



Chesf

**2017**  
**ANNUAL AND**  
**SUSTAINABILITY REPORT**



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# MESSAGE FROM MANAGEMENT

> 102-14, 102-15 >

# THE QUEST FOR BALANCE AND A LOOK TO THE FUTURE

In 2018, Chesf celebrates 70 years of history. A milestone for a company that has grown along with Brazil's Northeastern region, overcome many challenges, and is now working hard to become more modern and efficient. The last few years have been challenging for Chesf. However, these challenges also brought opportunities for change, overcoming difficulties, and reinvent-

ing ourselves. In 2017, it was no different, but we faced the challenges with a renewed spirit and willingness to once again leave our mark across the Northeast.

In order to achieve this strategy, and economic and financial plan was developed, which made resources available for the needs defined. Revenues from the Basic Network of the Existing System (RBSE), as of July, and dation in payment of some Special Purpose Entities (SPE), formed the main pillar for executing the plan. Tight expenditure control was also carried out in order to contribute the necessary resources.

With this in mind, we implemented the Construction and Modernization Plan, an important initiative that mobilized all our staff and stakeholders to deliver the projects within the established deadlines or before the scheduled dates. It is important to highlight the annual record of deliveries of transmission projects and the inauguration of Chesf's first wind farms, Casa Nova II and III (state of Bahia).

These deliveries provided greater transformation capacity, allowing the transmission of more energy and with better quality for residential, commercial, and industrial consumers. The highlights in the Northeastern region include reinforced service to the metropolitan regions of Fortaleza, Teresina, Aracaju, and Salvador, as well better reliability for the entire system in the region.

And this work on modernizing the electricity system and the constant search for improved performance have already yielded positive results, obtaining the best operational performance indexes in five years and achieving a significant reduction in the number of work-related accidents with lost time.

Another noteworthy initiative focused on the future in 2017 was the launch of our Solar Energy Reference Center in Petrolina (Cresp) focused on developing scientific and technological knowledge on solar energy generation. With an



## We face the challenges with renewed spirit and with the desire to leave our mark again in the Northeast

investment of BRL 54.3 million, we began building a solar power plant to generate 3 MWp for generation research, considering that the center will be located in the region with the greatest potential for solar energy in the country.

Our Research & Development area also gained prominence during the year by obtaining Chesf's first patent, with the "*Aplicativo para Regulação e Paralelismo de Transformadores de Potência*" ("Application for Regulation and Parallel Operation of Transformers"). The technology regulates the voltage level that Chesf delivers to power utilities. Further proof of our strong capacity for reinvention, creativity, and efficiency.

### CHANGE FOR GROWTH

Every change process requires adaptation to a new reality. Therefore, in 2017, we continued with the Extraordinary Retirement Plan (PAE), with the retirement of 464 employees from July to December. We also effectively implemented our Organizational Restructuring project, an important step towards modernizing Chesf, which integrates a series of measures to optimize costs and resume business sustainability. This new organization structure represented a reduction of 42.5% in appointee job positions, with cost savings of around 30%.

Another initiative that will mean good results for our operational efficiency, agility, and savings of resources is beginning the implementation - with all Eletrobras companies - of a Shared Services Center for common areas such as Procurement, Purchasing, Accounting, and Legal, which will avoid overlapping roles and will provide the potential for contracts that are more beneficial for the companies, following the example of the success of large corporations.

In addition to our internal issues, in 2017 we played a very important role in the face of the greatest water shortage experienced by the São Francisco River Basin in 80 years. In its fifth consecutive year of rainfall scarcity, the river reached its minimum volume of water. In order to guarantee multiple use of water by the riverside populations and following the decisions of IBAMA and the National Water Agency (ANA), we have been managing, since 2013, the flow of the São Francisco River downstream from the Sobradinho Reservoir. The reservoir has been fundamental to water availability in the region, especially for the more than three million inhabitants of Middle and Lower São Francisco River.

At the same time, when integrating the Sustainability area into the Planning and Innovation area, we will better address the issues related to this topic. I would like to reiterate that developing our business is only valid based on ethical values and principles, as well as full respect for all forms of human rights.

We are aware that 2018 will continue to be a year of many challenges to be overcome. The discussions that will take place during the year 2018, concerning the model for the Electricity Sector, should result in the solution to Chesf's biggest challenge: increasing its revenue. But today it is clearer to us what the obstacles are and the best ways to face them in order to bring Chesf back to a scenario of growth and prominence in the Northeast. We will continue to commit to the Principles of the Global Compact, the Women's Empowerment Principles, the Gender and Race Pro-Equity Program, and the Fight Against Sexual Exploitation of Children and Adolescents. We will reach our 70-year mark with the energy to change, grow, and reinvent. To this end, we have an engaged team, which demonstrates, every day, its commitment to contributing to the growth of Chesf, the Northeast region, and the whole country.

Enjoy your reading!

**Sinval Zaidan Gama**  
CEO

# A SOLID, RENEWED COMPANY

Chesf ended the year 2017 stronger, the result of work with well-defined strategic guidelines. We worked hard on our 2017-2021 Business Plan and achieved important results for the Company.

Internally, we invested in organizational restructuring, which gained simpler and more agile processes, in addition to having recorded a significant cost reduction. We also invested in technology. New management systems are being implemented to ensure that the Company has in place integrated

and standardized processes, making information more secure from a decision-making standpoint.

We reinforced our commitment to ethics and transparency in our actions by revising our by-laws so that we comply with Law 13,303/2016 (Law of State-owned companies), which governs issues related to transparency and governance mechanisms, and launched our Consequences Policy, which establishes corporate anti-corruption commitments.

In the operation, not only have we managed to resume delayed and suspended projects, but also reduced operating costs, adjusting them to revenues without jeopardizing the growth of the business. The resumption of financial balance and commitment to delivering the projects attracted new investors, placing the Company on a new level in the financial market.

For the coming year, the challenges continue. The year when we celebrate seventy years be decisive for the privatization process of the Eletrobras companies - an initiative that will certainly contribute to our growth. It will also be a year for us to establish ourselves in the market as a benchmark in solar energy generation. Pilot projects were initiated, the *Solar Petrolina* and *Solar Fotovoltaica Flutuante* platforms on the Sobradinho reservoir (which together total 8 MW) and a solar thermal energy project, which will put us at the forefront of the market. We have already made great progress in contributing to the development of our country's energy sector. And we need to advance even further!

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







SOBRADINHO  
HYDROELECTRIC  
POWER PLANT



2

CASA NOVA II WIND FARM

# ABOUT THE REPORT

> 102-45 to 102-56, 103-1 >

## BONGI SUBSTATION

This report contains information on Chesf's economic, financial, social, and environmental performance in fiscal year 2017, including all the company's operations in Northeast Brazil: 12 hydroelectric plants, two wind farms and one biofuel thermal plant. It also presents information on the 10 projects - generation and transmission - that Chesf has in Specific Purpose Entities (SPEs), although they were not included in the scope of analysis of GRI Standards indicators.

The document follows the GRI Core Standards. In order to find the indicators more easily, the numbers appear in parentheses immediately after the topic to which they refer. Through a materiality process, 168 items were selected for disclosure, broken down into 40 organizational profiles, 31 management approaches, 72 on performance (13 economic, 2 environmental, and 30 social) and 25 from the sector supplement. The indicators pointed out in this process reflect the work of Chesf regarding its strategies and the challenges faced in 2017, based on the views of its main stakeholders.

# MATERIALITY PROCESS

> 102-42, 102-44 >

The topics addressed in this report were defined through a materiality process based on the specific standards of GRI G4 and Standard. Tools such as RepRisk<sup>1</sup>, and the Global Reporting Initiative (GRI) study “Sustainability Topics for Sectors: What do stakeholders want to know?” were used to support the process.

The Company opted to consult internal stakeholders (executives) to prioritize the topics identified during the last cycle (2016), in addition to considering sector contents and interviews conducted from December 4 - 7, 2017 with the Chairman, four directors (Engineering, Operation, Administrative, and Financial), five leaders (in the areas of Governance, Strategic Planning and Sustainability, Envi-

ronment, Institutional Relations, and Communities and Human Resources) and, in writing, with the CEO of Eletrobras.

The criteria used for prioritization involved issues important to Chesf’s business and strategy, in view of: financial implications of the impacts related to the topic, influence on long-term performance, level of reputation risk involved, and growth or gains in competitive advantage.

In total, 16 topics considered essential to the business were identified. Based on these topics, a form was applied that made it possible to classify perceptions regarding the importance of each topic and its level of impact as “very important,” “important,” “of little importance” or “unimportant.” The result of prioritization signaled five topics as very important and 11 important topics.

<sup>1</sup> Tool used to identify social and environmental risks.

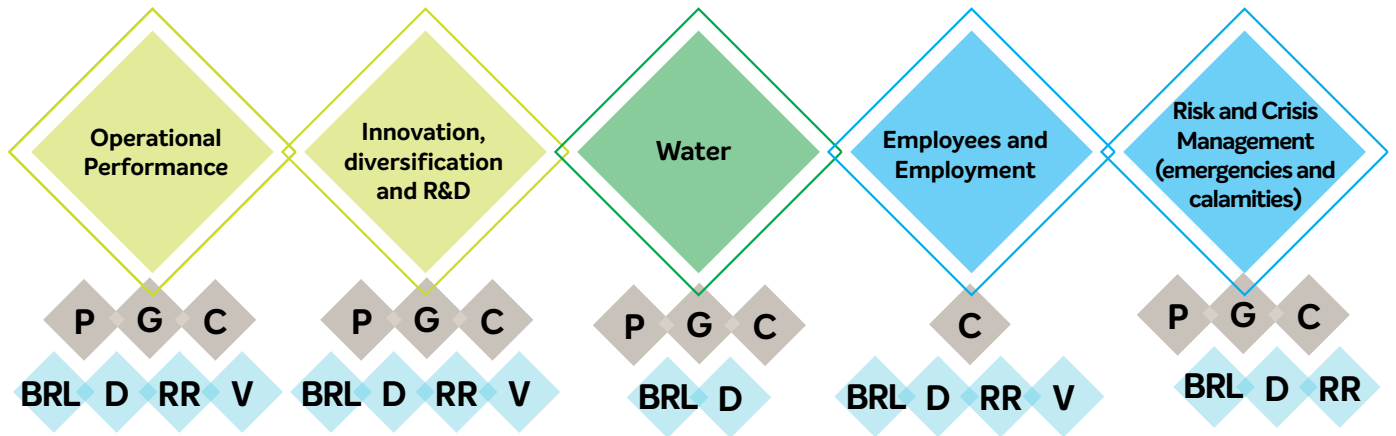
## MATERIAL TOPICS 2017 >>>

1	Operational Performance	<b>very important</b>
2	Water	<b>very important</b>
3	Risk and Crisis Management	<b>very important</b>
4	Innovation, Diversification, and R&D	<b>very important</b>
5	Employees and Employment	<b>very important</b>
6	Corruption, Ethics Management	<b>important</b>
7	Health and Safety	<b>important</b>
8	Specific Purpose Entity	<b>important</b>
9	Compliance Issues	<b>important</b>
10	Communities	<b>important</b>
11	Energy Matrix	<b>important</b>
12	Climate Change	<b>important</b>
13	Supplier Management	<b>important</b>
14	Satisfaction (Customer and Employees)	<b>important</b>
15	Volume of Assets	<b>important</b>
16	Biodiversity	<b>important</b>

> 102-44, 102-47 >

With this result, it was possible to classify the level of importance of the topics for Chesf and its stakeholders, evaluating impacts (positive and negative) for both. Material topics, approved by the Executive Board, are correlated with the organization’s key sustainability and performance indicators, and flagged throughout the report, in the Attachments, and in the Index.

> 102-44 >



IMPACTS ON SOCIETY AND THE ENVIRONMENT

- P** It is reasonably likely to affect society, surrounding communities, the environment or its life
- G** The impact, in the case it occurs, will be relatively severe
- C** Chesf must communicate this issue to the general public

IMPACTS TO THE BUSINESS

- BRL** If affirmative, there will be fairly high financial implications
- D** May influence Chesf’s performance over the long term
- RR** It has a certain degree of reputation risk
- V** It has the potential to grow or gain competitive advantage, from a long-term perspective

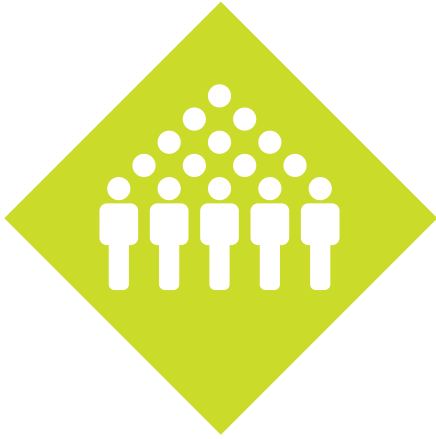
 Economic Topic

 Environmental Topic

 Social Topic

TRANSMISSION LINE  
MAINTENANCE





### WHO ARE CHESF'S STAKEHOLDERS?

> 102-42 >

Chesf considers stakeholders to be all parties directly and indirectly impacted by its results and actions. The identification of these stakeholder groups follows the Business Planning guidelines.



### ENGAGEMENT PRACTICES

> 102-40; 102-43 >

The Company has in place a set of pre-defined practices to engage with its stakeholders throughout the year. The actions may vary from meetings, visits, telephone contacts, emails, information bulletins, contact by the suppliers' service center, and client satisfaction surveys, depending on the need of each audience. There are also activities involving greater mobilization, such as: public hearings, campaigns carried out with government and society, actions for quality of life with employees and family, and sponsorships of social projects.

These engagement practices help identify the perceptions, suggestions, and concerns of these groups, giving responses and the appropriate treatment for each situation. The dialogue with Chesf's stakeholders is guided by the Stakeholder Communication and Engagement Policy of the Eletrobras Companies, whose principles are:

- > Agility and precision.
- > Training, creativity, and innovation.
- > Commitment and respect for human beings and the environment.
- > Legal compliance.
- > Business efficiency and effectiveness.
- > Equity and respect for diversity.
- > Ethics.
- > Sustainability.
- > Transparency.
- > Appreciation and motivation of work teams.



## GET TO KNOW CHESF'S MAIN STAKEHOLDERS AND HOW THEY RELATE:

&gt; 102-40 &gt;



## SHAREHOLDERS AND INVESTORS &gt;&gt;&gt;

&gt; DETAILS &gt;

&gt; COMMUNICATION CHANNELS &gt;

Eletrobras: 99.5780%

Ministry of Finance: 0.347%

Light: 0.016%

Others: 0.059%

Chesf, as a publicly-held company, is subject to the rules of the Brazilian Securities and Exchange Commission (CVM). The Company's relationship policy is ruled by the disclosure of information with transparency, characterized by respect for legal and ethical principles, in line with the standards to which it is submitted as a public utility company.

The Company has an information disclosure channel on its corporate portal on the Internet, [www.chesf.gov.br](http://www.chesf.gov.br), link "Investidores." Communication with its shareholders is carried out through telephone service, face-to-face meetings, and email.



## CLIENTS &gt;&gt;&gt;

&gt; DETAILS &gt;

&gt; COMMUNICATION CHANNELS &gt;

**Trading Segment**

Potentially free consumers: 12

Free consumers: 4

Power Distributors: 49

Traders: 14

The relationship with customers is conducted through annual surveys, telephone contacts, meetings, direct mail, emails, publications on Chesf's website, dissemination in newspapers and magazines, events such as congresses and lectures, websites specializing in the electricity sector, and energy sales auctions.

**Transmission Segment**

Generators (self-producer, PIE and ICG): 401

Transmitters: 31

Distributors: 11

Consumers: 21

The relationship with customers is conducted through annual surveys, meetings, and direct contacts with their contract managers.



## SUPPLIERS >>>

> DETAILS >

> COMMUNICATION CHANNELS >

Suppliers registered in the database

Materials: 16,710 suppliers

Services: 11,683 suppliers

Materials and Services: 3,622 suppliers

Active suppliers in 2017  
(with current contract): 1,090

With suppliers registered in its database, Chesf mainly maintains relationships through email, in order to encourage them to participate in their bids.

With active suppliers and with bidders, Chesf relates more directly through the Supplier Service Center (CAF). With auctioneers, bidding commission coordinators, and contract administrators/inspectors, the Company interacts through formal communication, email, newsletters, meetings, assemblies and seminars, and publications on the website.



## EMPLOYEES, PARTNERS, INTERNS >>>

> DETAILS >

> COMMUNICATION CHANNELS >

Employees (workforce): 4,122

Outsourced employees: 2,358

Interns: 0

Apprentices: 114

Meetings, assemblies of regulatory and operational bodies, email system, intranet, internal newsletters, bulletin boards, and climate research.



## FINANCIAL INSTITUTIONS >>>

> 102-40 >

> DETAILS >

> COMMUNICATION CHANNELS >

Private banks; state and quasi-public banks; national and international development banks; development institutions; and investment funds

The relationship with financial institutions is carried out through telephone contacts, audio and video conferences, message exchange apps, face-to-face meetings, emails, publications on Chesf's website, dissemination in newspapers and magazines, events such as congresses and lectures.



## PUBLIC AGENCIES AND PROGRAMS &gt;&gt;&gt;

&gt; 102-40 &gt;

## &gt; DETAILS &gt;

## &gt; COMMUNICATION CHANNELS &gt;

Growth Acceleration Program (PAC)	Implementation of generation and transmission projects integrating the PAC.
Pro-Gender Equity Program – Department of Policies for Women	Participation in implementing the Pro-Gender Equity Program at Chesf.
Municipal Environmental Council – Paulo Afonso (BA)	Company representative in the Council.
Municipal Civil Defense Council	Company representative in the Council.
<i>Program Luz para Todos</i> (Light for Everyone) – Ministry of Mines and Energy	Coordination by the Director of Operations of the Light for Everyone Program in Northeast Brazil.
National Program for the Conservation of Electricity (PROCEL) – Ministry of Mines and Energy and Eletrobras	Operation in the Northeast, with Eletrobras, to implement projects (PROCEL in Schools, Municipal Energy Management, Public Buildings and <i>Reluz</i> ).
National Forum on Ethics Management of State-owned Companies	Financial support and representation of the Company in the Forum.
National Electricity Agency (ANEEL)	Participation in meetings and public hearings, workshops, and technical meetings, sending information by mail and email.
National Operator of the Electric System (ONS)	Operational Relationship: Permanent contact between Chesf's Operation Centers and ONS's Operation Center based in Recife, aiming toward operating the National Interconnected System (SIN ( <i>Sistema Interligado Nacional</i> )). Technical-Normative Relationship: occurs between Chesf's operation, study, and maintenance bodies with the operation, studies and planning bodies of the ONS based in Recife and Rio de Janeiro, by mail, telephone calls, and meetings. Institutional relationship between the Boards of Chesf and ONS.
Federal Court of Accounts (TCU - Tribunal de Contas da União)	Communication between Chesf and TCU is formal and follows protocol. The instrument used by this control body is the official letter, and by Chesf, external mail. Another form of communication established during the execution of fieldwork is the "Letter of Request" addressed to the Presidency of Chesf. Chesf's response is usually by email or by mail.
Federal Comptroller General (CGU - Controladoria Geral da União)	Communication between Chesf and CGU is formal and follows protocol. The instrument used by this control body is via official letter, and by Chesf, external mail. Another form of communication established during the execution of fieldwork is the "Request for Audit" addressed to the Presidency of Chesf. The response is usually by email or mail.
Standing Committee on Gender Issues of MME and Related Companies	Company representative.



## SOCIAL AND ENVIRONMENTAL ORGANIZATIONS AND COMMUNITIES >>>

> DETAILS >

> COMMUNICATION CHANNELS >

Abrigo Cristo Redentor (Christ the Redeemer Shelter) (Maintenance)

Hospital Nair Alves de Souza (HNAS)

Development actions for agricultural producers and fishermen in the territory surrounding the Sobradinho-BA Dam (Semi-Arid Embrapa)

Project *Construindo Cidadãos do Amanhã* (Building Citizens of Tomorrow) (Instituto D. Helder Câmara)

Chesf maintained a formal partnership relationship with these organizations in order to carry out social and environmental projects through agreements, terms of cooperation, or terms of partnership.



## UNIONS AND TRADE ASSOCIATIONS >>>

> 102-40 >

> DETAILS >

> COMMUNICATION CHANNELS >

Federação Regional dos Urbanitários do Nordeste (FRUNE - Regional Federation of Urban Services Providers of the Northeast)

Sindicato dos Trabalhadores nas Indústrias Urbanas no Estado de Alagoas (Urban Industries Workers Union in the State of Alagoas)

Sindicato dos Eletricitários da Bahia (Bahia Electrical Workers Union)

Sindicato dos Eletricitários do Ceará (Ceara Electrical Workers Union)

Sindicato dos Trabalhadores nas Empresas de Distribuição de Energia Elétrica no Estado da Paraíba (Electric Power Distribution Company Workers Union of the State of Paraíba)

Sindicato dos Trabalhadores nas Indústrias Urbanas da Paraíba (Urban Industries Workers Union of Paraíba)

Sindicato dos Trabalhadores nas Indústrias Urbanas no Estado de Pernambuco (Urban Industries Workers Union of the State of Pernambuco)

Sindicato dos Eletricitários de Sergipe (Electrical Workers Union of Sergipe)

Sindicato dos Trabalhadores nas Indústrias Urbanas do Estado do Piauí (Urban Industries Workers Union of the State of Piauí)

Sindicato dos Engenheiros no Estado de Pernambuco (Engineers Union of the State of Pernambuco)

Sindicato dos Trabalhadores nas Indústrias de Energia Elétrica do Rio Grande do Norte (Electric Power Industries Workers Union of Rio Grande do Norte)

Chesf maintains relationships with these trade union entities through periodic meetings and formal contacts to develop a Term of Commitment on Profit Sharing (PLR) and Collective Labor Agreement (ACT).

Communication also takes place through monitoring the pardon process regarding Law 8,878/1994 and participating in Joint Committees.



## UNIVERSITIES AND RESEARCH CENTERS >>>

### > DETAILS >

Federal University of Pernambuco

Federal University of Campina Grande

Fundação para Inovações Tecnológicas  
(FITec - Foundation for Technological Innovations)

University of Pernambuco (UPE)

Federal University of Itajubá (UNIFEI)

Federal Rural University of Pernambuco (UFRPE)

Federal University of Paraíba (UFPB)

Centro de Pesquisa e Desenvolvimento em Telecomunicações  
(CPQD - Telecommunications Research and Development Center)

Instituto Nacional de Pesquisas Espaciais  
(INPE - National Institute of Space Research)

Centro de Pesquisas de Energia Elétrica  
(CEPEL - Electricity Research Center)

Sunlution - Soluções de Geração Solar LTDA.

### > COMMUNICATION CHANNELS >

Research, development, and innovation projects (R&D+I) and courses of different academic nature (specialization, masters, and doctorate).



## PRESS/MEDIA >>>

> 102-40 >

### > DETAILS >

Major newspapers

### > COMMUNICATION CHANNELS >

Actions that are part of the daily activities of the Special Coordination of Institutional Relations (REC):

- Sending releases with suggestions of positive articles about Chesf;
- Organizing exclusive and collective interviews;
- Courtesy visits to major newsrooms;
- Chesf actions and presence on social media (Twitter, Facebook and Youtube);
- News about the Company on the Chesf Portal;
- Assistance to requests for information and requests for interviews.



3



# EXTERNAL ENVIRONMENT

### RECOVERY OF ENERGY CONSUMPTION

The year 2017 was marked by the recovery in consumption of electricity in the country. Data from the Energy Sector Monitoring Committee (CMSE) show an annual growth of 0.8%, the highest in the last two years, but with a value still comparable to consumption in 2014. According to data from the Energy Research Company (EPE), industrial consumers were responsible for the highest increase, which meant 1.1% growth over the previous year. Residential consumption expanded by 0.8%, and trade and services by 0.3%. For the period 2018-2022, the projection of average annual growth of energy consumption is 3.9%.

On the comparative study between supply and demand in the period 2019 to 2022, the EPE presented the structural balance of the system considering the sensitivity analysis in key variables, including

restrictions to water flow in the Northeast region. Excess supply was also identified for the coming years, but expansion of this supply will continue to be necessary, especially beginning 2022, and made feasible with the new energy auctions<sup>2</sup>.

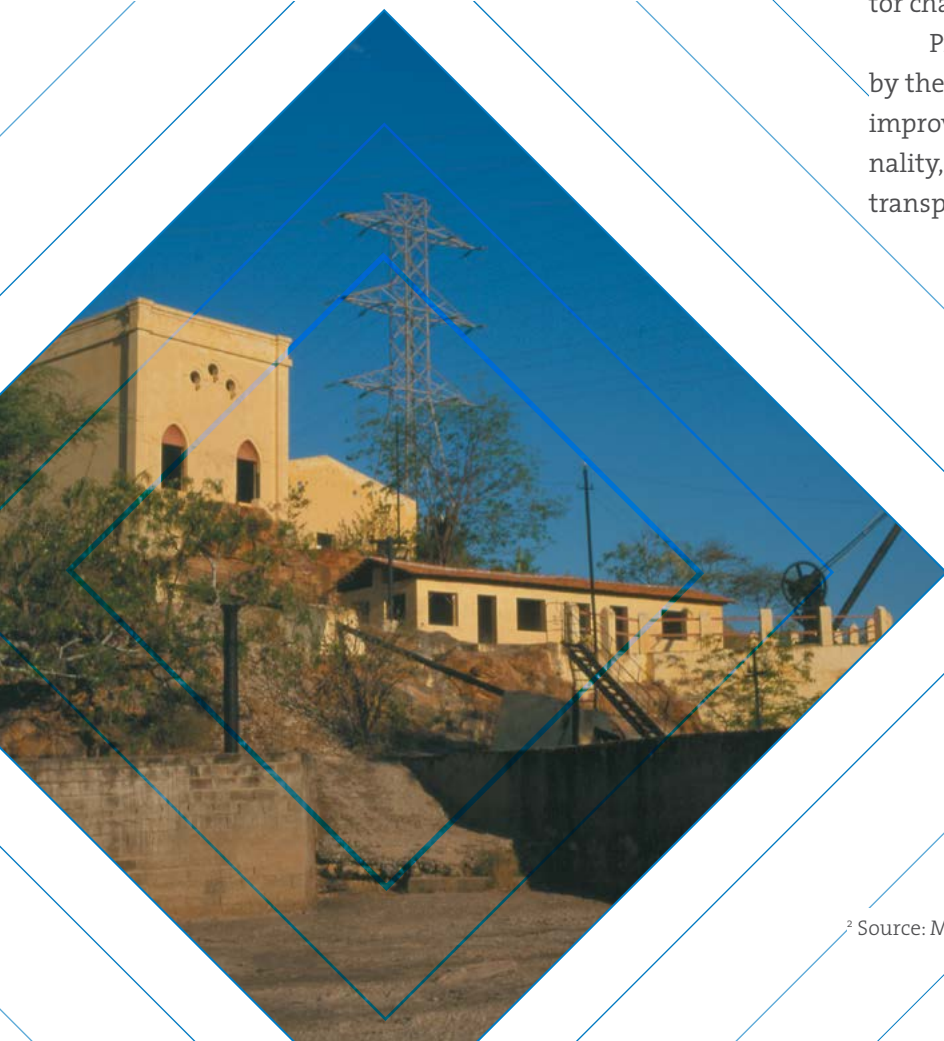
### REGULATORY ENVIRONMENT > 103-2, 103-3 >

The energy sector in Brazil is considered by the Federal Government to be instrumental for the economic recovery of the country through three major factors: potential attraction of investments in electricity generation, transmission, and distribution; benefit for production chains; and the well-being associated with energy consumption by families.

In view of this relevance, in May 2017, the Ministry of Mines and Energy presented to the Brazil's House of Representatives a review of the management model, considering a scenario where, among others, rainfall regimes are unfavorable and compromise the capability to generate electricity at low costs, electricity rates being pressured by sector charges and indemnities.

Principles of the new business model set out by the Ministry are to respect the contracts signed, improve management efficiency, economic rationality, isonomy between agents, dialogue, and transparency. This purpose of this new model is to:

ANGIQUINHO HYDROELECTRIC POWER PLANT



<sup>2</sup> Source: Ministry of Mines and Energy - new energy auctions.



adequately allocate risks among agents; improve the environment for investments by reducing legal uncertainty and regulatory instability; ensure energy security at competitive prices; simplify administrative procedures; promote productivity, efficiency, and innovation; and reestablish prices as an economic signal that guides investment decisions.

