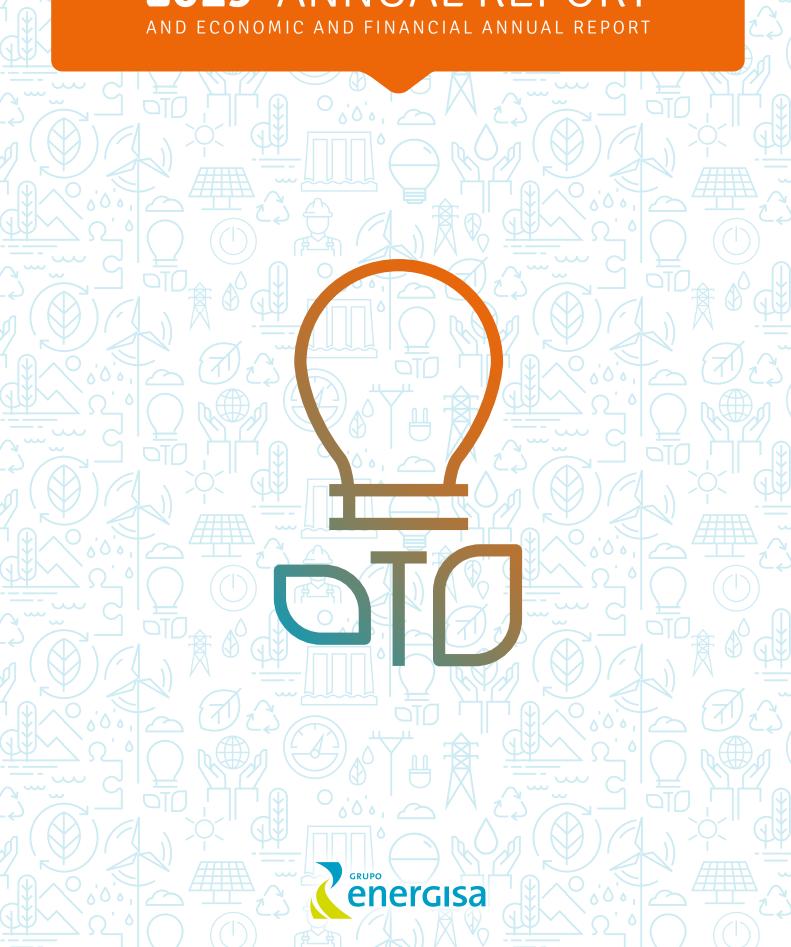
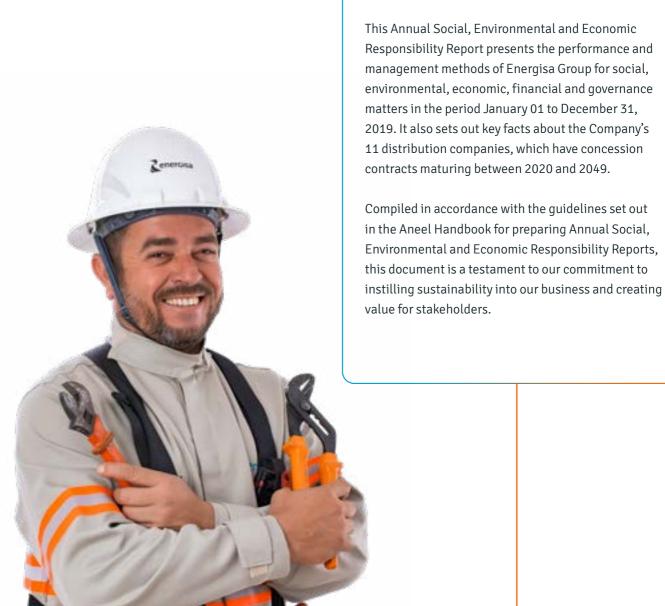
2019 ANNUAL REPORT



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Message from Management

We commemorated 115 years of existence in 2020, a history we are proud of. We are the fifth largest electricity distribution group in Brazil, with a footprint spanning all regions and 11 states, supplying energy to some 7.8 million clients, embracing 20 million Brazilians. We believe that our excellent service quality is due to our commitment to an efficient and sustainable management model, our dedicated personnel and ongoing investments.

Creating economic and financial, ethical, social and environmental value for all our stakeholders is in our DNA. Energisa Group is today an electric sector services platform, with a footprint spanning the energy chain and wholeheartedly committed to the pursuit of renewable green energy sources.

I would like to share with you just a few of our achievements in 2019.

In the states of Acre and Rondônia we began integrating the distribution companies that we acquired towards the end of 2018. This task has been complex, but promises to be a game changer for Energisa Group and the these states' economies. To illustrate this, in Rondônia alone we unearthed unmet demand of around 72 MW, equal to a town of 50 thousand people. Most of this demand stems from companies, i.e. demand for energy that creates jobs and income and spurs development, which we believe more than justifies the R\$ 834 million invested in the two states by the end of 2019 and the investment of R\$ 832 million earmarked for 2020. The R\$ 1.6 billion invested in just two years (2019 and 2020) outstripped the entire amount invested in the last six years that these companies were under state control.

We have made rapid progress on the construction of

the Energisa Goiás Transmissora I and Energisa Pará Transmissora I transmission lines, which were adjudicated at the auction in April 2017 and will come into operation ahead of schedule, before the end of 2020.

We received important accolades for our distribution companies. Six of our companies made the top ten in Aneel's 2019 quality performance ranking (utilities with more than 400 thousand consumers).

We also shone at the prestigious Abradee 2019 Awards. Our companies took six awards, with Energisa Tocantins and Energisa Nova Friburgo (RJ) standing out and elected as the best companies in the North/Midwest region and the best companies in Brazil amongst companies with less than 400 thousand consumers respectively.

Providing excellent services to clients and complying with government requirements led to Energisa Tocantins having its concession renewed for 30 years, from January 01, 2020 to December 31, 2049.

Following the expansion of our businesses, in 2019 our headcount was 20.5 thousand, including company and outsourced staff. We remain focused on our training initiatives, insourcing of services, career opportunities and leader training. Our initiatives led to Energisa Tocantins entering the Great Place to Work (GPTW) ranking. This award testifies to our investments to form a consistent team and initiatives that value and bring teams together, nurturing a relationship of trust and respect amongst all.

In occupational safety, a core value for our companies, we continued our Safe Operations project, which seeks to usher in cultural transformation focusing on

recognizing risk and identifying behavioral barriers and opportunities for operational improvements which make our operations safer.

Our concession areas achieved growth in distributed energy volume (captive sales + invoiced TUSD) of 4.2%, 2.8 p.p. greater than the average for Brazil of 1.4%. Our net revenue in 2019 was R\$ 19.9 billion, 26% above that recorded in 2018. EBITDA amounted to R\$ 3.5 billion for the year, growth of 31.9% on 2018, disregarding the effects of the ERO and EAC business combination in 4Q18.

In the last five years Energisa has invested more than 11 billion reais in upgrading and expanding the electric sector. We ploughed R\$ 3.2 billion into all our activities in 2019, and will outlay a further R\$ 3 billion in 2020.

We continue to view the sector's future with excitement and optimism regarding the huge challenges of the energy transition, which is forcing electricity utilities to rethink the way they operate. Electrification is being used as a solution for challenges posed by the climate crisis, with initiatives fostering energy efficiency, affordable rates and prioritizing renewable energy sources. As part of this trend, we will shut down 17 high-cost thermal power plants running on oil derivatives in Acre and Rondônia, providing savings of roughly R\$ 400 million/year in fuel costs for the country and cutting CO₂ emissions by an average 59,876 t/year, when this project is completed in 2023.

We are also experimenting with the use of smart grids and microgrids using solar energy, batteries and biodiesel generation in the islanded systems of the Amazon and Pantanal swamplands in South Mato Grosso state. We aim to take these groundbreaking solutions to areas not covered by the electricity grid. We have also invested in distributed generation to the subsidiary Alsol, with innovative renewable energy supply models integrated into distribution networks, enabling a more efficient management of energy resources with numerous benefits for clients and society in this energy transition.

In recent years we have sought to streamline our practices by investing in innovation on all business fronts, from administrative activities to fieldwork. Agile methods have been integrated into the Company's reality and we are focusing on facilitating the day-to-day lives of our clients and personnel through digital transformation incorporated into our daily routines. We are therefore preparing for a future of monumental possibilities.

We are renowned for our bold but sure and certain steps, because we are building on a bedrock of solid values that have evolved over time. Our culture is driven by entrepreneurialism and our commitment to supply quality energy to our clients wherever they may be. Our businesses are currently geared towards sustainable growth, to make the world a better place for future generations.

Ricardo Botelho

Energisa Group CEO

Energisa

Energisa Group is engaged in energy distribution, transmission, sales, services and energy generation studies. Our company has a hundred-year history of success. It started out in Cataguases (MG) in 1905 and is now present in all regions of the country, creating more than 20.5 thousand direct and indirect jobs and supplying energy to 20 million people.

It is the fifth largest energy distribution group in Brazil in terms of customers - approximately 7.8 million consumer units, or 10% of Brazil's population. It controls 11 concession operators located in the states of Minas Gerais, Sergipe, Paraíba, Rio de Janeiro, Mato Grosso, Mato Grosso do Sul, Tocantins, São Paulo, Paraná, Acre and Rondônia, in 862 municipalities occupying 2.034 million square kilometers, equal to 24% of Brazil's landmass. In the period, the utilities acquired in 2018, Centrais Elétricas de Rondônia S/A (Ceron) and Companhia de Eletricidade do Acre (Eletroacre), had their names changed to Energisa Rondônia and Energisa Acre, respectively.

The Transmission assets include two lots acquired at Transmission Auction 5/2016, held on April 24, 2017, a lot acquired at Transmission Auction 002/2018 on June 28, 2018 and a lot acquired at Transmission Auction 004/2018 on December 20, 2018. The ventures are at different stages of implementation in the states of

Tocantins, Pará and Goiás.

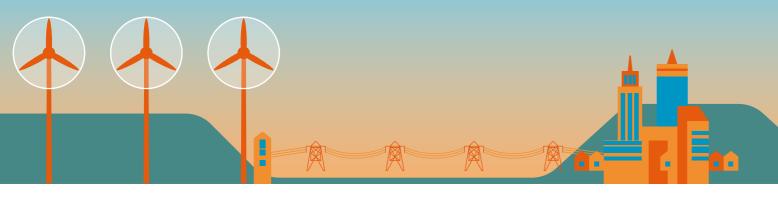
In addition to grid services, Energisa Group trades energy, provides various services related to the construction, operation and maintenance of electric assets and carries out energy generation studies and other activities related to the electric sector.

