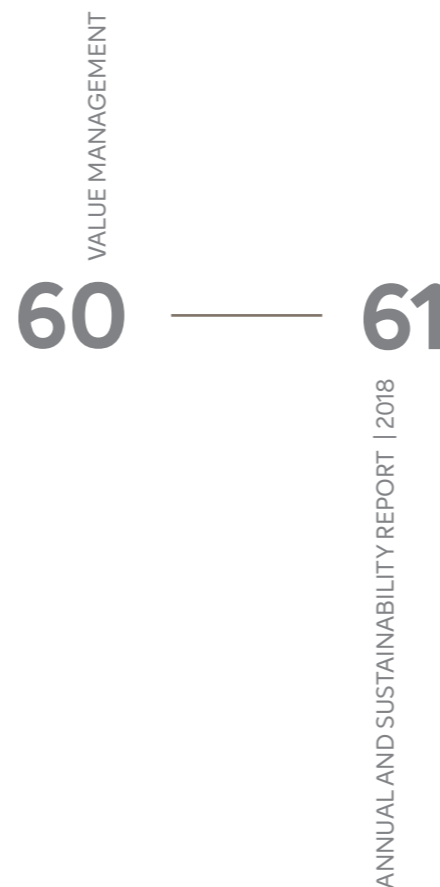
gram is carried out and coordinated by Chesf in partnership with SESI, and classes are taught at the Company's premises during working hours.

Investments in the participation of employees in postgraduate courses ("Lato sensu" and "stricto sensu") focus on the development of professional skills compatible with the activities they perform or will perform, and which are of interest to the organization. Long-term educational actions are all funded by Chesf, according to the budget for the Corporate Education Plan (PEC).

We also provide the "Education Allowance - Higher Education" benefit, granted to all employees who have not completed higher education courses and who do not have a suspended employment contract. Reimbursement of tuition fees complies with the cap set out in the Collective Bargaining Agreement (ACT). The number of hours included in these two classes of educational investment are considered for the purpose of corporate education indicators.

The total amount invested in Corporate Education was R\$ 1.2 million and the average investment per employee was R\$ 289.92.

Calculation of the goals and results of the training indicators is based on the number of employees in the previous year.



**HOURS OF TRAINING (HOURS)**

	2018	2017	2016
	53.19	48.40	45.11
	27.12	31.32	26.60

**RETIREMENT PREPARATION PROGRAM (PPA)**

We encourage our employees to plan for retirement considering economic, social, and health aspects. Through the PPA, options regarding entrepreneurship and volunteer work are presented. In 2018, a number of actions were taken, including courses and lectures to prepare those eligible for retirement to a new scenario. The main topic of the program was "Plan for Your Present, Prepare for Your Future," with lectures on "Social Security, Financial and Economic Aspects," "Financial and Social Security Education" and "Health and Quality of Life." The Program offers the possibility of reflecting and creating strategies for their personal and financial projects, focusing on viable goals and that are consistent with their talents and competencies.

**Diversity and inclusion**  
103-2, 103-3 AND 405-1

Though our corporate values, we made commitments to promote equity, justice and respect for people and, together with the Gender and Race Committee, created 10 years ago, we operate in all the Company's facilities and regional offices, with regular actions to address the topic. Throughout 2018, the Corporate Social Responsibility area and the Gender and Race Committee participated in actions such as the Campaign to Combat Sexual Violence against Children and Adolescents, Chesf's Gender and Race Pro-Equity Program, prepared by the Company together with the Federal Government's Department of Policies for Women (SPM), the Campaign called 16 Days of Activism for Ending Violence against Women, Lecture on Prevention and Combating Sexual Harassment in Companies, among others.

In order to address the needs and demands of employees with disabilities, we were the first among the Eletrobras companies to establish an Accessibility and Inclusion Committee, in 2011. At the end of 2018, Chesf had 158 employees with disabilities,

of which: 23 with hearing impairment, 108 with physical disability, one with intellectual disability, 18 with visual impairment, and eight employees rehabilitated by Social Security.

Also in 2018, the Committee launched the "Viva as Diferenças" campaign, which marked the National Day for the Fight of People with Disabilities (September 21), highlighting behaviors that reflect "Ableism" (a concept that expresses discrimination and social prejudice against people with disabilities or who are perceived to have disabilities) and guidelines for overcoming these prejudices.

## Health and safety

### 103-1, 103-2, 103-3 AND 403-2

In 2018, we proceeded with actions and programs aimed at promoting the health and quality of life of employees, preventing occupational accidents and diseases, and maintaining measures to control the hazards and risks involved in the activities performed.

We recorded a Typical Cumulative Lost Time Injury Frequency Rate (TFAT) of our own employees, higher than the threshold speci-

fied internally of 2.87. The Typical Cumulative Lost Time Injury Severity Rate (TGAT), in turn, closed the year 2018 with a value of 61, below the 131 that was set as the threshold for this indicator. The reasons that led to this result are under analysis by the area of Occupational Health and Safety, in order to allow for a specific action on the cause, aiming at reducing this number in 2019.

OCCUPATIONAL HEALTH AND SAFETY	2018	2017	2016
Average hours of overtime per employee/year	53.23	49.90	44.93
Absenteeism-illness rate for employees	1.74	1.70	1.60
Total frequency rate (TF) of the company in the period, for employees	4.0	1.49	2.33
Severity rate (TG) in the period, for employees	61	9	169
Total frequency rate (FR) of the company in the period, for outsourced/contracted personnel	1.57	3.48	2.21
Severity rate (TG) in the period, for outsourced/contracted personnel	10.0	20	21
Frequency rate (FR) of the company in the period, for the workforce (own + contractors)	2.86	2.15	2.29
Severity rate (TG) in the period, for the workforce (own + contractors)	37	13	123
Fatalities (own)	0	0	0
Fatalities (contractors)	0	0	0

We also provide all employees with access to the Incident and Nonconformity Registration System (CIN), an action of major relevance to prevent occupational accidents, occupational diseases and shutdown due to human error, since it allows each individual to become a true "Health and safety agent," recording incidents and deviations that could lead to the occurrence of damages to employees and to the electricity system operated by Chesf.

It should be noted that Chesf is certified by the Occupational Health and Safety Management System (SGSST) in accordance with the requirements set out in the Occupational Health and Safety Assessment Services - OHSAS 18.001:2007, which has contributed to the management of the accident prevention system and strengthened the internal culture of safety.



Further details on Chesf's governance can be found at [www.chesf.gov.br](http://www.chesf.gov.br) > A Empresa > Gestão de Pessoas (Portuguese only)

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DAM SAFETY - BA-PE CIVIL DEFENSE MEETING

## PROJECT TO REDUCE SHUT-DOWN DUE TO HUMAN ERROR (DEH)

The project involves the Company's Corporate, Operational and Engineering, and Construction Management Departments and its main objective is to reduce occurrences caused by human error in the Electric Energy System. In addition, the Normative Instruction of the Operation that deals with this subject has been revised, starting from the consolidation of a new methodology to identify and treat the risk factors that cause DEH. In 2018, this indicator achieved the best result in recent years.

## PROGRAMA PREVINA-SE (PREVENTION PROGRAM)

Held in partnership with the Substation Maintenance Department (DOMS), the purpose of the program is to establish procedures, training, campaigns and other actions in order to strengthen the culture of safety and improve the working conditions of employees.

## CORPORATE PROGRAM FIQUE ALERTA PARA SEGURANÇA DEZ (STAY ALERT FOR THE MAXIMUM SAFETY)

Another cycle of the program was carried out with the aim to disseminate a culture of health and safety at work. In this sense, Chesf's 3<sup>rd</sup> Knowledge Challenge on Occupational Health and Safety was held, with online tests on these subjects, in addition to a final round that brought together the winning employees of Headquarters and of all Regional Offices.

## PROGRAMA VIDA VIVER BEM (LEADING A GOOD LIFE PROGRAM)

Actions were carried out in the *Vida Viver Bem* Program, aiming to promote the health and quality of life of employees, such as: incentive to street races and sports, through the Center for Health Promotion (SPC); vaccination campaigns against the H1N1, H3N2 and Influenza B viruses; Campaigns White January, Green April, Yellow September, Pink October, Blue November, and World AIDS Day; in addition to health inspections, First Aid training and Safe and Healthy Behavior; Regular Medical Examination; promotion of Mental Health, with the Art and Expression Project; as well as encouraging healthy eating, with the Organic Farmer's market in Salvador and Recife.

## FREE ASSOCIATION 102-41

We have in place a Union Relations Advisory (ARS) and a Union Committee with representatives from each department that address management issues at the unions. We negotiate directly with the unions and with the Regional Federation. Meetings are periodically held with trade unions to negotiate and follow up on Collective Bargaining Agreements.

BLACK CONSCIENCE DAY



# SOCIAL AND RELATIONSHIP CAPITAL 413-1

## Communities

We are aware of our responsibility towards the communities located around our operations. Thus, following the Social Responsibility Policy of the Eletrobras Companies and Chesf's Guidance Manual on Social Projects, we have in place initiatives to reduce social inequality, social and education campaigns, improvement of the quality of life of local people, health and food security, as well as citizenship training and generation of work and income.