To this end, the Government has taken some actions, such as enforcing Law 13,360/16, which reaffirms the role of efficiency and economic rationality in attracting investments for the electricity sector, and Decree 8,828/16, which makes managing energy purchase contracts by distributors more flexible and authorizes ANEEL to implement the binomial rate for consumers of low voltage electricity, in line with best international practices. The Government also intends to hold a public consultation on the energy trading model, in order to gain support for the debate on the expansion of the free electric energy market.

In addition, in 2017 the Government predicted an expansion of 5,062 MW (3.3% of total capacity), of which: 24.8% was wind power, 10.7% was solar, and 61% hydroelectric (Hydroelectric Power Plants - HPP, Small Hydroelectric Power Plants - SHEP, and Hydroelectric Generating Complex - HGC), and already contracted the expansion, until 2022, by 21,277 MW, in order to guarantee supply of energy to resume economic growth<sup>3</sup>. > 103-2, 103-3 >

## MARKET

Although energy consumption in Brazil has grown, the current scenario of the electricity sector is unstable due to the possibility of privatizing operations involving the Eletrobras companies. Chesf's strategy in 2017, in this scenario, was to structure a management model focused on financial balance, on the controls and monitoring of actions foreseen in the Business Plan, and on the constant search for efficiency, becoming a more synergistic and revitalized company.

The water shortage scenario, considered the worst in 90 years, placed on the Company's agenda the need for alternatives in order to supply energy demand with short- and long-term solutions. The release of Chesf's resources allowed other lines of credit to be opened and the resumption of investments brought new prospects and conditions to safely carry out the activities and projects to which the Company has committed. For the future, Chesf is structuring the implementation of the Zero Base Budget<sup>4</sup> (ZBB).

Chesf also revised its by-laws (in line with Eletrobras' guidelines) to comply with Law 13,303/2016 (Law of State-owned companies), especially regarding transparency and governance mechanisms, such as rules for disclosing information, managing risk management practices, codes of conduct, forms of supervision by the State and society, constitution and operation of the boards, as well as minimum requirements for appointing directors. The Company has applied the new guidelines since June 2017, on an experimental basis, ahead of the two-year term, established for the companies to adapt to the Law.

The Company's activities were also focused on the planning and preparation of a portfolio of new generation and transmission projects, based on geoprocessing references. Integrating the environmental, geotechnology, and project areas was essential to evolving this process. The purpose of the new projects is to produce renewable wind and solar energy (energy research benchmark with sustainability index and social, environmental, and economic project assessment), based on the premise of projects chosen with less social and environmental impact.

It is worth mentioning that the Company's strategy is to become a benchmark in solar energy. The creation of a Solar Energy Reference Center in Petrolina (CRESP) will help achieve this goal. > 102-15 >

<sup>3</sup> More information: Energia e Mineração: A visão do Governo Federal (Energy and Mining: The vision of the Federal Government)

<sup>4</sup> Methodology based on a projected budget forecast without taking into account what happened in previous years, with the goal of reviewing the whole process "from the start." It analyzes the needs for expenditure of each individual process and supports the financial management of organizations.



4



# CHESF

> 102-1 A 102-7, 102-13, 102-16, EU1, EU3, EU4 >

PAULO AFONSO HYDROELECTRIC POWER PLANT

## A journey focused on developing the country

Founded in 1948, Chesf (Companhia Hidro Elétrica do São Francisco) is consolidated as the concessionaire of one of the largest generation and transmission systems in Brazil. Subsidiary of Eletrobras, the Company - a joint-stock corporation - has headquarters in Recife (PE) and operates in the generation, transmission, and sale of electricity in Brazil. Chesf's power generation process is concentrated in Northeast Brazil and is influenced by the region's rainfall regime.

In all, the Company has 12 hydroelectric plants, with 10 reservoirs, which together store 55.8 billion cubic meters of water, responsible for 99.8% of its energy produced in 2017. It also has a biofuel thermal plant and two wind farms, which, together with the hydroelectric plants, total 10,670.23 MW of installed capacity

> EU1 >

### CHESF INSTALLED CAPACITY >>>

> PLANTS >	> RIVER >	> INSTALLED CAPACITY (MW) >
<b>HYDROELECTRIC</b>	-	10,262.33
Sobradinho	São Francisco	1,050.30
Luiz Gonzaga (Itaparica)	São Francisco	1,479.60
Apolônio Sales (Moxotó)	São Francisco	400.00
Paulo Afonso I	São Francisco	180.00
Paulo Afonso II	São Francisco	443.00
Paulo Afonso III	São Francisco	794.20
Paulo Afonso IV	São Francisco	2,462.40
Xingó	São Francisco	3,162.00
Funil	Rio de Contas	30.00
Pedra	Rio de Contas	20.01
Boa Esperança	Parnaíba	237.30
Curemas	Piancó	3.52
<b>WIND</b>	-	61.10
UEE Casa Nova II	-	32.90
UEE Casa Nova III (*)	-	28.20
<b>THERMOELECTRIC</b>	-	346.80
Camaçari (**)	-	346.80
<b>TOTAL</b>		<b>10,670.23</b>

\* In operational test phase, commercial operation expected to begin in Feb/18.

\*\* In process of termination of the concession. All units with commercial operations suspended.

The Northern, Northeastern, and Southeastern/Midwestern regions receive energy produced by Chesf through a transmission system, consisting of 20,531.9 km of lines that operate with voltage levels ranging from 69 kV to 500 kV and supply the National Interconnected System (SIN).

› EU4 ›

## EXTENSION OF CHESF TRANSMISSION LINES BY VOLTAGE LEVEL

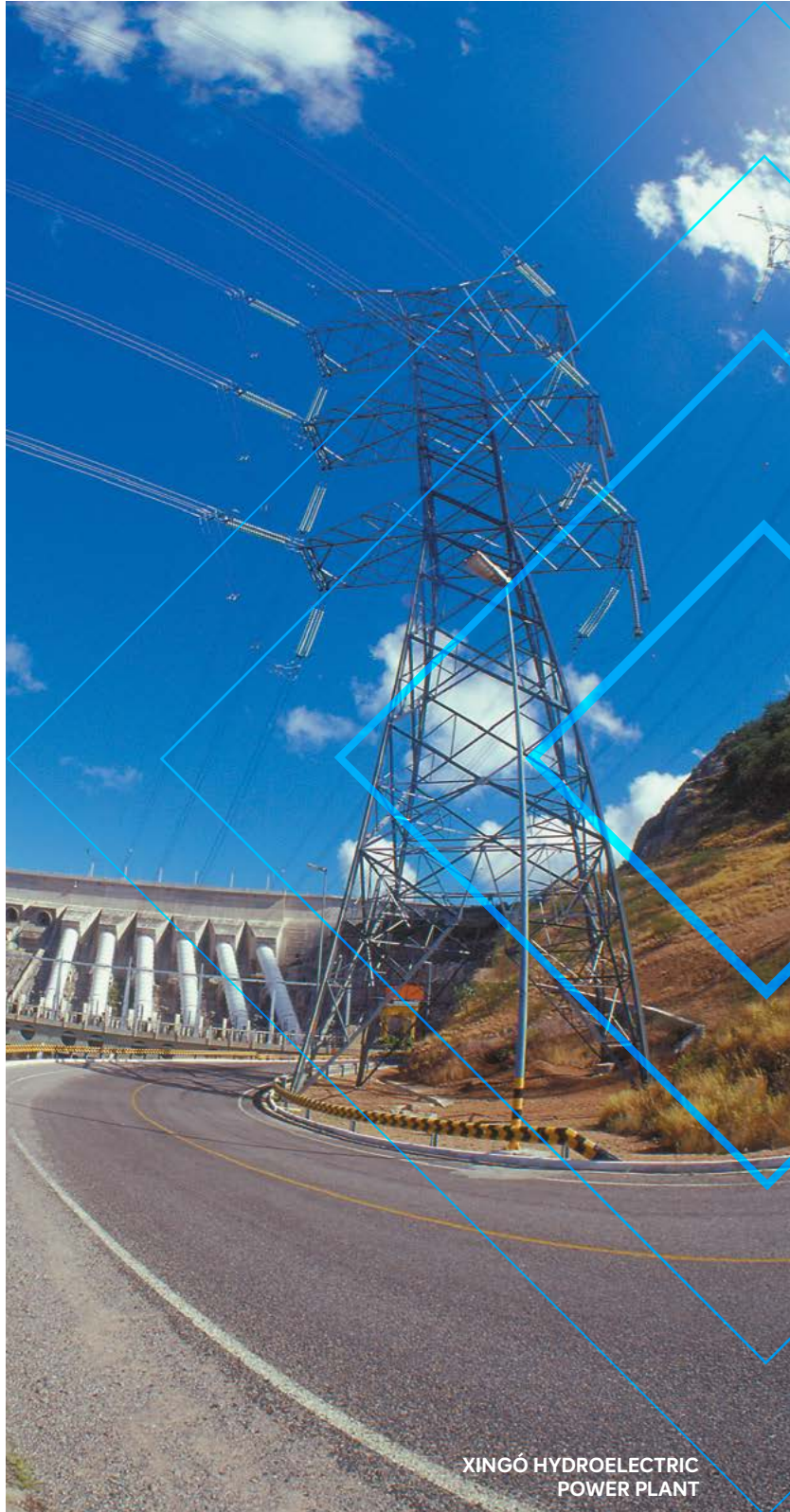
› KV ›	› KM ›
69	254.5
138	462.6
230	14,444.19
500	5,372.9
<b>Total</b>	<b>20,531.9</b>

The Transmission System is also composed of 119 substations<sup>5</sup> (included in this total are the substations of other transmitters in which Chesf has assets) and another 14 step-up substations, which, together, total 57,321.50 MVA of transformation capacity.

In 2017, the Company added 298 km of OPGW<sup>6</sup> fiber optic cables, operating with 10,113 km. This technology is responsible for sending electricity to end consumers in a stable manner, with high speed and reduced loss, offering reliable, quality service. › EU4 ›

<sup>5</sup> Including the substations of other transmitters in which Chesf has assets.

<sup>6</sup> Optical Ground Wire.



XINGÓ HYDROELECTRIC POWER PLANT

In addition to its owned facilities, Chesf invests in other generation and transmission projects through Special Purpose Entities (SPEs), which add 10 wind farms and four other hydroelectric plants to the Company’s portfolio. See pages 49 and 50 for more information

# PRINCIPLES AND VALUES

&gt; 102-16 &gt;

Chesf's operation, in all instances, is in line with the values, principles, standards, and norms of behavior set out in the Code of Ethics, in the Resolution, in the Normative Instruction of Disciplinary Measures, and on the Company's Strategic Map.



## 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 Preservation

# VOLUNTARY COMMITMENTS

> 102-12 >

Chesf's strategic vision is to guarantee the company's sustainable growth and, therefore, undertakes commitments with national and international initiatives toward the dissemination and development of the topic.

CHARTER, PRINCIPLE OR OTHER INITIATIVE	DATE OF ADOPTION	ENVIRONMENTAL, ECONOMIC, OR SOCIAL?	COMPULSORY OR VOLUNTARY INITIATIVE?	COUNTRIES OR OPERATIONS WHERE THEY ARE APPLIED	GROUP OF STAKEHOLDERS INVOLVED IN THE DEVELOPMENT AND GOVERNANCE OF THESE INITIATIVES
1. Global Compact	2009	All three dimensions	Voluntary	Brazil	All stakeholders
2. Declaration of Commitment to Fight Sexual Exploitation of Children and Adolescents	2014	Social	Voluntary	Brazil	All stakeholders
3. Women's Empowerment Principles (UN Women)	2011	Social	Voluntary	Brazil	Workforce
4. Pro-Equity Gender and Race Program	2007	Social	Voluntary	Brazil	Workforce

SOLIDARY EDUCATION PROGRAM



The Company also participates strategically in associations and committees that hold forums and discussions on sustainability, and promotes public policies related to the sector. > 102-13 >

> NAME >	> SEAT ON THE GOVERNANCE COMMITTEE >	> PARTICIPATION IN PROJECTS OR COMMISSIONS >	> FINANCIAL CONTRIBUTION >	> AREA RESPONSIBLE >
Associação Brasileira das Grandes Empresas de Transmissão de Energia Elétrica (ABRATE - Brazilian Association of Large Electric Power Transmission Companies)	General Assembly and Managing Council	Yes	Yes	DO
Associação Brasileira das Empresas Geradoras de Energia Elétrica (ABRAGE- Brazilian Association of Electric Power Generating Companies)	General Meeting and Fiscal Council	Yes	Yes	DO
Associação Brasileira de Normas Técnicas (ABNT- Brazilian Association of Technical Standards)	No	Yes	Yes	DE
Comitê Brasileiro de Barragens (Brazilian Committee of Dams)	Yes	Yes	Yes	DE
Comitê da Bacia Hidrográfica do São Francisco (CBHSF- São Francisco Water Basin Committee)	Representative of the Hydroelectricity Segment	Yes	Yes	DO
Comitê Nacional Brasileiro de Produção e Transmissão de Energia Elétrica (CIGRÉ - Brazilian Committee for Production and Transmission of Electricity)	Executive Board (Financial Department)	Yes	Yes	PR
Comitê de Patrocínio da Secretaria Especial de Comunicação Social da Secretaria Geral da Presidência da República (SECOM/PR - Sponsorship Committee of the Special Social Communication Department of the General Secretary of the Presidency of the Republic)	No	Yes	No	PR
Comissão de Ética Pública da Secretaria Executiva de Ética Pública da Presidência da República (Public Ethics Commission of the Executive Department of Public Ethics of the Presidency of the Republic)	No	Yes	No	PR
National Forum of Ethics Management in State-owned companies, maintained through the Technical and Financial Cooperation Agreement, currently signed by 20 participating companies	No	Yes	Yes	PR
Conselho Nacional de Recursos Hídricos (CNRH - National Water Resources Council)	Council Member for Concessionaries and Companies Authorized to Generate Hydroelectric Power	Yes	Não	DO



> NAME >	> SEAT ON THE GOVERNANCE COMMITTEE >	> PARTICIPATION IN PROJECTS OR COMMISSIONS >	> FINANCIAL CONTRIBUTION >	> AREA RESPONSIBLE >
COGE Foundation	Yes	Yes	Yes	DG
Associação Brasileira de Energia Solar Fotovoltaica (ABSOLAR- Brazilian Association of Photovoltaic Solar Energy)	No	No	Yes	PR
Memória da Eletricidade (Memory of Electricity)	No	No	Yes	PR
American Chamber of Commerce (AMCHAM)	No	Yes	Yes	PR
Associação Brasileira de Energia Eólica (ABEEÓLICA- Brazilian Wind Power Association)	No	No	Yes	PR

## AWARDS AND RECOGNITIONS

In 2017, Chesf received the following awards and recognitions:

- > **Jorge Furtado Regional Development Award:** the social responsibility project “Development of actions for agricultural producers and fishermen in the territory surrounding the Sobradinho-BA reservoir,” developed in partnership with Embrapa Semiárido, was awarded in the category of Innovative Projects for Implementation in the Region.
- > **IV Award for Best Companies for Workers with Disabilities:** for the first year, the Company participated in the award and was one of three short-listed in the “Best Practices” category, competing against another 52 institutions.
- > **15th Benchmarking Brazil:** the Company was among the Top Ten with the Living and Learning Program, making Chesf a Citizen Company for recovering the dignity of men and women through the command of the spoken and written language.
- > **XXIV National Seminar on the Production and Transmission of Electric Power (SNPTEE):** the Company received an honorary award for the work “Investment in Safety and Health at Work as a Business Strategy,” demonstrating the reduction of costs associated with the occurrence of work accidents and occupational disease.

> **Seasonal Race Circuit - Spring Heat:** awarded as the company with the largest number of participants.

> **Patent:** The United States, and subsequently, China published the grant of the patent on technological innovation being used in substations. The “Application for Regulation and Parallel Operation of Transformers” was developed within the Company’s Research, Development, and Innovation Program. The technology performs an extremely important function for the electrical system, as it regulates the level of voltage delivered by Chesf to utility companies, which in turn reaches end consumers.

## BUSINESS MODEL

Chesf’s business purpose is to generate and transmit energy, and the strategy of operation of the main areas of the Company is focused on ensuring that this increasingly more renewable production is marketed and reaches end consumers. The challenge is to continually improve operational efficiency by delivering integrated, innovative solutions to people, businesses, cities, and the country. The search for results that create value for stakeholders, not only in the short term but also in the medium and long term, drives the organization’s day to day activities.

## OUR RESOURCES



### Financial

Investments\*  
**BRL 5.439 billion**

Revenues  
**BRL 5.754 billion**

Net Debt  
**BRL 2.0146 billion**



### Natural

Water used to generate bioenergy  
**105.2 billion m<sup>3</sup>**

Biomass Recovery (ha)  
**110**



### Human

Development Programs  
**458 actions and BRL 1.2 million invested**

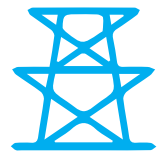
Number of Employees **4,122**



### Social

Investment in social projects  
**BRL 35.2 million**

Cultural sponsorships **6**



### Infrastructure

Total Investments  
**BRL 1.4208 billion**

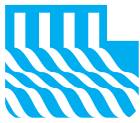
Costs for energy generation  
**BRL 3.42 million**

ERP - position of the project on 12/31/2017 **39.5%**

CSC - position of the project on 12/31/2017 **50%**

## PROJECTS UNDER CONSTRUCTION

## PROJECTS IN OPERATION\*\*\*



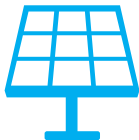
### Hydroelectric Power Plant

2 projects\*  
**11,633 MW**



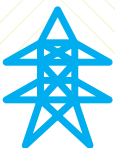
### Wind Farm

12 projects\*  
**290 MW**



### Photovoltaic Plant

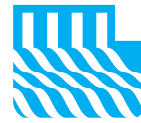
1 projects\*  
**3 MW**



### Transmission Lines

8 projects

698km expansion



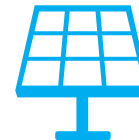
### Hydroelectric Power Plant

12 plants  
**10,262.3 MW**



### Wind Farm

2 plants  
**61,1 MW**



### Photovoltaic Plant

1 plants\*\*  
**5.1 MW**



### Transmission Lines

119 substations

20.531,9km of lines

### MAIN IMPACTS

- Displacement
- Conflicts
- Labor
- Social

### MAIN IMPACTS

- Water Scarcity
- Wind Shift/Intensity
- Lease Agreements
- Regulation
- Maintenance

\* Up to 2021; \*\* PPilot project in Sobradinho (BA) and Balbino (AM), \*\*\* Exclusive Chesf - Own

## TRADING



**Potentially Free Consumers**  
12



**Free Consumers**  
4



**Distributors**  
49



**Traders**  
14

SHARED

## VALUE CREATION



**Investors / Shareholders**



**Customers**



**Employees**



**Civil Society**

## RESULTS



**Investors / Shareholders**  
EBITDA  
**BRL 589.9 million**

Profit/Assets  
**BRL 1.044 billion**



**Customers**  
Energy Generated  
**15.209 MW**  
Satisfaction  
**81%**



**Employees**  
Hours of Training  
**185,648 hours**



**Civil Society**  
Training of Labor Force  
**425 corporate education actions**  
People Benefited by the Company's Programs/  
**Projects 21,122**  
Hours per month donated by Chesf for volunteer work during office **hours 300**

# CHESF IN NUMBERS

## OPERATIONAL

**10,670.23 MW**  
of installed capacity

Completion of  
**25 transmission projects**

## MANAGEMENT

Organizational restructuring:

**47.0%** reduction in  
organizational units;

**42.5%** reduction in  
appointee positions;

**27.4%** reduction in cost  
of appointee positions; and

a **4.0%** reduction in the  
costing budget.



**SOCIAL**

**185,648 hours**

of training, exceeding the goal  
of 40 hours per employee

**BRL 35.2 million**

allocated to the areas of health,  
food safety, education, and  
creating jobs and income



**ECONOMIC**

Profits of

**BRL 1 billion**

EBITDA of

**BRL 589 million**

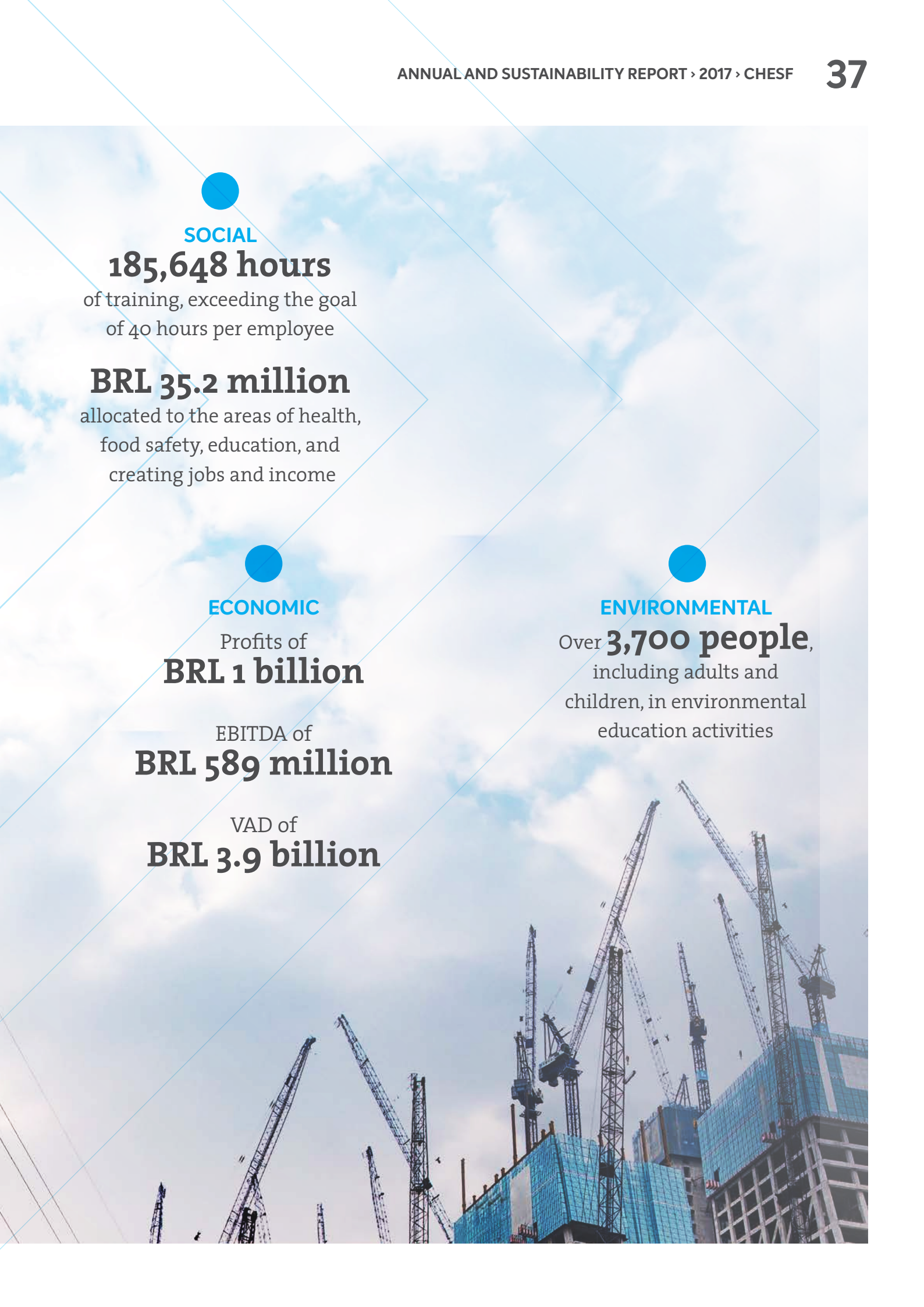
VAD of

**BRL 3.9 billion**



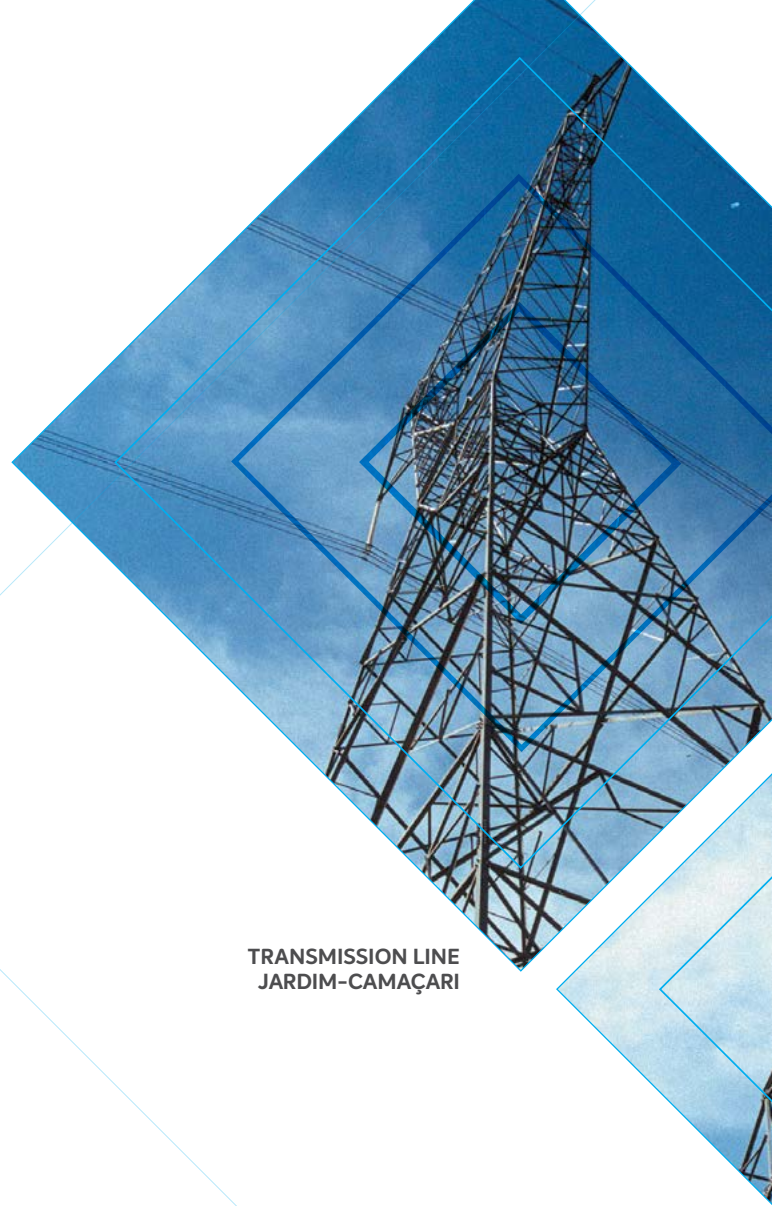
**ENVIRONMENTAL**

Over **3,700 people**,  
including adults and  
children, in environmental  
education activities



# CORPORATE STRATEGY

In 2017, the Eletrobras companies began the challenge of implementing actions based on the Business and Management Master Plan (PDNG) for the period 2017-2021, which establishes a set of economic and financial guidelines, associated with investment limits, indebtedness capacity, recommended expansion targets and cost of capital. The PDNG is composed of three strategies and 18 initiatives that aim to consolidate corporate sustainability.