In 2019, it sold and transported 36,118.7 GWh of energy (captive sales + Distribution System Usage Fee – TUSD), the fifth highest volume in Brazil. Its net operating revenue was R\$ 19.9 billion and the businesses provided cash generation (Adjusted EBITDA) of R\$ 3.8 billion and net income of R\$ 527.2 million.

Energisa has been a listed company since 1907, entering Level 2 Corporate Governance of B3 (Brasil, Bolsa, Balcão) in July 2016, and is one of the listed companies that follows the best market transparency and governance practices. It shares traded on B3 consist of: ENGI3 (common shares), ENGI4 (preferred shares) and ENGI11 (UNITS: consisting of one common share and four preferred shares).

Our company has a hundred-year history of success. It started life in Cataguases (MG) in 1905 and is now present in all regions of the country







36,118.7 GWh of transported energy²

7.8 million

1.3 thousand km of transmission lines(4 ventures)

2.034 million

km² of area covered (Source: IBGE, July 2016) 648.4,000

kilometers of distribution grids and lines



4,672 GWh

of energy sold by Energisa Comercializadora

2019 Quick Facts

5th largest

energy distribution group in Brazil

11 energy

distribution concessions across Brazil

4 TransCos

1 distributed generation company,

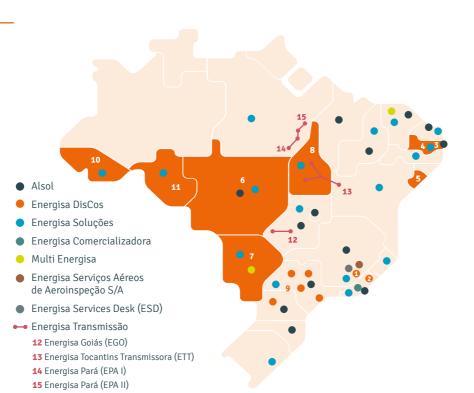
based in MG and operating in 12 states

6 service

companies, based in MG and RJ operating in the states of PA, GO, TO and BA

6 Service companies based in

MG and RJ, operating nationwide



R\$ 19.9 billion

of net revenue

R\$ 3.8 billion

of adjusted EBITDA

R\$ 18.1 million

invested in human and social development projects

14.6 thousand

own employees

5.6 thousand

outsourced staff

	1 Energisa Minas Gerais	2 Energisa Nova Friburgo	3 Energisa Paraíba	4 Energisa Borborema	5 Energisa Sergipe	6 Energisa Mato Grosso	7 Energisa Mato Grosso do Sul	8 Energisa Tocantins	9 Energisa Sul-Sudeste	10 Energisa Acre	Energisa Rondônia	Total
Number of customers ¹	460,113	109,476	1,438,705	219,542	788,332	1,458,284	1,039,426	599,628	799,992	264,457	645,173	7,823,128
Number of municipalities	66	1	216	6	63	141	74	139	82	22	52	862
Electricity sold in 2019 ²	1,525.3 GWh	328.3 GWh	4,410.7 GWh	663.9 GWh	3,009.9 GWh	9,311.0 GWh	5,686.8 GWh	2,418.1 GWh	4,445.5 GWh	1,080.8 GWh	3,238.4 GWh	36,118.7 GWh

¹ Free and captive clients.

 $^{^{\}mathbf{2}}$ Energy sold in the captive market and transported (Tusd).

Mission

Energisa Group exists to transform energy into comfort, development and new sustainable possibilities, offering innovative energy solutions to its clients, aggregating value for its stockholders and offering opportunities to its collaborators.

Vision

By 2020 Energisa will be one of the best and most respected power companies in Brazil, engaged in the distribution, transmission, generation and trading of energy and related services, renowned for the quality of its client-facing services, operational efficiency and shareholder returns.

Values



COMMITMENT - To the present-day and the future

We act as responsible citizens, striving to generate wealth and prioritizing respect for our staff, investors, suppliers and clients. First and foremost, we are part of the community and have a commitment to future generations. It is imperative that we conduct ourselves ethically and value honesty above all else.



CLIENTS - Making their lives easier

We always treat our clients with dedication and respect in an effort to build an attentive and enduring relationship with them. We place ourselves in our customers' shoes to deliver efficient and lasting solutions that make life easier and add value for users.



PEOPLE - We harness energy from our people

We are part of a winning team that enables us to achieve, learn and win together. Opportunities here are essentially based on individual merit and engagement. We value transparency, teamwork and open and interactive communication. If you think the same way, you are one of us, and we would very much like you to be happy here with us.



RESULTS -Overcoming challenges to achieve results

We seek to achieve extraordinary results that generate value for our clients and stockholders. We seek to beat our targets in order to ensure that Energisa stands among the best in its sector in terms of efficiency and customer service.



SAFETY - First and foremost

Our greatest asset is life itself. As such, we place health and safety above all else in our processes and attitudes. Ours is a disciplined mindset. We invest in preventative measures and promote constant awareness amongst all our personnel to reduce risks.



INNOVATION – To make a difference

We encourage creativity that generates value, be it in the production of something completely new or possible improvements to an existing product. Observing, questioning and experimenting responsibly are part of the proactive mentality that sets us apart.

Awards and recognition

Energisa Group

- Overall first place amongst 38 companies in the 2019 ranking compiled by the magazine Institutional Investor, for best CEO, CFO, IR Professional, IR Team, IR Program, Environmental, Social and Governance (ESG) practices, Meetings with Latin American Investors and Website.
- Accolade from the Minas Gerais State Industry Federation (FIEMG) awarded to Energisa Group CEO, Ricardo Botelho, amongst the businessmen most advancing development in the state and Brazil.
- Sixth highest net revenue in the electricity sector and 45th amongst the thousand largest companies in Brazil in 2019, according to the Valor1000 ranking compiled by the newspaper Valor Econômico.

Energisa Minas Gerais

- Eloy Chaves gold medal amongst distribution companies with 501 to 2,000 employees, for its performance in work-related accident prevention and safety.
- Amongst the best distribution companies in Brazil, coming fifth in the National Electricity Regulatory Agency (Aneel) ranking for best performance in terms of service continuity amongst large concession operators (more than 400 thousand clients).
- Our ombudsman practice is a standard setter in terms of customer response times, according to Aneel.



Energisa Nova Friburgo

- Abradee 2019 Award for Best Distribution company in Brazil, for companies with up to 500 thousand customers, for the second time.
- Amongst the best distribution companies in Brazil in the Aneel ranking of concession operators with the best performance in terms of service continuity, coming sixth amongst companies with 400 thousand consumer units or less.
- Eloy Chaves bronze medal for distribution companies with up to 500 employees, for its performance in work-related accident prevention and safety.

Energisa Paraíba

- Abradee 2019 Award for Best company for economic and financial management, for distribution companies with over 500 thousand consumers.
- Fifth place in the Aneel ranking of the distribution companies with the best performance in terms of service continuity.

Energisa Borborema

- Abradee 2019 Award for Operational Management for distribution companies with up to 500 thousand consumers.
- Second place in the Aneel ranking of the distribution companies with the best performance in terms of service continuity, in the category of companies with 400 thousand consumer units or less.

Energisa Sergipe

- Abradee Award for best result in the Northeast for companies with more than 500 thousand consumer and second best in the Northeast in the Perceived Quality Excellence Rate. The company was ranked fifth nationwide in 2019.
- Eloy Chaves bronze medal for distribution companies with between 501 to 2,000 employees, for its performance in work-related accident prevention and safety.
- Third place in the category middle-market companies in the Aneel Ombudsman's Award.
- Fourth place in the National Quality Attribute Performance Index (Idat).

Energisa Mato Grosso

- Eloy Chaves gold medal for distribution companies with more than 2 thousand employees, for its performance in work-related accident prevention and safety
- Anefac 2019 Transparency Trophy, which recognizes the best transparency practices for accounting information disclosed to the market in financial statements.
- Best in the Midwest in the Empresas Mais awards, organized by the Estadão newspaper.
- Recognition by the State Legislative Assembly, certified as a socially responsible company effectively contributing to society in Mato Grosso state.

Energisa Mato Grosso do Sul

- One of the Best in the Midwest in the national *Great Place* to Work (GPTW) ranking.
- Human Being Award, for people management and development awarded by the Brazilian Human Resources Association (ABRH).
- Gold Trophy, in the category Path to Excellence, in the Mato Grosso do Sul Management Quality Awards (PQG/ MS).
- Best distribution company in the Midwest in the Aneel Consumer Satisfaction Index (lasc), in the category more than 30 thousand consumer units.
- Seventh place in the Aneel ranking of the distribution companies with the best performance in terms of service continuity.

Energisa Tocantins

- 2019 Abradee Award, as Best Distribution Company in the North-Midwest, for the third time, in the group of companies with more than 500 thousand consumers.
- Winner of the lasc 2019 Award, recognized by its customers as being the best energy concession operator in the North and the distribution company with the greatest growth in Brazil, rising from ninth to sixth in the national ranking.
- 1st place in the General Satisfaction Rate (ISG), for companies with more than 500 thousand consumers;
- The first company from Tocantins state to make the national Great Place to Work (GPTW) ranking, coming 65th.

Energisa Sul-Sudeste

- Abradee 2019 Award for Best Company according to Customers and Operational Management for distribution companies with over 500 thousand consumers.
- First place in the National Electricity Regulatory Agency (Aneel) ranking of the distribution companies with the best performance in terms of service continuity.
- Best distribution company in the Southeast in the Aneel Consumer Satisfaction Index (lasc).
- Second place in the category middle-market companies in the Aneel Ombudsman's Award.