We base our voluntary commitments on the 2030 Agenda, the 17 Sustainable Development Goals (UN) and the Guiding Principles of Business and Human Rights, in the National Human Rights Program (PNDH 3), acting in integration with Eletrobras.

We also voluntarily committed to the Women's Empowerment Principles, the Gender and Race Pro-Equity Program, and the Declaration of Corporate Commitment to Combat Sexual Violence against Children and Adolescents.



To learn more about our voluntary commitments, go to visit [www.chesf.gov.br](http://www.chesf.gov.br)  
> Sustentabilidade > Visão Geral > Compromissos Voluntários (Portuguese only) 102-12

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## Social projects

Aware of the impacts of our decisions and activities on the locations where we operate, the Company always adopts an ethical behavior, acting with transparency and taking into account the expectations of our stakeholders to contribute to reducing social inequality and to sustainable development. The social projects supported by the Company in 2018 were:

- **Sobradinho Reservoir Project**, conducted by the Brazilian Agricultural Research Company (Embrapa), which includes the municipalities Sobradinho, Casa Nova, Sento Sé, Remanso and Pilão Arcado, located in the surroundings of the Sobradinho Plant. The project has brought a significant improvement to the quality of life of communities benefiting from the implementation of technological learning and training fields through the promotion and transfer of knowledge and technology to coexist with the drought, for agricultural producers and fishermen living in the vicinity of the Sobradinho Dam (Bahia).
- **Social project** "Building the Citizen of Tomorrow," in partnership with the Dom Helder Câmara Institute, which contributes to removing from the streets socially vulnerable adolescents from the communities of Coque, Coelhos and Joana Bezerra, in Recife (Pernambuco).



## Chesf Business Volunteering 103-2, 103-3 AND 203-1

In 2018, our volunteer program had the participation of 34 employees in various campaigns and actions in the communities. The actions were in line with the interests of the internal audience, business and community needs. Chesf also opened its doors to promote fairs in its premises to disseminate and market products produced by social entities.

The volunteer group also promoted the collection and distribution of basic food staple baskets for needy communities in Recife, participated in the campaign called *Banho do Bem*, which collected personal hygiene items and supported the *Bons Ventos* project, which collected school supplies for needy communities in the states of Piauí, Rio Grande do Norte and Bahia. In addition, we maintained the partnership with the education project called *Energia Solidária* and held Solidarity Christmas for children around Chesf Headquarters in Recife.

**We are aware of our responsibility towards the communities located around our operations**



### Makeathon Communities Project



### Communication and monitoring

Through our Social Media Program, we work to make available the appropriate information about the projects and how they interact with the environment. Through this channel, we aim to establish a harmonious relationship between the project and the various groups impacted by the operation: residents of nearby communities, public institutions and workers directly involved with the implementation works.

In 2018, we developed Environmental Education programs in the communities surrounding transmission projects, initiating a process to raise awareness of and mobilize people in the implementation, monitoring and evaluation of local social and environmental projects. The purpose

of the programs is to guarantee the adoption of participatory methodologies that guarantee respect, plurality and cultural diversity, and that strengthen collective and organized action, thus providing an understanding of the complexity of local environmental problems.

Given the long drought that has stricken the San Francisco River Basin since 2013, based on the Technical Notes prepared by the National System Operator (ONS) and on the Official Letters by the National Water Agency (ANA), IBAMA has issued Special Permits for Chesf to reduce the flow of the Sobradinho and Xingó reservoirs. Impacts on local communities are monitored through the activities of the Environmental Communication and Education Programs. [103-2 AND 413-2](#)

Chesf also makes available to the whole society the channels called *Fale Conosco Ambiental* (Talk to Us Environmental) ([meioambiente@chesf.gov.br](mailto:meioambiente@chesf.gov.br)), *Disque Queimadas/Meio Ambiente* (Dial Fires/Environment) (0800-979-3090), and Ombudsman's Office ([ouvidoria@chesf.gov.br](mailto:ouvidoria@chesf.gov.br)), to provide access of all to the Company and to use these channels as a tool to monitor possible local impacts.

**In 2018, we developed Environmental Education programs in the communities surrounding transmission projects**

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### Culture

In 2018, we invested more than R\$ 770,000 in sponsorship projects focused on disseminating culture and on technical-scientific production and communication. Across the Company, the sponsored actions must contribute to preserving the intangible heritage of the Northeastern Region and the exchange of experiences in the area of electric energy.

Regarding technical-scientific production and communication, notice should

be given to Chesf's participation in the Eletrobras Companies' Program to Sponsor Events in the Electricity Sector 2018, contributing to selecting relevant projects in the national and international scenario. Support was given to projects aligned with the Company's objectives and that benefit the Northeastern region, such as the XIV SEPOPE (Symposium of Specialists in Operational Planning and Electric Expansion) held in Recife, and the 10<sup>th</sup> National Wind Power Forum - 10<sup>th</sup> Anniversary Commemorative Edition - held in the city of Natal.

Among the main cultural actions are the projects DVD Henrique Annes - 50 Years of Guitar, Children's Citizen Orchestra, São João Cultural de Caruaru and *O Tom do Pife* - Festival of Fife Bands.

COMPANY INVOLVEMENT IN SOCIAL ACTIONS	2018	2017
Resources invested in education (R\$ thousand)	39.6	162.40
Resources invested in health and sanitation (R\$ thousand)	39,162.41	35,049.18
Resources invested in culture (R\$ thousand)	775.00	1,185.00
Resources invested in sports (R\$ thousand)	0.00	0.00
Other funds invested in social actions (R\$ thousand)	0.00	0.00
Employees who perform volunteer work in the community outside the company/total number of employees (%)	1.15	1.58
Number of monthly hours donated (released from normal working hours) by the company for employee volunteer work	100.75	300.00

COMPANY INVOLVEMENT IN CULTURAL PROJECTS, SPORTS, ETC. (ROUANET ACT)	2018	2017
Total resources allocated to projects (R\$ thousand)	555.00	906.09
Total resources allocated to the largest project (R\$ thousand)	190.00	273.99

### Resettlements

In the environmental licensing process, socioeconomic impact studies are planned in the area of influence of the projects and the populations affected are identified and their need for reallocation. The studies are also used for preparing and conducting mitigating actions, such as environmental education programs, social and environmental communication, cultural rescue, relocation, among others. For Indigenous and Quilombola populations, initiatives are guided by international agreements signed by Brazil, and by specific national laws and regulations.

In 2018, we completed the basic project for the requalification of the works and started the bidding process to hire the contractor responsible for the execution of the Project called *Jusante* (Downstream), in Glória (Bahia), the most recent to have been implemented in the Itaparica Resettlement. Completion of the project is scheduled for 2019.

The Operating Licenses have also been renewed for the irrigation perimeters of Brígida, Icó Mandantes, Barreiras Bloco 01 and Bloco 02 and Apolônio Sales, all located in the state of Pernambuco. Chesf also continued to monitor the Permanent Preservation Areas and the Legal Reserve of the *Jusante* Project regarding possible irregular uses, preservation of signage and demarcation of the polygons of those areas.

Regarding Indigenous issues, the acquisition of land to complete the Tuxá de Rodelas Indigenous Reserve by FUNAI remains pending. The Ministry of Justice has not yet given their position regarding Chesf's administrative resources and the municipalities of Abaré and Curaçá (Bahia) on the proposed demarcation of the Tumbalalá Indigenous Territory, which would interfere in approximately one third of the area of the Pedra Branca Irrigation Perimeter, where approximately 800 families from the Itaparica Resettlement Program have been resettled.



SOBRADINHO LAKE PROJECT



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### SUPPLIERS

Our process to hire suppliers is governed by Law 13,303/2016 and by the Bidding Regulations and Contracts of the Eletrobras Companies. The entire process follows the requirements for Call for Bids and evaluation of the legal qualification criteria, technical qualification and economic-financial qualification. In addition, all contracts have labor clauses and clauses for compliance with certain legal constraints related to human rights and compliance with environmental legislation. There is not yet a specific program in place to evaluate suppliers, but the elaboration of a risk matrix. **102-9, 102-10, 103-1 AND 308-2**

Regarding human rights, we do not submit suppliers to due diligence processes on social impacts. However, the document Principles and Commitments of Corporate Conduct in Chesf's Supplier Relations establishes a series of labor, human rights, salary, training and occupational health and safety commitments assumed by suppliers when participating in bids. Contracts that require exclusively dedicated labor are controlled regarding the payment of labor and social security charges, pursuant to the items below in the Code of Conduct:

- Do not use degrading, forced or analogous to slavelabor, or involuntary work of prisoners.