TRANSMISSION LINE  
JARDIM-CAMAÇARI

## GOVERNANCE AND COMPLIANCE

1. Alignment of the by-laws and approval purviews
2. Implementation of the model 5 Dimensions of Compliance
3. Eliminate material weaknesses
4. Implement actions toward listing in indexes and obtaining Corporate Management seals

## FINANCIAL DISCIPLINE

5. Reduction of investments
6. Privatization of distributions
7. Sale of administrative real estate
8. Sale of stakes in non-strategic SPEs
9. Tax optimization
10. Corporate restructuring for better use of tax credits

## OPERATIONAL EXCELLENCE

11. Organizational Restructuring
12. Incentivized Retirement Plan (PAI)
13. Implementation of PRO-ERP
14. Shared Services Center
15. Reduction of administrative costs
16. Reduction of overtime, hazard pay, and standby
17. Regulatory Strategy for Generation and Transmission
18. Integrated energy trading



Learn about how the strategy unfolded by visiting the Eletrobras Investor Relations website: [eletrobras.com](http://eletrobras.com) > Financial Information



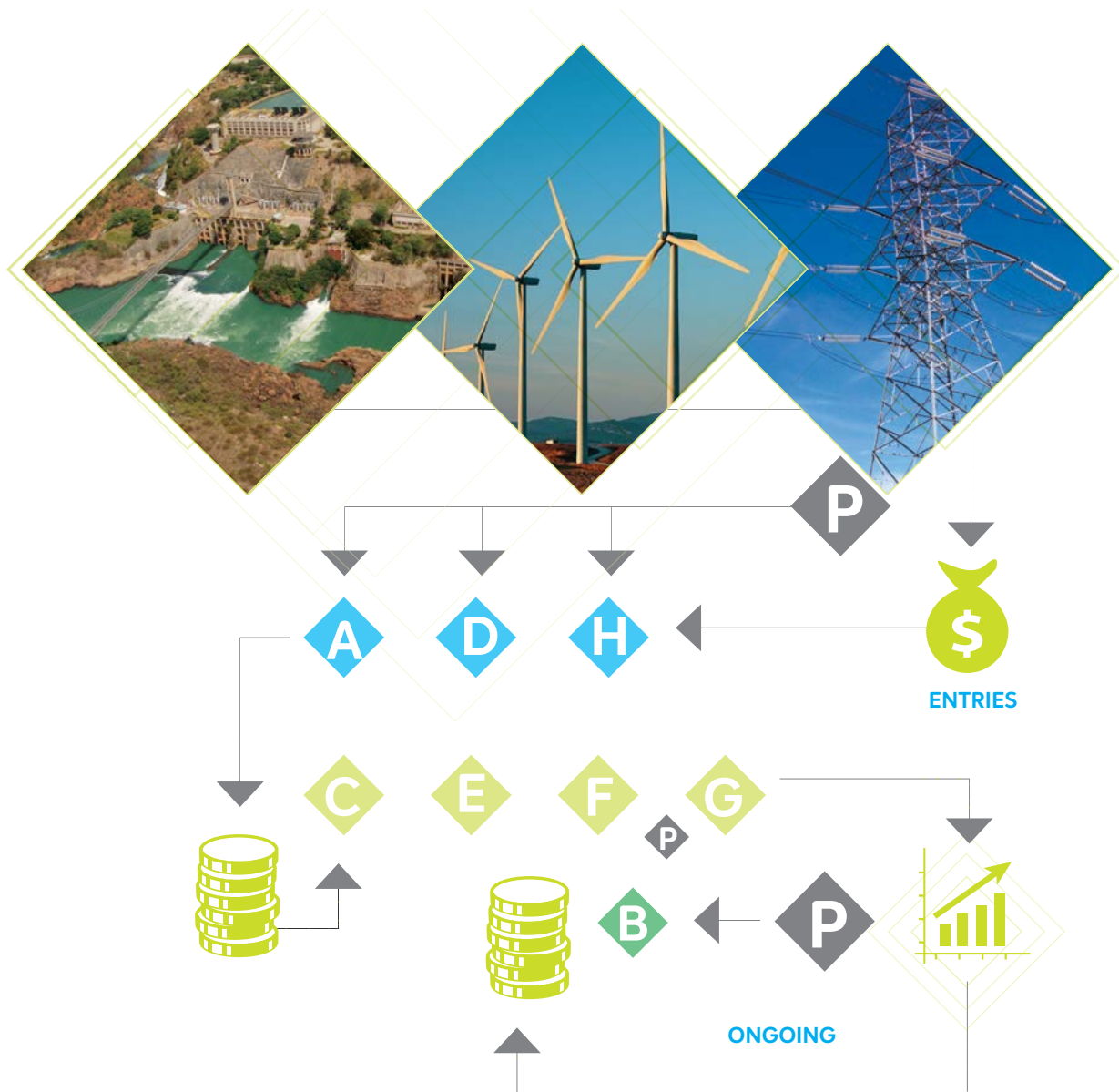
## STABILIZATION AND GROWTH

Based on Eletrobras' PDNG, Chesf developed its Business Management Plan (PNG) for the same period, addressing issues related to the recent evolution of the generation and transmission businesses, the Company's expansion prospects, the study of opportunities, and regulatory issues. Following the established goals, in 2017 PNG initiatives yielded the following results:

**Transmission Works Plan:** The Engineering and Construction Department prioritized 47 Transmission projects, of which 24 are scheduled to be completed in 2017, with a Permitted Annual Revenue (RAP - *Receita Anual Permitida*) of BRL 65 million, and 23 for 2018, with an expected RAP of BRL 62 million. The direct investment required for 2017 totals BRL 593 million, and for 2018, BRL 223 million. In order to realize the investment foreseen in the implementation of this Works Plan, it was necessary to seek a supplementary investment budget of BRL 277 million for 2017.

**Generation Works Plan:** encompasses the Wind Power Complexes Casa Nova I, Casa Nova II, and Casa Nova III. Regarding Casa Nova I, the budgeted amounts refer to the completion of the Transmission Line and Substation, which will allow the energy to flow between Casa Nova II and III. In order to realize the planned investment of BRL 264 million to implement this Work Plan, it was necessary to seek supplementation of the investment budget of BRL 152 million for 2017.

# BUSINESS MANAGEMENT PLAN



- ◆ A Revenues (Generation and Transmission)
- ◆ B People, Services and Materials
- ◆ C Depreciation
- ◆ D Compensation  
(Generation and Transmission);
- ◆ E Debt Service
- ◆ F Investments
- ◆ G Return of Advances for  
Future Capital Increase (AFAC)
- ◆ H Disposal of Assets
- ◆ P Potential impacts  
(Results and Performance)

Chesf Administration is guided by a Business Management Plan (PNG) that defines the Company’s work plan for the subsequent five years. In 2017, the PNG was revised based on the political and economic scenarios and on Eletrobras’ Plan for Business and Management Guidelines (PDNG); however, it remains aligned with the Company’s Strategic Map, which has not changed. The topic was presented to the Executive Board at a workshop carried out by the Strategic Planning area.

In accordance with the 2017-2021 planning, Chesf’s focus in 2017 was to increase efficiency, compliance, and risk management. Throughout the year, Chesf also worked on an Efficiency Plan to adjust costs with Personnel, Materials, Third Party Services and Other Expenses (PMSO), through restructuring and increased efficiency of processes in the areas.



# STRATEGIC MAP 2017-2021



The Strategic Objectives are broken down into Strategies and Initiatives. Each strategy has an associated indicator and the initiatives are composed of several projects, allowing all organizational levels to get involved and participate in strategic planning. Monitoring of strategic planning is carried

out through meetings with the Executive Board and first-tier management, in order to track the discrepancies between the goals and the results obtained. In 2017, six monitoring meetings were held. The topics covered, and the main results achieved are presented below:

## MONITORING OF THE BUSINESS PLAN AND MANAGEMENT >>>

> TOPICS COVERED >

> RELATED STRATEGIC GOAL >

Operating Costs and Restructuring

1 - To apply best practices for managing change, knowledge and people

Economic and Financial Indices

2 - To increase the organization's profitability

Performance in Expansion of Generation and Transmission

3 - To implement New Expansion and Improvement Projects Prioritizing Increased Profitability

Performance in O&M Improvements for Generation and Transmission

4 - To Perform Operation and Maintenance with Efficiency and Quality

Corporate Governance

5 - To Improve Corporate Governance

Disposal of Non-Operating Assets

N/A = Not Applicable

## In accordance to the 2017–2021 planning, Chesf's focus in 2017 was the pursuit of increased efficiency, compliance and risk management

### >RESULTS ACHIEVED >

4% reduction compared with budgeting in 10 priority accounts: overtime; standby bonus; hazard pay; periodic examinations; transportation; construction work, maintenance and conservation; safety, travel and documentation.

42.5% reduction in the number of appointee job positions and 27.3% in costs for bonus.

Restructuring in 47% of the organizational units, going from 301 units to 162.

Profit of BRL 1.044 billion, 73.8% less \* than the previous year

Net operating income (NOI)\*\* showed a decrease \* of 61.3% compared with the previous year.

EBITDA margin\*\*\* was 12% in 2017 and 6% in the previous year, an increase of 6 percentage points.

BRL 3.4231 billion of Operating Costs and Expenses, a decrease\*\*\*\* of BRL 2.8136 billion (45.1%) compared with the previous year.

Completion of Wind Power Plants (UEE) Casa Nova II and III.

Implementation of 24 Transmission Projects, establishing the largest number of energized projects in Chesf's history.

A significant reduction in the number of disruptions from 205 in 2016 to 76 in 2017, contributing to the improvement of Chesf's operational indicators.

Improvements (62) in Transmission, of which 17 were in Transmission Lines, 10 in Substations, 25 in Protection and Automation and 10 in Telecommunications.

Retrofitting of 17 Facilities for Telephone Support.

Online training on Ethics and Integrity, promoted by Universidade das Empresas (UNISE), to disseminate ethical principles and concepts of corporate integrity in a comprehensive manner to all employees, with 97% employee participation.

Launch of the Whistleblowing Channel of the Eletrobras Companies, which started to receive, in a centralized manner, all reports related to the Companies of the group.

Disposal of 17 of the 22 non-operational real estate properties, planned for the period. Two other properties were included, not previously considered in the PNG, and which were also negotiated, thus contributing to the achievement of 98% of the target amount initially estimated.

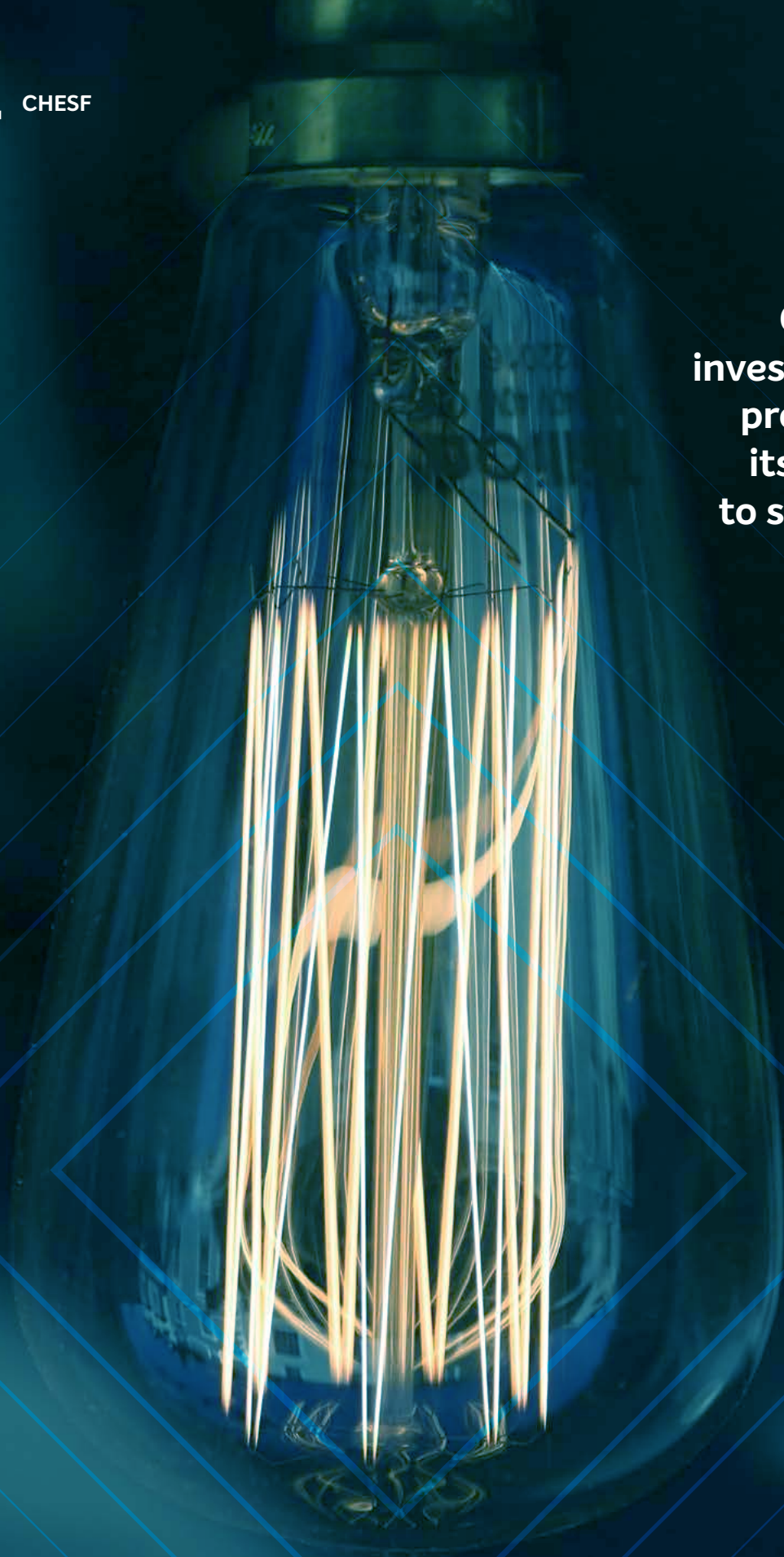
\*This variation results from the recognition in 2016 of the amounts approved by ANEEL, related to the transmission assets of the facilities called Basic Network of the Existing System – RBSE.

\*\*Considers deductions of taxes and sector charges.

\*\*\*Ratio between EBITDA and Net Operating Revenue (NOR).

\*\*\*\*This reduction was mainly a result of the variation of BRL 3.1236 billion determined in the record of provision/reversal of impairment/ interest-bearing agreement, with a reversal of BRL 763,3 million in 2017 against the recording of provision of BRL 2.2321 billion in 2016.

**Chesf seeks to  
invest in innovative  
projects to fulfill  
its commitment  
to society and the  
environment**



The achievement of financial, operational, governance, social, and environmental goals established in the Corporate Contract for Goals and Performance (CMDE) was also monitored by the Board of Directors and Fiscal Council. In most of the indicators monitored by Chesf - related to economic, financial, operational, governance, social, and environmental performance - the goals were reached during 2017. It is worth mentioning that efforts will continue to fully reach the goal (100%), for the next cycle.

For 2018, the Company has acquired new Strategic Management software, which will allow for real-time evaluation of financial, operational, social, and environmental indicators, as well as monitoring of projects and improvements to be implemented, which will streamline management decision-making.

## NEW BUSINESS

› 102-2, 102-6, 102-15, 102-29, 102-31, 103-2, 103-3 ›

Chesf values its commitment to society and the preservation of the environment and, therefore, seeks to invest in innovative projects that meet these goals. In view of the climate potential of the Northeastern region, in 2017, the Company invested in wind and solar power generation projects in various states in the region.

Regarding the generation of thermoelectric power, Chesf has prioritized participation in projects with technology based on natural gas, which is environmentally more suitable, since it pollutes less than other fossil fuels.

In 2017, the transmission segment did not participate in new auctions. The Company prioritized the implementation of contracted projects and strengthening of existing facilities.



5

# CORPORATE GOVERNANCE

> 102-45 to 102-56 and 103-1 >

GLOBAL COMPACT



SDG

**8** DECENT WORK AND ECONOMIC GROWTH

**9** INDUSTRY, INNOVATION AND INFRASTRUCTURE

**16** PEACE, JUSTICE AND STRONG INSTITUTIONS

**17** PARTNERSHIPS FOR THE GOALS

## **Chesf's corporate governance structure translates into administrative processes guided by transparency and continuous value creation**

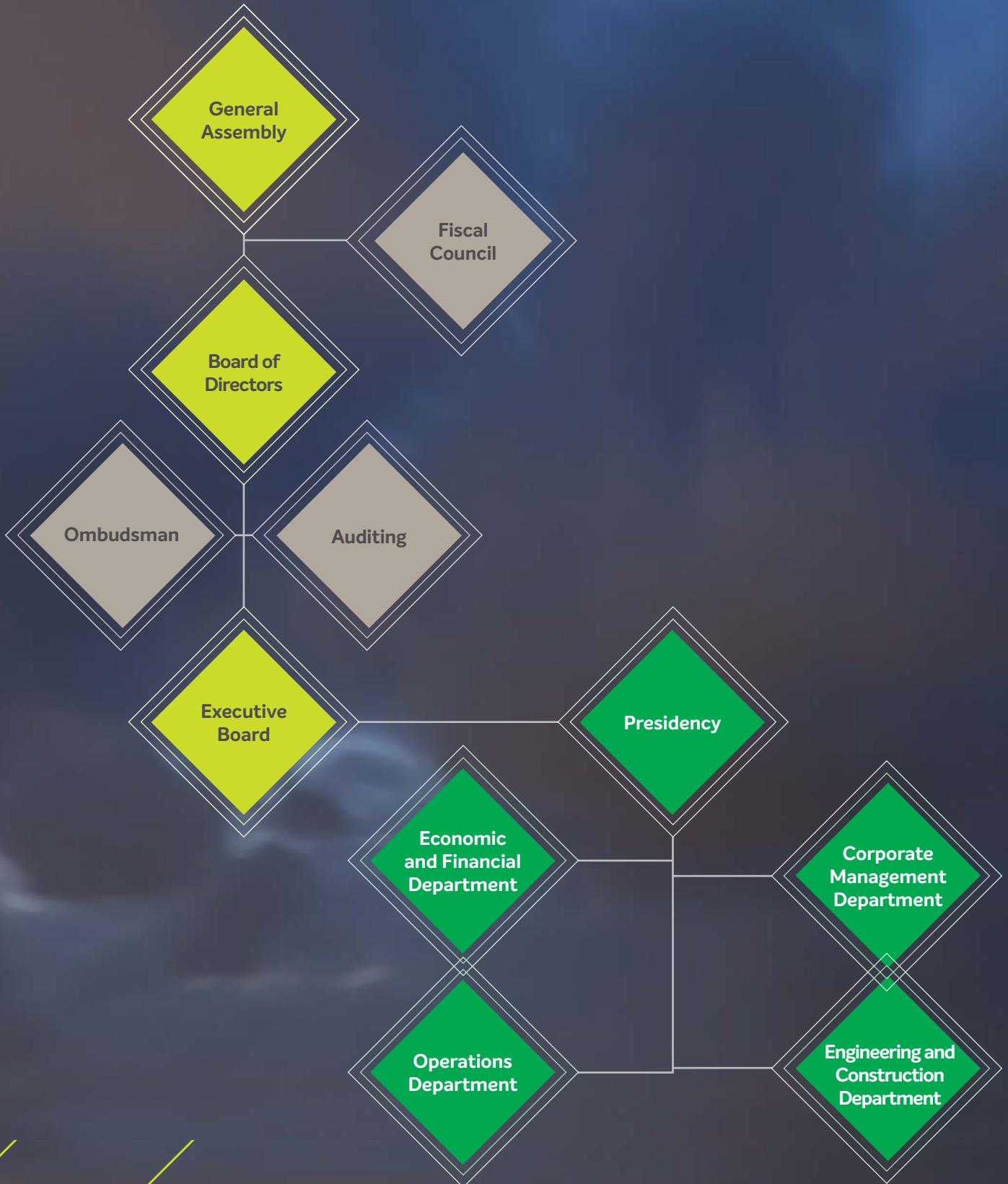
Chesf's corporate governance practices aim to guarantee shareholder rights and business sustainability, aligned with accountability to investors and society, and ethical relationships with stakeholders.

Focusing on transparency and maintaining an ethical relationship with all its stakeholders, Chesf's Governance structure is composed of an Administrative Assembly and a Board of Directors, which, with the assistance of the Executive Board, Fiscal Council, Ombudsman's Office, and Auditing, is responsible for the main decisions in business management. Administrative management actions are audited by Internal Audit, the Fiscal Council, and by the external control bodies of the Federal Comptroller General (CGU) and the Federal Court of Accounts (TCU).





# GOVERNANCE STRUCTURE



## MAIN INITIATIVES

In 2017, five General Assembly meetings were held, one ordinary and four extraordinary meetings, to discuss various initiatives related to the Company's business plan. In addition, there were 21 meetings of the Board of Directors, 13 meetings of the Fiscal Council, and 67 meetings of the Executive Board. > 102-18 >

### THE MAIN TOPICS PRESENTED TO THE BOARD OF DIRECTORS WERE:



- Chesf's Business Plan - PNG 2017-2021;
- Cash Flow
- Organizational Restructuring;
- Cost of debt service;
- Contributions to Special Purpose Entities (SPEs);
- Auditing, Ombudsman, and Ethics Commission
- Public Consultation 33;
- Research, Development, and Innovation;
- Shared Services Center; and
- Naylor Alves de Souza Hospital (HNAS).

The matters for discussion by the Board of Directors are based on a document "Forwarding Matters to the Board of Directors (EACA - *Encaminhamento de Assunto ao Conselho de Administração*)."

Strategic issues are addressed through presentations and additional documents made available to Board members. > 102-34 >

HYDROELECTRIC POWER PLANT





## GOVERNANCE ACHIEVEMENTS (BOARD) IN 2017

AGENDA	GOAL	STATUS
Updating of the Corporate identity	Streamline processes, reduce operating costs and modernize its organizational structure.	Implemented
Updating of the Strategic Map 2017-2021	Corporate Sustainability and Efficiency.	Ongoing
Recovery of Cash Flow	Balance Cash Flow by the end of 2017.	Achieved
Prioritization of Transmission and Generation Projects	Prioritize projects whose bidding processes have already been approved.	Ongoing
Implementation of the Eletrobras 5 Dimensions Program	Improve Integrity Practices in the Corporate Environment.	Ongoing
Terms of Cooperation with the National Education and Research Network	Integration and mutual use of telecommunications infrastructure between Chesf and the National Education and Research Network (RNP).	Signed. Under implementation



Further details on Chesf's Governance may be found at [chesf.gov.br](http://chesf.gov.br) > A Empresa.



SPOUT OF ITAPARICA

# GOVERNANCE AND SUSTAINABILITY

In Chesf's organizational structure, environmental and social issues are the responsibility of the Department of Expansion Planning and Environment and the Department of Institutional Relations, respectively linked to the Engineering and Construction Department and the Presidency. The other financial and economic topics are distributed among the Department of Planning and Economic and Fi-

nancial Control, the Department of Economic and Financial Execution, and the Department of Accounting, linked to the Economic and Financial Department. > **102-20, 102-22, 102-23, 102-31, 102-44** >

The Company's Strategic Sustainability Guidelines are present in the Business Plan and are considered in short-, medium-, and long-term decisions.

## Chesf's Strategic Sustainability Guidelines

- > Prioritize the production of clean and renewable energy
- > Rational use of resources
- > Operate as an agent toward energy efficiency
- > Commitment to ethics and transparency
- > Respect for human rights
- > Add value to stakeholders
- > Ensure employees adequate working conditions and well-being

Among the actions carried out by the Sustainability Committee in 2017, we have:

- > Execution of sustainability projects included in Chesf's Business and Management Plan (PNG).
- > Standardization of water, energy and fuel consumption management, and of waste sorting.
- > Campaigns toward energy efficiency.
- > Participation in the definition and prioritization of the Sustainable Development Goals (SDG), in order to integrate the 2030 UN Agenda into the strategies of the Eletrobras Companies'.

**Chesf's strategic  
sustainability guidelines  
are present in its'  
Business Plan**

# TRANSPARENCY AND ETHICS

> 102-17, 102-25, 103-2 >

Throughout its history, Chesf has consolidated ethics and excellence in conduct in its activities as organizational values. All employees receive the Code of Ethics and Conduct when they join the Company, which is constantly disseminated by the Ethics Commission, managers, and the Human Resources area.

The Company also ensures that there is no conflict of interest, determining that members of the Board of Directors and Fiscal Council, as well as the Directors, respond to questionnaires defined by the Brazilian Securities and Exchange Commission (CVM) and the Public Ethics Commission (CEP). In addition, all employees have access, through Chesf's intranet or electronic portal, to the Electronic System to Prevent Conflict of Interest (SECI) of the Federal Comptroller General (CGU).

It is worth noting that, in addition to committing to adhering to the Code of Ethics and Conduct and to the Integrity Program by signing specific documents, members of the Governance structure sponsor and monitor the Program's actions, created by Eletrobras and conducted at Chesf by the Compliance and Risk Management Advisory. Reports related to the Anti-Corruption Law and other cases concerning violation of the Code of Ethics and Conduct are received through a single Whistleblowing Channel for the Eletrobras companies and are handled by the System Integrity Committee (CSI), formed

by representatives of Eletrobras and all companies in the group. The Company also has an Ethics Commission, which may receive on its channel reports of violations of ethical conduct, and an Ombudsman's Office, to handle other types of reports received from internal and external audiences.

In 2017, Eletrobras initiated a training cycle titled "Governance, Integrity, and Capital Markets," in partnership with the Brazilian Institute of Corporate Management (IBGC), geared toward the board members and directors of the Eletrobras companies. The training schedule will be completed in 2018. > 102-27, 103-3 >

The campaign called "*Ética em Tudo para Tod@s*" ("Ethics in Everything for Everyone"), which aims to strengthen the topic through internal newsletters, committee meetings, the Ombudsman's Office, CIPA events, and even digital signatures, also continued and was strengthened at the XIII Seminar of the National Forum on Ethics Management in State-owned Companies, hosted by Chesf. The event was broadcast to all regional offices and was attended by the Company's senior management. Also related to Ethics, the Holding's Compliance Department organized an event in 2017, at all Eletrobras companies, to highlight the main projects in progress under the Integrity Program (Compliance), as well as the actions required for SOX Certification. (102-17) > 102-17 >



MONITORING MEETING

## Eletrobras 5 Dimensions Program

In 2017, Chesf continued the “Eletrobras 5 Dimensions Program,” created in 2016 aiming to improve the Integrity Program already in place at the Eletrobras companies. The Compliance and Risk Management Advisory implemented new procedures in order to strengthen corporate integrity practices, highlighting some actions, such as beginning the background checks of board members appointed by Chesf to join the Boards of Directors and Departments of SPEs (Special Purpose Entities). The Advisory also initiated a pilot Due Diligence project and critical supplier risk assessment, a process that will be consolidated in 2018.

The program is based on the model proposed by the Federal Comptroller General (CGU) and the guidelines of the Committee of Sponsoring Organizations of the Treadway Commission (COSO), and foresees the implementation of actions and projects based on five dimensions, listed below:

1. Development of the management environment of the integrity program.
2. Periodic risk assessment.
3. Structuring and implementing policies and procedures of the integrity program.
4. Communication and training.
5. Monitoring the program, remediation measures, and application of penalties

## RISK MANAGEMENT

Based on the Risk Management Policy of the Eletrobras Companies, Chesf has a Risk Matrix, based on the Risk Matrix of the Eletrobras companies, which classifies and characterizes the risks associated with its business. The Matrix contains four pillars - Strategic, Financial, Operational, and Compliance - that include the following categories: Business Model, Market Strategy, Image and Reputation, Investments, Liquidity, Generation and Marketing, Social and Environmental, People Management, Legislation and Standards, and others. These categories are broken down into potential risk events, which are analyzed according to probability and impacts, based on the COSO ERM and COSO 2013 methodology and on the ABNT NBR ISO 31000:2009 and ABNT ISO GUIA 73:2009 standards. > **102-11; 102-18** >

The Risk Committee is responsible for prioritizing the risks that will be analyzed and for monitoring the results, as well as contributing to

updating the Risk Policy and Matrix of the Eletrobras companies and defining the matters to be submitted for approval of the Executive Board and the Board of Directors.

With respect to internal controls, Chesf participates annually in the SOX Certification process to ensure compliance with the requirements of the Sarbanes-Oxley Act. The certification includes the stages of annual review of the documentation related to business and governance processes, previously defined in the scope, and tests the effectiveness of internal controls, carried out by both the administration, under the responsibility of Chesf Internal Audit, and by an independent auditor. All companies in the group participate in the certification process as Eletrobras subsidiaries, in order for the Holding to continue trading its shares on the New York Stock Exchange (NYSE).

## COMMITTEES

> 102-18 >

In 2017, Chesf had four committees to support business management and streamline analysis and decision-making processes.

**Corporate Sustainability Committee:** responsible for consolidating proposals for management improvement and monitoring the results of action plans. It also deliberates on the Company's Sustainability Policy, under the approval of the Executive Board, and coordinates the collection of information for Annual Reports. Twelve ordinary meetings were held in 2017.