Corporate Governance

Transparent communication
Risk management
Ethical conduct

Transparent communication

Energisa's corporate governance model aims to ensure equitable access to information for stakeholders, in order to guarantee an open and transparent dialog. In FY 2019 the Board of Directors approved a series of policies to make our information releases even clearer, including the Earnings Allocation Policy and the Executive Compensation and Appointment Policy. These documents can be seen at:

https://ri.energisa.com.br/
governanca-corporativa/politicas-e-codigos

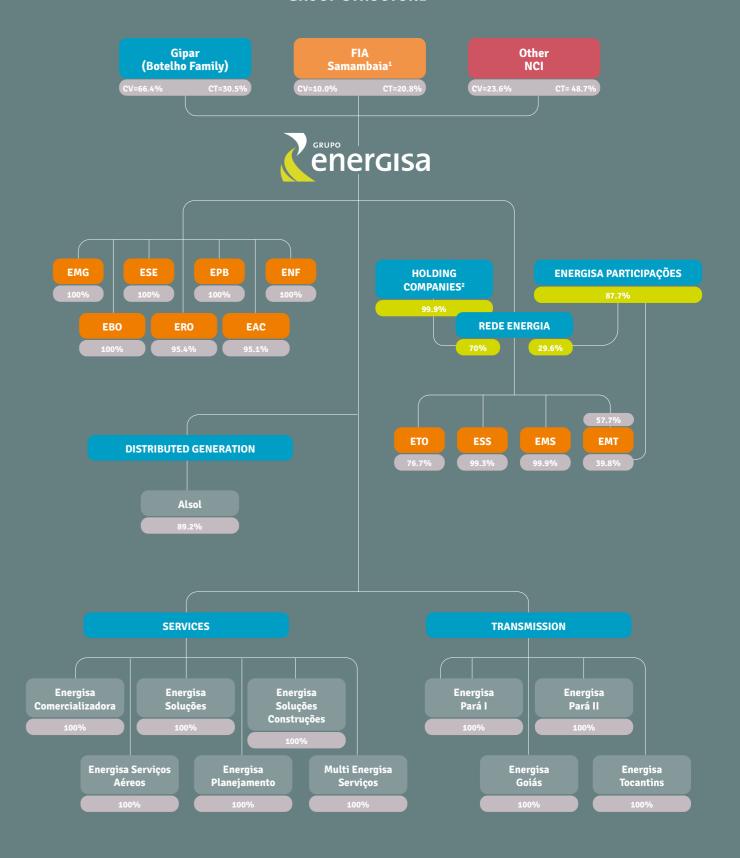
We have an investor relations site for investors and shareholders,, periodically updated with institutional and governance information including presentations, press releases, earnings releases and other information. You can sign up to receive monthly newsletters with information about the Company and our economic and financial results. Every year we publish a memorandum about the Brazilian Corporate Governance Code, describing the 54 practices we adhere to and the reasons why certain practices are not adopted.

A shining light in 2019 was the holding of Energisa Day in Rio de Janeiro (RJ) and Porto Velho (RO), attended by some 70 and 26 analysts respectively. This flagship event presented the challenges and opportunities posed by the recently acquired concession in Rondônia. 167 meetings/calls and four public teleconferencing calls were also held. Company representatives participated in capital market events (12 in Brazil and 5 overseas), with a total 91 individual meetings held during those events.

In 2019, Energisa, Algar S.A. Empreendimentos e Participações and Gustavo Malagoli Buiatti entered into a shareholders' agreement as a result of the acquisition of Alsol Energias Renováveis (for further information see the link to the press release announcing the Completion of the acquisition of Alsol, on Energisa's IR site). And on April 30, 2019 the term ended established in the Shareholders' Agreement of Centrais Energisa Rondônia, entered by the Company and Eletrobrás on October 30, 2018, to increase Eletrobrás' interest in the share capital of Energisa Rondônia by up to 30%. Eletrobrás did not exercise this subscription option on the agreed terms.

Model is underpinned by broad disclosure of information and open and transparent dialog with stakeholders

GROUP STRUCTURE



CV - Voting Capital | CT - Total Capital

Shareholding held directly and indirectly through investment vehicles.

Energisa indirectly owns 95.9% of Rede Energia by way of holding companie

Governance framework

Energisa's management consists of the Board of Directors, Fiscal Council and Executive Board.

Board of Directors

This Board oversees and controls the Company's activities, with concrete responsibilities in respect of business direction and strategy, and overseeing executive boards. It should be comprised of up to seven serving members - a Chairman and vice-chairman - and up to seven alternates, elected at the General Meeting, for a term of up two years, who may be re-elected. Two places are currently held by members elected by noncontrolling shareholders. Four of the serving seven directors are independent. The terms last two years and expire in April 2020, with re-election permitted.

Fiscal Council

An independent body, whose chief responsibilities consist of auditing management activities, reviewing the Company's financial statements and reporting its findings to the shareholders. Under our Bylaws a non-permanent Fiscal Council may be elected, although only at the request of our shareholders at a general meeting. The council is comprised of at least three and at most five members and their respective alternates. The Fiscal Council was convened at the Annual General Meeting (AGM) held April 30, 2019, and consists of three serving members and three alternate members, all with terms through to the next AGM.

Supporting Committees

The Council is assisted by five Committees:

Audit and Risk – Monitors and advises the Board of Directors in respect of financial and accounting reports of all of its subsidiaries, internal controls, risk management and the work carried out by internal auditors. The Risk and Audit Committee is comprised of at least three and at most five members, including at least one expert in matters within the committee's remit and an independent member. The Board of Directors currently has three members, including an alternate, all of whom are independent, non-executives and have proven experience in corporate accounting.

Financial Risk Management

Assesses processes and procedures and proposes improvements to measure and mitigate business risks such as: debt limits, hedge requirements for foreign-currency liabilities, counterpart risk limits and dividend policy, amongst other measures. The committee consists of the CFO and Investor Relations Officer, the Corporate Controllership and Finances Officer and an external consultant specializing in risk management, especially cash and debt risks.

Disclosure - Tasked with managing the Company's disclosure policy, recording access to inside information, and discussing and recommending the disclosure or nondisclosure of potentially material operations and events. The Disclosure Committee consists of at least three and at most five members. The Investor Relations Officer chairs the Committee and appoints the four other members, who will be professionals with proven expertise in the legal, financial, capital market and investor relations fields. It currently consists of members from the investor relations (two), legal (one) and financial (one) departments.

Compensation and Succession – Monitors and advises the Board of Directors on issues related to the compensation and succession guidelines and policies for the executives of Energisa S.A. and its subsidiaries. It currently consists of three Board of Directors' Members, including an independent member, a specialist and two non-executives.

Ethics – Promotes the moral values and universal principles of social well-being that underpin Energisa's business, always prioritizing ethics, respect, transparency and truth in relations in order to provide a wholesome, healthy and harmonious workplace. The committee has independence and autonomy, answering directly to the Board of Directors, and is tasked with implementing, disseminating, training, reviewing and updating the Code of Ethics and Conduct and compliance line, in addition to carrying out investigations and proposing corrective measures regarding violations of the Code of Ethics and Conduct. The Committee consists of at least five and most eight members, all appointed

by the CEO and appointed and dismissed at any time by the Company's Board of Directors. It currently consists of eight members, all Energisa professionals.

Executive Board

Tasked with implementing Company strategy. It is comprised of up to five members, including a CEO, CFO, Regulatory Affairs and Strategy Officer, a Procurement and Logistics Officer and a Personnel Management Officer, who may or may not be company shareholders, are appointed by the Board of Directors for a term of one year and may be re-elected. The current members were elected in March 2019.

In light of the Group's growth and resulting increase in headcount - a People and Management Vice Presidency was created in the year in order to strategically steer this expansion and standardize processes. The Sustainability Practice was created as a part of this structure, which will play a fundamental role in making our business sustainable. The Vice Presidency works alongside the Corporate Performance and Transformation Board tasked with monitoring the Group's strategic management, including transformation project management; implementing and monitoring the management model; understanding stakeholder expectations; and supporting areas in setting targets and performance indicator metrics.

For up-to-date information about the management members and their duties see:

https://ri.energisa.com.br/governanca-corporativa/administracao.

D&O compensation

In 2019 Energisa approved the Executive Compensation and Appointment Policy, which establishes the requisites for the Board, Executive Board and Committees' appointments, composition, election and compensation. The annual overall amount approved in the period was R\$ 9.38 million.

In line with good governance practices, there is also a Share-based Remuneration Plan and policies for: Financial Risk Management; Securities Trading; Related-party transactions and Conflicts of interest; Allocation of earnings and Donations and Sponsorship. Energisa has been a signatory to the Abrasca code for Self-Regulation and Good Practices since 2012.

Sustainability Governance

Based on ethical, social and environmental criteria, Energisa Group's Sustainability Policy underpins its practices and how it relates with various stakeholders, in a wholesome, transparent and responsible way.

A number of principles and guidelines are therefore respected and applied by all in daily operations.

In 2019 the progress made in internal management, such as creating the Sustainability Practice, paved the way for new socio-environmental projects. We also have the Sustainability Committee, comprised of: the chairman of Energisa Group, Chairman of the Cultural Ormeo Junqueira Botelho Foundation, vice-president of Distribution, CEOs of Business Units, Corporate People Management Officer and Corporate Strategic Management Manager.

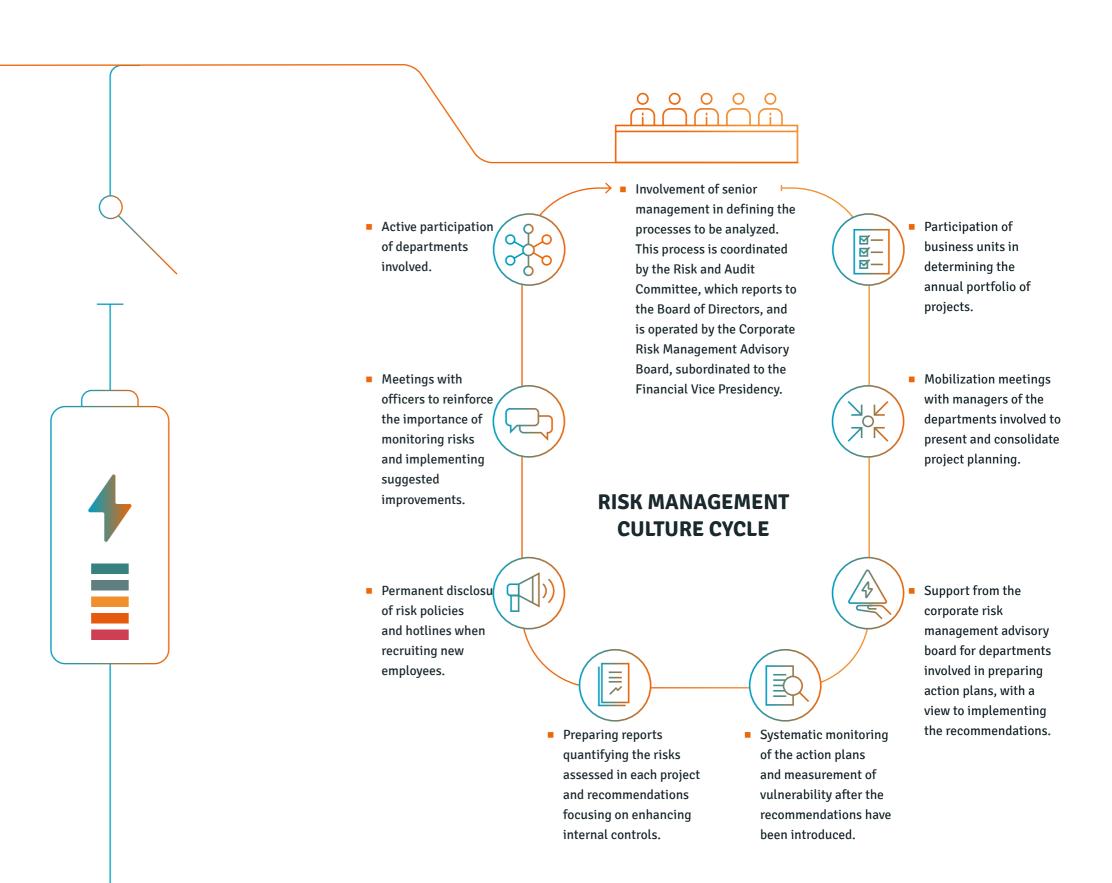
Risk management

In conformity with best international practices and in line with strategic objectives, the Risk Management and Financial Risk Management Policies were reviewed in 2019, enhancing the guidelines for mitigating, remediating and tracking risks, and certifying or enhancing internal controls in order to reduce or eliminate negative impacts and maximize positive factors.