- Do not use child labor, except as an apprentice over the age of 14.
- Reject any form of sexual abuse and exploitation of children and adolescents and any promotional action or material that encourages it, including advertising.
- Ensure decent conditions for workers, including employees of contractors, regarding workplaces, transportation, lodging, food, hygiene, etc.
- Do not accept discrimination concerning color/race, marital status, physical or mental disability, age, religion, creed, sex, social status or any other form.
- Eliminate all forms of threat, coercion and physical, verbal and psychological violence, clearly communicating the prohibition of moral and sexual harassment.
- Accept workers' involvement in trade unions and associations, as well as the right to collective bargaining. **102-11, 103-1, 103-2, 103-3 AND 414-1**

**Our process to hire suppliers is governed by Law and by the Bidding Regulations and Contracts of the Eletrobras Companies**



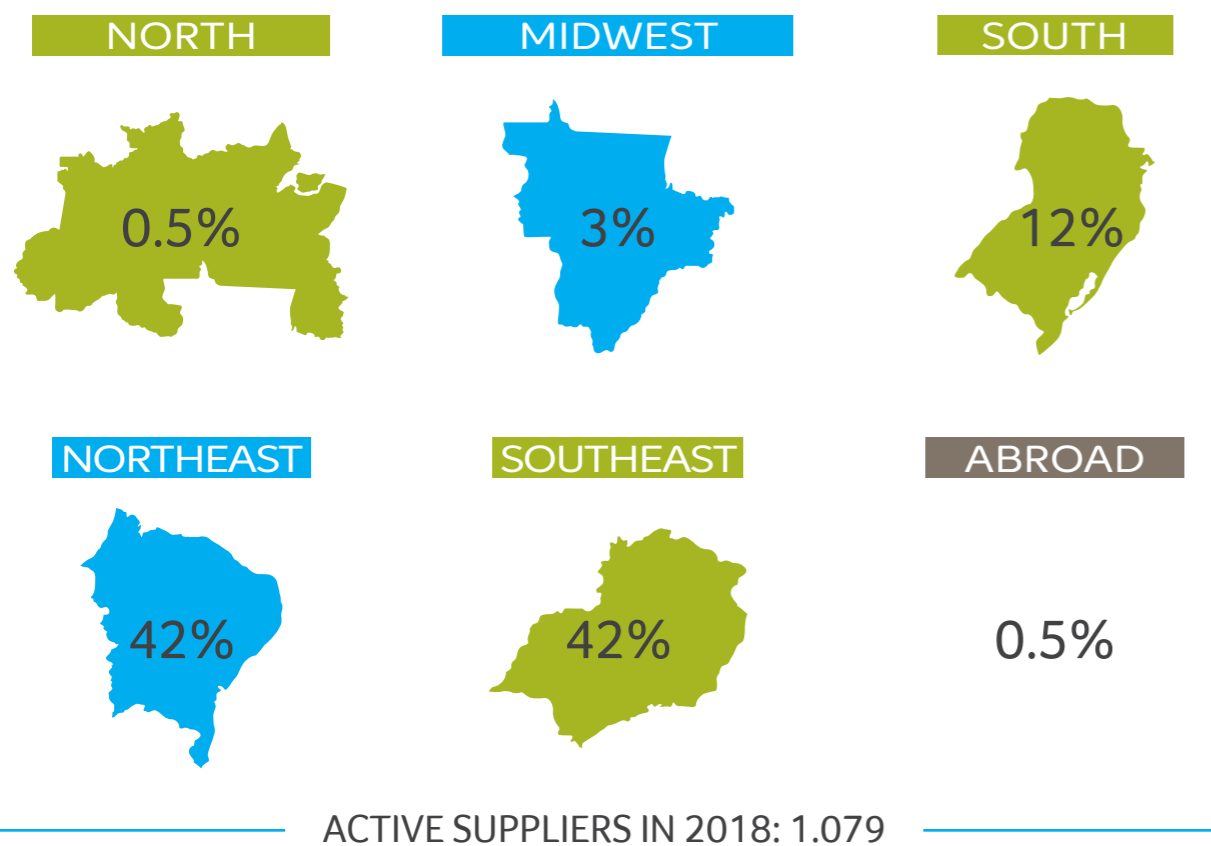
More details on Social Responsibility can be found at [www.chesf.gov.br](http://www.chesf.gov.br)  
 > Sustentabilidade > Responsabilidade Social (Portuguese only)

In 2018, we consolidated the adoption of anti-corruption clauses in our contracts and held an event to communicate and reinforce policies and procedures related to the proper performance of suppliers, including a specific lecture on integrity mechanisms established in the Eletrobras companies for relationship with third parties. [103-2, 103-3 AND 205-2](#)

In 2018, after the bidding process, 357 contracts were signed with 231 suppliers, totaling

R\$ 497.4 million. Of these, 70 suppliers are considered to be “essential to the business,” having been contracted to execute works, services and to supply equipment for energy generation and transmission: 135 contracts totaling R\$ 306.3 million. Essential suppliers account for 30.3% of the total number of suppliers contracted in 2018, 37.81% of the contracts signed in the year and 61.5% of the contracted value. [103-2 AND 204-1](#)

### Location of suppliers



### Best practices

We follow the Guide for Best Practices in Sustainability for the Supply Chain of the Eletrobras Companies, ensuring that our service providers have proper health and safety conditions in their workplaces, monitored through the requirements set out in our Workplace Safety Plan. We also require proof of payments in consideration of services performed, delivery of transportation and food allowances, collection of contributions due to social security (INSS) and employee severance fund (FGTS), time and attendance records, and the list of employees terminated, if any, thus ensuring decent working conditions. [103-3 AND 304-2](#)



More details on the Supplier Registry can be found at [www.chesf.gov.br](http://www.chesf.gov.br) > Licitações > Fornecedores (Portuguese only)

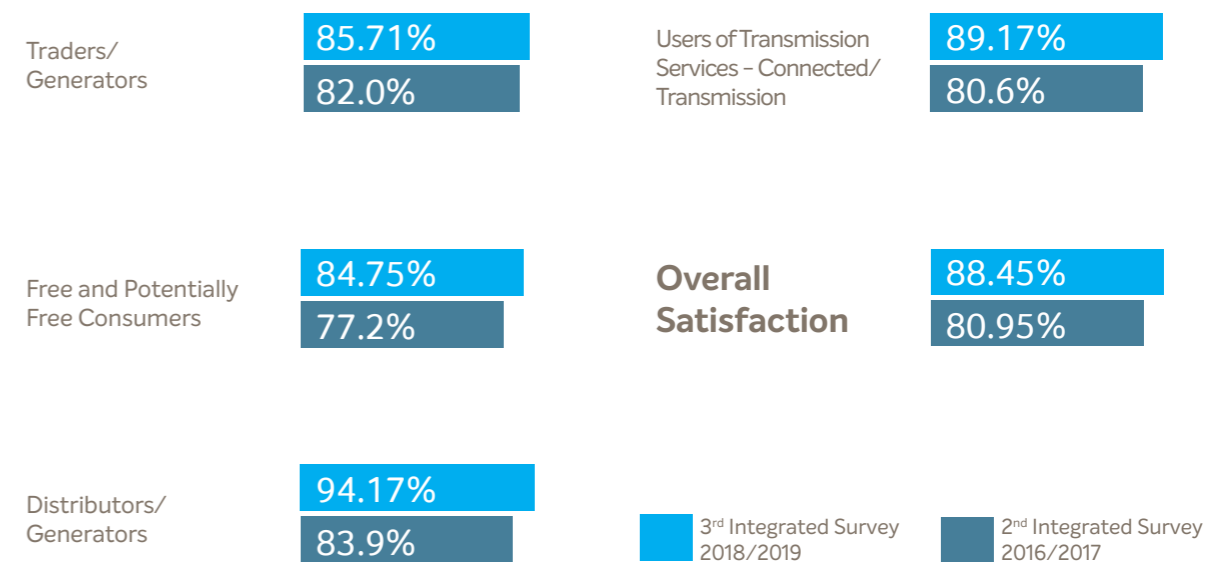


## CLIENTS AND CONSUMERS

Ensuring satisfaction and quality service to clients and consumers is a basic premise of our work. Thus, every two years we conduct an Integrated Client Satisfaction Survey. In 2018, we conducted the third edition of the 2018/2019 survey, covering Generation clients (free/potentially free consumers, traders and distributors) and Transmission clients (users of connected transmission services: distributors, free/potentially free consumers and generators).

The methodology used was the “Customer Window,” a method to measure client satisfaction based on their perceptions of value attributes and associate them with the level of importance assigned by them. The overall satisfaction rate was 88.45%, higher than the overall integrated satisfaction target of the Eletrobras companies, of 85.31%.

### Result of the Client Satisfaction Survey - Generation and Transmission



Aiming to constantly improve our services, we work to further enhance the communication channel with our clients. To this end, we have in place an action plan that, through relationship managers dedicated to specific client groups, aims to reduce the response time, a result already observed in the 3<sup>rd</sup> survey.

### Energy trading

Since 2013, we have traded energy under the quota system in the Free Contracting Environment (ACL) and in the Regulated Contracting Environment (ACR). In 2018, sales totaled 50,229 GWh, distributed among 26 states in Brazil and the Federal District. Of this total, 44,699 GWh (89%) was traded under the quota regime. The remaining 5,530 GWh (11%) was allocated to the ACL (free industrial consumers, industrial consumers served under Law 13,182 of November 3, 2015 and to traders) and ACR (distributors). Energy purchases totaled 1,804 GWh, part of the Company’s trading strategy.