**Risk Committee:** responsible for defining, understanding, and monitoring the internal and external risks that may affect the Company's business. It is composed of a multidisciplinary team with rep-

resentatives from all Departments. Five meetings were held in 2017.

**Corporate Planning Committee:** responsible for evaluating, monitoring, and updating the Company's Strategic Planning, proposing follow-up indicators aligned with best practices in the market. It is also responsible for disseminating the planning and tracking the progress of the goals. One meeting was held in 2017.

**Management Committee of the Chesf Research & Development + Innovation Program:** responsible for developing and managing the Chesf Research Program. This Committee is also responsible for establishing relationships with external entities and annually reviewing the activities of the program. Two meetings were held in 2017.



COMPLIANCE AND RISK MANAGEMENT TEAM

# RELATIONSHIP CHANNELS

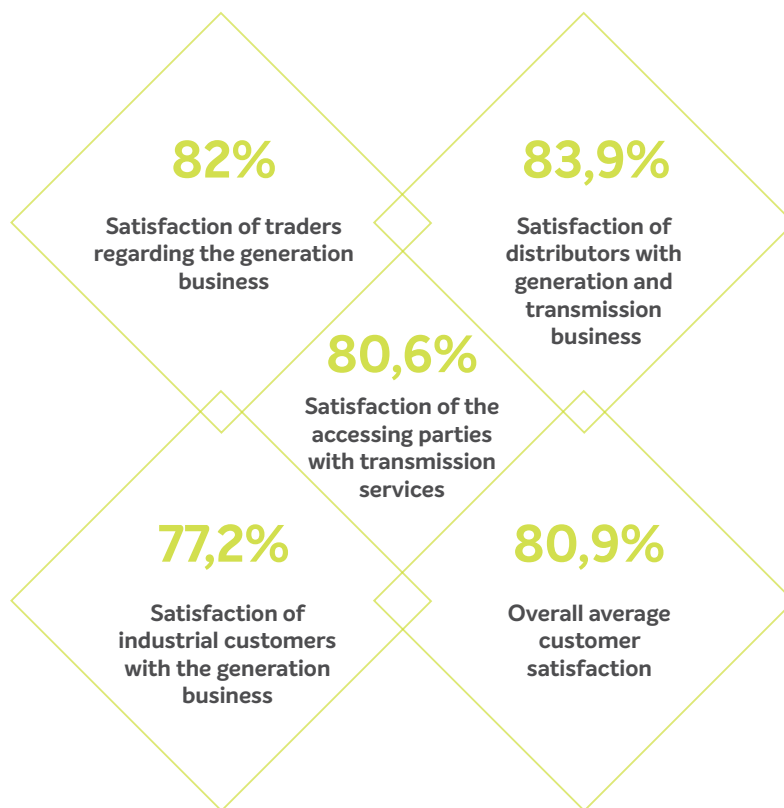
> 102-43, 103-2, 103-3 >

One of Chesf’s principle is respect for people, and the company practices this through mechanisms that meet the expectations of stakeholders in relation to the business. Thus, every two years, the Company conducts the Eletrobras Integrated Survey to measure customer satisfaction, and the most recent survey was conducted in the 2016/2017 biennium. The Survey was geared toward the following audiences, by business:

- Generation: free consumers, potentially free consumers, traders, and distributors.
- Transmission: distributors, free consumers, potentially free consumers, and generators.

The result of the survey, based on the methodology called “Janela do Cliente,” (“Client Window”), showed a good level of satisfaction with Chesf, with a correlation between satisfaction and importance levels. > 102-40; 102-43 >

## RESULTS OF CHESF IN THE 2ND ELETROBRAS INTEGRATED SURVEY



In 2017, Chesf also conducted a satisfaction survey with Distribution Agents in order to evaluate the operation services provided by the Company. The result was an average of 8.2 points on a scale of 0 to 10.

The survey is part of the process of meeting the Requirements of the System that Manages the Quality of Chesf’s Operation, in which all bodies of the Company’s System and Facilities Operation are certified in Standard ISO 9001:2008. Among the established procedures are the annual meetings with Clients (Energy Distributors). During the year, 10 face-to-face meetings were held (one per Distribu-

tor) with the Distribution Agents.

The Ombudsman’s Office is another management mechanism used by the Company to become closer to its stakeholders. The most important issues mentioned in 2017 (about 80%) were: Human Resources, Right of Way, Economic and Financial Situation, Operation and Maintenance, General Services, Corporate Communication, Environment, Generation Expansion, and Senior Management. The Ethics Committee and the Contact Us channel (0800 9793 090) are other tools that facilitate Chesf’s relationship with its stakeholders.





### Actions implemented

Based on reports received, Chesf implemented several actions, such as making information available on rainfall volume (in mm) in the Sobradinho reservoir area and hydrological data obtained at the Remanso hydrometric station – average reservoir level (m) and precipitation (mm) – on the Corporate Portal. This opportunity to improve the provision of information was identified by the Ombudsman, in conjunction with the Operations Department.

In 2017, Chesf launched an independent whistleblowing channel. The process, which had been carried out by the Ombudsman’s Office through an internal system, is now carried out by an external company, emphasizing the commitment to secrecy and impartiality when handling cases. When the Channel was launched, the Integrity System Committee (CSI) was also created, formed by representatives of Eletrobras and its subsidiaries, to monitor and escalate reports in a standardized manner.

In 2017, the Consequences Policy was also launched, which aims to establish corporate com-

mitments to combating corruption, anticompetitive practices, conflicts of interest, and other infractions. In addition, the Policy seeks to guide the application of consequences to actions and conduct that do not comply with the Code of Ethics and Conduct of the Eletrobras companies, with the Eletrobras Integrity Program, and with internal and legal standards.

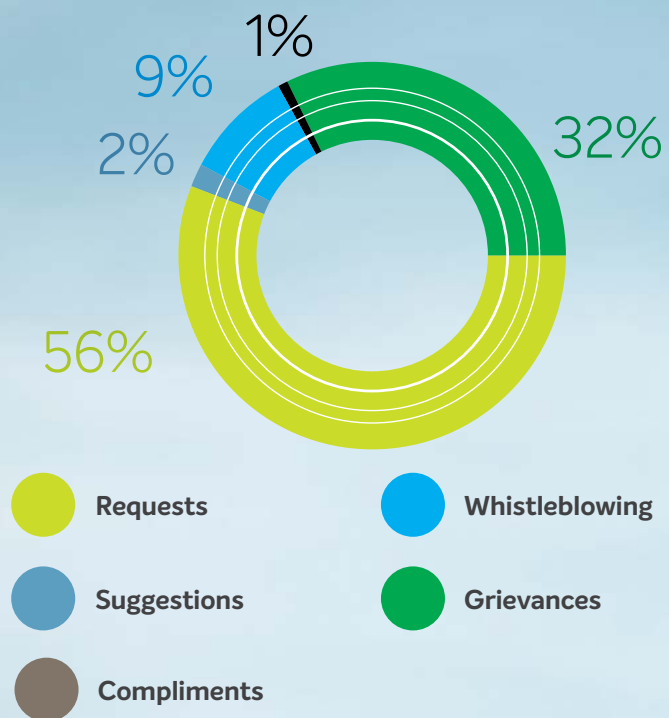
The Ombudsman’s and other relationship channels may be contacted by email ([ouvidoria@chesf.gov.br](mailto:ouvidoria@chesf.gov.br)) or the Contact Us portal ([www.chesf.gov.br/page/faleconosco](http://www.chesf.gov.br/page/faleconosco)).

### Stakeholder Reports

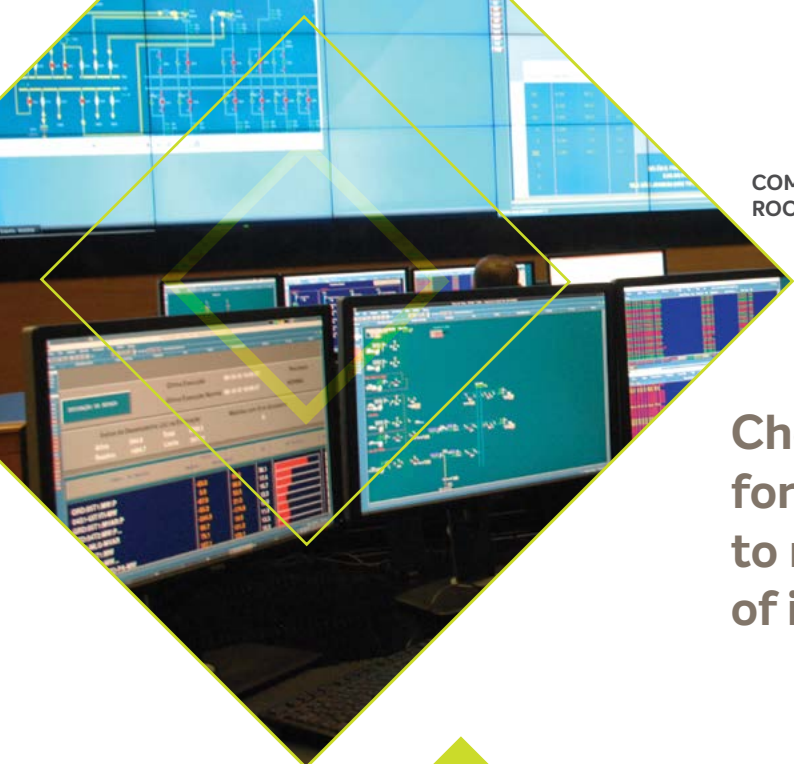
Chesf is committed to analyzing and responding to all reports obtained through its formal relationship mechanisms. There are formal channels for the external audience (email, Contact Us, Public Relations, Press, Innovation, and Ombudsman) and for the internal audience (Ethics Committee and internal newsletter “Chesf Hoje” [“Chesf Today”]). All information recorded is verified by Chesf. Demands specifically from the Press channel are sent to the news clipping, where they are addressed and responded by the Department of Institutional Relations through the Company’s communication channels or releases. > 102-40, 102-41 >

In 2017, the Company recorded 616 demands on its formal channels, 592 of which were posted in the Ombudsman’s Office and 24 on the Eletrobras Whistleblowing Channel. > 102-44 >

### BREAKDOWN BY TYPE



Source: Sistema de Ouvidoria (SOU) and whistleblowing channel, access on Jan/2018



COMMAND ROOM

Chesf has as a principle respect for people and therefore works to meet the expectations of its stakeholders

SEE THE TOPICS OF THE REPORTS RECORDED IN 2017:

OMBUDSMAN'S CHANNEL

ETHICS COMMISSION

CONTACT US  
(0800 979 3090 AND/  
OR MEIOAMBIENTE@  
CHESF.GOV.BR)

PUBLIC RELATIONS  
(RP@CHESF.GOV.BR)

TOPICS RECORDED			
Human Resources	Issues related to item 2.2.3 of the Code of Ethics: Discrimination, Prejudice, Verbal Abuse, Humiliation and Embarrassment.	Xingó Forest Nursery (request for seedlings).	Technical Visits (lectures on Generation, Transmission and the Environment).
Right of Way		Request for Technical Visits.	
Economic and Financial		Report of intrusion of Transmission Line Right of Way.	
Operation and Maintenance		Request for information on activities developed by Chesf.	
General Services			
Corporate Communication			
Environment			
Generation Expansion			
Senior Management			
Land Issues			

INNOVATION

PRESS

TOPICS RECORDED	
Adaptive Reclosing of Single-Phase and Three-Phase Transmission Lines	External: Inauguration of Projects; Energization of Substations; Water Shortage; Financial Balance
Development of Optical Multimeter	Internal: Employee Health; Safety; Gender Campaign; Compliance; Volunteering
Distributed energy storage and its impacts on increasing safety and quality in the transmission system	Report of intrusion of Transmission Line Right of Way.
Wind turbines: improvements in the energy conversion process	
Water quality in the São Francisco River reservoir	
Biotechnology against golden mussel infestation	
Monitoring of HPP dams	
Integrated management of vegetation in Transmission Lines, Substations and HPP yards	
Identification of overhead power lines through image recognition	
Bathymetry of the bottom of the reservoirs and studies on their water flow	

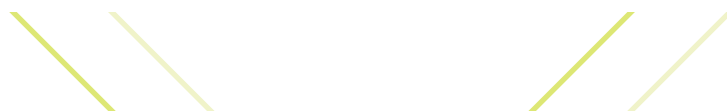


**IN 2017, THE COMPANY INCORPORATED TO ITS LINE OF RESEARCH NINE TOPICS SUGGESTED BY PEOPLE THROUGH THE RELATIONSHIP CHANNEL CALLED INNOVATION:**

1. Development of an optical multimeter.
2. Distributed storage of energy and its impacts on increasing safety and quality in the transmission system.
3. Improvements in the wind turbine energy conversion process.
4. Water quality in the São Francisco river reservoir.
5. Biotechnology against golden mussel infestation.<sup>7</sup>
6. Monitoring of HPP dams.
7. Integrated management of vegetation in transmission lines, substations, and HPP yards.
8. Identification of overhead power lines through image recognition.
9. Bathymetry<sup>8</sup> of the bottom of the reservoirs and studies on their water flow.

<sup>7</sup> The golden mussel is a freshwater mollusk that lives naturally in the rivers of China and Southwest Asia. It was accidentally introduced in South America over 10 years ago, through the ballast water of merchant ships released in the Argentine ports in the Prata River. It is an invasive species, with great incrustation capacity, with fast growth rate and large reproductive capacity.

<sup>8</sup> Measurement of the depth of bodies of water (oceans, seas, lakes, etc.) to determine the topography of the bottom.





6

The image shows the interior of a hydroelectric power plant. The floor is a mix of blue and yellow circular platforms. The walls are made of rough, textured rock. There are some colorful ribbons hanging from the ceiling. The lighting is warm and focused on the platforms. A yellow and black striped caution tape is visible in the foreground.

# MANAGEMENT AND RESULTS



HYDROELECTRIC  
POWER PLANT  
SOBRADINHO  
ECLUSA

# ECONOMIC RESULTS

> 103-2, 103-3 >

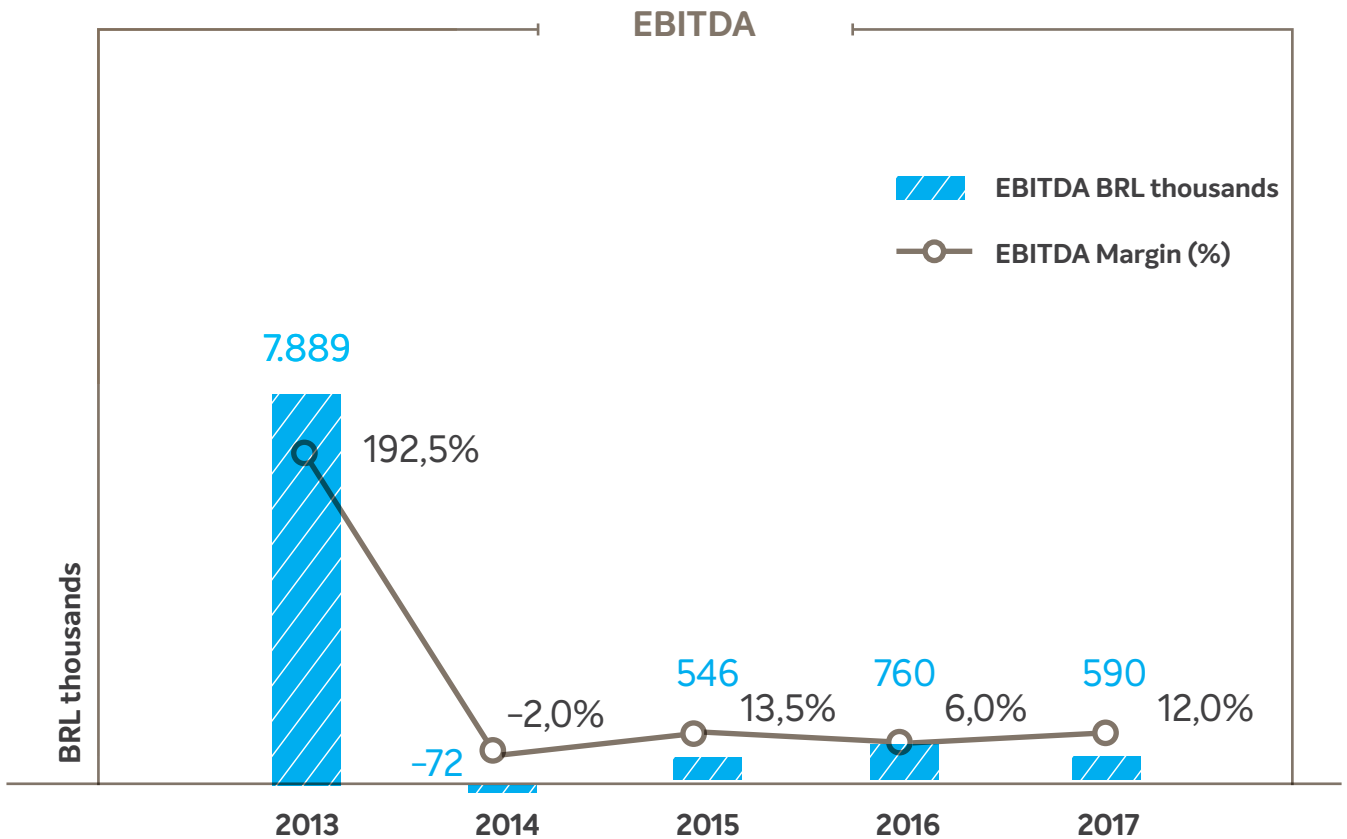
For Chesf, the year 2017 was marked by the resumption of the Company’s financial balance, which ended the year with a stable cash flow and debts paid. This achievement, coupled with projects delivered and structured, transparent management, attracted new investors, and regained the confidence of the financial market.

This balance is translated into numbers. Compared with 2016, an atypical year due to ANEEL approval - regarding the transmission assets of the facilities, called Basic Network of the Existing System (RBSE - *Rede Básica do Sistema Existente*) - which

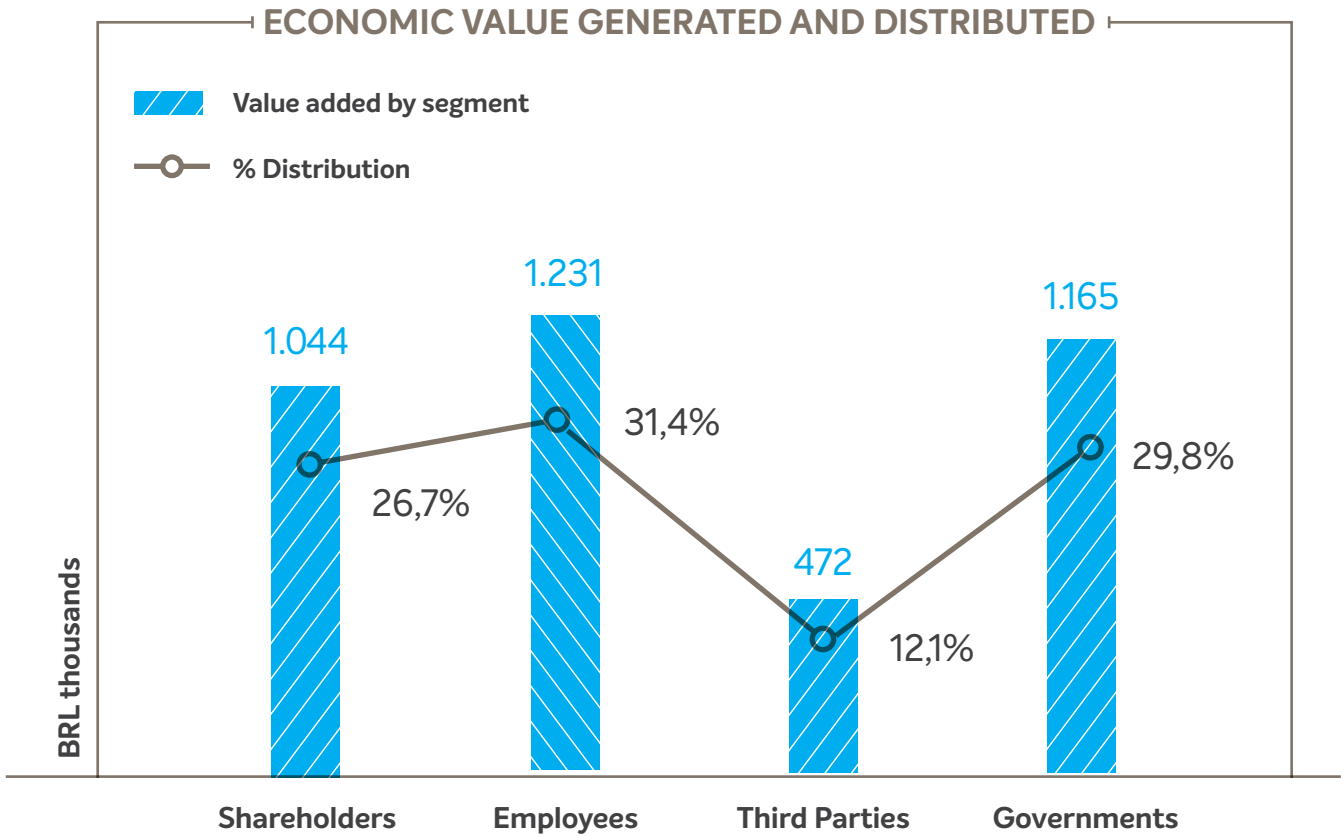
positively impacted the cash position, the results of the Company in 2017 demonstrate the financial maturity achieved.

The approval contributed to BRL 13,5 billions in revenue in 2016, reduced to BRL 5,7 billions in 2017. Nevertheless, the Company shows significant performance in financial indicators, even with lower percentages than in previous years.

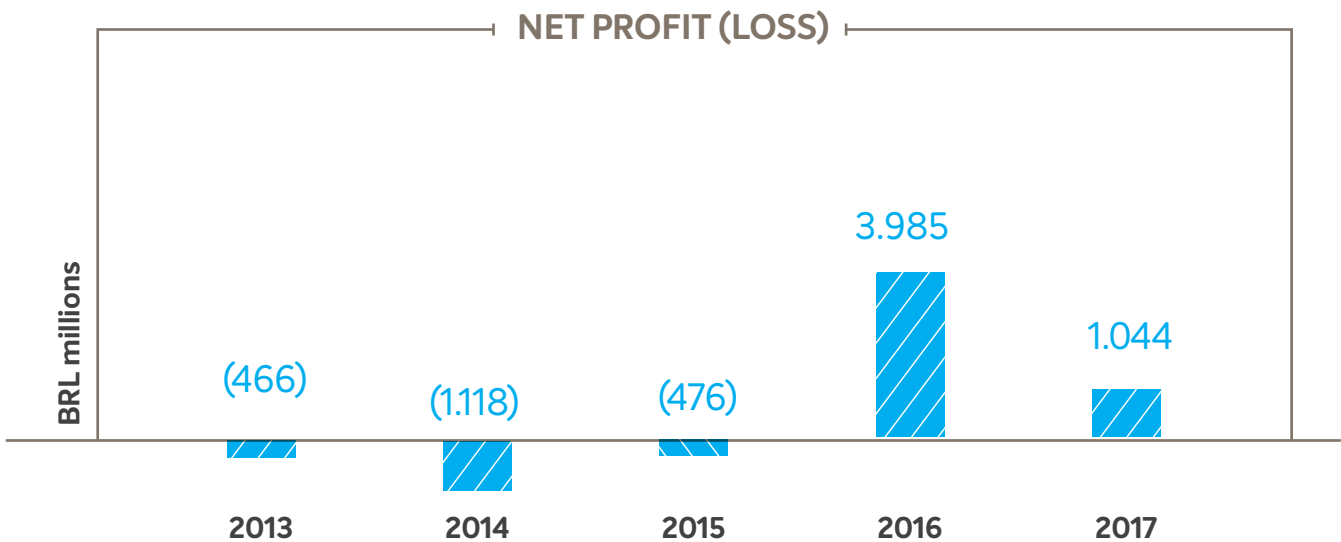
EBITDA, a financial performance indicator that reflects the potential for generating resources through the company’s operating activities, reached BRL 589,9 million, 29% lower than 2016.



The economic value generated is another indicator demonstrating Chesf's positive performance. BRL 3.9 billions of economic value was created, 57% less than the previous year, which recorded BRL 9.9 billions, due to the approval. > 201-1 >



And, lastly, the Company recorded BRL 1.0 billion in profit, compared with BRL 4.0 billions in 2016, a 74% reduction.