Guided by the *Committee of Sponsoring Organizations* of the Treadway Commission (Coso) model introduced by the National Commission on Fraudulent Financial Reporting, the risk management process involves mapping out and measuring risks and the probability of occurrence; policy analysis and definition, in addition to treatment, monitoring and control. The audits embrace the organizational processes deemed critical and are based on standard ISO 31000 – Risk-Based Auditing (ABR).

The map is consolidated into a periodically reviewed risk matrix, which considers the vulnerability of the processes related to operational, regulatory, security, repute, and environmental risk, amongst others, and the potential financial losses the company is subject to in the event these risks materialize.

In order to reduce the vulnerability of internal processes and consequently mitigate critical business risks, every year head office spurs continuous improvement by implementing recommendations and initiatives to enhance internal processes and compliance, contracts, controls, people and systems. All employees are involved in the risk management cycle.



Ethical conduct

Energisa views ethics as a core value for conducting business and engaging with its stakeholders. The principles and rules of conduct - applicable to employees, executives and suppliers and third parties - are set out in the Code of Ethics and Conduct. The document sets out the practices and standards of conduct that should be followed every day, to always support our corporate mission and guarantee a fair and harmonious coexistence between Energisa and its stakeholders.

All new employees receive a printed copy of the Code, as well as periodic training on the matter. To this end, the new corporate education model – Educativa – has a Strategic Management trail, with three remote learning modules (EAD) for training on the Code of Ethics and Conduct. They involve general content about the matter, the duties of Energisa's Ethics Committee and information about the company's online Compliance Hotline, which receives reports about irregularities regarding ethical, accounting or legal matters. Suppliers and service providers are given the document when signing their contracts.

Open Communication

Criticisms, suggestions, whistleblowing and complaints from our internal and external public can be submitted through the following Access Channels:

- Telephone: 083 2106-7689
- E-mail: denuncia@energisa.com.br
- Web: https://www.energisa.com.br/ institucional/Paginas/eticatransparencia.aspx





Strategic planning Innovation and R&D

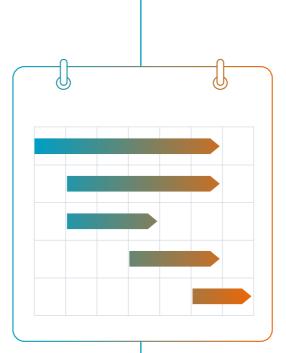
Strategic planning

The Strategic Planning process was enhanced in 2019 to expand the strategy discussions in the business areas; the inclusion of strategy facilitating topics (for supporting areas and Human Resources); approval of the Strategic Plan by the Board of Directors; and evaluation of departmental compliance with the Business Plan and the respective strategies.

The Strategic Plan is based on three fundamental pillars – growth, diversification and innovation – and aims to review business direction to guarantee the Company's enduring existence. Conducted by the Strategy, New Business and Innovation Board, it is structured through the Strategic Management System (SMS) and disclosed to all Group companies.

The key points are:

- Optimizing investment (Capex) in the Group's distribution companies and seeking the best allocation of capital in other operating segments, focusing on diversification and keeping the ratio between risk and return in check;
- Cementing the Group as a meaningful player in the distributed generation and transmission segments and resuming the centralized generation business by developing greenfield projects;
- Efficiency and integration in the distribution companies' operations, in order to enhance asset management and pursue growth opportunities providing unique experiences for customers by actively prospecting opportunities for inorganic growth;
- Compiling a diversified generation portfolio (wind, solar and hydro) through greenfield projects or opportunistic acquisitions;
- Restructuring the services segment, including reviewing lines of operation and developing new business fronts aligned with trends in innovation, the sector and industry 4.0.



STRATEGIC MANAGEMENT SYSTEM (SMS)

Energisa Group has a set of management-facing processes, called the Strategic Management System (SMS), disseminated at all units. Conducted in accordance with the PDCA method (plan, do, check, act), the management process is staggered and implemented using tools and methodologies such as the Guidelines Management (GPD), Daily Routine Management (GRD) and the *Balanced Scorecard* (BSC), ISO standards and *Project Management Body of Knowledge* (PMBOK – a guide to best project management practices in Portuguese), amongst others.

The SMS is split between the Planning and Monitoring stages, with a cross-cutting line that considers the expectations of stakeholders and involves people, tailored processes and technology. It consists of four steps:



- 1. Potential future scenarios are modeled to capture signals beyond the short-term uncertainties, and estimates are made of the potential consequences of each scenario in order to mitigate risk and increase our businesses' responsiveness to changing circumstances.
- 2. A Business Plan is put together for each business unit, and approved by the Board, which consolidates the Group's target budget and financial results and drills them down into individual targets that ensure key drivers are addressed at all levels of the organization.



- 3. Employees are engaged in implementing actions and ensuring strategic goals are met. Results are measured using performance indicators that are evaluated at periodic meetings of the Group's Support and Business Units. In addition, our Sustainability Committee meets quarterly to discuss matters related to social, cultural and environmental development, including the Energisa Energy Efficiency Program.
- 4. The cycle is completed with a performance assessment for the year and recognition of results achieved. For this, Energisa has an Earnings-Based Compensation Program which is performance related. To disseminate and conduct the Strategic Management System, the Company has a Management Network, in the various areas, the constant exchanging of information expertise helps disseminate the Management Model throughout the Company. It also aims to bolster the pursuit of better results and analytical thinking for the interpretation thereof.



Energisa Services Desk (ESD)

The Energisa Services Desk (ESD) consolidates routine administrative, operational and repetitive tasks on a single platform, enhancing security and efficiency. The ESD is housed in a building in Cataguases (MG), with state-of-the-art, sustainable infrastructure that can be scaled up to accommodate new services and new business fronts. In 2019 the ESD extended its coverage to our recent acquisitions, Energisa Acre and Energisa Rondônia.

Consolidating tasks in a shared services desk helps to standardize processes and ensure agreed service deadlines are met, while also supporting continuous improvement of management processes and quality of service. The ESD enables us to focus on core business activities, enhance control and compliance, improve team motivation and reduce costs.

In 2019, the second year since launching the ESD, we upgraded the data center, implemented a new shared services model, migrated the systems in Acre and Rondônia, and insourced the IT Systems teams. Billing and Collection functions were also insourced, and systems improvements eliminated document scanning for approximately 7,000 reissued invoices per month. In Procurement, we implemented a new services procurement platform called Websupply, and made progress on process automation in Human Resources. In services management, we implemented a Client Cell and developed 57 robots.

We also organized the second edition of our Innovation Workshop, an event where different business functions had the opportunity to share ideas and good practices on ways to streamline and simplify processes and make day-to-day business routines easier and better organized for employees.

TWO YEARS OF ESD ACTIVITIES



Reduced fines for late-paid bills by R\$ 4 million.



 Improved average vehicle running performance, generating fuel savings of R\$ 1.4 million.



 Accelerated the monthly accounting-close period from the 18th to the 5th business day.



 Decreased the payroll close period from the third business day of the subsequent month to the second to last day of the current month.



 Reduced the time taken to issue delivery orders from three to two days.



 100% of property lease agreements registered and paid via a contract management system.



 Implemented e-social with no added hours of effort, generating positive impacts company-wide.



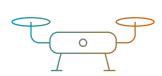
 Implemented on-site storage of minimum spare parts inventories for IT, telecommunications and networking at distribution companies.

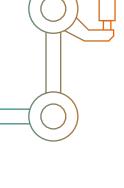
Digital journey at ESD

The ESD has embarked on a digital journey to implement Robotic Process Automation (RPA) with a focus on improving service. We currently have 57 robots that assist our Accounting, Facilities, Invoicing, Fleets, Financial, HR and procurement functions, saving 4,800 hours of effort per month.



Employees formed a study group on technology on the Meetup app and website, with 95 representatives from the ESD and other Group companies. At each weekly meeting, a member of the group presents a different emerging technology and shares new ideas and solutions with peers. Out of 1,041 groups in 135 countries, the Cataguases developer group was recently awarded support from Google Developers.









Innovation and R&D

At Energisa we see innovation as an imperative for achieving strategic goals, anticipating future needs and ensuring our sustainability as a business. To deliver on this vision, we invest in new solutions and technologies and work to disseminate an internal culture of innovation. Our Innovation function, an arm of the Strategy, Business Development and Innovation department, also develops new businesses for the non-regulated electricity market to prepare the Group for the future opening of the market, a topic that has been high on the regulatory agenda in recent years. Our innovation priorities in 2019 and over the coming years include:

Artificial intelligence and robotization — In 2019 we implemented algorithms in the Human Resources department to support recruiting & selection and training & development processes. The focus is on enhancing safety by using tools to identify safe and unsafe behavior. In the future, we plan to develop tools to identify people with the right skill sets and mechanisms to help employees internalize safe behavior.

Energy storage - A battery storage solution to expand the useful life of battery cells using sensors and panels operated using predictive models.

Using drones for infrastructure applications — We developed a future vision, process structure and reference framework for fleet inspection and image recognition using drones to assist operation and maintenance activities:

Open market - Initiated development of a Digital Trading system as a one-stop, fully digital platform for electricity trading and services.