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ANGIQUINHO POWER PLANT



## NATURAL CAPITAL

103-1, 103-2, 103-3 AND 304-2

Our environmental management process includes all phases of generation and transmission projects, with assessment of pre-operational and operational risks and impacts. With a focus on improving our processes, in 2018 we restructured the environmental area through the creation of the Environmental Department for Exploitation, which works on the environmental compliance of the assets in operation, and the Environmental Department for Expansion, whose main responsibility is environmental management in project implementation.

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The processes, of both new projects and projects in operation, are controlled using the Environmental Licensing System (SISLIC), an internal information tool to manage licensing demands. We monitor environmental compliance in the implementation of new projects through the adoption of time and management indicators with stakeholders, establishing countermeasures for the deviations identified.

The most significant negative impact of hydroelectric power plants today is on the population of migratory fish<sup>5</sup>, compromising their migration and reproduction, and on flooding of areas to form reservoirs. Another point of attention concerning hydroelectric plants is the change in the water regime of the rivers, which causes impacts on the aquatic fauna. In transmission projects, we adopted tower elevation procedures and implemented programs for selective replanting and rescue of wildlife and flora in the surroundings.

# 13.748

## SEEDLINGS PLANTED AROUND THE BOA ESPERANÇA POWER PLANT

We are increasingly seeking preventive actions, with the implementation of a corporate risk management process, following the principles and guidelines established in the Eletrobras Risk Management Policy, which identifies environmental risks in the corporate risk matrix. The goal is to establish a more integrated process in managing environmental risks that could affect the organizational objectives, reinforcing the responsibility of the business areas to define and implement actions to mitigate risks.

**Together with Eletrobras and other subsidiaries, we participate in the evaluation of the Corporate Sustainability Index (ISE) of the Stock Exchange. In the 2018-2019 cycle, we obtained a score of 55.35 in the Environmental Dimension, up 15.43% over the previous cycle.**

<sup>5</sup> Freshwater fish migrating for breeding.



## SPATIAL DEMARCATION OF THE AREA WHERE PLANTING TOOK PLACE



REVEGETATION OF A 10 ACRE AREA IN THE FOREST LIFE REFUGE

### Biodiversity programs 103-2

In 2018, we proceeded with the program to recover degraded areas around the Boa Esperança Hydroelectric Power Plant, by planting 13,748 seedlings of riparian forest, including plants and seeds of native species in an area with 7.30 ha. In addition, we operate the Xingó Forest Nursery, which, in 2018 alone, produced 107,610 seedlings of native species of the Caatinga, with emphasis on researching scale reproduction of the *coroa-de-frade* (*Melocactus Sp*) an endangered protected species, which reached 12,000 units in the growth phase. 56,096 seedlings were donated to various institutions for planting along the banks of rivers and streams in the São Francisco River Basin. In Boa Esperança, we have a nursery for the production of native seedlings of the Cerrado biome, with emphasis on the species *Pequi* (*Caryocar coriaceum*), in which 16,463 seedlings were produced in 2018.

With respect to biodiversity and water quality, in 2018 we carried out the Aquatic Ecosystems Monitoring Program in Sobradinho (BA), Itaparica (PE/BA), Paulo Afonso Complex (BA), and Xingó (AL/SE). We also have a fish farm in Paulo Afonso to repopulate the river and reservoirs, with several native species of the basin, and we have in place monitoring programs for aquatic ecosystems.

### MATA DO JUNCO WILDLIFE REFUGE

The reforestation project at the Mata do Junco Wildlife Refuge (RVS), in Sergipe, emerged as a form of forest restoration for the area where the 230 kV Jardim/Penedo - C1 Transmission Line project was implemented. The Operating License (LO No. 1375/2017) requires that Chesf meet the request regarding reforestation of ten hectares of degraded areas. This conservation unit is part of the Atlantic Rainforest and its creation was aimed at preserving the habitat of the monkey Coimbra's titi (*Callicebus coimbrai*), an endemic species of the Atlantic Rainforest in the states of Sergipe and Northern Bahia and living only in fragments of rainforests in these regions. In addition, the refuge also assists in the conservation of important springs that supply the municipality of Capela (SE). By August 2017, the project had already replanted more than 20,000 seedlings of the Atlantic Rainforest species and, in March 2018, reached a mortality rate of only 4.7% of the total planted.

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XINGÓ POWER PLANT

### Environmental education

In this cycle, Chesf continued the Social and Environmental Action Plan (PAS) in the UHEs Paulo Afonso I, II, III, IV and Apolônio Sales - Paulo Afonso Complex and UHE Xingó. This Plan was created to discipline and integrate actions on the environment within the scope of the company/community relationship. PAS is an environmental management process, grounded on environmental communication, education and health, where social players, through knowledge and practice, adopt a new way of thinking and acting in terms of society/nature relations.

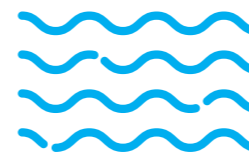
The area covered by PAS is defined according to the level of influence of the projects of the Paulo Afonso Hydroelectric

Complex and the UHE Xingó. The actions of the Paulo Afonso PAS cover five municipalities in three states (Bahia, Pernambuco and Alagoas), and the actions related to PAS in Xingó cover six municipalities in three states (Alagoas, Sergipe and Bahia).

Campaigns to Control Sugarcane Slash and Burn practices were also carried out in the states of Pernambuco, Sergipe and Alagoas; Program to Control Slash and Burn of Vegetation in the states of Piauí and Maranhão; Vandalism Campaigns focusing on Isolators; and Kite-flying Campaigns in the states of Pernambuco and Ceará.

ENVIRONMENTAL EDUCATION AND AWARENESS	2018	2017	2016
Number of employees trained in environmental education programs	615	16	59
Percentage of employees trained in environmental education programs/total number of employees	14.92%	0.39%	1.30%
Number of hours of environmental training/total number of hours of training	0.014	0.022	0.0014
Number of elementary, middle and high schools served	71	NA	10
Number of elementary, middle and high school students served	132	1,927	1,079
Number of teachers trained	137	352	290
Number of technical and higher education units served	0	0	0
Number of technical and higher education students served	0	0	0

NA: Not Available



## WATER AND EFFLUENTS 103-1, 103-2 AND 103-3

Our management of water resources is based on two concepts: water is an asset of public domain (limited resource that has economic value) and water is an essential natural resource for electric power generation. Based on this guideline, our management recommends the rational use of this resource in its facilities and operations and consumption is monitored monthly by the regional administration according to the specificities of the regions. In the hydroelectric generation process, there is no degradation of this resource, since all water passing through the turbines returns to the water course without changing its characteristics and, consequently, without the need for treatment.

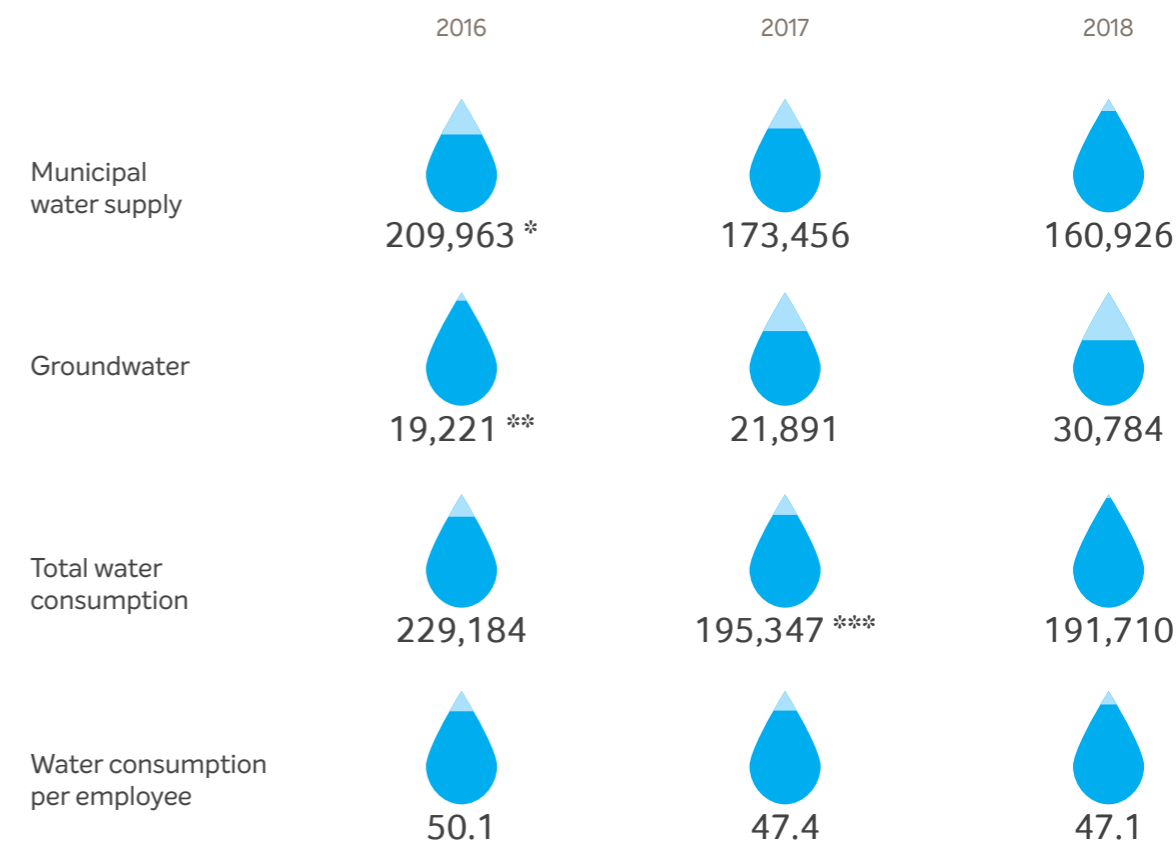
However, we monitor and evaluate the water quality of our reservoirs considering parameters of temperature, acidity, electrical conductivity, dissolved oxygen, turbidity and transparency, total alkalinity, total hardness, nitrate and nitrite concentration, ammonia, total phosphorus, total phosphate, inorganic phosphorus, chloride, chlorophyll concentration, fecal and total coliform density, concentration of lubricating oils, concentration of insulating oils, and concentration of agrochemicals.