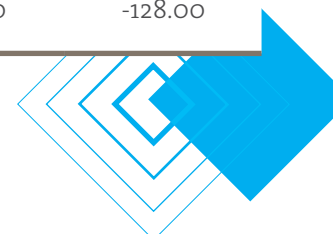
## IN THOUSANDS OF REAIS

## &gt; VALUE ADDED STATEMENT &gt;&gt; 201-1 &gt;

	> 2017 >	> 2016 >	> 2015 >
<b>1- Revenue</b>	<b>5,732,458.00</b>	<b>13,303,731.00</b>	<b>4,633,001.00</b>
1.1) Sales of goods, products, and services	5,754,161.00	13,414,442.00	4,717,816.00
1.2) Other income	-	-	-
1.3) Revenue related to the construction of company assets	-	-	-
1.4) Allowance for doubtful accounts - Reversal/(Constitution)	-21,703.00	-110,711.00	-84,815.00
<b>2- Inputs Acquired from Third Parties (includes taxes - ICMS, IPI, PIS, and COFINS)</b>	<b>1,892,705.00</b>	<b>-4,923,603.00</b>	<b>3,446,809.00</b>
2.1) Costs of products, goods, and services sold	1,566,553.00	-1,605,884.00	-2,196,676.00
2.2) Materials, energy, third party services, and other	-243,195.00	-257,814.00	-244,261.00
2.3) Loss/Recovery of assets	609,982.00	-2,543,623.00	-509,803.00
2.4) Other	692,939.00	-516,282.00	-496,069.00
<b>3- Gross Value Added (1-2)</b>	<b>3,839,753.00</b>	<b>8,380,128.00</b>	<b>1,186,192.00</b>
<b>4- Depreciation, Amortization, and Depletion</b>	<b>-96,083.00</b>	<b>-101,753.00</b>	<b>-106,565.00</b>
<b>5- Net Value Added Produced by the Entity (3-4)</b>	<b>3,743,670.00</b>	<b>8,278,375.00</b>	<b>1,079,627.00</b>
<b>6- Value Added Received in Transfer</b>	<b>168,956.00</b>	<b>739,631.00</b>	<b>232,643.00</b>
6.1) Equity accounting results	-27,167.00	456,751.00	-16,566.00
6.2) Financial income	195,764.00	282,487.00	319,456.00
6.3) Other	359.00	426,702.00	-70,247.00
<b>7- Total Value Added for Distribution (5 + 6)</b>	<b>3,912,626.00</b>	<b>9,018,006.00</b>	<b>1,312,270.00</b>
<b>8- Value Added Distribution</b>	<b>1,231,374.00</b>	<b>9,018,006.00</b>	<b>1,312,270.00</b>
<b>8.1) Personnel</b>	<b>1,231,374.00</b>	<b>867,732.00</b>	<b>776,999.00</b>
8.1.1) Direct remuneration	986,375.00	644,040.00	583,639.00
8.1.2) Benefits	204,208.00	183,794.00	156,599.00
8.1.3) F.G.T.S.	40,791.00	39,898.00	36,761.00
<b>8.2) Taxes, fees, and contributions</b>	<b>1,165,046.00</b>	<b>3,881,802.00</b>	<b>808,809.00</b>
8.2.1) Federal	1,012,665.00	3,752,368.00	648,750.00
8.2.2) State	146,596.00	124,610.00	150,208.00
8.2.3) Municipalities	5,785.00	4,824.00	9,851.00
<b>8.3) Remuneration of third-party capital</b>	<b>472,157.00</b>	<b>283,089.00</b>	<b>202,454.00</b>
8.3.1) Interest	445,671.00	267,557.00	182,800.00
8.3.2) Rent	15,215.00	15,532.00	19,654.00
8.3.3) Other	11,271.00	-	-
<b>8.4) Remuneration of own capital</b>	<b>1,044,049.00</b>	<b>3,985,383.00</b>	<b>-475,992.00</b>
8.4.1) Interest on capital	-	-	-
8.4.2) Dividends	30,600.00	-	-
8.4.3) Retained profit/Loss in the period	1,013,567.00	3,985,275.00	-475,864.00
8.4.4) Non-controlling interest in retained profits (for consolidation only)	-118.00	108.00	-128.00



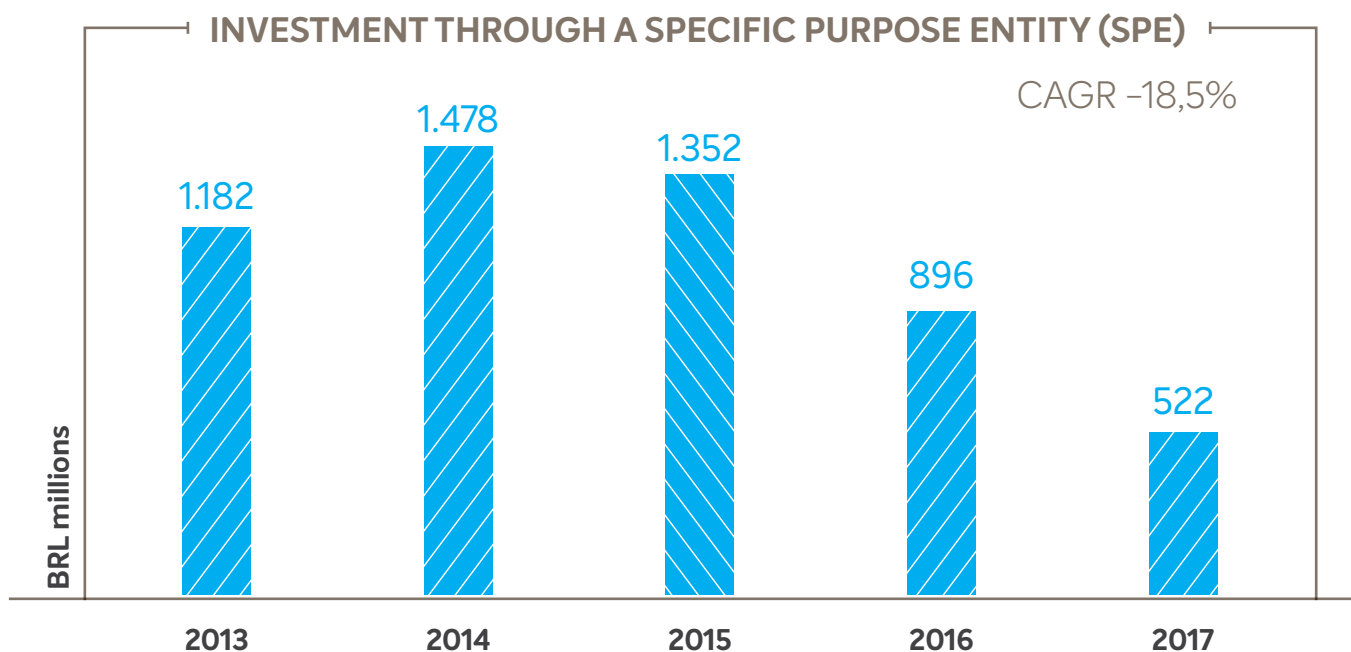
More detailed financial information may be found at [chesf.gov.br](http://chesf.gov.br) > Demonstrações Financeiras



## INVESTMENT THROUGH A SPECIFIC PURPOSE ENTITY (SPE)

In 2017, Chesf invested BRL 522.5 million in projects of Special Purpose Entities (SPEs), through Paid-in Capital and Advances for Future Capital Increase. The reduction of 41.7%, compared to the investments from the previous year, is due to the start-up of most of the SPEs. From 2013 to 2017, the Compound Annual Growth Rate (CAGR) was -18.5%.

> 103-2, 103-3 >



### CHAPADA DO PIAU SPE

Chesf's investments in Generation through SPE total 16,570.81 MW, corresponding to 3,074.54 MW equivalent, totaling BRL 522.5 million. Of this amount, BRL 434.3 million were invested in the Specific Purpose Entities (SPE) ESBR, Norte Energia, and Sinop (Hydroelectric Projects), and BRL 87.9 million in SPEs Baraúnas I, Morro Branco I, and Mussambê (Wind Energy Projects).





> SPES >

> LOCATION >

> MW >

> INT. >

> MW  
EQUIV >

> START OF  
OPERATION >

		> LOCATION >	> MW >	> INT. >	> MW EQUIV >	> START OF OPERATION >
Hydro Electric Generation	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	408.00	24.50%	99.96	Dec-18
Wind Generation	Complexo Eólico Sento Sé I	Sento Sé/BA	90.00	49.00%	44.10	Mar-13
	Complexo Eólico Sento Sé II	Sento Sé/BA	98.70	49.00%	48.36	Sept-15
	Complexo Eólico Sento Sé III	Sento Sé/BA	58.75	1.60%	0.94	Mar-16
	Complexo Eólico Vamcruz	Serra do Mel/RN	93.00	49.00%	45.57	Dec-15
	Complexo Eólico Chapada do Piauí I	Marcolândia, Caldeirão Grande and Simões/PI	205.10	49.00%	100.50	Jul-15
	Complexo Eólico Chapada do Piauí II	Marcolândia, Caldeirão Grande and Simões/PI	172.40	49.00%	84.48	Jan-16
	Complexo Eólico Pindaí I	Pindaí/BA	68.00	99.95%	67.97	May-18
	Complexo Eólico Pindaí II	Pindaí/BA	26.00	99.97%	25.99	Apr-18
	Complexo Eólico Pindaí III	Pindaí/BA	16.00	83.01%	13.28	Apr-18
	Complexo Eólico Serra das Vacas	Saloá/PE	90.76	49.00%	44.47	Nov-15
Chesf Total Power and Equivalent in SPES			16,570.81		3,074.54	
Total Capacity of hydroelectric projects in partnership					15,652.1 MW	
Total Capacity of wind farms in partnership					918.71 MW	

The Company has interest in transmission projects through SPEs, totaling 5,165 km of transmission lines, corresponding to 1,526.9 km equivalent to its interest in SPEs. In 2017, no transmission projects entered into operation through Chesf's partnerships.



> PROJECT >	> LOCATION >	> KM >	> INT. >	> KM EQUIV. >	> START OF OPERATION >	
Sistema de Transmissão Nordeste S.A. – STN	LT 500 KV Teresina II – Sobral III – Fortaleza II, SE Teresina II, SE Sobral III, SE Fortaleza II.	CE/PI	546.0	49.0%	267.5	Jan-06
Integração Transmissora de Energia S.A. – INTESA	LT 500 kV Colinas – Miracema, LT 500 kV Miracema – Gurupi; LT 500 kV Gurupi – Peixe II, LT 500 kV Peixe II – Serra da Mesa II, SE Peixe II, SE Serra da Mesa II.	TO/GO	695,0	12,0%	83,4	May-08
Manaus Transmissora de Energia S.A.	LT 500 KV Oriximaná – Itacoatiara; LT 500 kV Itacoatiara – Cariri; SE Itacoatiara 500/138 kV, SE Cariri 500/230 kV.	PA/AM	559.0	19.5%	109.0	Mar-13
Interligação Elétrica do Madeira S.A.	LT 600kV Porto Velho – Araraquara II; Estação Retificadora – 500/600 kV – 3150 MW; Estação Inversora – 600/500kV – 2950 MW.	RO/MT/MS/SP	2,375.0	24.5%	581.9	Aug-13
Transmissora Delmiro Gouveia S.A. – TDG	LT 230 kV São Luís II - São Luís III; SE Aquiraz II and SE Pecém II (in operation).	MA/CE	39.0	49.0%	19.1	Oct-13 (LT 230 kV São Luís II - São Luís III – Scheduled for Jul/17)
Interligação Elétrica Garanhuns S.A. – IEG	LT 500 KV Luis Gonzaga – Garanhuns, LT 500 KV Garanhuns – Campina Grande III, LT 500 KV Garanhuns – Pau Ferro, LT 230 KV Garanhuns – Angelim I, SE Garanhuns, SE Pau Ferro.	PE/PB	666.0	49.0%	326.3	Nov-15
Extremoz Transmissora do Nordeste S.A. – ETN	LT 500kV Ceará Mirim – João Câmara II, LT 500kV Ceará Mirim – Campina Grande III, LT 230kV Ceará Mirim – Extremoz II, LT 230kV Campina Grande III – Campina Grande II, Secc. LT 230kV J. Camara II – Extremoz – Ceará Mirim Secc. LT 230kV C. Grande II - Extremoz II, SE João Câmara II, SE Campina Grande III, SE Ceará Mirim.	PB/RN	285.0	49.0%	139.7	Oct-14
<b>Total Transmission Lines in operation – SPE</b>			5,126.0		1,507.8	
<b>Total Transmission Lines under construction – SPE</b>			39.0		19.1	
<b>GRAND TOTAL</b>			<b>5,165.0</b>		<b>1526.9</b>	





# OPERATIONS

> 103-2, 201-4, 203-1, 302-3, 302-4, 302-5, 306-2, 403-2, 403-3, 404-1, 412-1, 417-1, 419-1, EU6, EU7, EU10, EU11, EU12, EU22, EU23, EU25, EU30 >

## GLOBAL COMPACT



## SDG



## CASA NOVA II WIND FARM

## In 2017, Chesf made important achievements in its operations. The proposed goals were reached and the results contributed to further strengthening its assets

Chesf followed the guidelines proposed in the 2017-2021 Business Plan with investments in generation and in the Transmission Expansion Plan. This year, the Company invested in its hydroelectric plants to maintain levels of continuity and availability, and completed two large generation projects: the Casa Nova II and III power plants. The first is already generating revenue and the second will be in the implementation phase until the beginning of 2018. These projects marked the resumption of Chesf's investments in developments that had been interrupted.

The projects of the Wind Generation Collector Systems (ICGs) and of the wind farms have also been completed, and large projects for generating solar and wind energy are being planned by the Company. An area was created in the Engineering Department, especially to deal with investments in diversifying the energy matrix. There are three departments focused on wind, solar, and hydroelectric energy that advance beyond studies and begin prioritizing expansion projects for power generation using alternative sources.

Another achievement this year was beginning to receive revenue corresponding to the Basic Network of the Existing System (RBSE), assets that began operations before May 2000 and were still pending. This revenue has allowed investments in the Improvement Plan of the Existing System, which began in 2017 and will continue throughout 2018. One of the actions defined in the Plan is replacing equipment for greater reliability in the substation, transmission line, and telecommunications system.

In total, corporate investments to expand and modernize the Company's production capacity totaled BRL 898.3 million in 2017. The amount was distributed as follows:



GOIANINHA SUBSTATION

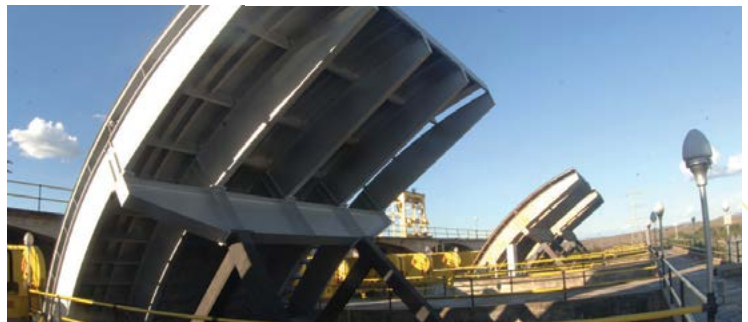
## GENERATION SYSTEM > EU11, EU30 >

- > Hydroelectric: BRL 19.5 million was invested in hydroelectric plants under concession and under a quota regime, in order to maintain operational levels of continuity and availability to satisfactorily meet demand.
- > Wind energy: BRL 236.8 million was invested to complete the implementation of company-owned wind farms Casa Nova II (32.9 MW) and Casa Nova III (28.2 MW), located in the municipality of Casa Nova, Bahia, with energy sold in ANEEL Auction No. 10/2013 (A-5), with delivery deadline May 2018.
- > Solar: In 2017, the Company continued developing the studies of two Solar Energy Projects, totaling 230 MWp, to compete in future energy sales auctions. In addition, Chesf has been carrying out measurements in 17 solar monitoring stations, installed in the northeastern semi-arid region, in order to develop its own solar generation projects with photovoltaic and solar thermal technologies.

PAULO AFONSO II HYDROELECTRIC POWER PLANT



PAULO AFONSO I HYDROELECTRIC POWER PLANT



PAULO AFONSO III HYDROELECTRIC POWER PLANT



PAULO AFONSO III HYDROELECTRIC POWER PLANT



## TRANSMISSION SYSTEM

Throughout 2017, a total of 25 projects were completed, expanding Chesf's Transmission System by energizing 275 km of lines, as well as six new Substations and reinforcements in facilities, which increased the transformation capacity by 3,135 MVA. Revenues from the transmission system reached BRL 1.18 billion. Accordingly, the Company plans to complete all transmission projects by 2019.

Some highlighted projects were:

- > Completion of all projects associated with the Wind Generation Collector Systems (ICGs), which highlights the completion of ICGs Touros, Igaporã II, Morro do Chapéu II, and Mossoró IV;
- > Implementation of SE Igaporã III 500/230 kV, whose connection to the Interconnected System (SIN) was carried out through 230 kV lines, energized in 2015, which were incorporated into Chesf's assets;
- > Completion of two sections of 500 kV lines with 70 km (designed and built by Chesf), which were



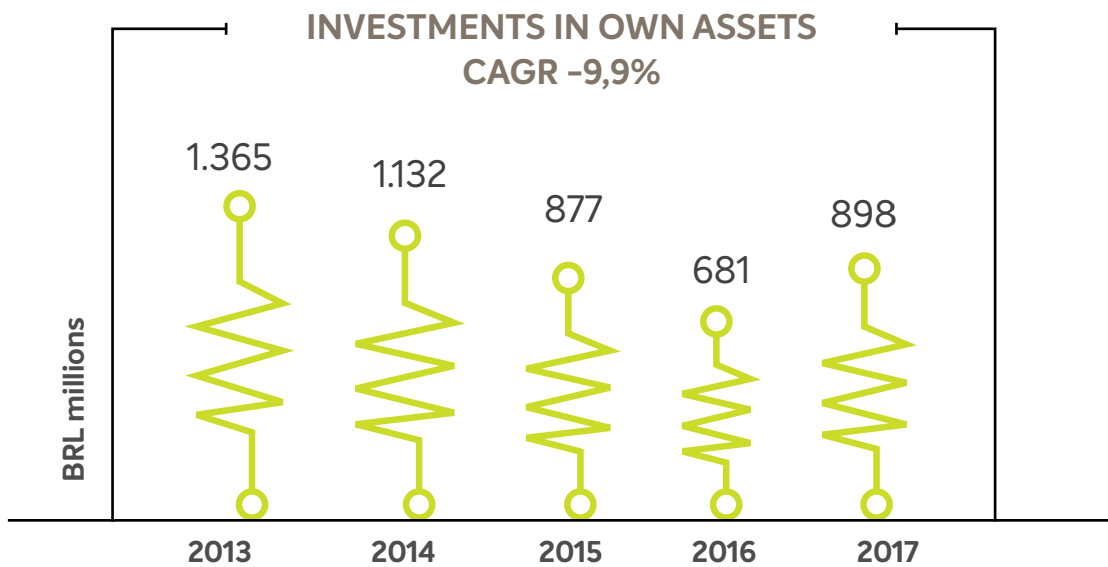
transferred to the TAESA Transmitter because they were a result of sectioning LT 500 kV Bom Jesus da Lapa II/Ibicoara;

- › Completion of reinforcements in service to the metropolitan areas of Fortaleza, Teresina, Aracaju, and Salvador, as well as improved reliability of the region's entire system;
- › The Zebu/Xingó transmission line 69 kV (56.5 km) and the Xingó 69 kV (12.5 MVA) substation were transferred to Energisa-SE;
- › The 230 kV Tabocas do Brejo Velho (BA) substation transferred from Enel Green Power to Chesf;

› Completion of three reinforcement projects before the deadline defined by the Regulatory Agency: SE Fortaleza II (installation of 4th auto-transformer bank 500/230 kV); SE Pici II (installation of transformer 230/69 kV - 100 MVA on a provisional basis); and SE Piripiri (replacement of TR 69/13.8 kV - 5 MVA with 10 MVA);

› Completion of transmission improvement events, corresponding to six projects to replace grounding transformers and four 69-kV line entrances for power utilities companies.

The following chart shows the annual amounts invested by Chesf in its own assets over the last five years.



### Growth projection for the sector

According to the ONS-EPE Technical Bulletin, the sector forecast for the years 2017 to 2021 is that consumption in the National Interconnected System (SIN) will increase at an average rate of 3.5% per year, beginning a turnaround in the crisis scenario in the electricity sector, even if the downward trend in prices is still unable to be reversed.

### INVESTMENTS IN SHARED GENERATION FACILITIES (ICGS)

With the *Programa de Obras* (Construction Program), launched in early 2017, Chesf completed all the electricity transmission projects necessary to distribute the production of wind farms operating in the Northeast. The investments amounted to BRL 636 million, adding to the National Interconnected System (SIN) a total of 2,895 MW, an approximate power to that of the Xingó Power Plant (SE/AL), the Company's largest.

Completion of the transmission projects of the Shared Generation System (ICGs) include transmission lines and substations, which distribute energy supplying the consumer units connected to the National Interconnected System. Among the most significant are the complex ICG Pindaí II/Igaporã (1,163 MW) in Bahia; ICGs Lagoa Nova (398 MW) and Touros (158 MW), in Rio Grande do Norte; in addition to Ibiapina (153 MW), in Ceará.

Currently, wind power already meets a daily average of 45% of Northeastern demand, which contributes significantly at this time when the conditions of the São Francisco Basin are unfavorable.

## OPERATING RESULTS

In recent years, results have been influenced by the adoption of new practices and management tools to monitor and control operations. Still, the expectation of the Operations Department is that, in 2018, the implementation of SAP interconnected to the Shared Service Center (SSC) will streamline the operation.

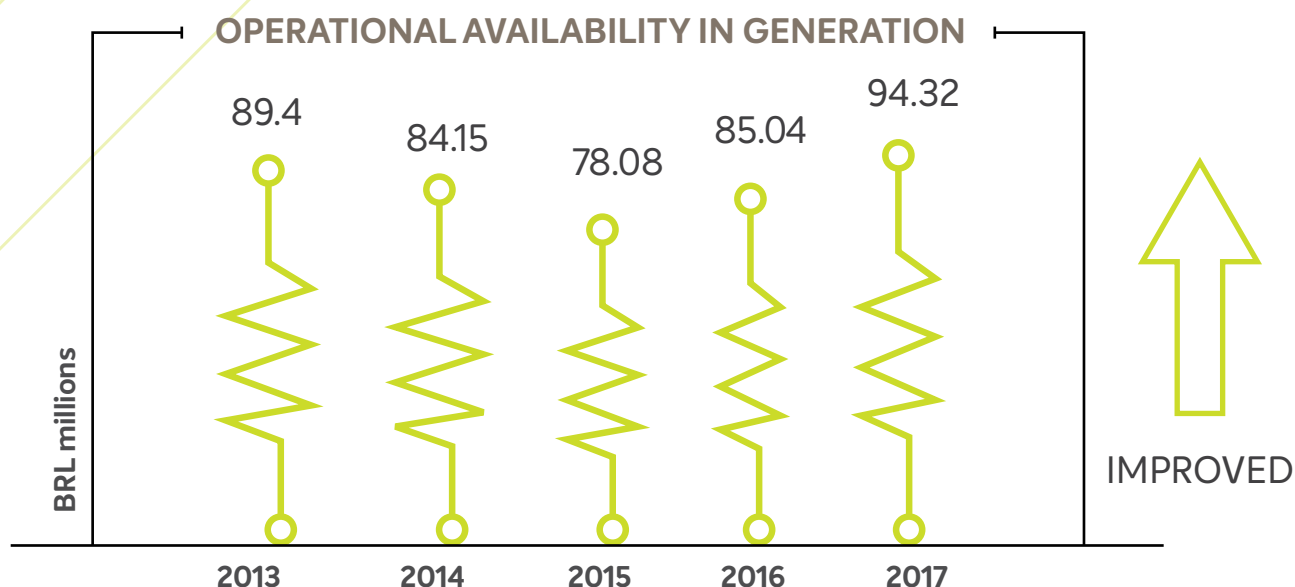
As a result of this efficiency work, in 2017, Chesf achieved its best result in operational indicators when compared to the last five years, and recorded the lowest number of system interruptions in the Company's history.

Specifically for thermoelectric generation at the Camaçari thermal power plant, Chesf adopted an average project efficiency of 30.50% for natural gas or oil operations.

### GENERATION SYSTEM

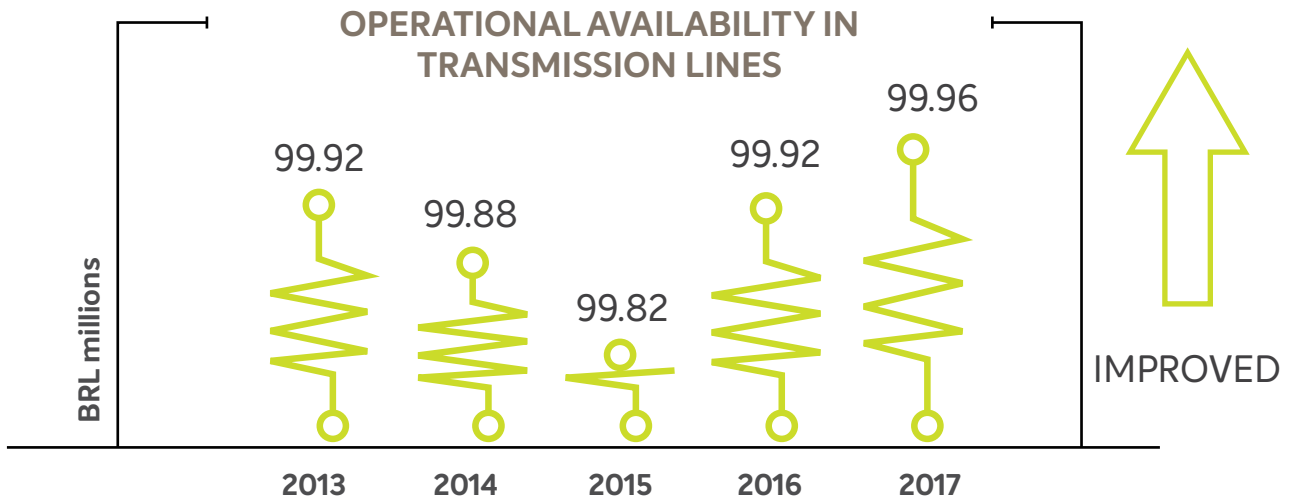
> EU11, EU30 >

Chesf's indicator of Operational Availability in Generation showed a significant improvement in the last five years, as a result of the maintenance actions adopted at the plants.



**TRANSMISSION SYSTEM**

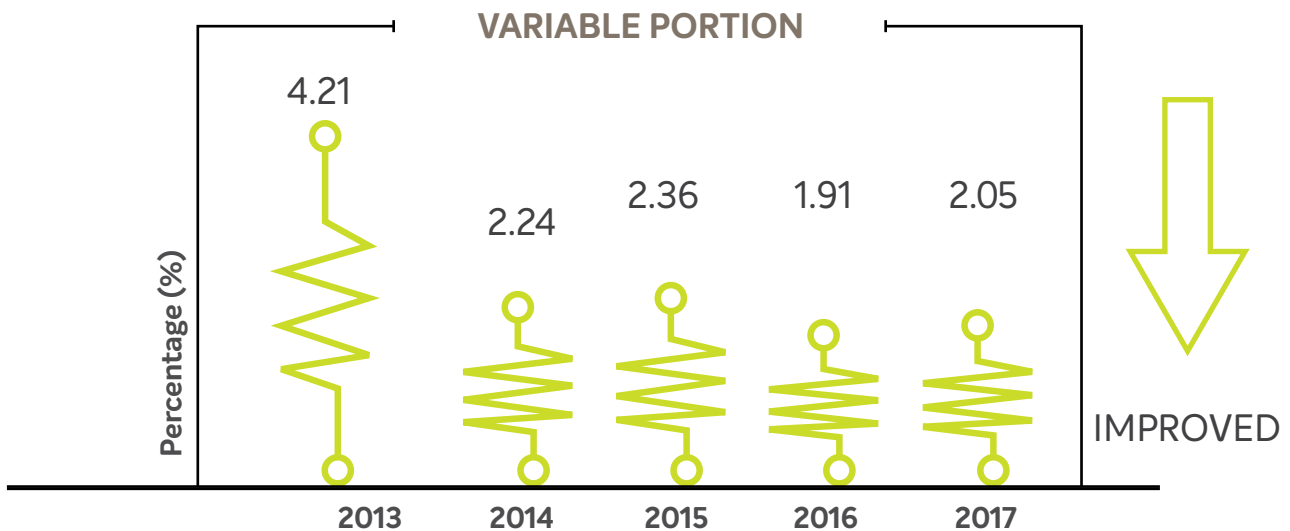
In the year 2017, Chesf obtained the best historical result of Operational Availability of Transmission Lines, reflecting the quality of services provided.



**VARIABLE PORTION (PV)**

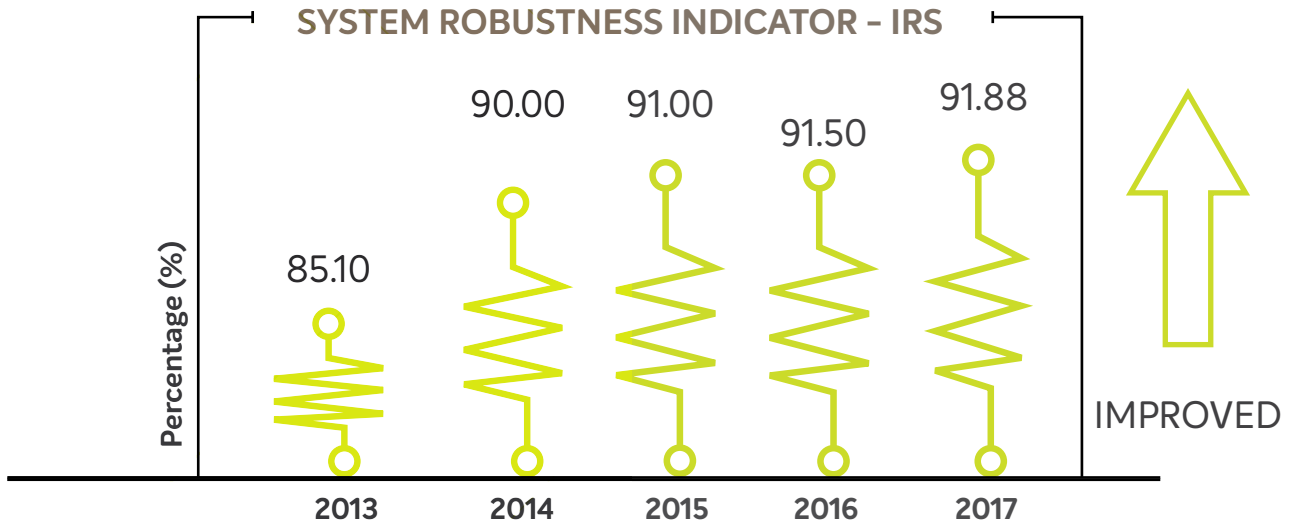
This indicator shows the discount percentage of the Allowed Annual Revenue (RAP *Receita Anual Permitida*) of Transmission Functions, due to unavailability of the Basic Network equipment of Chesf’s concessions, according to ANEEL legislation.

The result in 2017 was the second best in the last five years. As a relevant fact, there was a significant increase in the Allowed Annual Revenue (RAP) as of July, due to payment by ANEEL of the indemnification for unamortized cost of assets. In addition, there were discounts of the variable portion related to 2016, which had been suspended in July 2016 by the National Electric System Operator (ONS).