Solar farm O&M solutions - Solar panel cleaning using integrated panel performance analysis solutions.

Open innovation

Our focus in the year was on prospecting for new technologies and solutions, both in Brazil and in countries such as China, Israel, Canada, the US and the UK. We invested more than R\$ 2 million in testing these technologies, including digital transformation programs; implementation of intelligent decision-support algorithms; systems for providing remote support to field crews in preventive and emergency operations; and automated solar panel cleaning processes. We also organized missions and participated in events in Israel, Canada, China, the UK and the US. Out of more than one thousand evaluated suppliers, 150 were selected and 40 developed/completed proofs of concept (PoCs).

One of the most significant resulting partnerships was with an Israeli company to provide an intelligent asset management solution using data analytics and artificial intelligence. The solution analyzes and troubleshoots transformers to detect potential issues. It can also be used to create new artificial intelligence algorithms for a range of applications, helping to lengthen the useful life of transformers as well as other monitored powersystem assets, from generation to distribution.

We are currently reviewing our Innovation Roadmap for the coming years, setting strategic topics for our technology prospecting efforts and Trend Observatory. We plan to further expand partnerships with startups and companies in Brazil and other countries, across the following topics: *Monitoring & Sensor*; *Analytics* and Artificial Intelligence (computer systems for data analysis or statistics); Operational efficiency; *Cybersecurity*; *Smart City* and Energy Efficiency, amongst others.

Structured partnerships

Concurrently with our international initiatives, in 2019 we increased our presence in Brazil's leading innovation hubs. These innovation and technology centers provide a platform for regular, structured and objective efforts to prospect for and procure solutions developed by startups and small businesses. In the year, we launched more than 30 challenges on partner platforms such as Inovabra, Acate, Porto Digital, Brain and other hubs, attracting more than 200 project proposals for review by the Group.

These proposals are evaluated by our innovation team, and selected startups are invited to present pitches and hold deep-dive sessions with the Energisa teams that launched the challenges. In 2019, we evaluated more than 50 pitches, leading to 20 new contracts with Brazilian startups, with an aggregate contract value greater than R\$ 5 million. Another 20 potential partnerships identified in 2019 are currently under consideration.

Other initiatives in 2019 included small, immersive employee events designed to strengthen our innovation culture and expose employees to new technologies and business models. These events were organized at different departments and, combined with our technology challenges and new contracts for solutions, earned us recognition from the Inovabra platform as the most engaged group in 2019.

Digital transformation

Energisa's digital journey is an organization-wide effort to improve administrative and operational efficiency. The program is supported by industry experts and is developing initiatives in three waves: one extending to 2020, one between 2020 and 2023, and the last post-2023. For each wave, innovative structuring initiatives will be implemented that will transform the way we do business and serve customers.

In 2019 we created a Digital Transformation function to further bolster these efforts. The new function is within the Strategy, Business Development and Innovation department and is responsible for leading strategic digital initiatives that intensively leverage digital technology and advanced analytics to improve operational efficiency, enhance the employee and customer experience, and develop new products, services or business models. The following are some of the main initiatives approved and developed in the year:

Project prioritization tool — An intelligent algorithm that analyzes different business variables to develop an optimal project pipeline sequence and distribution to contractors, with information on time frames for reserving materials and milestone schedules.

3D Power System — A web platform and mobile app providing a user-friendly, 3D library of equipment and Group standards for field electricians and designers. The files will have a lighter format than in conventional systems and will support training using augmented reality.

Asset Maintenance Optimization System (SOMA 4.0)

 A solution to optimize asset maintenance by using advanced analytics to increase accuracy in failure prediction. The solution also includes a work order scheduling module to optimize crew allocation.

Smart IPEO Analytics — An intelligent algorithm that provides a list of Work Orders (WO) that are most likely result in a nuisance trip, as an input for contact-center callbacks. The rating model uses supervised machine learning to identify patterns leading to nuisance visits, ensuring more effective connection operations.

Remote support for field crews — Using systems to facilitate remote support through tutorials and walkthroughs for customers or operations crews. The platform supports remote communications, provides an up-to-date library of standards and maintenance records, and is user-friendly and intuitive to facilitate remote support and maintenance.

Energisa Agile Journey

To expedite our digital transformation, we have implemented a range of educational and training initiatives for key employees within the Energisa Agile Journey. Three committees evaluate employee pitches to test new technologies with funding from the Innovation function.

Innovation projects are also supported through our Best Practices Contest, in which employees can enter innovative projects in the following categories: *e-nova*, Research & Development, Energy Efficiency Projects and Special Projects. The 2019 edition received 252 project entries from our distribution companies, Energisa Soluções and Energisa Comercializadora.

Information security

The cybersecurity of our information technology systems has received special emphasis and is among our investment priorities. In the coming years, we plan to expand partnerships and develop new projects in this area in order to reduce risks and protect our servers, computers, mobile devices and systems—and the mission-critical business information they contain— against breaches and malicious attacks.

In 2020 we will implement an efficient and practical solution to detect cyber-attack vulnerabilities in our corporate network and generate reports with recommended corrective actions. Developed in partnership with Israeli companies, the solution—called XM Cyber—is a fully automated hacking solution that continuously simulates hackers' actual methods and behaviors to expose attack vectors. We have also set up a Security Operation Center providing 24/7 incident monitoring and response.

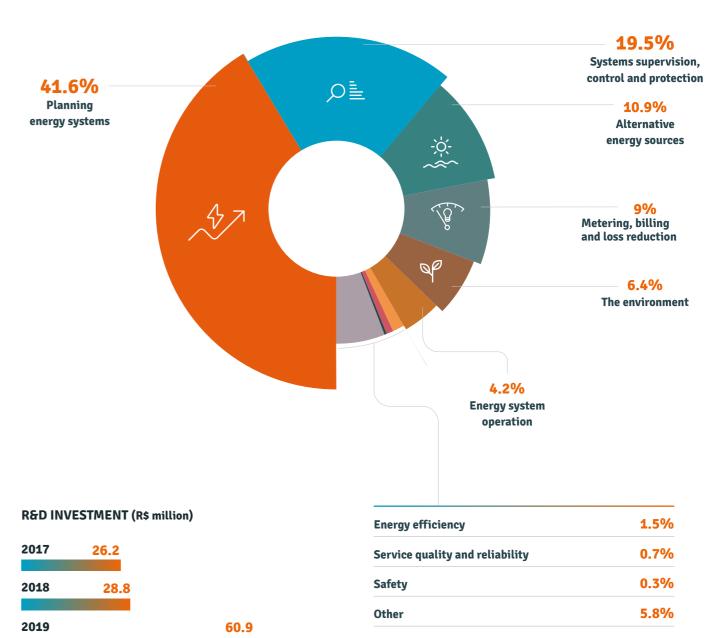
In 2019 we started development of an soft-ware-based OT cyber vulnerability assessment solution to monitor the operational network controlling all automated devices within our power systems and substations, providing visibility and protection against attacks on those devices. The solution provides vertical monitoring of all equipment from the protection level through the automation and access layers to the supervisory level, as well as customized reports and alarm and access handling.

Research and Development (R&D)

The R&D program is a lever for the innovation process in the electric sector. At Energisa, all creative solutions aim to assure operational, administrative and/or regulatory improvements to ensure the best services for clients and best operating conditions.

In 2019, the investments amounted to R\$ 62.3 million and 12 new projects were approved, amounting to 28 initiatives if projects in progress are counted. Most of the proceeds (41.6%) were allocated to electric system planning studies.

INVESTMENT IN R&D BY TOPIC - 2019





The following were the main projects in the year:

Vera – An acronym for Vegetation Recognition Action consists of developing a platform that uses imagery to recognize and manage electricity distribution and transmission lines. This can process a variety of different types of images (including spaceborne, airborne and ground sensing imagery) under different climate and geographic conditions, including urban areas, rural areas and rights of way. It can also identify tree species, monitor vegetation growth, generate line clearance tree-trimming plans, and monitor tree-trimming and clearing work. The project covers four links in the value chain: assessment, risk mapping, risk-based action planning, and operational actions, including the development of mechanized solutions, such as tree trimming robots.

Relig— A collaboration between Energisa Mato Grosso do Sul and the Federal University of Mato Grosso do Sul to develop a system to improve efficiency in customer disconnection and reconnection operations. The system will consist of a hardware platform and an app that will allow disconnection and reconnection operations to be performed remotely without operator intervention, increasing safety for electrician crews and allowing for a faster disconnection/reconnection process. One of the benefits of the system is that after paying their late bills, customers can reconnect their service themselves using an encrypted security key.

F-Loco - This project is developing a low-cost sensor and associated analytics to troubleshoot power system faults, supporting a faster outage response, reduced outage duration, lower costs and reduced impact on consumers.

An electric mobility project will provide delivery and passenger transportation services using vehicles

100%

powered by solar energy

Partial Discharge Sensor — This project is creating a system to measure partial discharges that can result in small short-circuits in transformer insulation. This can result in transformer failure and ultimately transmission system outages.

Electric mobility — We have approved two electric mobility projects in partnership with Alsol. Move Alsol will initially provide energy storage services and mobile chargers for electric vehicles in Uberlândia (MG). The next step will involve delivery and passenger transportation services using fully solar-powered electric vehicles. The second project, Vila Restauração, will provide power supply to a remote community in Acre. Located in an extractive reserve about 70 km from the municipal seat, the community has a total of 170 houses. Half of these houses receive power supply from municipal diesel generator sets four hours a the day.



Scenario 2019

2019 was marked by sluggish economic growth in Brazil, with GDP rising 1.1% and the Selic base interest rate falling from 6.5% to 4.5% per annum. The official inflation rate (as measured by the IPCA price index) rose from 3.75% in 2018 to 4.31% in the year.

According to the Brazilian Institute of Geography and Statistics (IBGE) the unemployment rate was 11.2%, a shade down on the 11.6% recorded the previous year. The formal employment rate rose by 1.9% according to the General Register of Employed and Unemployed Workers (Caged) published by the Ministry of Labor and Employment.

Industry overview

Energy consumption in Brazil rose by 1.4% on 2019 compared with the previous year, to 482,085 GWh. According to Empresa de Pesquisa Energética (EPE), the greatest growth was recorded in the commercial segment, up by 4.0%, reaching 6.8% in the North-East region of Brazil, an increase primarily attributed to warmer weather.