Effluents are discharged in company treatment systems, thus there is no discharge in bodies of water. UTE Camaçari and ETO Bongí, which generated industrial effluents with specific destination, were deactivated.

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## TOTAL WATER WITHDRAWAL BY SOURCE (M<sup>3</sup>) 303-1 AND 303-2



\*In 2016, new measurements were included, which increased consumption compared with the previous year.  
 \*\* In fact, the information in 2016 was not available and was verified and corrected in the 2017 report.  
 \*\*\* Reduction in total consumption in 2017 occurred after the implementation of improvements in the process.



WASTE

Regarding waste, we are seeking more effective solutions in sorting, storage, transportation, reuse, recovery, and final disposal. In the process to fully manage waste, we work to establish strategies to prevent and minimize waste by reducing at the source or recovery/recycling/reuse, which may imply improvement in the operation and maintenance processes, changes in processes and equipment or even changes in inputs used.

In order to monitor Waste Management, we have established procedures and standards for quantification, transportation, storage and final disposal of waste generated in the administrative and operational sectors. In 2018, only Class II waste (1,167.13 tons) was reported. There was no disposal of equipment containing PCBs.

RATIONAL USE

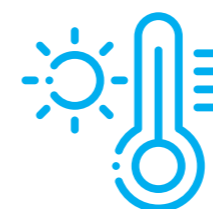
**Based on principles of the Environmental Policy of the Eletrobras Companies, Chesf's environmental management seeks to implement initiatives to reduce consumption of materials, energy, water, and GHG emissions. Through management and administration of our Regional Offices, we carry out studies to identify potential projects for gains in efficiency and cost reduction.**

VALUE MANAGEMENT

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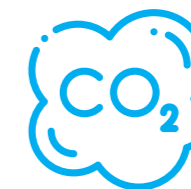


CLIMATE CHANGE

Global climate change and possible changes to environmental legislation are considered threats to Chesf's activities, but, at the same time, they can be opportunities to expand its generation from renewable sources. Thus, the Company explains its climate change strategies in its Statement of Commitment, which guides the practices and planning for the future.

Strengthening its commitment to addressing this topic, as expressed in the Environmental Policy of the Eletrobras Companies and looking to contribute to the transition to a new development model based on a low-carbon economy, Chesf prioritizes the generation of energy from renewable sources and low GHG emissions. In recent years, we have increased the share of sources with low greenhouse gas (GHG) emissions in our installed capacity, which, in 2018, accounted for approximately 95% of the total, decisively contributing for the Brazilian electricity matrix to be one of the world's cleanest and most renewable energy sources.

The Company's Business Plan - PNG 2018-2022 - set a target for 2018 to reduce the greenhouse gas emission intensity (tCO<sub>2</sub>/NOR) to 0.050. As a result for 2018, we reduced emission intensity to 0.037, demonstrating that the Company's climate strategy continues to achieve its objectives.

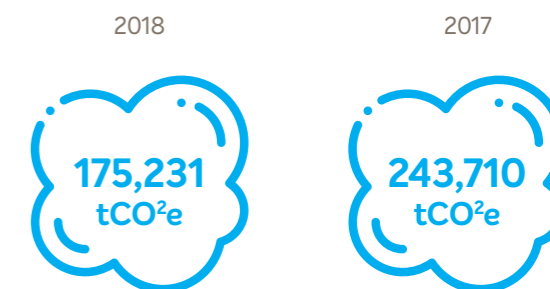


EMISSIONS

Since 2009, we have annually published our GHG Emissions Inventory together with the other Eletrobras companies. In 2018, Chesf's Greenhouse Gas emissions totaled 175,231 tCO<sub>2</sub>e, down 28% compared with 2017 (243,710 tCO<sub>2</sub>e). This reduction is associated with lower losses in transmission.

COMPANY	Chesf
SCOPE 1	23,031 tCO <sub>2</sub> e
SCOPE 2	150,539 tCO <sub>2</sub> e
SCOPE 3	1,661 tCO <sub>2</sub> e
TOTAL	175,231 tCO <sub>2</sub> e

28% reduction in emissions



It should be mentioned that Chesf's emission intensity is low when compared to the average emission intensity of the international electricity sector, including even Brazil, since its generation matrix is composed of sources of low GHG emission intensity.

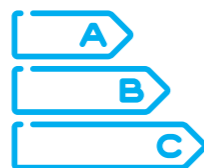
As for emission of ozone-depleting substances, the only existing source at Chesf is a fire-fighting system installed in the COS building, which uses halon gas as an extinguishing agent (however the system is deactivated). There was no record of leakage in the year.



MESSIAS SOLAR PLANT



TAUA SUBSTATION



**ENERGY EFFICIENCY**  
103-1, 103-2, 103-3 302-4 AND 302-5

gas emissions, energy costs and other associated environmental impacts through systematic management of energy.

Proceeding with the implementation of *Conta Zero* (a project that aims to generate solar energy to supply all substations and associated assets), in 2018 we started the operation of a 2.5 MWp photovoltaic power plant in Petrolina (PE). The surplus production of the plant exceeds all electricity consumed at Chesf's buildings in Pernambuco, benefiting 90 facilities that consume more than 1,260 MWh annually.

Also in 2018, we contracted the supply of photovoltaic generation equipment for the projects in the *Conta Zero* Program in the states of Alagoas, Paraíba and Piauí, totaling 1.1 MWp, which will be completed in 2019 and will contribute to minimizing energy consumption in those states. For 2019, projects for future implementations of solar power plant are expected to be completed in the states of Ceará and Rio Grande do Norte, totaling additional 1.6 MWp.

We continuously invest in energy efficiency projects and monitor the energy consumption of our facilities on a monthly basis, with quarterly reports for integrated monitoring and assessment of compliance with the consumption target. In 2018, we obtained an important certification in the ABNT/NBR ISO 50.001 standard - Energy Management Systems for the Messias Substation.

The pilot project was designed to enable Chesf to establish systems and processes needed to improve energy performance, including efficiency, use and consumption. We expect that, with the gradual application of the standard methodology in other Chesf facilities, we will be able to significantly reduce greenhouse

**302-1**

**DIRECT ENERGY CONSUMPTION BROKEN DOWN BY PRIMARY ENERGY SOURCE, IN GJ**

	2018	2017	2016
Diesel	40,750.30	44,358.87	44,010.00
Gasoline	4,347.50	2,152.51	2,069.00
Ethanol	9,744.60	13,148.01	13,236.00
Natural gas	17.80	0.00	0.00
Jet fuel	1,881.20	2,916.00	3,445.00
Biodiesel	3,259.10	NA	NA
Lubricant	2.30	NA	NA
Liquefied petroleum gas	11.70	NA	NA

NA: Not Available

Energy consumption outside Company premises is not measured. However, the vast majority of services performed by third parties are carried out at Chesf's own facilities, and consumption is monitored at the facilities. [302-2](#)



**CONTINGENCY PLANNING**

Our contingency measures are planned and reviewed annually, and we constantly monitor our operations so that, in the case of any occurrence, Contingency Plans can be immediately implemented. Emergency response action plans are available in the control room of the facilities and their effectiveness should be determined through reading tests, bench tests and field tests with evidence, regular updating, disclosure to employees, and management hierarchy of the facility.