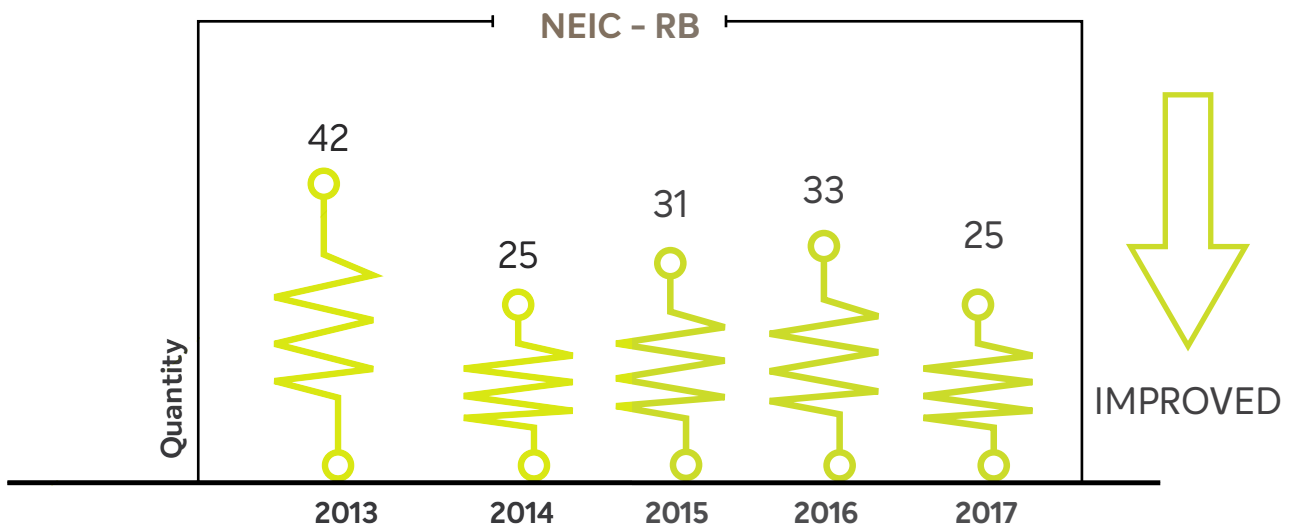
**SYSTEM ROBUSTNESS INDICATOR (IRS)**

This indicator assesses the capacity of Chesf’s Basic Network to support contingencies without disruption of electricity supply to consumers (loss of load). The chart below shows the continuous trend of improvement over the last five years, which indicates an evolution of the Chesf System (Basic Network), regarding occurrences involving interruption of the electricity supply.



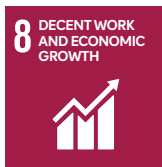
**NUMBER OF EVENTS WITH LOAD INTERRUPTION IN THE BASIC NETWORK (NEIC-RB)**

This indicator refers to the number of unplanned shutdowns originating from Chesf’s Basic Network that cause any load interruption in the Chesf System. In 2017, the NEIC-RB showed the best historical result, dropping 24.2% in disconnections compared with 2013.



IN **2017**,  
CHESF ACHIEVED  
THE BEST RESULTS  
OF OPERATIONAL  
INDICATORS IN THE  
LAST 5 YEARS.

**Chesf's results also stand out in the aspects involving strategy and management, safety, and relationship with the communities surrounding its projects. Next, see how the Company seeks to achieve excellence in everything it does**



## INTEGRATED VISION IN EXPANSION PROJECTS

This year, a methodology was established for analyzing and selecting expansion projects, involving the areas of Planning, Environment, and Geotechnology integrated into the Projects area. This new approach was used in wind and solar energy projects, allowing for a clearer view of the risks and costs of projects to mitigate their impacts. The basis of the processes is in line with Strategic Planning guidelines, which include the sustainability aspects of the business. Final approval of the projects is carried out by the Operations Department, which evaluates feasibility criteria from a risk and financial return standpoint.

### Restructuring the Engineering Department

The restructuring of the planning strategy, with the creation of a project office, was essential to reaching the goal of completing 23 projects in 2017. In the new structure, the Department of Project Implementation (SEE) was created, focused on managing corporate Transmission and Generation projects, as well as the Strategic Project Management Advisory (AEG), focused on the Governance of the Engineering and Construction Department.

All work integrated among the areas, developed since the beginning of the study phase, prioritizes asset management, focusing on regulatory vision in a way that maximizes revenue. This way, the main points addressed by management are: increasing the Company's competitiveness in the market; optimizing processes; agile decision making; integrating teams; process synergy; opportunity for learning and professional growth; and reducing direct and indirect costs.

It is important to note that, with the above changes, Chesf has sought to raise its efficiency standard in the completion of the projects. The expansion of the electro energy system is the responsibility of the Energy Research Company (EPE), linked to the Ministry of Mines and Energy (MME), in line with its Ten-Year Expansion Plan. Based on projections on energy demand, EPE plans the expansion of electricity supply, according to the availability of new power plant projects and the transmission network needed to distribute this energy, and guides the new auctions with the projects needed to supply the market. Chesf is required by the Ministry of Mines and Energy (MME), in some cases, to provide information that subsidizes the bidding processes for new projects. It is worth noting that the Company is not responsible for the decision-making processes related to energy planning and infrastructure development. > **EU19** >

## SAFETY IN THE OPERATION

Chesf is attentive to the safety of people in its operations and, in addition to all the work done on the occupational safety of its employees, the company seeks to guarantee the same standards for its supply chain. In 2017, a total of 155 Safety Plans were analyzed in contracts signed between Chesf and contractors. Also, 152 safety audits were carried out, which verified about 30 cases of non-compliance related to occupational health and safety training, culminating in corrective actions for all situations encountered. It is important to clarify that not all contracts analyzed are audited, so a Safety Plan may contain more than one audit.

### RELATIONSHIP WITH THE COMMUNITIES SURROUNDING THE PROJECTS

Chesf seeks a broad understanding of the impacts of its business in the regions where it operates. The Company follows the Social Responsibility Policy of the Eletrobras Companies and the Guidance Manual on Chesf's Social Projects to guide its operations, planning actions to reduce social inequalities, involve employees in volunteer work, promote recognition and loyalty in customers, and contribute to the residents' understanding of the importance of the business and its presence in these regions.

Social Responsibility projects are analyzed and selected according to their relevance to the community, to society, and according to the impact of the business on the communities surrounding its projects. Management continues to monitor and periodically audit all projects agreed upon through a terms of partnership and/or agreement.

In 2017, community relations programs and projects in the states of Bahia, Alagoas, Pernambuco, and Sergipe were affected by budget constraints foreseen in the Company's restructuring. Private social investment resources reached BRL 35.2 million, allocated to the areas of health, food safety, education, and creating jobs and income. Investments in cultural projects through incentive laws amounted to BRL 906,088.

### Agricultural development in the Casa Nova region

With the start-up of the Casa Nova wind farm, the social and environmental actions already in place during the construction process were extended to the surrounding area. In 2017, Chesf signed a Cooperation Agreement with the Brazilian agricultural research company, Empresa Brasileira de Pesquisa Agropecuária (EMBRAPA) to develop the project "Development actions for agricultural workers around the Casa Nova (BA) wind farm," initiated in January 2018.

The project will provide agricultural and livestock knowledge and techniques to producers around the Sobradinho reservoir, in terms of the use of the field, contributing to mitigating environmental impacts, and generating income. All equipment and support structure comes from another project and will be reused at Casa Nova, which demonstrates Chesf's commitment to optimizing resources.

The partnership foresees that EMBRAPA is responsible for training and implementing the project, while Chesf assumes the financing and monitoring. Through BNDES Social Sub-Credit, the Company will invest most of the financial resources – nearly BRL 1.1 million – over a period of three years, benefitting 82 producers directly and 1,850 producers indirectly. The project also has partnerships with other private and public institutions linked to the agricultural sector.

> 103-2, 103-3, 203-1 >

TAUÁ I - SUBSTATION



# INNOVATION

> 102-6, 103-2, 103-3, 203-1, 302-1, 302-2, 302-3, 302-4,  
302-5, 303-3, 305-5, EU6, EU8, EU19 >

## GLOBAL COMPACT



## SDG





## Investments in projects toward generating renewable, alternative energy bring Chesf recognition in R&D+I

Chesf defined, as one of the guidelines of the Strategic Map for Corporate Planning 2017-2021, investment in innovation projects with Research and Development institutions. To this end, the company defined a structured flow for Research, Development, and Innovation (R&D+I) Programs, which includes Internal Regulation (IN-AS 03.001), Research, Development, and Innovation Management, and a Research Management and Development System (SGPPED).

With this guidance, the Company has been developing projects in solar energy focused on Photovoltaic and Solar Thermal technology, in order to compete in ANEEL auctions. Three important projects are in progress: Petrolina Solar Platform (3 MW), Floating Solar Platform on the Sobradinho reservoir (5 MW) and, in its contracting phase, the Solar Thermal R&D Project via a Central Tower. Also this year, Chesf launched R&D+I Public Call

No. 02/2017, focused on developing Wind Technology Innovation, along with the Distributed Solar Energy Generation, which integrates the two energy sources envisioning joint efficiency of the systems and their respective technologies.

In 2017, the total invested in R&D+I programs reached BRL 74.4 million, including the regulatory payment to the National Fund for Scientific and Technological Development (FNDCT) and to the Ministry of Mines and Energy (MME), and the projects executed by CEPEL. In order to invest in R&D projects under ANEEL regulations, BRL 44.4 million was allocated to 23 initiatives, focusing on renewable or alternative sources, environment, planning and operation, supervision, control and protection, new materials, and components, among others.

> 302-5, EU8 >



### Generating solar energy in reservoirs

The R&D and Environment areas have been carrying out the environmental impact study toward installing floating solar panels in the reservoirs. The Brazilian Institute of Environment and Renewable Natural Resources (IBAMA) has already indicated possible impacts that are being monitored by the Environment area still in the study phase of the project. The project consists of installing and evaluating the performance of the Floating Photovoltaic Plant, which will be installed at the Reservoir of the Sobradinho Hydroelectric Plant (BA) and will have an initial capacity of 1 MW of power in an area of approximately 1 ha, which may be expanded up to 5 MW. The project is a partnership with Eletronorte.



### International patent recognition for Chesf project

The Engineering Department has developed the project “Application for Regulation and Parallel Operation of Transformers,” which performs an important function for the electrical system, as it regulates the voltage level delivered by Chesf to power utilities.

Aware of the importance of this application for the sector, the process to apply for protection was initiated with the National Institute of Industrial Property (INPI) in 2011. After obtaining the nationwide patent in 2017, Chesf obtained international recognition. The United States and, subsequently, China issued the patent grant for this technological innovation being used in substations.

## ENERGY EFFICIENCY

> 103-1, 103-2, 103-3 >

Since 2013, Chesf has been setting goals to reduce consumption of natural resources, among which we highlight increased efficiency and improved environmental management with the reduction of its GHG emissions.

Based on consumption in 2012, the company established its own goal for reducing consumption of fossil fuels in the land vehicle fleet (scope 1) and for consumption of electricity from the public distribution network (scope 2), with a consequent impact on the volume of GHG emissions. The equipment complex also undergoes constant improvements, either by preventive maintenance actions, technological upgrading of existing equipment, or replacement of equipment with more efficient models that have lower levels of GHG emissions.

After evaluating the first period of goals (pe-

riod 2013-2015) and considering the great effort already put forth by the company, new goals were established in the Business and Management Master Plan of Eletrobras (PDNG) for the period 2017-2021: 0.2% per annum to reduce GHG emissions, totaling 1% by 2021.

However, this year, in its GHG Inventory, the Company calculated the emission of 243,709.8 tons of CO<sub>2</sub>eq in scopes 1, 2, and 3. An increase of 2.4% compared with the previous year, significantly associated with increased losses which may be justified by the expansion of Chesf’s transmission network.

The Company’s energy consumption reached 105,585.43 MWh and, although it does not manage energy consumption information outside the Company, the consumption of third party fuel was recorded at 61,150 GJ. > 302-1, 302-2, 302-4, 305-5 >



CHAPADA WIND FARM


 > EMISSIONS (tCO<sub>2</sub>eq) >

	> 2015 >	> 2016 >	> 2017 >
Scope 1 (Direct GHG emissions)	191,084.55	16,170.69	10,796.80
Scope 2 (Indirect GHG and Energy Emissions)	277,861.85	220,693.80	231,712.50
Scope 3 (Other indirect GHG emissions)	2,815.12	1,060.35	1,200.50
Total Emissions	471,761.52	237,924.84	243,709.80

&gt; 103-3 &gt;



## Efficiency Projects

In 2017, Chesf launched the *Conta Zero* program, which aims to generate sufficient energy, with photovoltaic technology, to supply demand of all substations and associated facilities. In all, seven photovoltaic minigeration projects will be implemented in the distributors Coelba, Anel, Celpe, Eletrobras Alagoas, Cosern, Energisa, and Cepisa.

Two pilot projects have already yielded important results for the Company in 2017: one of them involves the 32 kW Solar Microgeneration system connected to the electric power grid in the warehouse of the Abreu e Lima unit. Composed of 252 photovoltaic modules, it occupies an area of approximately 700 sqm and is connected to the 13.8 kV internal distribution system of the warehouse and, consequently, to the concessionaire's distribution system. The system added 24,092 MWh of electricity, saving 5.71% of electricity supplied by the concessionaire.

The second was implemented at the Messias Substation (AL). The photovoltaic minigeration system connected to the 115.2 kW grid will promote a savings in the electricity consumption of the substation to the order of 222 MWh per year, which should correspond to a 25% reduction in the consumption of the auxiliary services systems of that substation. The project has operations scheduled for March 2018. > 103-2, 103-3 >

## CONTA ZERO PROGRAM

### PHASE 1 (PLANNED FOR 2018):

- > **Activate 17,000 photovoltaic modules** that total an installed power of 5.1 MW;
- > Avoid an annual energy consumption of 8,080 MWh, **a savings of BRL 5.1 million**, which accounts for 1.6% of Chesf Costing (without Remuneration and Benefits);
- > **Investment of BRL 20.5 million** in this phase.

### PHASE 2 (PLANNED 2019):

- > Complement phase 1 aiming at **self-sufficiency of the Company's total energy consumption.**

## ACTIONS TAKEN

ABREU E LIMA SOLAR CENTRAL



> **Piloto Project-  
Abreu e Lima Warehouse**

- > 32 kW in operation
- > 12% annual savings in local consumption
- > Remote monitoring by cell phone



MESSIAS SOLAR CENTRAL

> **Alagoas Condominium  
Messias Substation**

- > 115.2 kW conc.
- > 14.3% of the goal for the condominium
- > BRL 57,000 annual savings after payback
- > Accounts for 25% of the consumption of SE Messias



# ENVIRONMENTAL

> 103-2, 201-4, 203-1, 302-3, 302-4, 302-5, 306-2, 403-2, 403-3, 404-1, 412-1, 417-1, 419-1, EU6, EU7, EU10, EU11, EU12, EU22, EU23, EU25, EU30 >

## GLOBAL COMPACT



## SDG



## SOBRADINHO HYDROELECTRIC POWER PLANT

## Environmental risk management is on the radar of the Company, which has invested in initiatives to protect and recover the environment, mainly of the São Francisco River

### WATER

› 103-2, 103-3, 303-1, 303-2, 303-3, 306-1, 306-5 ›

Almost all energy generated by Chesf comes from hydroelectric plants, and management of water resources follows the Eletrobras Policy, supported by Law 9,433/97. In the hydroelectric generation process, there is no degradation of this resource, since turbine water returns to the body of water without changing its characteristics. However, the Company evaluates and monitors the water quality of the reservoirs under its responsibility, in accordance with legal parameters.

An important action is related to protecting aquatic biodiversity, where Chesf develops the Aquatic Ecosystems Monitoring Program, in the municipalities of Sobradinho (BA), Itaparica (PE/BA), Paulo Afonso Complex (BA), and Xingó (AL/SE). Additionally, in compliance with the environmental conditions established by IBAMA, Chesf carries out programs during the reduced river flow, such as: Water Quality Monitoring, Monitoring of Saltwater Intrusion (mass of salt water that forms at the mouth of the river), and Rescue of Ictiofauna. Stocking with fish of native

species in the São Francisco reservoirs, as well as in the Lower São Francisco region, carried out by the Paulo Afonso fishery.

The Company also monitors the rational use of this resource in its facilities and operations, generating monthly information by regional management, which considers local particularities and establishes preliminary goals in areas where meters already exist. A project is still under analysis to gradually increase the number of own meters in the facilities, especially to combat waste and, with this, to promote the reduction of consumption, effluent generation, and business costs. During the year, 112,920 m<sup>3</sup> from the public supply network were used and another 82,427 m<sup>3</sup> from underground collection.

Regarding disposal of effluents from operational and administrative areas, the Company has its own treatment plants in the projects, or, for units that do not have a treatment plant, domestic effluent is disposed of in the public sewage network.

› 103-2, 103-3, 303-1, 303-2, 303-3, 306-1, 306-5 ›

### TOTAL WATER WITHDRAWAL BY SOURCE (M<sup>3</sup>) >>>

	> MUNICIPAL WATER SUPPLY >	> UNDERGROUND SOURCE >	> TOTAL WATER CONSUMPTION >	> WATER CONSUMPTION PER EMPLOYEE >
2015	94,136	35,694	126,036	27.9
2016	209,963 *	19,221 **	229,184	50.1
2017	173,456	21,891	195,347 ***	47.4

\* In 2016, new measurements were included, which increased consumption compared with the previous year.

\*\* Actually, the information in 2016 was not available and was verified and corrected in the 2017 report.

\*\*\* The reduction of total consumption in 2017 occurred due to improvements in the process.



**XINGÓ HYDROELECTRIC POWER PLANT**



## Main water resources management initiatives

Chesf actively participates in discussion forums on the subject of water resources. Some of the main groups are: the National Council of Water Resources (CNRH), the São Francisco River Basin Committee, the Contas River Basin Committee, the Water Resources Council of the State of Alagoas (CERH-AL), the Water Resources Group of ABRAGE (Brazilian Association of Energy Generating Companies), and GTRH of the Eletrobras Companies. Many of the topics discussed in these forums subsidize the definition of actions and procedures for managing water resources, such as:

- > Specific procedures to control flooding through the issue of inflow volume forecasts to reservoirs and allocation of holding volume in the reservoirs during the wet season.
- > Communication procedures for local communities on river and reservoir conditions during critical events.
- > Monitoring, in real time, the information on levels upstream (reservoirs) and downstream of the projects operated by Chesf.
- > Georeferenced survey of areas subject to flooding for various levels and flows.
- > Compliance with the operating guidelines for the reservoirs that form the National Interconnected System (SIN).
- > Survey and monitoring of flow restrictions and levels in the river basins where there are projects in operation by the Company.

> 103-2, 103-3 >

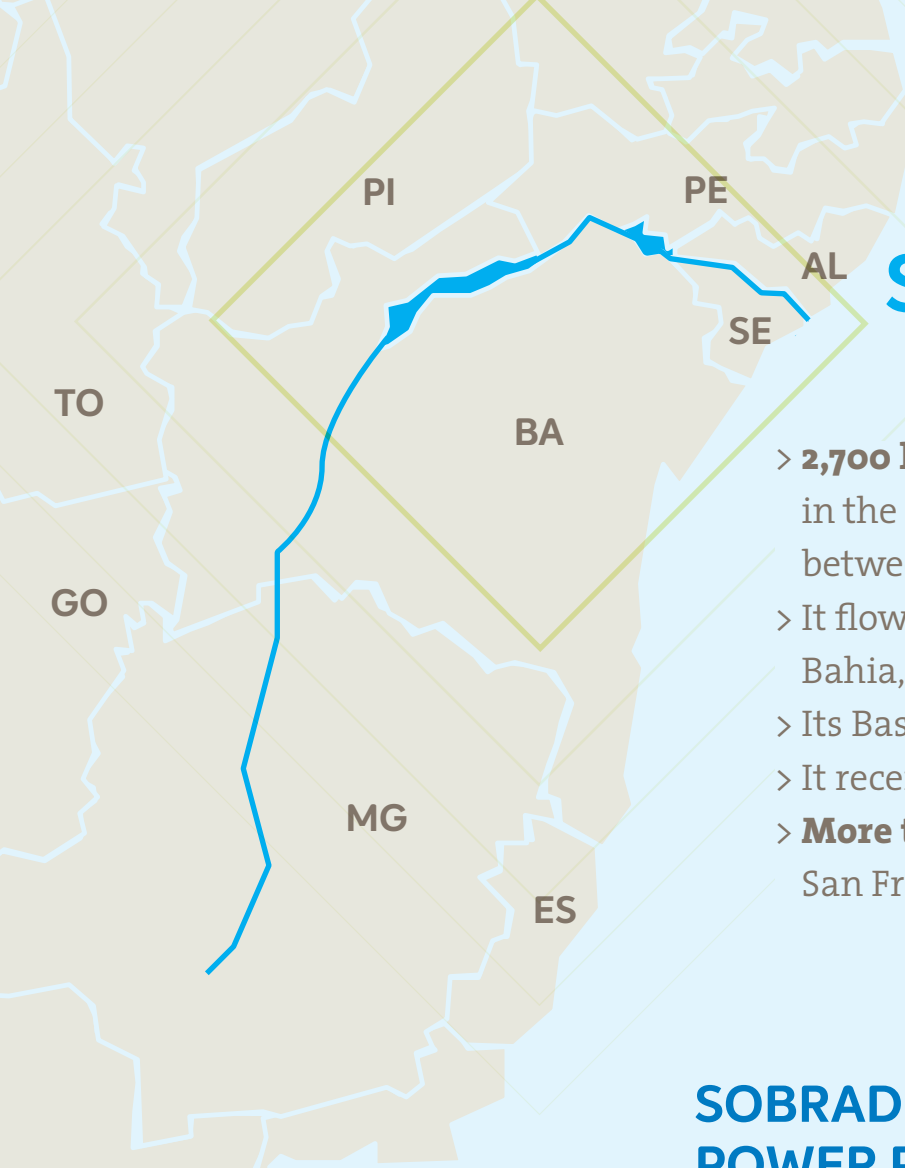
## CHESF AND THE SÃO FRANCISCO RIVER BASIN

> 103-2, 103-3 >

The year of 2017 was another period in which Chesf's power generation was influenced by the low rainfall volume in the São Francisco river basin. The crisis, which had already been occurring since 2013, reached its worst point this year, when the main reservoir in the Northeast region, Sobradinho, reached the lowest flow volume at 550 m<sup>3</sup> per second (normal volume 1,300 m<sup>3</sup>). This stimulated the search to diversify the energy matrix by increasing thermal and wind generation, and receiving exchange from other regions of the SIN, which, consequently, reduced dependence on the São Francisco River.

Today, the volume of the Sobradinho reservoir is in the recovery phase. The Company intensified its relationship with nongovernmental entities, communities, water supply companies, and the Government of the four states involved (Pernambuco, Sergipe, Bahia, and Alagoas) to monitor and reduce water withdrawal from the São Francisco River. The partnership evaluated the possibilities of each party involved in re-adjusting its activities and impacts in order to gradually contribute to the recovery of the volume of the river.

Understand how Chesf operates in the São Francisco River basin:

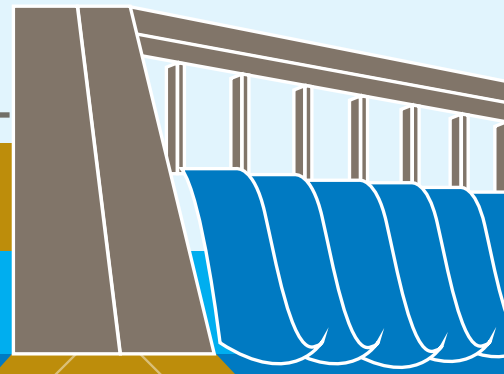


# SAN FRANCISCO BASIN

- > **2,700 km**, from its source in Serra da Canastra, in the state of Minas Gerais, to its mouth, between the States of Sergipe and Alagoas
- > It flows through **5 states** (Minas Gerais, Bahia, Pernambuco, Alagoas and Sergipe)
- > Its Basin covers 504 municipalities
- > It receives water from **168 tributaries**
- > **More than 18 million people** live in the San Francisco Basin area.

## SOBRADINHO HYDROELECTRIC POWER PLANT

INSTALLED POWER: 1,050 MW ←



## SOBRADINHO RESERVOIR

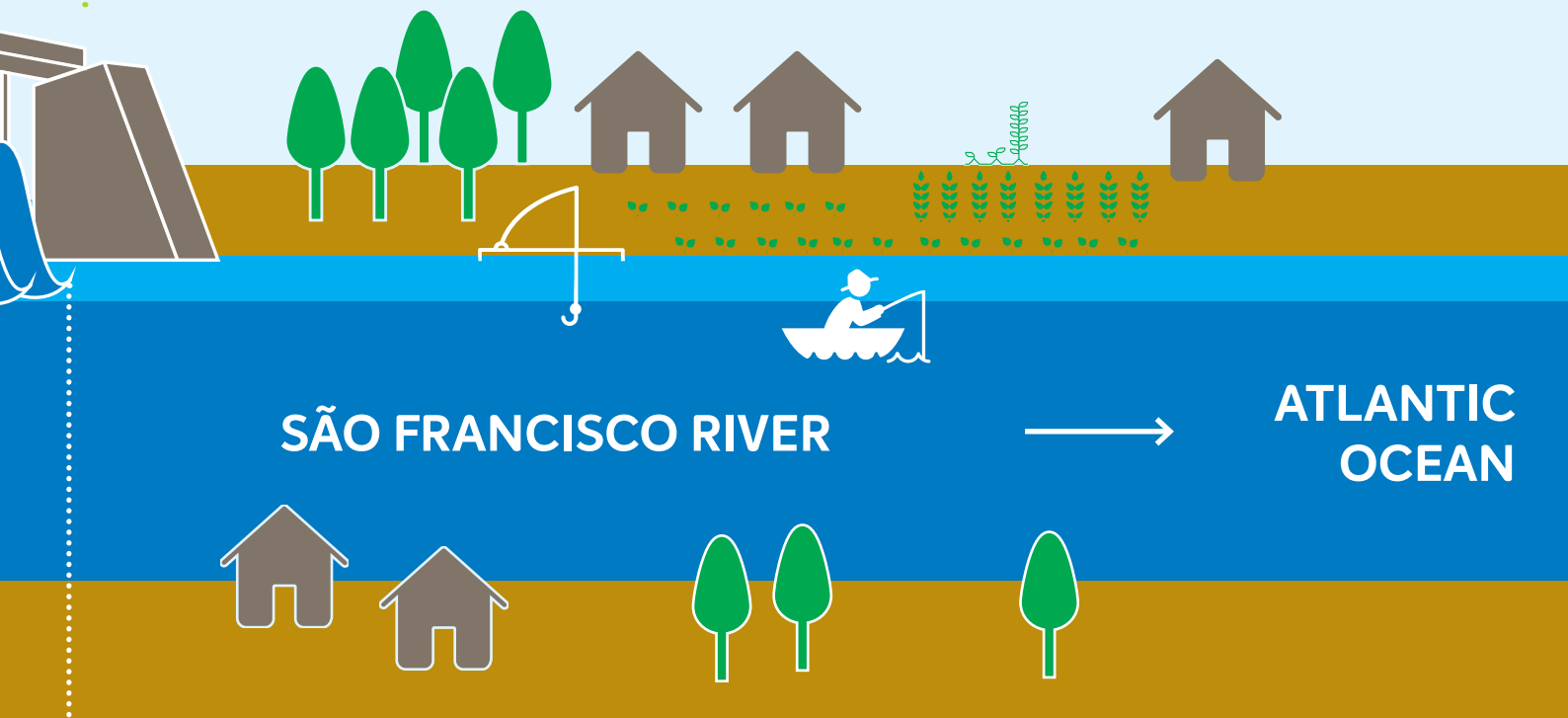
- > Located in the State of Bahia
- > Reservoir nearly **320 km long** at the normal maximum level
- > Storage capacity of **34.1 billion cubic meters**

**Solar energy exploitation project in the Sobradinho reservoir under implementation**

Chesf has 7 additional plants along the São Francisco River: Luiz Gonzaga, Paulo Afonso I, II, III and IV, Apolônio Sales, and Xingó

Flows exceeding 3,000 m<sup>3</sup>/s are informed to the entities and users of the river

- > Flood control
- > Regularization of downstream flows
- > Riverside population occupying the river bed need to adopt preventive measure



Due to rainfall adversities, flows below 1,300 m<sup>3</sup>/s have been adopted since 2013

Multiple uses need to adapt to low flow conditions

## RESULTS OF THE SOCIAL ACTION PLAN (PAS)

Among the initiatives that aim to mitigate the environmental impacts of Chesf's projects, we highlight the Social Environmental Action Plan (PAS). The Plan has been developed since 2008, in compliance with the environmental requirements of the Brazilian Institute for the Environment and Renewable Natural Resources (IBAMA), for the renewal of the License to Operate (LO n° 509/2006) of the Paulo Afonso Hydroelectric Complex and renewal of the License to Operate (LO n° 147/2001) of the Hydroelectric Plant - HPP Xingó.