Residential consumption was 3.1% higher, especially in the Midwest (7% rise), with a meaningful contribution from Mato Grosso (+11.4%), buoyed by a thriving labor market and a higher occupation rate. Consumption in Brazilian homes was 162 kWh/month on average. The industrial sector, however, contracted by 1.6% in the year, with the worst drops occurring in the mineral (-11.0%), chemical (-7.4%) and metallurgical (-1.5%) sectors.

By region, the best performance was registered in the Midwest (4.3%), followed by the North-east (3.1%), North and South, with the latter two growing by 2.0%. The south-east experienced minimal growth of 0.2%.

Rainfall and reservoir capacity

Rainfall levels were lower than in 2019, which impacted the recovery of reservoir capacity. This factor influenced the average Difference Settlement Price (PLD) for the year, of R\$ 227.30/MWh in December 2019, compared with the figure of R\$ 78.96/MWh for December 2018.

In the period, the average *Generation Scaling Factor* (GSF) was 80.9%. The Electricity Trading Chamber (CCEE) estimates that the GSF triggered a negative impact of R\$ 21 billion on the energy sector, with R\$ 15 billion allocated to the regulated market and R\$ 6 billion to the free market.

Regulatory environment

There were intense discussions about the new legal framework for the electric sector in 2019, with the formation of a Special Commission of Brazil's Electricity Code. In the years ahead they will focus on 15 topics aiming to upgrade the sector. The discussion also embraced the proposal to review Normative Resolution 482/2012 regarding the rules applicable to distributed micro and mini generation systems, to enhance the credit offsetting system.

As part of the efforts to combat "hidden" subsidies in energy rates, the agency approved a change to the rules for contracting wind generation projects, in order to approximate bid prices to those effectively paid by consumers.

In the year Aneel approved the opening of a public consultation for contributions about the proposed review of the rate review methodology. It also opened a public consultation about the regulatory impact analysis, which addresses the methodology and restatement of the capital compensation regulatory fee for the transmission, generation and distribution segments.

The Group contributed suggestions about the main topics discussed, especially the segregation between cable rental distribution companies and distribution companies that trade regulated electricity, and reached

out to regulatory agencies about the incentives model currently in force for distribution and changes to rules for procuring wind energy ventures.

Operating performance

2019 represented the first operating cycle of the Energisa Acre and Energisa Rondônia concessions acquired by Energisa Group in 2018. Various projects were implemented to make these two companies more efficient. Further good news was the renewal of Energisa Tocantins' concession for another 30 years.

The number of clients served by Group rose to 7.8 million

at the end of the year, an increase of 1.9% on 2018. The acquisitions of Energisa Rondônia and Energisa Acre added 909,567 consumer units to the Energisa captive client base, which amounted to 7,822,192. 936 clients were served in the free market, 17.9% more than in the previous year, with 63 from the two new concessions.

CUSTOMERS BY DISTRIBUTION COMPANY

			Captive sales			Free market
Company	2018	2019	Change	2018	2019	Change
Energisa Minas Gerais	455,359	460,051	1.0%	54	62	14.8%
Energisa Nova Friburgo	108,287	109,467	1.1%	9	9	0.0%
Energisa Paraíba	1,424,082	1,438,639	1.0%	51	66	29.4%
Energisa Borborema	212,744	219,527	3.2%	14	15	7.1%
Energisa Sergipe	776,347	788,265	1.5%	52	67	28.8%
Energisa Mato Grosso	1,403,355	1,458,048	3.9%	210	236	12.4%
Energisa Mato Grosso do Sul	1,018,108	1,039,233	2.1%	162	193	-88.1%
Energisa Tocantins	586,458	599,584	2.2%	34	44	29.4%
Energisa Sul-Sudeste	784,064	799,811	2.0%	152	181	19.1%
Energisa Acre	263,729	264,436	0.3%	19	21	10.5%
Energisa Rondônia	641,995	645,131	0.5%	37	42	13.5%
Total Energisa	7,674,528	7,822,192	1.9%	794	936	17.9%

Electricity sales

Captive energy consumption and transportation to free clients rose by 4.2% on 2018, to 36,118.7 GWh, outperforming the average energy consumption in Brazil, which rose by 1.4% over the same period, in accordance with the Monthly Overview of the Electricity Sector, published by Empresa de Pesquisa Energética (EPE). Residential consumption according to the EPE rose by 3.1%. If unbilled consumption is included, the total amounts to 36,224.9 GWh, an increase of 4.3%.

At Energisa all sectors registered consumption growth, especially the residential (+6.4%) and commercial (+4.7%) sectors, thanks to warmer weather and a positive calendar factor in certain regions. The rural sector grew by 4.4%, with industry recording variance of 0.7% and others 2.4%. The Midwest and South-east regions led the field in growth in the year with more than 6.6% and 3.8% respectively.

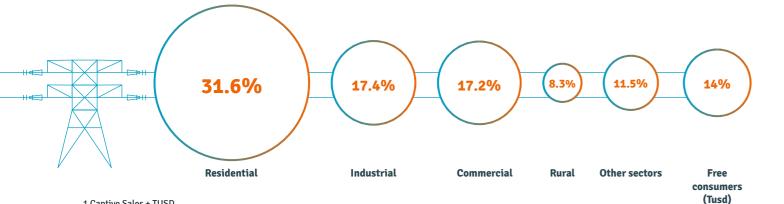


2019	36,118.
2018	34,676.7
2017	33,688.8

¹ Billed Captive Sales + Tusd

1 Captive Sales + TUSD

ENERGY CONSUMPTION BY SECTOR¹



Energy consump-

tion in the captive,

free and unbilled sectors progressed **SALES BY CONSUMER SECTOR (GWh)**

Company	2017	2018	2019	Change 2019/2018
Residential	12,167.1	12,466.0	13,267.5	+ 6.4
Industrial ¹	6,948.6	7,260.1	7,310.6	+ 0.7
Captive	2,680.6	2,547.8	2,409.6	- 5.4
Free ¹	4,267.9	4,712.3	4,900.9	+ 4.0
Commercial ¹	6,778.5	6,880.1	7,201.8	+ 4.7
Captive	6,144.3	6,164.3	6,381.7	+ 3.5
Free ¹	634.2	715.8	820.1	+ 14.6
Rural	3,195.6	3,356.4	3,504.8	+ 4.4
Captive	3,141.2	3,292.0	3,423.4	+ 4.0
Free ¹	54.4	64.4	81.4	+ 26.4
Other sectors	4,599.1	4,714.1	4,834.1	+ 2.5
Captive	4,549.0	4,651.7	4,762.9	+ 2.4
Free	50.1	62.4	71.3	+ 14.2
Energy sales to captive consumers	28,682.2	29,121.8	30,245.0	+ 3.9
Energy associated with free consumers (Tusd) ¹	5,006.6	5,554.9	5,873.8	+ 5.7
Captive sales + Tusd ¹	33,688.8	34,676.7	36,118.7	+ 4.2
Unbilled consumption	15.5	69.1	106.2	+ 53.8
Captive sales + Tusd + unbilled supply ¹	33,704.3	34,745.8	36,224.9	+ 4.3
¹ Revised figures published in 2018				

ENERGY SOLD BY DISTRIBUTION COMPANY (GWH) - CAPTIVE SALES + TUSD (BILLED)

Company	2017	2018	2019	Change 2019/2018
Energisa Minas Gerais	1,482.6	1,501.2	1,525.3	+ 1.6
Energisa Nova Friburgo	323.7	323.3	328.3	+ 1.5
Energisa Paraíba	4,181.4	4,294.8	4,410.7	+ 2.7
Energisa Borborema	634.2	651.3	663.9	+ 1.9
Energisa Sergipe	3,015.3	3,093.6	3,009.9	- 2.7
Energisa Mato Grosso ¹	8,464.0	8,721.2	9,311.1	+ 6.8
Energisa Mato Grosso do Sul	5,165.9	5,348.0	5,686.8	+ 6.3
Energisa Tocantins ¹	2,245.2	2,317.4	2,418.1	+ 4.3
Energisa Sul-Sudeste ¹	4,092.6	4,245.5	4,445.5	+ 4.7
Energisa Rondônia	1,028.9	1,035.9	1,080.8	+ 4.3
Energisa Acre ¹	3,055.1	3,144.4	3,238.4	+ 3.0
Total Energisa	33,688.8	34,676.7	36,118.7	+ 4.2

ENERGY SOLD AND TRANSPORTED AT THE DISTRIBUTION COMPANIES

Company	2017	2018	2019	Change 2019/2018
Billed sales to the captive market	28,682.2	29,121.8	30,245.0	+ 3.9
Energy transported to free clients (Tusd) ¹	5,006.6	5,554.9	5,873.8	+ 5.7
Subtotal (captive sales + Billed Tusd) ¹	33,688.8	34,676.7	36,118.7	+ 4.2
Unbilled consumption	15.5	69.1	106.2	+ 53.8
Subtotal (captive sales + Tusd + unbilled)¹	33,704.3	34,745.8	36,224.9	+ 4.3

41

¹ Revised figures published in 2018

Energy losses

Energisa Group's total energy losses amounted to 5,756.9 GWh in 2019, equal to injected energy of 13.48%, compared with 5,560 GWh and 13.57% in the 12 months ended December 2018. If we factor out the figures of Energisa Rondônia and Energisa Acre acquired in 2018, the losses would be 4,247.3 GWh, equal to 11.52% and within the regulatory limit of 11.79%.

Energisa Tocantins presented the greatest decrease amongst the Group's distribution companies of 0.65 percentage points (pp), totaling 12.61% (13.26% in the previous year), followed by Energisa Mato Grosso, with 0.49 pp less (from 14.07% to 13.58%). 8 of our 11 distribution companies complied with regulatory limits, with the exceptions being Minas Gerais (0.71 pp above), Paraíba (0.5 above) and Rondônia (0.46 pp). Energisa Mato Grosso managed to comply with the regulatory level for the first time in 53 months.

Energisa Minas Gerais was impacted by technical losses, influenced by hydro generation, a matter completely outside the distribution company's control. The increase at Energisa Paraíba was primarily due to higher energy theft and illegal makeshift connections, in addition to Aneel Resolution 2.590 issued in September 2019, which reduced public lighting expenditure. One of the worst villains at Energisa Rondônia was the high volume of recoveries canceled in 2018. This increase is primarily due to restating consumption recovery invoices (containing nonconformities) issued before Energisa took over the company.