In compliance with Law No. 12,334/2010 on the National Policy for the Safety of Dams, Chesf has in place an Emergency Action Plan (PAE) for all its dams, which sets out actions to protect the populations, properties and environment (downstream) of the dams. It also defines the procedures to be adopted by Chesf in emergency situations, characterized when there is a risk of imminent rupture that threatens the dam structures or even when the rupture has already occurred. In addition to Chesf's internal actions, the PAE defines the external agents to be notified and provides relevant information to authorities and civil defense to assist them in preparing the corresponding municipal contingency plans and management of external emergencies. [EUSD SO - EU21](#)



XINGÓ POWER PLANT

VALUE MANAGEMENT

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More details on Chesf's environmental actions can be found at [www.chesf.gov.br](http://www.chesf.gov.br) > Sustentabilidade > Meio Ambiente (Portuguese only)





SE GOIANINHA

SUMÁRIO DE CONTEÚDO GRI STANDARDS

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RELATÓRIO ANUAL E DE SUSTENTABILIDADE | 2018

# GRI STANDARDS CONTENT INDEX 102-55

STANDARD GRI	DISCLOSURE	COMMENT	PAGE
<b>GRI 101: FOUNDATION 2016</b>			
<b>General Disclosures</b>			
	102-1: Name of the organization		18
	102-2: Activities, brands, products, and services		18
	102-3: Location of headquarters		18
	102-4: Location of operations		18
	102-5: Ownership and legal form		18
	102-6: Markets served		18
	102-7: Scale of the organization		18
<b>GRI 102: General Disclosures 2016</b>	102-8: Information on employees and other workers	Global Compact: 6 SDG: 5; 8	56
	102-9: Supply chain	Global Compact: 1; 2 SDG: 8	69
	102-10: Significant changes to the organization and its supply chain		69
	102-11: Precautionary Principle or approach		36 and 69
	102-12: External initiatives		64
	102-13: Membership of associations		15
<b>Strategy</b>			
<b>GRI 102: General Disclosures 2016</b>	102-14: Statement from senior decision-maker		6
	102-15: Key impacts, risks and opportunities		6
<b>Ethics and Integrity</b>			
<b>GRI 102: Disclosures Gerais 2016</b>	102-16: Values, principles, standards, and norms of behavior	Global Compact: 6; 10 SDG: 16 www.chesf.gov.br > A empresa > Missão, Visão e Valores (Portuguese only)	31
	102-17: Mechanisms for advice and concerns about ethics	Global Compact: 6; 10 SDG: 16	35



STANDARD GRI	DISCLOSURE	COMMENT	PAGE
<b>Governance</b>			
<b>GRI 102: General Disclosures 2016</b>	102-18: Governance structure	Global Compact: 6; 10 SDG: 16	28 and 32
	102-19: Delegating authority		32
	102-20: Executive-level responsibility for economic, environmental and social		32
	102-21: Consulting stakeholders on economic, environmental and social topics		37
	102-22: Composition of the highest governance body and its committees		29 and 32
	102-23: Chair of the highest governance body	Global Compact: 10   SDG: 16 www.chesf.gov.br > A Empresa (Portuguese only)	31
	102-24: Nominating and selecting the highest governance body	Global Compact: 10   SDG: 16 www.chesf.gov.br > A Empresa (Portuguese only)	31
	102-25: Conflicts of interest	Global Compact: 10   SDG: 16 www.chesf.gov.br > A Empresa (Portuguese only)	31
	102-26: Role of highest governance body in setting purpose, values, and strategy	www.chesf.gov.br > A Empresa (Portuguese only)	31
	102-27: Collective Knowledge of highest governance body	www.chesf.gov.br > A Empresa (Portuguese only)	31
	102-28: Nominating and selecting the highest governance body	www.chesf.gov.br > A Empresa (Portuguese only)	31
	102-29: Identifying and managing economic, environmental and social impacts	Global Compact: 10 SDG: 8; 16	21 and 26
	102-30: Effectiveness of risk management processes	Global Compact: 10 SDG: 8; 16	21, 33 and 36
	102-31: Review of economic, environmental and social topics	Global Compact: 6; 8; 10 SDG: 8; 16	39
	102-32: Highest governance body's role in sustainability reporting	The Report is approved by the Executive Board.	
	102-33: Communicating critical concerns		33
102-34: Nature and total number of critical concerns		31	
102-35: Remuneration policies	Global Compact: 6 SDG: 5; 10	58	
102-36: Process for		58	

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STANDARD GRI	DISCLOSURE	COMMENT	PAGE
<b>GRI 102: Disclosures Gerais 2016</b>	102-37: Stakeholders involvement in remuneration		56 and 58
	102-38: Annual total compensation ratio		58
	102-39: Percentage increase in annual total compensation ratio		58
<b>Stakeholders Engagement</b>			
<b>GRI 102: General Disclosures 2016</b>	102-40: List of stakeholder groups	www.chesf.gov.br > comunicação > relações públicas (Portuguese only)	
	102-41: Collective bargaining agreements	Global Compact: 6	63
	102-42: Identifying and selection stakeholders	www.chesf.gov.br > comunicação > relações públicas (Portuguese only)	
	102-43: Approach to stakeholder engagement	www.chesf.gov.br > comunicação > relações públicas (Portuguese only)	
	102-44: Key topics and concerns raised		12 and 28
<b>Reporting Practices</b>			
<b>GRI 102: General Disclosures 2016</b>	102-45: Entities included in the consolidated financial statements		12 and 28
	102-46: Defining report content and topic boundaries		12 and 28
	102-47: List of material topics		12 and 28
	102-48: Restatements of information		12 and 28
	102-49: Changes in reporting		12 and 28
	102-50: Reporting period		12 and 28
	102-51: Date of most recent report		12 and 28
	102-52: Reporting cycle		12 and 28
	102-53: Contact point for questions regarding the report		12 and 28
	102-54: Claims of reporting in accordance with the GRI Standards	In accordance (Core option)	12 and 28
	102-55: GRI content index		82
	102-56: External assurance		12 and 93



STANDARD GRI	DISCLOSURE	COMMENT	PAGE
<b>MATERIAL TOPICS</b>			
<b>Economic Performance</b>			
<b>GRI 103: Management Approach 2016</b>	103-1: Explanation of the material topic and its Boundary		40
	103-2: The management approach and its components		40
	103-3: Evaluation of the management approach		40
	201-1: Direct economic value generated and distribute		40 and 42
<b>GRI 201: Desempenho Econômico 2016</b>	201-4: Financial assistance received from government	Chesf is entitled to a 75% reduction in Income Tax and Non-Refundable Additional Taxes, calculated based on income from exploration, duly recorded in the results for the period as a reduction in income tax, in compliance with Technical Pronouncement CPC 07 (R1) - IAS 20.	
		The portion of the income resulting from these tax incentives is allocated to the Profit Reserve called Tax Incentive Reserve, in accordance with article 195-A of Law 6,404/1976, which can only be used to increase the capital stock or absorb losses.	
<b>Impactos Econômicos Indiretos</b>			
<b>GRI 103: Management Approach 2016</b>	103-1: Explanation of the material topic and its Boundary		12 and 65
	103-2: The management approach and its components		65
	103-3: Evaluation of the management approach		65
<b>GRI 203: Indirect Economic Impacts 2016</b>	203-1: Infrastructure investments and services supported		65
<b>Purchasing Practices</b>			
<b>GRI 103: Management Approach 2016</b>	103-1: Explanation of the material topic and its Boundary		12 and 70
	103-2: The management approach and its components		70
	103-3: Evaluation of the management approach		70
<b>GRI 204: Purchasing Practices 2016</b>	204-1: Proportion of spending on local suppliers		70

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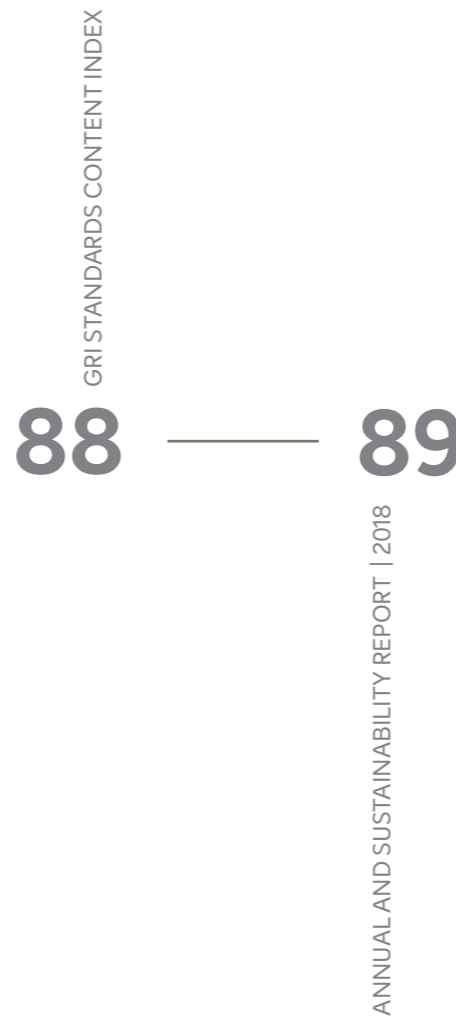
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STANDARD GRI	DISCLOSURE	COMMENT	PAGE
<b>Anti-corruption</b>			
<b>GRI 103: Management Approach 2016</b>	103-1: Explanation of the material topic and its Boundary		35 and 70
	103-2: The management approach and its components		35 and 70
	103-3: Evaluation of the management approach		35 and 70
<b>GRI 205: Anticorrupção 2016</b>	205-2: Communication and training about anti-corruption policies and procedures	Global Compact: 10 SDG: 16	35 and 70
	205-3: Confirmed incidents of corruption and actions taken	Global Compact: 10 In 2018, there were no confirmed cases of corruption.	
<b>ENVIRONMENT</b>			
<b>Energy</b>			
<b>GRI 103: Management Approach 2016</b>	103-1: Explanation of the material topic and its Boundary		12 and 80
	103-2: The management approach and its components		80
	103-3: Evaluation of the management approach		80
<b>GRI 302: Energy 2016</b>	302-1: Energy consumption inside of the organization	Global Compact: 7; 8; 9	80
	302-2: Energy consumption outside of the organization	Global Compact: 7; 8; 9	80
	302-3: Energy intensity	Global Compact: 7; 8; 9 Até o presente relatório, a Chesf não Up to the present report, Chesf has not consolidated adequate methodology for the integrated and consistent evaluation of this indicator	
	302-4: Reduction of energy consumption	Global Compact: 7; 8; 9	80
	302-5: Reductions in energy requirements of products and services	Global Compact: 7; 8; 9	80
<b>Water</b>			
<b>GRI 103: Management Approach 2016</b>	103-1: Explanation of the material topic and its Boundary		12 and 77
	103-2: The management approach and its components		77
	103-3: Evaluation of the management approach		77
<b>GRI 303: Water 2016</b>	303-1: Water withdrawal by source	Global Compact: 7; 8; 9 SDG: 6	77
	303-2: Water sources significantly affected by withdrawal of water	Global Compact: 7; 8; 9 SDG: 6 www.chesf.gov.br > Licitações > Fornecedores Not applicable. Chesf does not withdraw water from any water source	77