The PAS is a shared environmental management process, with pillars in communication, education and environmental health, in permanent

and continuous action idealized by Chesf and constructed in a participatory manner, from the experience with the communities of seven municipalities of the area of influence of the Hydroelectric Complex of Paulo Afonso and Xingó.

In 2017, actions were carried out in four categories, involving over 3,700 people, adults and children, in educational activities in the areas of solid waste, preservation of natural resources, afforestation, and others. The participative social and environmental diagnosis, which also marks the beginning of the construction process of the Xingó PAS this year, involved social players from riverside communities identified within the range of four to six kilometers.

> ACTIONS >	> EDUCATIONAL CAMPAIGNS >	> TALKS >	> MOBILIZATION >	> COURSES/ WORKSHOPS >
Number of participants - Paulo Afonso Hydroelectric Complex	3,150	67	16	18
Number of participants - HPP Xingó	-	120	134	253
<b>TOTAL</b>	<b>3,150</b>	<b>187</b>	<b>150</b>	<b>271</b>

**In 2017, more than 3,700 people participated in educational activities at Paulo Afonso and Xingó Complex**



## CLIMATE CHANGE

Global climate change and possible changes in environmental legislation are seen as threats to Chesf's activities, while at the same time an opportunity to expand its generation from renewable sources. Thus, the Company specifies its strategies regarding climate change in its Declaration of Commitment, which guides practices and planning for the future.

All work is motivated by the Eletrobras Holding, which has developed studies since 2015 on risks and opportunities on this topic in order to assess the impact on the business. The Climate Strategy Working Group (WG3) was created in the Environment Committee, with representatives from all Eletrobras companies, in order to discuss adapting to climate change as a result of the decrease in water availability for generation of electricity and the greater number of more severe weather events that have been affecting the country's energy sector.

In this sense, Chesf has been investing in di-

versifying the energy matrix, with generation by wind source, and developing projects for solar photovoltaic generation, guaranteeing energy security when there is a low water level in reservoirs at hydroelectric plants that are part of the National Interconnected System. In addition, regarding risks, Chesf seeks to anticipate potential risks by applying preventive measures, such as recording its Greenhouse Gas (GHG) emissions since 2003, through energy efficiency programs and reduced consumption of fossil fuels by the land fleet.

The Company also develops Clean Development Mechanism (CDM) projects to generate carbon credits, in accordance with the Kyoto Protocol, and recognizes the opportunities arising from voluntary agreements with the emergence of alternative markets for developing projects and marketing carbon credits, when not eligible under the United Nations Framework Convention on Climate Change (UNFCCC) standards. > 103-2, 201-2 >



## RISK AND CRISIS

> 103-2, 201-2, 201-4, 206-1, 419-1, EU21 >

In its organizational structure, Chesf has the Compliance and Risk Management Advisory (APC), which is responsible, among others, for planning and coordinating initiatives for internal controls and integrated risk management, in line with the Risk Management Policy of the Eletrobras Companies.

As a result, the Company seeks to act preventatively regarding the various impacts on its business, including the environmental impacts on its projects. With respect to the management of environmental risks that may affect organizational goals, the intention is to reinforce the responsibility of the business areas to define and implement treatment actions in order to mitigate these risks.

For example, Chesf's power generation capacity is still concentrated in the use of hydroelectric plants, directly affected by the increase in global temperature. The context of uncertainty regarding the availability of water resources exposes the Company to physical risks, so the topic of climate change has been worked on internally. The impact of climate change on the energy sector as well as possible changes in environmental legislation are among the main threats to the Company's activities, while at the same time, it has been an opportunity to expand generation from renewable sources.

The Company also invests in technologies to improve environmental management processes in all operations, such as the Reservoir Edge System (SISBORDAS), the Documentation System (SISDOC) and the System to Monitor the Right of Way of Transmission Lines. > 102-11, 201-2 >

## COMPLIANCE

Chesf operates in the market under the model of public concessions or authorizations. Thus, there are no ongoing or concluded lawsuits regarding anti-competitive practices, antitrust violations, or monopoly regulation.

However, the fines generated were due to non-compliance identified by the National Electricity Agency (ANEEL), evidenced in the issuance of Notices of Infraction (AI). Regulatory management includes monitoring of changes to legislation by the legislative branch and by ANEEL, Chesf's participation in the Hearings and Public Consultations of its interest, coordinating the revision and tariff readjustment processes of Transmission and Generation, proposing and monitoring the implementation of measures to promote improved processes in order to



APOLONIO SALES HYDROELECTRIC POWER PLANT

comply with regulatory rules and the Company's defense with ANEEL, especially regarding the issuance of Terms of Notification (TN) and Notices of Infraction (AI) from this regulatory agency.

Fines recorded in fiscal year 2017, resulting from non-compliance with laws and regulations in the social and economic areas, were not significant, based on the criteria established by Chesf (1% of NOR<sup>9</sup>). > 103-2, 103-3, 206-1, 419-1 >

## PLANNING OF CONTINGENCY MEASURES

Contingency measures are planned and revised annually. Chesf constantly monitors its operations so that, in any occurrence, Contingency Plans are immediately implemented, which include Fire Safety Plans (PSCI) and an Emergency Assistance Plan (PAE) to assist victims at substations. At the plants, the contingency guide specifies the procedures to be followed in case of flooding, fire, and invasion of facilities, as well as the Area Evacuation Plan (PAA).

Every year, simulations are carried out with the participation of the local Fire Department.

Chesf also has in place an Annual Flood Prevention Plan, approved by the National Water Agency (ANA) and the National Electricity Agency (ANEEL). In addition, the Company has manuals for Basin Flood Control at the locations where the main reservoirs operate. When there are significant changes in the flows practiced from the plant reservoirs, Chesf informs the community in the area of influence of the river basins. This information is defined by a System of Information Disclosure of Levels and Defluences, which establishes the contents and recipients of the information so that the appropriate measures may be taken.

Substations and power plants in the National Interconnected System (SIN), under the responsibility of Chesf, also establish actions to preserve the safety and integrity of people. Natural Disaster, Operational Safety, Digital Security, Environmental Disaster, Health and Safety, and Physical Safety plans were prepared. With these procedures, the Company prepares to face serious contingency, through planned actions known to the employees directly affected and throughout the management hierarchy of the facilities. > EU21 >

<sup>9</sup> Net operating revenue

# SOCIAL

## GLOBAL COMPACT



## SDG





## Engaging those who are part of the Company's history is essential to Chesf's restructuring and strengthening process

### EMPLOYEES AND EMPLOYMENT

› 102-8, 102-41, 103-2, 103-3, 401-1, 401-2, 401-3, 402-1, 404-1, 404-2, 404-3, 405-1, 405-2, EU14, EU15, EU16, EU17, EU18 ›

Chesf has always sought for an ethical and transparent relationship with its employees and, from the beginning of its process of management restructuring, the theme was intensified in its daily agenda. In the Business and Management Plan (PNG), senior management established actions and goals aiming to balance the Company's results, and shared them with the leaders responsible for dialoguing and instructing their teams.

One of the actions defined in the PNG was the creation of an Extraordinary Retirement Plan (PAE) to adjust the positions to their responsibilities, which resulted in a reduction of workforce and costs on personnel. For the process to adhere to the PAE, actions were established for the conscious decision of the employee, as well as retirement preparation programs, training

and qualification for transferring knowledge. The latter is an ongoing concern to maintain intellectual capital developed over the years as a Company asset.

Another action, which added to the results in 2017, was the joint initiative between the Human Resources and Legal areas to analyze labor lawsuits and identify their main causes, establishing action plans to reduce the number of lawsuits. The results of actions implemented in the Human Resources area impacted by 4% the expenses budget of the Management Department.

For 2018, Chesf plans to implement a new voluntary termination plan, which is already in the approval phase. So far, over 3,000 employees have been mapped as eligible for the plan and the expectation of adherence is about 30%.

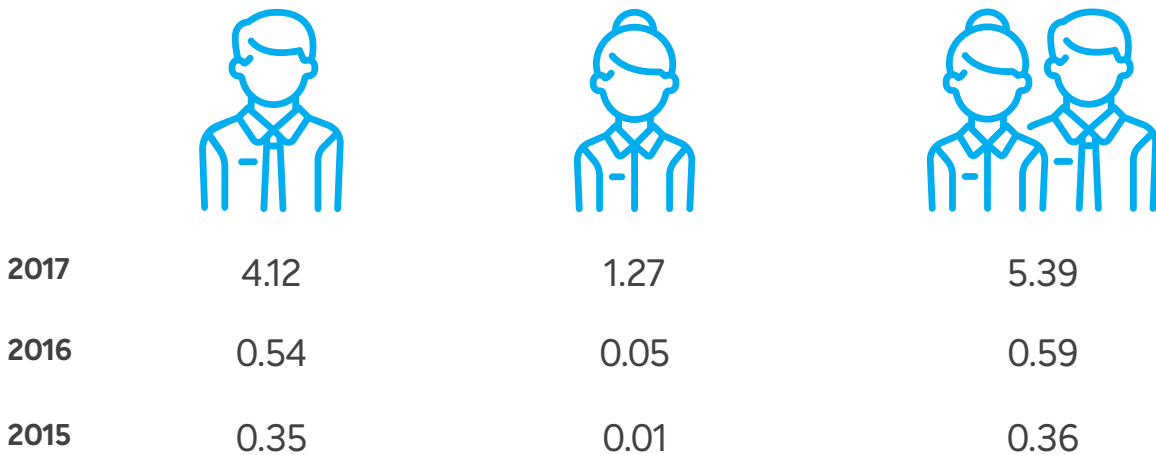
## EMPLOYEE PROFILE

Chesf ended the year with 4,122 employees (staff), composed of 812 women and 3,310 men<sup>10</sup>. The turnover rate reached 5.39% at the end of the period, the increase driven by the Extraordinary Retirement Plan (PAE), which reduced the number of staff by 10% compared with the previous year. A total of 480 professionals were terminated and 7 were hired pursuant to court order.

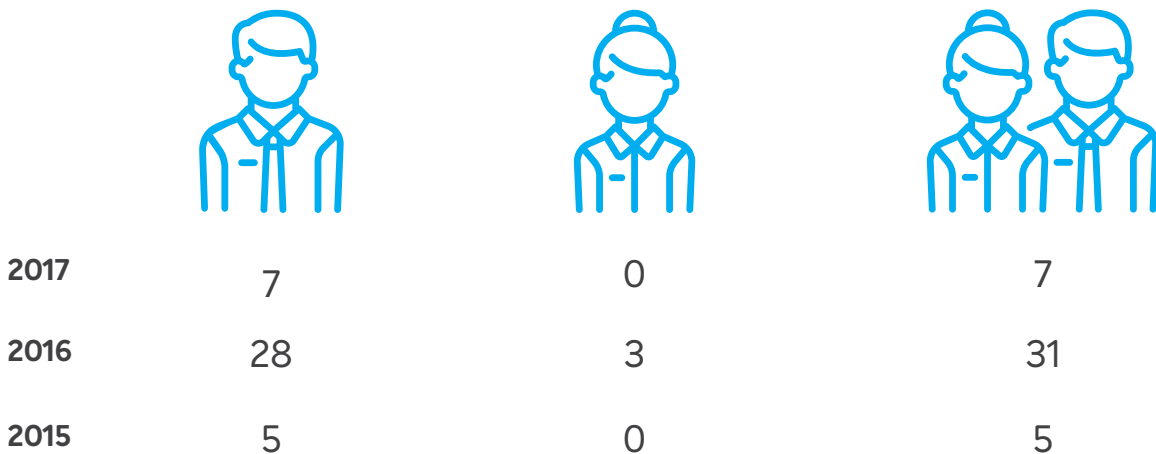
Regarding third parties, the Company does not hire employees for services. Therefore, for the activities allowed in the legislation, con-

tractors are hired for services, through bidding for activities of a continuous nature, provided for by law, such as: maids, cleaning, surveillance, maintenance of assets and real estate, maintenance of facilities, and others. For these contracts, it is required to comply with the Occupational Health and Safety Plan, training personnel based on Ordinance No. 3,214/78 by the MTE. In 2017, Chesf had 2,358 employees from outsourced companies on its premises. > 102-8, 103-2, 401-1, EU17, EU18 >

### > TURNOVER RATE (%)



### > NEW HIRES



<sup>10</sup> The maximum limit for Chesf's staff is set by the Ministry of Planning, Development, and Management, through the Secretary of Coordination and Governance of State-owned Companies. Joining the Company's staff occurs through civil servant exam, as established in the Federal Constitution of 1988.

The average number of training hours per employee reached **45.04** exceeding the 40-hour goal stipulated by the Company

DARDANELOS SUBSTATION CONSTRUCTION

## TRAINING AND DEVELOPMENT

› 103-2, 103-3 ›

Continued investment in employee training is a premise for Chesf. When developing actions, Strategic Planning is considered as the main guideline in order to develop the technical and managerial skills necessary to handle organizational challenges.

- › The total value applied to Corporate Education was BRL **1.156** million, and the average investment per employee was BRL **280.48**.
- › **458** actions were registered during the year, which totaled **185,648** hours and represented **106.07%**<sup>11</sup> of the workforce.

These results were possible due to the increase in the use of creative solutions, such as the incentives for the educator employee, the use of

videoconferences, the increase in the number of spots per educational action, partnerships with other institutions for free in-person actions, and the dissemination of free online actions. › **404-1, EU14** ›

Among the partnerships, we highlight the Getúlio Vargas Foundation (FGV) and the People Management Committee of the American Chamber of Commerce (AMCHAM), at in-person events. As for online actions, we highlight the free course offered by the Unified Health System (SUS): “*Pai Presente: Cuidado e Compromisso*” (“Present Father: Care and Commitment”), in order to fulfill the requirements for obtaining extended paternity leave or increase employee knowledge about Responsible Paternity. › **404-2, EU14**›

<sup>11</sup> The rate of employees trained at the end of the year was over 100%, due to the reduction in the permanent staff in 2017.



GREEN APRIL

## REMUNERATION

> 103-2, 103-3 >

Hiring at Chesf is carried out by civil servant exam and strictly follows the order of classification obtained by candidates, according to legal requirements, without gender distinction. However, the Company follows the remuneration policy established by the Holding, along with the 15 companies in the Eletrobras System. This policy considers market values and values of the national electricity sector, negotiated with the unions during the Collective Labor Agreement, in addition to considering the cost of living in different regions in the country.

Entry remuneration is determined at the time of hiring, that is, when employees start at the Company, they already have their base salary defined, which varies according to the Multifunctional Position, according to the Career and Remuneration Plan. An exception occurs regarding the employees allocated to a Higher Level Professional Position, whose profession is regulated by the Council of Engineering and Agronomy (CREA). Evolution of position and salary takes place through administrative policies in the Career and Compensation Plan (PCR) and the Performance Management System (SGD), which considers assessment of skills and results (goals), regardless of gender, race, color, religion, disability, marital status, sexual orientation, family status, age, or any other condition. > 405-2 >

### Living and Learning Program

Developed in partnership with SESI, the program offers elementary and high school courses taught on the Company's premises, during working hours. In 2017, Chesf was awarded in the 15th Benchmarking Brasil, and was among the Top Ten, and seen as a Citizen Company, by protecting the dignity of men and women through literacy.

> 103-2, 103-3 >

## The set of benefits offered by Chesf aims to ensure the quality of life and well-being of its employees

### BENEFITS

> 103-2, 103-3 >

Chesf offers a set of benefits aiming toward the quality of life and well-being of its employees. The conditions of these benefits are established in regulations and in collective bargaining agreements, and are guaranteed to full-time and part-time workers, with the exception of apprentices, who are hired under a legal obligation. At Chesf there are no temporary workers, all employees have an open-ended employment agreement.

The benefits offered by the Company are:

- > Maternal and child care.
- > Educational assistance.
- > Reimbursement of expenses for uniform and school supplies.
- > Educational aid, higher education for employees.
- > Medical and nursing care at the Company's outpatient clinics.
- > Employer assistance plan, covering medical, hospital, dental, and other health care services.
- > Reimbursement for medicines.
- > Assistance for glasses and lenses.
- > Assistance to people with disabilities.
- > Complement of illness assistance.

The result of the last Organizational Climate Survey of the Eletrobras Companies demonstrated

that the benefits package offered by Chesf is the aspect favored the most by its employees. Emphasis is given to maternity and paternity leave, which is guaranteed by normative instruments, and guaranteed to all employees. The Company is a member of the *Programa Empresa Cidadã* (Citizen Company Program), which allows for the extension of maternity leave and paternity leave. In 2017, a total of 16 employees took maternity leave (11 with return from leave in 2017 and another five with expected return in 2018), and 103 employees took paternity leave. > 401-20, 401-30 >

### HEALTH AND SAFETY

> 102-3, 103-3 >

Chesf has in place an Occupational Health and Safety Policy and other internal regulations to guarantee a safe environment for its employees and comply with the Norms of the Ministry of Labor and Employment (MTE). In addition, the Company is certified by the Occupational Safety and Health Management System (OSHMS), in compliance with the requirements established in the Occupational Health and Safety Assessment Services Standard (OHSAS 18001: 2007).

Periodic evaluations of hazards and risks of activities are carried out, which consider the electric shock and the thermal effects of electric arcs due to their exposure to over 50% of the employees as the main risks. Other risks refer to noise in generation operations, chemical risks in laboratories and print shops, as well as biological risks in outpatient clinics and in the Paulo Afonso hospital.

A number of procedures beyond legislation are also planned, such as the Environmental Risk Prevention Program (PPRA) and the Medical Occupational Health Control Program (PCMSO), with occupational medical examinations beyond what is required by NR 07<sup>12</sup>. On a day-to-day basis, employees use Collective Protective Equipment (CPE) and Individual Protective Equipment (IPE) to perform certain activities. Although the Company does not provide protective equipment for contractors and subcontractors, use is required in the Occupational Health and Safety Plan and inspected in safety audits.

In 2017, the effort to maintain excellent performance in health and safety indicators was demonstrated in the results. The Work Accident Frequency Rate (TFAT) had already reached in 2016 its best result in the last 10 years, and this year the result was even better, reaching the unprecedented rate of 1.49. This figure represents a decrease of 36% compared with the result obtained in 2016 and remains below the tolerable limit established by Chesf (3.02). The Aggregate Severity Rate of Work-Related Accidents recorded in 2017 was 9, far below the tolerable maximum limit of 138, and 95% lower than the value obtained in the previous year.

These values will contribute to the Reduction of the Accident Prevention Factor (FAP), implying a reduction of tax collection as an Environmental Labor Risk (RAT), levied upon payroll. The value of the FAP is calculated annually by Social Security by company, depending on the frequency, severity, and costs for work accidents and illnesses.

## > HEALTH AND SAFETY >

> 2017 >

> 2016 >

> 2015 >

### Company Employees

Work Accident Frequency Rate (TFAT)	1.49	2.33	3.00
Work Accident Severity Rate (TGAT) *	9.00	169.00	37.00
Number of fatalities (employees)	0	0	0

### Third parties / contractors

Work Accident Frequency Rate (TFAT)	3.48	2.21	NA**
Work Accident Severity Rate (TGAT)	20	21	NA**
Number of fatalities (employees)	0	0	0

### Company employees + third parties / contractors

Work Accident Frequency Rate (TFAT)	2.15	2.29	3.00
Work Accident Severity Rate (TGAT)	13	123	37.00
Rate of absenteeism due to illness	1.70	1.60	1.49
Number of fatalities	0	0	0

\* The value of this indicator in 2017 was the lowest ever recorded at Chesf, since began to be used in the Company. Several measures have been taken to avoid recurrence of the aforementioned accident, such as safety training, protection from associated equipment, and improvement of safety procedures, as well as the creation of a work safety project for substation maintenance activities.

\*\* Not available

<sup>12</sup> This Regulatory Norm (NR) establishes the obligation for all employers and institutions that hire works as employees to prepare and implement the Medical Occupational Health Control Program (PCMSO), with the goal of promoting and preserving the health of the workers.



## Quality of Life Programs

- > Retirement Preparation Program (PPA).
- > 2nd group of the distance course on “Safe and Healthy Behavior”.
- > Influenza Vaccination Campaign against H1N1, H3N2, and Influenza B viruses, with 2,200 people vaccinated at Headquarters and Regional Offices.
- > Continuity of the activities at the Health Promotion Centers (CPS) in Recife, with an agreement with SESI-PE and in Sobradinho.
- > Organic Fair in Salvador and Recife.
- > III Chesf Anniversary Tournament at Headquarters and Regional Offices.
- > Street Racing in Salvador, Fortaleza, and Recife.

> 103-3 >

## Corporate Program *Fique Alerta para Segurança Dez* (Stay Alert for the Maximum Safety)

Another cycle of the program was carried out, aiming to disseminate health and safety culture at work. In this sense, Chesf’s III Challenge of Knowledge on Work Safety and Occupational Health was held, conducting online tests on these topics, in addition to a final dispute that brought together the winning employees from the Headquarters and all Regional offices. > 103-3 >

## *Programa Previna-se* (Prevention Program)

Carried out in partnership with the Department of Substation Maintenance (DMS), the program aims to establish procedures, training, campaigns, and other actions, aimed at strengthening the safety culture and improving the working conditions of employees. > 103-3 >



## PREPARATION FOR RETIREMENT

With the Retirement Preparation Program (PPA), Chesf encourages employees to plan for retirement, considering economic, social, and psychological factors. In partnership with the Department of Human Resources, FACHESF (Chesf Foundation of Assistance and Social Se-

curity) held courses and lectures in 2017 focused on preparing employees eligible for retirement for a new life scenario. The program offered lectures on “Longevity and Physical Activity” and “Psychosocial Aspects from Retirement”, as well as guidelines on Life Design. > 201-3, EU15 >



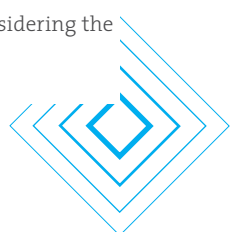
### > % EMPLOYEES FOR RETIREMENT >

### > NEXT 5 YEARS >

### > FROM 6 TO 10 YEARS >

Positions that require higher education	12.3%	5.93%
Positions that do not require higher education	43.77%	5.91%
Management position	2.14%	1.09%

Considers employees who may retire only through FACHESF, regardless of whether or not they are already retired by the INSS. Considering the headcount from 12/31/2017. Eligibility 5 years: until 12/31/2022; eligibility 10 years: from 01/01/2023 to 12/31/2027.







SOCIAL PROJECT - EMBRAPA PARTNERSHIP

## RELATIONSHIP WITH TRADE UNIONS

Chesf has an Advisory Committee on Trade Union Relations (ARS) and a Trade Union Committee with representatives from each department that deals with management with trade unions. The Company negotiates directly with the unions and the Regional Federation. The Collective Agreement guarantees union entities free access to the Company's internal facilities and provides a permanent channel of dialogue with the Executive Board.

The right to strike is free at the Company, which still has a Contingency Plan, a set of actions and procedures that create conditions for the company to reliably continue providing essential services. All meetings and the outcome of negotiations with unions are recorded in minutes and published on the website of the Advisory Committee on Trade Union Relations (ARS). The Collective Bargaining Agreement does not specify a minimum notification period for operational changes to employees and their representatives. > 102-41, 103-2, 103-3, 402-1 >



**About 12.9% of Chesf's employees are expected to retire in 6 to 10 years. The Retirement Program (PPA) exists to encourage planning for a new life scenario for this professionals**



7



# GRITABLE OF CONTENTS STANDARDS

FUNIL HYDROELECTRIC POWER PLANT



STANDARD GRI	DISCLOSURE	COMMENT	PAGE
<b>GRI 101: FOUNDATION 2016</b>			
<b>GENERAL STANDARD DISCLOSURES</b>			
GRI 102: General Disclosures 2016	102-1 - Name of the organization		28
	102-2 - Activities, brands, products, and services		28, 45
	102-3 - Location of headquarters		28, 126
	102-4 - Location of operations		28, 126
	102-5 - Ownership and legal form		28
	102-6 - Markets served		28, 45, 80, 81
	102-7 - Scale of the organization		28
	102-8 - Information on employees and other workers	Global Compact: 6   SDG: 5, 8	97, 98
	102-9 - Supply chain	Attachment: Pages 31, 32 Global Compact: 1, 2   SDG: 8	
	102-10 - Significant changes to the organization and its supply chain	The indicator was not prioritized in the materiality process, 2017 scope.	
	102-11 - Precautionary Principle or approach		54, 94
	102-12 - External initiatives		31
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<b>ESTRATEGY</b>			
GRI 102: General Disclosures 2016	102-14- Statement from senior decision-maker		5, 6, 7
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GRI 102: General Disclosures 2016	102-16 - Values, principles, standards and norms of behavior	Global Compact: 6, 10   SDG: 16	28, 30
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STANDARD GRI	DISCLOSURE	COMMENT	PAGE
<b>GOVERNANCE</b>			
GRI 102: General Disclosures 2016	102-18 - Governance structure	Global Compact: 6, 10   SDG: 16	50, 54, 55
	102-19 - Delegating authority	Attachment: Page 7	
	102-20 - Executive-level responsibility for economic, environmental and social	Attachment: Page 7	52
	102-21 - Consulting stakeholders on economic, environmental and social topics	Attachment: Page 3	
	102-22 - Composition of the highest governance body and its committees	Attachment: Page 7	52
	102-23 - Chair of the highest governance body	Attachment: Page 8 Global Compact: 10   SDG: 16	52
	102-24 - Nominating and selecting the highest governance body	Attachment: Page 8 Global Compact: 10   SDG: 16	
	102-25 - Conflicts of interest	Global Compact: 10   SDG: 16	53
	102-26 - Role of highest governance body in setting purpose, values ,and strategy	Attachment: Page 10 Global Compact: 10   SDG: 16	
	102-27 - Collective Knowledge of highest governance body	Attachment: Page 10	53
	102-28 - Evaluating the highest governance body's performance	Attachment: Pages 10, 11	
	102-29 - Identifying and managing economic, environmental and social impacts	Attachment: Page 11 Global Compact: 10   SDG: 8, 16	45
	102-30 - Effectiveness of risk management processes	Attachment: Page 12 Global Compact: 10   SDG: 8, 16	
	102-31 - Review of economic, environmental and social topics	Global Compact: 6, 8, 10   SDG: 8, 16	45, 52
	102-32 - Highest governance body's role in sustainability reporting	The Report is approved by the Executive Board	
	102-33 - Communicating critical concerns	Attachment: Page 12	
	102-34 - Nature and total number of critical concerns		50
	102-35- Remuneration policies	Attachment: Pages 12, 13	
	102-36 - Process for determining remuneration	Attachment: Pages 14, 15 Global Compact: 6   SDG: 5, 10	
	102-37 - Stakeholders' involvement in remuneration	Attachment: Page 15	
102-38 - Annual total compensation ratio	Attachment: Page 16		
102-39 - Percentage increase in annual total compensation ratio	Attachment: Pages 16, 17		