To improve these metrics we adopted continuous loss combating initiatives, planned strategically in accordance with the requirements of each concession. In 2019 measures stood out including the complete verification of frontier and free client measurement data, the use of advanced statistical analyses to identify suspect consumers, and expanding inspection and shielding teams, focusing on the verification of consumer units and regularizing areas of encroachment, and the new registration of the public lighting fee.

New CB500 and CB300 meter shielding boxes are also being developed, which the Group has patented and will be used to measure the shielding of clients with potential losses. Strategic projects also grabbed the headlines which involve automation of the Metering Operation Center.

Management changes occurred in the period, with the consolidation of the Revenue Protection Board, and unification of the Receivables and Loss Combating divisions at the distribution companies Energisa Paraíba, Energisa Borborema, Energisa Sergipe and Energisa Tocantins.

In Acre and Rondônia, the loss combat structure was adjusted with the expansion of inspection teams and implementation of network and meter shielding measures.

Ramping up Energisa Acre's teams enabled the number



ENERGY LOSSES - PAST 12 MONTHS (%)

Technical losses Non-technical losses Total losses Aneel Limit								
	Tec	hnical losses	Non-tec	hnical losses		Total losses	Aneel Limit	
Company	Dec/2018	Dec/2019	Dec/2018	Dec/2019	Dec/2018	Dec/2019	2019	
Energisa Minas Gerais	10.22	10.51	-0.09	-0.16	10.12	10.35	9.64	
Energisa Nova Friburgo	4.61	4.77	-0.66	-0.86	3.94	3.9	5.84	
Energisa Paraíba	9.35	8.85	3.29	4.35	12.64	13.19	12.69	
Energisa Borborema	6.65	5.72	-0.79	0.66	5.85	6.37	7.41	
Energisa Sergipe	7.11	7.49	2.53	2.68	9.63	10.17	10.22	
Energisa Mato Grosso	9.42	9.64	4.65	3.93	14.07	13.58	13.7	
Energisa Mato Grosso do Sul	9.11	9.41	3.57	2.88	12.68	12.29	13.01	
Energisa Tocantins	11.46	11.47	1.79	1.15	13.26	12.61	13.98	
Energisa Sul-Sudeste	6.17	6.24	0.22	-0.05	6.39	6.19	6.72	
Energisa Acre	9.85	9.89	9.75	8.81	19.6	18.7	21.73	
Energisa Rondônia	11.17	12.00	16.47	15.87	27.63	27.87	19.62	
Energisa - consolidated	9.07	9.25	4.51	4.23	13.57	13.48	13.02	
Energisa consolidated (exc. ERO and EAC)	8.78	8.88	2.84	2.64	11.62	11.52	11.79	

Nb.: To calculate the percentages, we considered the values of unbilled energy. All DisCos are undergoing CRTP 4. The A1 Free Market was included in the calculation of the Total Realized and Regulatory Loss.

of inspections to rise from 40 thousand in 2018 to 58 thousand in 2019. More than 15 thousand consumer units were regularized with meter shielding measures. The regularization and inspection initiatives led to more than 140 thousand actions and contributed to increasing build consumption by some 40 GWh.

At Energisa Rondônia, the Intelligence Center for Combating Losses created in Porto Velho is now responsible for devising strategy and measures to optimize resources and maximize benefits. Inspection teams were upsized, with more than 90 thousand consumer units verified, more than 65 thousand connections regularized, investments made in equipment upgrades and more than 4 thousand units shielded. Upwards of 89 GWh was recovered in the year.

Supply quality

As a result of ramped-up investments and efficient management, most of the distribution companies outperformed the regulatory target for outage durations and frequencies (DEC and FEC), with the exception being Energisa Rondônia. The initiatives included focusing on automating, building and expanding new feeders, substations and high-voltage lines coupled with greater assertiveness in maintenance, easement cleaning, tree trimming and ongoing enhancement of vehicles, in addition to the application of new tools and team training.

Energisa Minas Gerais achieved its best historical FEC values, with 4.77 times for the 12 months ended December (5.33 times in the previous year). This was also the case at Energisa Tocantins, which reported the best historic DEC (21.55 hours) and FEC (7.9 times).

Despite the higher rainfall recorded in the period (345% more than in 2018), the DEC rose slightly by 0.12 from one year to the next. This result was partly achieved thanks to the adoption of the Smart Vegetation System (Seiva), which maps trees using satellite images, calculating the height and touching distance from the medium-voltage distribution grid. The project aims to better deploy trimming teams and constantly reduce the DEC and FEC indicators.

For Energisa Acre and Energisa Rondônia, 2019 is seen as year one of the Transformation Plan, as it was used to replenish and train company and outsourced teams, in addition to rolling out automation actions, expanding substations and feeders, reducing the huge easement cleaning and tree trimming liability, amongst other things.

Quality indicators were managed and calculated more rigorously and consistently, and we improved the scheduling, allocation and deployment of teams, as a result of the actions unifying the Operating Centers. The record investments in these two concessions will help in this major effort to recover the quality of the supply and service. Despite the challenges, Energisa Acre's metrics are outperforming the regulatory target.

The transformation plan rolled out in Rondônia comprises 81 service quality enhancement projects and

preparations for migration of the systems. These initiatives include collective maintenance on low performing feeders, automating eight substations and installing 39 new reclosers. In the period approximately 14 thousand dead-line and 11 thousand live-line structures underwent maintenance, also focusing on improving grid conditions.

In Jalapão, Tocantins state, one of Brazil's leading tourist destinations, a mega operation was carried out to upgrade the electricity grid and carry out preventive maintenance, thereby ensuring a quality and safe energy supply. 160 electricians participated, accompanied by technicians, analysts, engineers and managers from the distribution company.

Energisa Mato Grosso do Sul's actions involved redeploying teams to enhance logistics, implementing the maintenance plan, maintenance by live-line teams and use of the *big-jumper* (a device that makes it possible to insulate specific sections of the grid during corrective work or maintenance, thereby reducing electricity supply outages), which enabled us to reduce scheduled disconnections for preventive maintenance.

OUTAGES

		Equival	ent Outag	e Duration	(DEC) - hours	Equiv	alent Outa	ge Frequer	ncy (FEC) -	times
Company	2017	2018	2019	Aneel Limit	Gap to the limit	2017	2018	2019	Aneel Limit	Gap to the
Energisa Minas Gerais	8.44	9.43	8.85	11.31	-2.46	5.05	5.33	4.47	8.55	-4.08
Energisa Nova Friburgo	5.78	6.66	6.64	10.23	-3.59	3.82	3.90	4.18	8.91	-4.73
Energisa Paraíba	14.60	13.77	13.70	16.56	-2.86	6.30	5.62	5.28	10.07	-4.79
Energisa Borborema	4.03	4.56	4.19	13.16	-8.97	2.46	2.63	3.15	8.96	-5.81
Energisa Sergipe	12.09	10.51	10.63	12.35	-1.72	6.99	6.33	4.81	8.79	-3.98
Energisa Mato Grosso	25.35	20.90	19.85	22.36	-2.51	12.49	9.15	8.20	18.07	-9.87
Energisa Mato Grosso do Sul	11.92	10.92	10.81	11.79	-0.98	5.72	4.73	4.55	8.59	-4.04
Energisa Tocantins	27.98	23.09	21.55	24.68	-3.13	12.72	9.37	7.90	16.75	-8.85
Energisa Sul-Sudeste	6.60	6.06	5.76	7.82	-2.06	4.97	4.60	4.40	7.65	-3.25
Energisa Acre	47.89	43.81	37.76	44.18	-6.42	35.55	31.12	23.80	35.28	-11.48
Energisa Rondônia	32.32	35.47	48.57	27.63	+ 20.94	19.21	16.69	23.40	18.95	+ 4.45

Financial performance

Results

Operating revenue

Net operating revenue amounted to R\$ 19,903.1 million in 2019, 26.1% more than in 2018. This figure stands at R\$ 16,923.2 million if construction revenue is factored out, an increase of 18.6%. The financial information includes the consolidation of Energisa Rondônia and Energisa Acre, from 10/30/2018 and 12/6/2018, the dates on which Energisa took these companies over. The result was primarily influenced by higher energy consumption in the concession areas.

NET OPERATING REVENUE (R\$ million)

2017	13,637.2
2018	15,787.6
2019	19,903.

45

NET REVENUE BY SEGMENT (R\$ million)

	Pro-forma (exc. ERO and EAC)				ERO and EAC)
Segment/company	2018	2019	Change (%)	2019	Change (%)
Electricity distribution	14,947.3	15,936.10	10.3	18,328.90	22.6
Energisa Minas Gerais	689.4	730.9	6	730.9	6
Energisa Nova Friburgo	154.5	171.4	10.9	171.4	10.9
Energisa Paraíba	1,972.3	2,143.80	8.7	2,143.80	8.7
Energisa Borborema	264.0	283.5	7.4	283.5	7.4
Energisa Sergipe	1,292.4	1,408.20	9	1,408.20	9
Energisa Mato Grosso	4,373.4	4,933.00	12.8	4,933.00	12.8
Energisa Mato Grosso do Sul	2,543.1	2,819.60	10.9	2,819.60	10.9
Energisa Tocantins	1,531.1	1,696.30	10.8	1,696.30	10.8
Energisa Sul-Sudeste	1,624.6	1,749.60	7.7	1,749.60	7.7
Energisa Acre	57.6	-	-	726	1,160.40
Energisa Rondônia	444.9	-	-	1,666.90	274.7
Electricity service trading	1,487.8	2,009.30	35	2,009.30	35
Energisa Comercializadora	935.8	819.8	-12.4	819.8	-12.4
Energisa Soluções (consolidated)	164.1	226.8	38.2	226.8	38.2
Energisa S.A. (ESA)	167.7	212.1	26.5	212.1	26.5
Multi Energisa	32.5	39.4	21.3	39.4	21.3
Energisa Transmissora Goiás I (EGO I)	94.6	255.7	170.3	255.7	170.3
Energisa Transmissora Pará I (EPA I)	85.3	273.6	220.8	273.6	220.8
Energisa Transmissora Pará II (EPA II)	2.9	88.6	2,955.00	88.6	2,955.00
Others¹	4.9	69.3	1,313.60	69.3	1,313.60
(=) Total (I+II)	16,435.10	17,945.30	12.6	20,338.20	23.7
Intercompany eliminations		(395.7)	2.8	(435.1)	13
Energisa - consolidated	15,787.60	17,549.60	12.9	19,903.10	26.1
(-) Construction revenue	1,513.00	2,360.70	58.2	2,979.90	97
Energisa consolidated, without construction revenue	14,274.6	15,188.90	8.1	16,923.20	18.6

¹ Energisa Planejamento e Corretagem de Seguros Ltda., Energisa Serviços Aéreos de Aeroinspeção S/A and Alsol

Rate reviews and adjustments

Between 2016 and 2018, Aneel ratified the 4th Cycle of the Periodical Rate Reviews of Energisa S/A's subsidiaries, except Energisa Acre and Energisa Rondônia, acquired in August 2018.