STANDARD GRI	DISCLOSURE	COMMENT	PAGE
<b>Water</b>			
<b>GRI 303: Water 2016</b>	303-3: Water recycled and reused	Global Compact: 7; 8; 9 SDG: 6 The water reuse report presents a zero value as a result of Chesf not having a water recycling system in its administrative or operational activities.	
<b>Biodiversity</b>			
<b>GRI 103: Management Approach 2016</b>	103-1: Explanation of the material topic and is Boundary		12 and 72
	103-2: The management approach and its components		72
	103-3: Evaluation of the management approach		72
<b>GRI 304: Biodiversity 2016</b>	304-2: Significant impacts of activities, products, and services on biodiversity	Global Compact: 7; 8; 9 SDG: 13	70 and 72
<b>Environmental Compliance</b>			
<b>GRI 103: Management Approach 2016</b>	103-1: Explanation of the material topic and is Boundary		12 and 72
	103-2: The management approach and its components		72
	103-3: Evaluation of the management approach		72
<b>GRI 307: Environmental Compliance 2016</b>	307-1: Non-compliance with environmental laws and regulation	Global Compact: 7; 8; 9 In 2018, Chesf received a total of seven fines in the amount R\$ 5,543,250.00. In 2018, Chesf paid three environmental fines, totaling R\$ 21,000.00. As for the balance, Chesf filed an appeal with the environmental agencies, and the administrative proceedings are ongoing. The difference between the fines received from environmental agencies and those paid is the fines under dispute, and which Chesf filed appeals with the environmental agency.	
<b>Supplier Environmental Assessment</b>			
<b>GRI 103: Management Approach 2016</b>	103-1: Explanation of the material topic and is Boundary		12 and 69
	103-2: The management approach and its components	www.chesf.gov.br > Licitações > Fornecedores (Portuguese only)	
	103-3: Evaluation of the management approach	www.chesf.gov.br > Licitações > Fornecedores (Portuguese only)	



STANDARD GRI	DISCLOSURE	COMMENT	PAGE
<b>GRI 308: Supplier Environmental Assessment 2016</b>	308-1: New suppliers that were screened using environmental criteria	Global Compact: 7; 8; 9   SDG: 17 Since we began to use the Procurement and Contracting Regulations of the Eletrobras companies, the Statement of Environmental Crimes (used as evidence) is no longer requested in the selection/bidding process. The contractor must comply with the environmental legislation in force and respect Chesf's Code of Ethics.	
<b>Supplier Environmental Assessment</b>			
<b>GRI 308: Supplier Environmental Assessment 2016</b>	308-2: Negative environmental impacts in the supply chain and actions taken	Global Compact: 7; 8; 9 SDG: 17	69
<b>Employment</b>			
<b>GRI 103: Management Approach 2016</b>	103-1: Explanation of the material topic and is Boundary		12 and 56
	103-2: The management approach and its components		56
	103-3: Evaluation of the management approach		56
<b>GRI 401: Employment 2016</b>	401-1: New employee hires and employee turnover		56
	401-2: Benefits provided to full-time employees that are not provided to temporary or part-time employees	Global Compact: 6	58
<b>Occupational Health and Safety</b>			
<b>GRI 103: Management Approach 2016</b>	103-1: Explanation of the material topic and is Boundary		12 and 62
	103-2: The management approach and its components		62
	103-3: Evaluation of the management approach		62
<b>GRI 403: Occupational Health and Safety 2016</b>	403-2: Types of injury and rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities	Global Compact: 6 SDG: 3	62
	403-3: Workers with high incidence or high risk of diseases related to their occupation	Global Compact: 6 SDG: 3 Chesf does not have workers whose activity or place of work is involved in occupational activities with high level or high risk of specific diseases	



STANDARD GRI	DISCLOSURE	COMMENT	PAGE
<b>Treinamento e Educação</b>			
<b>GRI 103: Management Approach 2016</b>	103-1: Explanation of the material topic and is Boundary		12 and 60
	103-2: The management approach and its components		60
	103-3: Evaluation of the management approach		60
<b>Training and Education</b>			
<b>GRI 404: Training and Education 2016</b>	404-1: Average hours of training per year per employee	Global Compact: 6 SDG: 4	60
	404-2: Programs for upgrading employee skills and transition assistance programs	Global Compact: 6 SDG: 4	60
	404-3: Workers with high incidence or high risk of diseases related to their occupation		60
<b>Diversity and Equal Opportunities</b>			
<b>GRI 103: Management Approach 2016</b>	103-1: Explanation of the material topic and is Boundary		12 and 58
	103-2: The management approach and its components		58 and 61
	103-3: Evaluation of the management approach		58 and 61
<b>GRI 405: Diversity and Equal Opportunities 2016</b>	405-1: Diversity of governance bodies and employees	Global Compact: 6 SDG: 5	57 and 61
	405-2: Ratio of basic salary and remuneration of women to men	Global Compact: 6 2018 = 0.9709 2017 = 0.9709 2016 = 0.9208	58
<b>Non-discrimination</b>			
<b>GRI 103: Management Approach 2016</b>	103-1: Explanation of the material topic and is Boundary		12 and 59
	103-2: The management approach and its components		59
	103-3: Evaluation of the management approach		59
<b>GRI 406: Non-discrimination 2016</b>	406-1: Incidents of discrimination and corrective actions taken	Global Compact: 1; 2; 3; 6 SDG: 16 There were no cases of discrimination.	

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STANDARD GRI	DISCLOSURE	COMMENT	PAGE
<b>Local Communities</b>			
<b>GRI 103: Management Approach 2016</b>	103-1: Explanation of the material topic and is Boundary		12 and 64
	103-2: The management approach and its components		64
	103-3: Evaluation of the management approach		64
<b>Local Communities</b>			
<b>GRI 413: Local Communities 2016</b>	413-1: Operations with local community engagement, impact assessments, and development programs	Global Compact: 7	64
	413-2: Operations with significant actual and potential negative impacts on local communities	There aren't	
<b>Suppliers Social Assessment</b>			
<b>GRI 103: Management Approach 2016</b>	103-1: Explanation of the material topic and is Boundary		12 and 69
	103-2: The management approach and its components		69
	103-3: Evaluation of the management approach		69
<b>GRI 414: Suppliers Social Assessment 2016</b>	414-1: New suppliers that were screened using social criteria	Global Compact: 1; 2 SDG: 17	69
	414-2: Negative social impacts in the supply chain and actions taken	There is no structured process for evaluating social impacts in the supply chain.	
<b>Socioeconomic Compliance</b>			
<b>GRI 103: Management Approach 2016</b>	103-1: Explanation of the material topic and is Boundary		12 and 33
	103-2: The management approach and its components		33
	103-3: Evaluation of the management approach		33
<b>GRI 419: Socioeconomic Compliance 2016</b>	419-1: Non-compliance with laws and regulations in the social and economic area	There were no lawsuits brought against Chesf through arbitration mechanisms for non-compliance with laws and/or regulations in the social and economic areas.	