STANDARD GRI	DISCLOSURE	COMMENT	PAGE
<b>STAKEHOLDERS ENGAGEMENT</b>			
GRI 102: General Disclosures 2016	102-40 - List of stakeholder groups	Attachment: Page 2	16 to 21, 56, 57
	102-41 - Collective bargaining agreements		57, 97, 105
	102-42 - Identify and selection stakeholders		13, 16
	102-43 - Approach to stakeholder engagement		16, 56
	102-44 - Key topics and concerns raised		13, 14, 52, 57
<b>REPORTING PRACTICES</b>			
GRI 102: General Disclosures 2016	102-45 - Entities included in the consolidated financial statements		12, 48
	102-46 - Defining report content and topic Boundaries		12, 48
	102-47 - List of material topics		13, 14
	102-48 - Restatements of information	Attachment: Page 5	
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	102-50 - Reporting period		12
	102-51 - Date of most recent report	July/2017	12
	102-52 - Reporting cycle	Annual	12
	102-53 - Contact point for questions regarding the report		127
	102-54 - Claims of reporting in accordance with the GRI Standards	Pursuant (Essential option).	12
	102-55 - GRI content index		108, 125
102-56 - External assurance	This report did not undergo external assurance.	12	
<b>MATERIAL TOPICS</b>			
<b>ECONOMIC PERFORMANCE</b>			
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STANDARD GRI	DISCLOSURE	COMMENT	PAGE
GRI 201: Economic Performance 2016	201-1 - Direct economic value generated and distributed		64, 65
	201-2 - Financial implications and other risks and opportunities due to climate	SDG: 9, 13	93, 94
	201-3 - Defined benefit plan obligations and other retirement plans	SDG: 8	104
	201-4 - Financial assistance received from government	Chesf retains the right to deduct 75% of the income tax and non-refundable additional, calculated on the basis of operational profit, recorded in income for the period as income tax reduction, in accordance with technical statement CPC 07 (R1) (IAS 20).  The portion of income resulting from tax incentives is aimed to the Profit Reserve called Tax Incentives Reserve, according to article 195-A of the Law number 6.404/1976, which can only be used to the share capital increase or loss absorption.	70, 71, 86, 87, 94

#### MARKET PRESENCE

GRI 103: Management Approach 2016	103-1- Explanation of the material topic and its Boundary	Attachment: Pages 4, 5	13
	103-2- The management approach and its components	Attachment: Pages 17, 48	97, 98
	103-3- Evaluation of the management approach	Attachment: Pages 17, 48	97, 98
GRI 202:Market presence 2016	202-1- Ratios of standard entry level wage by gender compared to local minimum wage	That is no specific politic to salary proportionality by gender. Men: Lower wage: R\$ 1.810,74 Minimum wage/2017: R\$ 937,00 Proportion: R\$ 1.810,74/ R\$ 937,00 = 1,93 Women: Lower wage: R\$ 2.194,42 Minimum wage/2017: R\$ 937,00 Proportion: R\$ 2.194,42/ R\$ 937,00= 2,34	

STANDARD GRI	DISCLOSURE	COMMENT	PAGE
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	203-2 - Significant indirect economic impacts	Attachment: Pages 48, 49 SDG: 8	
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	103-3 - Evaluation of the management approach	Attachment: Pages 32, 33	
GRI 204: Purchasing Practices 2016	204-1 - Proportion of spending on local suppliers	Attachment: Pages 30, 31 SDG: 8	
<b>ANTI-CORRUPTION</b>			
GRI 103: Management Approach 2016	103-1- Explanation of the material topic and its Boundary	Attachment: Pages 4, 5	13
	103-2- The management approach and its components	Attachment: Pages 18, 24	
	103-3 - Evaluation of the management approach	Attachment: Pages 18, 24	
GRI 205: Anti-corruption 2016	205-1 - Operations assessed for risks related to corruption	Attachment: Pages 21, 22 Global Compact: 10   SDG: 16	
	205-2 - Communication and training about anti-corruption policies and procedures	Attachment: Pages 22, 23 Global Compact: 10   SDG: 16	
	205-3 - Confirmed incidents of corruption and actions taken	There were no cases of corruption in 2017. Global Compact: 10	
<b>UNFAIR TRADE</b>			
GRI 103: Management approach 2016	103-1 - Explanation of the material topic and its Boundary	Attachment: Pages 4, 5	13
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STANDARD GRI	DISCLOSURE	COMMENT	PAGE
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	419-1 - Non-compliance with laws and regulations in the social and economic area		94, 95
<b>ENVIRONMENT</b>			
<b>MATERIALS</b>			
GRI 103: Management Approach 2016	103-1 - Explanation of the material topic and its Boundary	Attachment: Pages 4, 5	13
	103-2 - The management approach and its components	Attachment: Pages 75, 76, 77, 78	
	103-3 - Evaluation of the management approach	Attachment: Pages 4, 5	
GRI 301: Materials 2016	301-1 - Materials used by weight or volume	Attachment: Pages 74, 75 Global Compact: 7, 8, 9	
	301-2 - Recycled input materials used	Attachment: Pages 75, 76 Global Compact: 7, 8, 9	
	301-3 - Reclaimed products and their packaging materials	The indicator was not prioritized in the materiality process, 2017 scope. Global Compact: 7, 8, 9	
<b>ENERGY</b>			
GRI 103: Management Approach 2016	103-1 - Explanation of the material topic and its Boundary	Attachment: Pages 4, 5	13
	103-2 - The management approach and its components		82, 83
	103-3 - Evaluation of the management approach		82, 83
GRI 302: Energy 2016	302-1 - Energy consumption within the organization	Global Compact: 7, 8, 9	80, 81, 82
	302-2 - Energy consumption outside of the organization	Global Compact: 7, 8, 9	80, 81, 82
	302-3 - Energy intensity	Global Compact: 7, 8, 9	82
	302-4 - Reduction of energy consumption	Global Compact: 7, 8, 9	82
	302-5 - Reductions in energy requirements of products and services	Attachment: Pages 64, 65	82
<b>WATER</b>			
GRI 103: Management Approach 2016	103-1 - Explanation of the material topic and its Boundary	Attachment: Pages 4, 5	13
	103-2 - The management approach and its components		87, 89
	103-3 - Evaluation of the management approach		87, 89

STANDARD GRI	DISCLOSURE	COMMENT	PAGE
GRI 303: Water 2016	303-1 - Water withdrawal by source	Global Compact: 7, 8, 9   SDG: 6	87
	303-2 - Water sources significantly affected by withdrawal of water	Global Compact: 7, 8, 9   SDG: 6	87
	303-3 - Water recycled and reused	Global Compact: 7, 8, 9   SDG: 6	87
<b>BIODIVERSITY</b>			
GRI 103: Management Approach 2016	103-1- Explanation of the material topic and its Boundary	Attachment: Pages 4, 5	13
	103-2- The management approach and its components	Attachment: Pages 55 to 61	89, 90, 91
	103-3- Evaluation of the material topic	Attachment: Pages 55 to 61	89, 90, 91
GRI 304: Biodiversity 2016	304-1- Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	Attachment: Page 55 Global Compact: 7, 8, 9   SDG: 13	
	304-2- Reduction of energy consumption	Attachment: Pages 56, 57 Global Compact: 7, 8, 9   SDG: 13	
	304-3 - Habitats protected or restored	Attachment: Pages 58, 59 Global Compact: 7, 8, 9   SDG: 14	
	304-4 - IUCN Red List species and national conservation list species with habitats in areas affected by operations	Attachment: Pages 59, 60 Global Compact: 7, 8, 9	
<b>EMISSIONS</b>			
GRI 103: Management Approach 2016	103-1 - Explanation of the material topic and its Boundary	Attachment: Pages 4, 5	13
	103-2 - The management approach and its components	Attachment: Pages 68 to 75	93
	103-3 - Evaluation of the management approach	Attachment: Pages 68 to 75	82, 83
GRI 305: Emissions 2016	305-1- Direct (Scope 1) GHG emissions	Attachment: Pages 68, 69 Global Compact: 7, 8, 9   SDG: 13	
	305-2 - Energy indirect (Scope 2) GHG emissions	Attachment: Pages 70, 71 Global Compact: 7, 8, 9   SDG: 13	
	305-3 - Other indirect (Scope 3) GHG emissions	Attachment: Pages 71, 72, 73 Global Compact: 7, 8, 9   SDG: 13	
	305-4 - GHG emissions intensity	Attachment: Pages 73, 74 Global Compact: 7, 8, 9   SDG: 13	
	305-5 - Reduction of GHG emissions	Global Compact: 7, 8, 9   SDG: 13	80, 82

STANDARD GRI	DISCLOSURE	COMMENT	PAGE
GRI 305: Emissions 2016	305-6 - Emissions of ozone-depleting substances (SDG)	There was no record of the leakage in the period coverage by this Report, considering that the only source of emission of ozone-depleting substances existing on Chesf is the firefighting system installed on the System Operation Center building that uses the halon gas as fire-extinguishing medium, which is disabled. Global Compact: 7, 8, 9   SDG: 13	
	305-7 - Nitrogen oxides (NO <sub>x</sub> ), sulfur oxides (SO <sub>x</sub> ), and other significant air emissions	Attachment: Page 74 Global Compact: 7, 8, 9   SDG: 13	

**EFFLUENTS AND WASTES**

GRI 103: Management Approach 2016	103-1- Explanation of the material topic and its Boundary	Attachment: Pages 4, 5	13
	103-2- The management approach its components	Attachment: Pages 77, 78, 79	86, 87, 89
	103-3- Evaluation of the management approach	Attachment: Pages 77, 78, 79	86, 87, 89
GRI 306: Effluents and Wastes 2016	306-1- Water discharge by quality and destination	Global Compact: 7, 8, 9   SDG: 6	87
	306-2 - Waste by type and disposal method	Attachment: Pages 77, 78 Global Compact: 7, 8, 9   SDG: 12	70, 86
	306-3 - Significant spills	Attachment: Page 78 Global Compact: 7, 8, 9   SDG: 12	
	306-4 - Transport of hazardous waste	Attachment: Pages 78, 79 Global Compact: 7, 8, 9   SDG: 12	
	306-5 - Water bodies affected by water discharges and/or runoff	Global Compact: 7, 8, 9   SDG: 12	87

**ENVIRONMENTAL COMPLIANCE**

GRI 103: Management Approach 2016	103-1 - Explanation of the material topic and its Boundary	Attachment: Pages 4, 5	13
	103-2 - The management approach and its components	Attachment: Pages 25, 26	56, 95
	103-3 - Evaluation of the management approach	Attachment: Pages 25, 26	56, 95

STANDARD GRI	DISCLOSURE	COMMENT	PAGE
GRI 307: Environmental Compliance 2016	307-1 - Non-compliance with environmental laws and regulations	Attachment: Pages 25, 26 Global Compact: 7, 8, 9	
<b>SUPPLIERS ENVIRONMENTAL ASSESSMENT</b>			
GRI 103: Management Approach 2016	103-1- Explanation of the material topic and its Boundary	Attachment: Pages 4, 5	13
	103-2 - The management approach and its components	Attachment: Pages 33, 34	
	103-3 - Evaluation of the management approach	Attachment: Pages 33, 34	
GRI 308: Suppliers Environmental Assessment 2016	308-1 - New suppliers that were screened using environmental criteria	Attachment: Pages 33, 34 Global Compact: 7, 8, 9   SDG: 17	
	308-2 - Negative environmental impacts in the supply chain and actions taken	Attachment: Page 34 Global Compact: 7, 8, 9   SDG: 17	
<b>EMPLOYMENT</b>			
GRI 103: Management Approach 2016	103-1 - Explanation of the material topic and its Boundary	Attachment: page 4, 5	13
	103- 2 - The management approach and its components		97, 100, 101
	103-3 - Evaluation of the management approach		97, 100, 101
GRI 401: Employment 2016	401-1 - New employee hires and employee turnover	Global Compact: 6   SDG: 5	97, 98
	401-2 - Benefits provided to full-time employees that are not provided to temporary or part-time employees	Global Compact: 6	97
	401-3 - Parental leave	Global Compact: 6	97
<b>LABOR RELATIONS</b>			
GRI 103: Management Approach 2016	103- 1- Explanation of the material topic and its Boundary	Attachment: Pages 4, 5	13
	103-2 - The management approach and its components		100
	103-3 - Evaluation of the management approach		100
GRI 402: Labor Relations 2016	402-1 - Minimum notice periods regarding operational changes	Global Compact: 6	97, 105
<b>OCCUPATIONAL HEALTH AND SAFETY</b>			
GRI 103: Management Approach 2016	103-1 - Explanation of the material topic and it Boundary	Attachment: Pages 4, 5	11
	103-2 The management approach and its components	Attachment: Pages 42 to 47	
	103-3 - Evaluation of the management approach	Attachment: Pages 42 to 47	101, 103

STANDARD GRI	DISCLOSURE	COMMENT	PAGE
GRI 403: Occupational Health and Safety 2016	403-1- Workers representation in formal joint management–worker health and safety committees	Attachment: Pages 41, 42 Global Compact: 6   SDG: 3	
	403-2 - Types of injury and rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities	Attachment: Pages 42, 43, 44, 45 Global Compact: 6   SDG: 3	70, 86
	403-3 - Workers with high incidence or high risk of diseases related to their occupation	Attachment: Pages 45, 46 Global Compact: 6   SDG: 3	70, 86
	403-4- Health and safety topics covered in formal agreements with trade unions	Attachment: Pages 46, 47 Global Compact: 6	
<b>TRAINING AND EDUCATION</b>			
GRI 103: Management Approach 2016	103-1- Explanation of the material topic and its Boundary	Attachment: Pages 4, 5	13
	103-2- The management approach and its components	Attachment: Page 6	98, 99, 100
	103-3- Evaluation of the management approach	Attachment: Page 6	98, 99, 100
GRI 404: Training and Education 2016	404-1- Average hours of training per year per employee	Global Compact: 6   SDG: 4	70, 86, 97, 99
	404-2- Programs for upgrading employee skills and transition assistance programs	Global Compact: 6   SDG: 4	97, 99
	404-3 - Workers with high incidence or high risk of diseases related to their occupation	Global Compact: 6	97
<b>DIVERSITY AND EQUAL OPPORTUNITIES</b>			
GRI 103: Management Approach 2016	103-1- Explanation of the material topic and its Boundary	Attachment: Pages 4, 5	13
	103-2 - The management approach and its components	Attachment: Pages 17, 18	97, 98, 99, 100
	103-3 - Evaluation of the management approach	Attachment: Pages 4, 5	100
GRI 405: Diversity and Equal Opportunities 2016	405-1 - Diversity of governance bodies and employees	Attachment: Pages 17, 18 Global Compact: 6   SDG: 5	97
	405-2 - Ratio of basic salary and remuneration of women to men	Global Compact: 6	97, 100
<b>NON - DISCRIMINATION</b>			
GRI 103: Management Approach 2016	103-1- Explanation of the material topic and its Boundary	Attachment: Pages 4, 5	13
	103-2 - The management approach and its components	Attachment: Pages 83, 84	
	103-3- Evaluation of the management approach	Attachment: Pages 83, 84	
GRI 406: Non-discrimination 2016	406-1 - Incidents of discrimination and corrective actions taken	Attachment: Pages 83, 84 Global Compact: 1, 2, 3, 6   SDG: 16	

STANDARD GRI	DISCLOSURE	COMMENT	PAGE
<b>FREEDOM OF ASSOCIATION AND COLLECTIVE BARGAINING</b>			
GRI 103: Management Approach 2016	103-1- Explanation of the material topic and its Boundary	Attachment: Pages 4, 5	13
	103-2- The management approach and its components	Attachment: Page 84	105
	103-3- Evaluation of the management approach	Attachment: Page 84	105
GRI 407: Freedom of Association and Collective Bargaining 2016	407-1- Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	Attachment: Page 84 Global Compact: 1, 2, 3, 6   SDG: 16	
<b>CHILD LABOUR</b>			
GRI 103: Management Approach 2016	103-1 - Explanation of the material approach and its Boundary	Attachment: Pages 4, 5	13
	103-2 - The management approach and its components	Attachment: Pages 85, 86	
	103-3 - Evaluation of the management approach	Attachment: Pages 85, 86	
GRI 408: Child Labour 2016	408-1 - Operations and suppliers at significant risk for incidents of child labor	Attachment: Pages 85, 86 Global Compact: 1, 2, 5   SDG: 8	
<b>FORCED LABOR OR EQUIVALENT TO SLAVERY</b>			
GRI 103: Management Approach 2016	103-1 - Explanation of the material topic and its Boundary	Attachment: Pages 4, 5	11
	103-2 - The management approach and its components	Attachment: Page 86	
	103-3 - Evaluation of the management approach	Attachment: Page 86	
GRI 409: Forced Labor or Equivalent to Slavery 2016	409-1 - Operations and suppliers at significant risk for incidents of forced or compulsory labor	Attachment: Page 86 Global Compact: 1, 2, 4   SDG: 8	
<b>SECURITY PRACTICES</b>			
GRI 103: Management Approach 2016	103-1 - Explanation of the material topic and its Boundary	Attachment: Pages 4, 5	13
	103-2 - The management approach and its components	Attachment: Pages 87, 88	
	103-3 - Evaluation of the management approach	Attachment: Pages 87, 88	
GRI 410: Security Practices 2016	410-1- Security personnel trained in human rights policies or procedures	Attachment: Pages 87, 88 Global Compact: 1, 2   SDG: 8	

STANDARD GRI	DISCLOSURE	COMMENT	PAGE
<b>INDIGENOUS AND TRADITIONAL PEOPLE'S RIGHTS</b>			
GRI 103: Management Approach 2016	103-1 - Explanation of the material topic and its Boundary	Attachment: Pages 4, 5	13
	103-2 - The management approach and its components	Attachment: Pages 87, 89	
	103-3 - Evaluation of the management approach	Attachment: Pages 87, 89	
GRI 411: Indigenous and Traditional People's Rights 2016	411-1 - Incidents of violations involving rights of indigenous peoples	Attachment: Pages 88, 89 Global Compact: 1, 2   SDG: 8	
<b>HUMAN RIGHTS ASSESSMENT</b>			
GRI 103: Management Approach 2016	103-1 - Explanation of the material topic and its Boundary	Attachment: Pages 4, 5	13
	103-2 - The management approach and its components	Attachment: Pages 89 to 93	
	103-3 - Evaluation of the management approach	Attachment: Pages 89 to 93	
GRI 412: Human Rights Assessment 2016	412-1 - Operations that have been subject to human rights reviews or impact assessments	Global Compact: 1, 2   SDG: 5, 8, 10	70, 86
	412-2 - Employee training on human rights policies or procedures	Attachment: Pages 90, 91 Global Compact: 1, 2   SDG: 8	
	412-3 - Significant investment agreements and contracts that include human rights clauses or that underwent human rights screening	Attachment: Pages 92, 93 Global Compact: 1, 2   SDG: 8	
<b>LOCAL COMMUNITIES</b>			
GRI 103: Management Approach 2016	103-1 - Explanation of the material topic and its Boundary	Attachment: Pages 4, 5	13
	103-2 - The management approach and its components	Attachment: Pages 50, 51, 52, 53	
	103-3 - Evaluation of the management approach	Attachment: Pages 50, 51, 52, 53	
GRI 413: Local Communities 2016	413-1 - Operations with local community engagement, impact assessments, and development programs	Attachment: Pages 50, 51 Global Compact: 7	
	413-2 - Operations with significant actual and potential negative impacts on local communities	Attachment: Pages 52, 53	

STANDARD GRI	DISCLOSURE	COMMENT	PAGE
<b>SUPPLIERS SOCIAL ASSESSMENT</b>			
GRI 103: Management Approach 2016	103-1 - Explanation of the material topic and its Boundary	Attachment: Pages 4, 5	13
	103-2 - The management approach and its components	Attachment: Pages 34, 35	
	103-3 - Evaluation of the management approach	Attachment: Pages 34, 35	
GRI 414: Suppliers Social Assessment 2016	414-1- New suppliers that were screened using social criteria	Attachment: Page 35 Global Compact: 1, 2   SDG: 17	
	414-2- Negative social impacts in the supply chain and actions taken	Attachment: Page 34	
<b>PUBLIC POLICIES</b>			
GRI 103: Management Approach 2016	103-1 - Explanation of the material topic and its Boundary	Attachment: Pages 4, 5	13
	103-2 - The management approach and its components	Attachment: Page 79	
	103-3 - Evaluation of the material approach	Attachment: Page 79	
GRI 415: Public Policies 2016	415-1 - Political contributions	Attachment: Page 79 Global Compact: 10	
<b>CUSTOMER HEALTH AND SAFETY</b>			
GRI 103: Management Approach 2016	103-1 - Explanation of the material topic and its Boundary	Attachment: Pages 4, 5	
	103- 2 - The management approach and its components	-	
	103-3 - Evaluation of the management approach	-	
GRI 416: Customer Health and Safety 2016	416-1- Assessment of the health and safety impacts of product and service categories	The indicator was not prioritized in the materiality process, 2017 scope.	
	416-2- Incidents of non-compliance concerning the health and safety impacts of products and services	The indicator was not prioritized in the materiality process, 2017 scope.	
<b>MARKETING AND LABELING</b>			
GRI 103: Management Approach 2016	103-1 - Explanation of the material approach and its Boundary	Attachment: Pages 4, 5	13
	103-2 - The management approach and its components	Attachment: Pages 26	
	103-3 - Evaluation of the management approach	Attachment: Pages 26	



STANDARD GRI	DISCLOSURE	COMMENT	PAGE
GRI 417: Marketing and Labeling 2016	417-1 - Requirements for product and service information and labeling	The indicator was not prioritized in the materiality process, 2017 scope.	
	417-2 - Incidents of non-compliance concerning product and service information and labeling	The indicator was not prioritized in the materiality process, 2017 scope.	
	417-3 - Incidents of non-compliance concerning marketing communications	Attachment: Page 26	
<b>CUSTOMER PRIVACY</b>			
GRI 103: Management Approach 2016	103-1 - Explanation of the material topics and its Boundary	Attachment: Pages 4, 5	13
	103-2 - The management approach and its components	Attachment: Pages 26, 27	
	103-3 - Evaluation of the material approach	Attachment: Pages 26, 27	
GRI 400: Customer Privacy 2016	418-1 - Substantiated complaints concerning breaches of customer privacy and losses of customer data	Attachment: Pages 26, 27	
<b>SOCIOECONOMIC COMPLIANCE</b>			
GRI 103: Management Approach 2016	103-1 - Explanation of the material topics and its Boundary	Attachment: Pages 4, 5	13
	103-2 - The management approach and its components	Attachment: Page 27	
	103-3 - Evaluation of the material approach	Attachment: Page 27	
GRI 400: Socioeconomic Compliance 2016	419-1 - Non-compliance with laws and regulations in the social and economic area	Attachment: Page 27	
<b>GRI STANDARDS – SECTOR SUPPLEMENT</b>			
<b>ORGANIZATIONAL PROFILE</b>			
	GRI-EU1 - Installed capacity , broken down by primary energy source and by regulatory regime	Attachment: Pages 63, 64 SDG 7	27
	GRI-EU2 - Net energy output broken down by primary energy source and by regulatory regime	Attachment: Page 61	
	GRI-EU3 - Number of residential, industrial, institutional and commercial customer accounts		27
	GRI-EU4- Length of above and underground transmission and distribution lines by regulatory regime		27, 29
	GRI-EU5- Allocation of CO2 Emissions allowances or equivalent, broken down by carbon trading framework	Attachment: Pages 74, 75 SDG: 13	

STANDARD GRI	DISCLOSURE	COMMENT	PAGE
<b>ECONOMIC CATEGORY</b>			
<b>RELIABILITY AND AVAILABILITY</b>			
	<p>Management approach GRI-DMA EUSD EC Management approach to ensure short and long-term electricity availability and reliability (former EU6)</p>		70, 80, 86
	<p>GRI-EU10 - Planned capacity against projected electricity demand over the long term, broken down by energy source and regulatory regime</p>	<p>Chesf, as a National Interconnected System (SIN) generating company, does not have the attribution to ensure reliability to the system. The responsibility to ensure that demand will be met with quality and continuity it's from the National System Operator (ONS), for which the company provides its production. Ensuring supply and demand balance is assignment of the Grantor through the Energetic Research Company (EPE/MME).</p>	70, 86
<b>DEMAND-SIDE MANAGEMENT</b>			
	<p>Management Approach GRI-DMA EUSD EC Demand-side management programs including residential, commercial, institutional and industrial programs (former EU7)</p>	<p>Chesf, as a National Interconnected System (SIN) generating company, does not have the attribution to ensure reliability to the system. The responsibility to ensure that demand will be met with quality and continuity it's from the National System Operator (ONS), for which the company provides its production. Ensuring supply and demand balance is assignment of the Grantor through the Energetic Research Company (EPE/MME).</p>	70, 86

STANDARD GRI	DISCLOSURE	COMMENT	PAGE
<b>RESEARCH AND DEVELOPMENT</b>			
	Management Approach GRI-DMA EUSD EC Research and development activity and expenditure aimed at providing reliable electricity promoting sustainable development (former 8)	SDG: 7, 12	80, 81
<b>DECOMMISSIONING PLAN</b>			
	Management Approach GRI-DMA EUSD EC Provisions for decommissioning of nuclear power sites (former EU9)	The indicator was not prioritized in the materiality process, 2017 scope.	
<b>EFFICIENCY OF THE SYSTEM</b>			
	GRI-EU11 - Average generation efficiency of thermal plants by energy source and by regulatory regime		70, 72, 74, 86
	GRI-EU12 - Transmissions and distribution losses as a percentage of total energy		70, 86
<b>ENVIRONMENTAL CATEGORY</b>			
<b>BIODIVERSITY</b>			
	GRI-EU13 - Biodiversity of offset habitats compared to the biodiversity of the affected areas	Attachment: Pages 60, 61 Global Compact: 7, 8, 9   SDG: 14	
<b>SOCIAL CATEGORY – LABOR PRACTICES AND DECENT WORK</b>			
<b>EMPLOYMENT</b>			
	Management Approach GRI-DMA EUSD LA Programs and processes to ensure the availability of a skilled workforce (former EU14)	SDG: 4	97, 99
	GRI-EU15 - Percentage of employees eligible to retire in the next 5 to 10 years broken down by job category and by region	SDG: 8	97, 104
	Management Approach GRI-DMA EUSD LA Policies and requirements regarding health and safety of employees and contractors and subcontractors (former EU16)	SDG: 3	97

STANDARD GRI	DISCLOSURE	COMMENT	PAGE
	GRI-EU17 - Days worked by contractor and subcontractor employees involved in construction, operation & maintenance activities		97, 98
	GRI-EU18 - Percentage of contractor and subcontractor employees that have undergone relevant health and safety training		97, 98
<b>SOCIAL CATEGORY – SOCIETY</b>			
<b>LOCAL COMMUNITIES</b>			
	Management Approach GRI-DMA EUSD SO Stakeholder participation in decision making processes related to energy planning and infrastructure development (former EU19)		78, 80
	Management Approach GRI-DMA EUSD SO Approach to managing the impacts of displacement (former EU20)	Attachment: page 53 SDG: 8	
	GRI-EU22 - Number of people physically or economically displaced and compensation, broken down by type of project	In 2017, Chesf has two wind ventures undergoing implementation, CGE Casa Nova II e CGE Casa Nova III, located in rural area, for which the population displacement was not necessary. It should be noted, for example, that the impacts on these ventures are positive, such as the remuneration of the owner of the land where the towers of the wind generators are installed. SDG: 8	70, 86
<b>EMERGENCY PLANNING AND RESPONSE</b>			
	Management Approach GRI-DMA EUSD SO Contingency planning measures, disaster/emergency management plan and training programs, and recovery/restoration plans (former EU21)	Attachment: page 54, 55 SDG: 9, 13	94, 95

STANDARD GRI	DISCLOSURE	COMMENT	PAGE
<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	Attachment: page 47, 48 Global Compact: 6   SDG: 3	70, 86
<b>ACCESS</b>			
	Management Approach GRI-DMA EUSD PR Programs, including those in partnership with government, to improve or maintain access to electricity and customer support services (former EU23)	The indicator was not prioritized in the materiality process, 2017 scope.	70, 86
	GRI-EU26 - Percentage of population unserved in licensed distribution or service areas	The indicator was not prioritized in the materiality process, 2017 scope.	
	GRI-EU27 - Number of residential disconnections for non-payment, broken down by duration of disconnection and by regulatory regime	The indicator was not prioritized in the materiality process, 2017 scope.	
	GRI-EU28 - Power outage frequency	The indicator was not prioritized in the materiality process, 2017 scope.	
	GRI-EU29 - Average power outage duration	The indicator was not prioritized in the materiality process, 2017 scope.	
	GRI-EU30 - Average plant availability factor by energy source and by regulatory regime		70, 72, 74, 86
<b>PROVISION OF INFORMATION</b>			
	Management Approach GRI-DMA EUSD PR Practices to address language, cultural, low literacy and disability related barriers to accessing and safely using electricity and customer support services (former EU24)	The indicator was not prioritized in the materiality process, 2017 scope.	

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