STANDARD GRI	DISCLOSURE	COMMENT	PAGE
<b>GRI STANDARDS – SECTOR SUPPLEMENT</b>			
<b>Organizational Profile</b>			
	GRI-EU1: Installed capacity, broken down by primary energy source and by regulatory regime		44
<b>SOCIAL CATEGORY– SOCIETY</b>			
<b>Emergency Planning and Response</b>			
	<i>Management Approach</i> (Approach GRI-DMA EUSD SO, former EU21), contingency planning measures, disaster/emergency management plan and training programs, and recovery/restoration plans	SDG: 9; 13	81
<b>SOCIAL CATEGORY – PRODUCT RESPONSIBILITY</b>			
<b>Customer Health And Safety</b>			
	GRI-EU25: Number of injuries and fatalities to the public involving company assets, including legal judgments, settlements and pending legal cases of diseases	Global Compact: 6 SDG: 3 None.	
<b>Access</b>			
	GRI-EU30: Average availability factor of the plant, broken down by energy source and by regulatory system		44

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## ASSURANCE REPORT 102-56



### Independent Auditors' Limited Assurance Report

To  
The Board of Directors, Shareholders and Other Stakeholders of  
Companhia Hidro Elétrica do São Francisco – CHESF  
Recife - PE

#### Introduction

We were hired by São Francisco Hydroelectric Company ("CHESF") management to present our limited assurance report on the information contained in CHESF's Sustainability and Annual Report which was prepared based on the Global Reporting Initiative ("GRI"), Standards version, related to the year ended December 31, 2018.

#### Responsibilities of CHESF's management

CHESF's management is responsible for the preparation and adequate disclosure of the information contained in CHESF's Sustainability and Annual Report, in accordance with the guidelines for the preparation of Sustainability Reports from Global Reporting Initiative (GRI), Standards version, as well as for the internal controls that CHESF determined necessary to enable the preparation of such information free from material misstatement, whether caused by fraud or mistake.

#### Responsibility of the independent auditors

Our responsibility is to express a conclusion on the information contained in the Sustainability and Annual Report, based on the limited assurance work carried out in accordance with the Ibracon Technical Communication (CT) 07/2012, approved by the Federal Accounting Council and prepared based on NBC TO 3000, issued by Federal Accounting Council (CFC), which is equivalent to the International Standard on Assurance Engagement ISAE 3000, issued by the International Auditing and Assurance Standards Board, applicable to non-historical information.

These standards require compliance with ethical requirements, including independence requirements, and that the work is performed for the purpose of obtaining limited assurance that the information contained in the Sustainability and Annual Report is free from material misstatement.

A limited assurance engagement conducted in accordance with NBC TO 3000 (ISAE 3000) consists primarily of inquiries to CHESF's management and other CHESF's personnel involved in the preparation of the information contained in the Sustainability and Annual Report as well as the application of analytical procedures to obtain evidence that enables us to conclude, in the format of limited assurance, on the information contained in the report, taken as a whole.

Limited assurance work also requires the execution of additional procedures when the independent auditor is aware of matters that lead the auditor to believe that the information contained in the Sustainability Report taken together may present material misstatements.



The selected procedures were based on our understanding of the aspects related to the compilation and presentation of information contained in the Sustainability and Annual Report and on our analyses and understanding of areas where relevant misstatements could exist. The procedures comprised:

- a) The planning of the work, considering the relevance, volume of quantitative and qualitative information and the operational and internal control systems that served as a base for the preparation of CHESF's information contained in the Sustainability and Annual Report;
- b) the understanding of the calculation methodology and the procedures for consolidating the indicators, through interviews with the personnel responsible for the preparation of information;
- c) the performance of analytical procedures on quantitative information and inquiries on qualitative information and its correlation with the indicators disclosed in the information contained in the Sustainability and Annual Report; and
- d) the comparison of the financial indicators with the financial statements and/or accounting records.

The limited assurance work also included the adherence of the disclosed information to Global Reporting Initiative guidelines, Standards version, applicable for the preparation of information contained in the Sustainability and Annual Report.

We believe that the obtained evidence in our work is sufficient and appropriate to support our conclusion in a limited format.

**Scope and limitations**

The applied procedures in a limited assurance engagement are substantially less extensive than those applied in an assurance engagement with the purpose of expressing an opinion on the information contained in the Sustainability and Annual Report. Consequently, we did not obtain assurance that we are aware of all matters that would be identified in an assurance engagement with the purpose of expressing an opinion. If we had applied procedures for the purpose of expressing an opinion, we could have identified other issues and possible distortions that may exist in the information contained in the Sustainability and Annual Report. Therefore, we do not express an opinion on this information.

Non-financial data are subject to more inherent limitations than financial data given the nature and diversity of the methods used to determine, calculate or estimate such data. Qualitative interpretations of materiality, relevance and accuracy of data are subject to individual assumptions and judgments.

In addition, we do not perform any work on prior periods disclosed data, nor for future projections and targets.

Our work had the purpose of applying limited assurance procedures on the information disclosed in CHESF Sustainability and Annual Report and did not include the evaluation of the adequacy of its policies, practices and performance in sustainability.



**Conclusion**

Based on the prior described applied procedures, nothing has come to our attention that could lead us to believe that the information contained in CHESF's Sustainability and Annual Report for the year ended December 31, 2018 has not been compiled, in all the relevant matters, according to the Guidelines for Sustainability Report of the Global Reporting Initiative - GRI, Standards version.

Recife, 14 of June 2018

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## CREDITS

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The publication of this report was only possible due to the effort and commitment of the employees of various areas of Chesf, providing information and overseeing the development of the content for transparent accountability on the operation and performance of the Company. We thank all those who cooperated in this process.

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### COORDINATION OF COLLECTION OF INDICATORS AND COPY

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### TRANSLATION

Gotcha! Idiomas

### GRAPHIC DESIGN, LAYOUT AND INFOGRAPHIC

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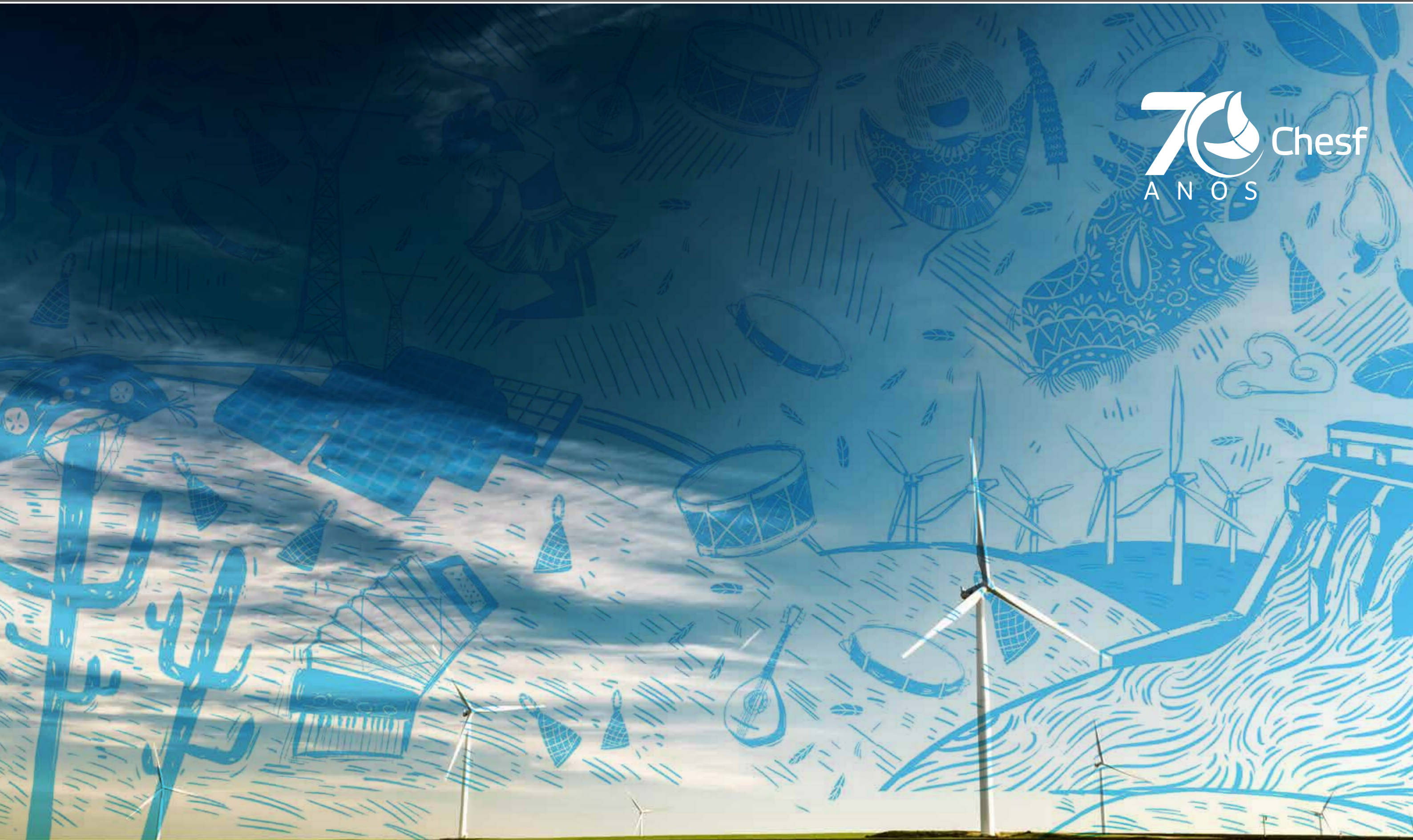
### PHOTOS

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