In December 2018 these distribution companies requested Aneel process the Extraordinary Rate Review (RTE), instead of the annual rate adjustment process, pursuant to the Sale Notice and the distribution companies' Concession Agreement. In 2019, however, the agency vetoed the extraordinary review, alleging it was impossible to validate the accounting data presented. Energisa Acre and Energisa Rondônia filed administrative appeals against this decision, which have yet to be analyzed by the regulatory agency.

Energisa Tocantins undergoes its fifth cycle of rate reviews in June 2020. The other companies will undergo this process between 2021 and 2023.

In 2019, the rate adjustments of each Energisa Group distribution company had the following effects on consumers:

Rate flags

The "Rate Flag System" has been in force since 2015, which automatically passes through to end consumers the cost incurred by the DisCo whenever energy purchases are affected by more expensive thermal energy, thereby diminishing the financial burden between the rate adjustments.

There are green, yellow and red rate flags, which signal whether electricity will cost more or less as a result of the electricity generation conditions.

In 2019 Energisa's consolidated revenue from rate flags was R\$ 473 million, compared with R\$ 476.8 million in 2018.

Rate subsidies

Authorized by Aneel, rate subsidies awarded to low income consumers come from the Energy Development Account (CDE), in accordance with Decree 7891 issued 2013, which allow these consumers to pay lower rates. In 2019 these subsidies amounted to operating revenue of R\$ 1,277 million, an increase of 5.4% on the R\$ 1,211.3 million in 2018.

Collection fee

Energisa Group's consolidated collection rate was 96.91% in 2019, 0.24 percentage points better than the previous year (96.97%). Without Energisa Acre and Energisa Rondônia, it was 97.41% – 0.02 percentage points lower than 2018 (97.42%). This index denotes collections in the last 12 months over accumulated sales in the same period.

These measures implemented to improve our indicators included recovering debits through negotiation campaigns across all concessions and energy efficiency programs in low-income communities with severe delinquency, via the Energisa Community program. At Acre, for example, some 3.5 thousand calls were handled.

Also for the purpose of collecting energy bills, Energisa Sergipe entered into an arrangement with the state government under Decree 40.290/2019, which allows state government bills to be offset by Value Added Tax on Sales and Service (ICMS) credits up to a monthly retention limit of 10%.

Operating costs and expenses

Consolidated operating expenses and costs (official) excluding construction costs amounted to R\$ 14,957.4 million in 2019, an increase of 31.0% (R\$ 3,535.3 million) over 2018. If we disregard Energisa Rondônia and Energisa Acre, consolidated operating expenses and costs (pro forma), excluding construction costs, amounted to R\$ 12,707.7 million in the year, an increase of 3.4% (R\$ 423.4 million) over the previous year.

Non-manageable costs and expenses (official) rose by 17.8% in 2019, amounting R\$ 10.8899 million. Excluding Energisa Rondônia and Energisa Acre, these rose by 4.1% on 2018, to R\$ 9,527.0 million. These expenses include purchased energy and charges for using the transmission system.

Controllable costs and expenses (official) amounted to R\$ 2,931.0 million in 2019, 25.9% more than the previous year. If Energisa Rondônia and Energisa Acre are factored out, this item amounts to R\$ 2,349.0 million in the year, an increase of 5.6% on the previous period. This item includes personnel, materials, services and other (PMSO), provisions, contingencies doubtful accounts.

RATE ADJUSTMENTS (%)

Company			Effect on consumers (%)	Effective from
	Low-Voltage	High- and Medium- Voltage	Average	
Energisa Minas Gerais	+ 6.55	+ 7.41	+ 6.73	6/22/2019
Energisa Nova Friburgo	+ 9.21	+ 9.48	+ 9.26	6/22/2019
Energisa Paraíba	- 4.23	- 4.40	- 4.27	8/28/2019
Energisa Borborema	-1.63	- 2.17	- 1.78	2/4/2019
Energisa Sergipe	+ 3.33	+ 1.85	+ 2.80	4/22/2019
Energisa Mato Grosso	+ 11.21	+ 11.49	+ 11.29	4/8/2019
Energisa Mato Grosso do Sul	+ 12.48	+ 12.16	+ 12.39	4/8/2019
Energisa Tocantins	- 0.36	- 0.20	- 0.33	7/4/2019
Energisa Sul-Sudeste	+ 0.16	+ 4.10	+ 1.30	7/12/2019
Energisa Acre	- 4.20	- 4.44	- 4.24	12/13/2019
Energisa Rondônia	+ 0.24	- 0.27	+ 0.11	12/13/2019

COLLECTION RATE (%) - 12 MONTHS

Company	2018	2019	Change (%)
Energisa Minas Gerais	98.77	98.75	-0.02
Energisa Nova Friburgo	98.83	98.56	-0.27
Energisa Paraíba	97.24	97.48	0.25
Energisa Borborema	98.57	98.94	0.37
Energisa Sergipe	98.30	98.17	-0.14
Energisa Mato Grosso	96.27	96.26	-0.01
Energisa Mato Grosso do Sul	97.32	97.11	-0.22
Energisa Tocantins	97.53	97.73	0.21
Energisa Sul-Sudeste	99.05	99.09	0.04
Energisa Acre	90.03	93.43	3.77
Energisa Rondônia	91.30	93.41	2.31
Energisa Consolidated	96.67	96.91	0.24
Energisa Consolidated (exc. ERO and EAC)	97.42	97.41	-0.02

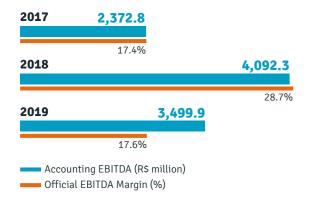
Finance income

Consolidated net finance income in 2019 (consolidated financial revenue less consolidated financial expenses) presented net finance expense of R\$ 1,360.4 million, compared with R\$ 950.5 million in 2018, an increase of 43.1% (R\$ 409.9 million).

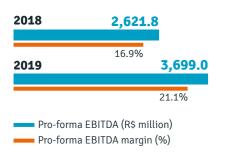
EBITDA

Official EBITDA (earnings before interest, taxes, depreciation and amortization) was R\$ 3,499.9 million, 8.3% (R\$ 317.7 million) less than 2018. The EBITDA margin changed from 24.2% to 17.6%. This reduction between the periods was due to recording earnings made on the business combination, of R\$ 1,169.6 million - pursuant to IFRS 3 - Business Combinations -, on the acquisition of Energisa Acre and Energisa Rondônia at the end of 2018. The pro-forma EBITDA minus the two distribution companies amounted to R\$ 3,699 million, an increase of 41.1% (R\$ 1,077.2 million) on the previous year.

OFFICIAL EBITDA AND MARGIN



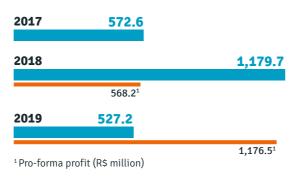
PRO-FORMA EBITDA AND MARGIN



Net income

Net income for the year was R\$ 527.7 million, 55.3% less than 2018, due to recording the business combination for the two distribution companies (ERO and EAC) acquired in 2018. If the effects of these two acquisitions are excluded, which are still being restructured, the (pro-forma) net income compared with 2018 is R\$ 1,176.5 million, an increase of 107.1% between the periods.

NET INCOME (R\$ million)



Financial operations

Energisa Group's financing amounted to R\$ 3,915 million in 2019, at an average cost of 112.3 % of the CDI rate and an average term of 4.7 years.

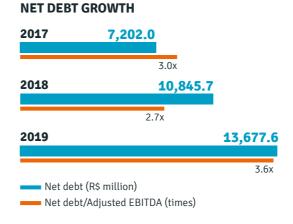
In the period the public offering was completed of Energisa S.A.'s 11^{th} debentures issuance, in the amount of R\$ 500 million, at a cost of IPCA + 4.62%, and maturing in April 2026. The funds secured will be used to finance investments in electricity distribution infrastructure in Energisa Acre and Energisa Rondônia.

Alsol also made its first debentures issuance totaling R\$ 100 million, maturing in October 2024 and yielding CDI plus 1.2% per annum. The funds will be used to manage the company's business.

Debt

The consolidated net debt at the end of 2019, less sector credits, amounted to R\$ 13,677.6 million compared with R\$ 10,845.7 million as of December 31, 2018. The ratio between net debt and consolidated adjusted EBITDA fell from 2.7 in December 2018 to 3.6. This indicator was boosted in 2018 by the business combination under the acquisition of Energisa Acre and Energisa Rondônia in the amount of R\$ 1,169.6 million.

The average gross debt tenor fell to 4.8 years (against 5.1 years in September 2019) and the average cost of the net debt fell 0.78 percentage points, closing the year at 6.36% (144.55% of the CDI rate) against 7.14% (125.09% of the CDI rate) in September 2019.



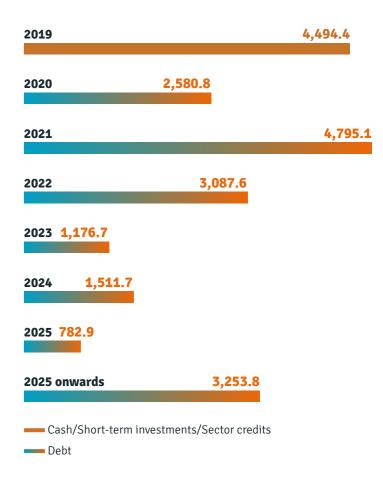


Ratings

Standard & Poor's changed the outlook for the BB-ratings on the global Brazil scale from stable to positive. It also reaffirmed the sovereign ratings BB- on the global scale and brAA on the Brazil national scale. Moodys' and Fitch maintained the rating at stable. In addition to demonstrating that business risks are moderate due to the portfolio diversification, the analyses reflect the expected improvement in leveraged and operational cash generation.

SCHEDULE FOR AMORTIZATION OF BANK DEBT AND ISSUANCE

(R\$ millions)



RATINGS

Branch	Domestic Rating/Outlook	Global Rating/Outlook	Date
Standard & Poor's	brAAA (stable)	BB- (positive)	Dec/2019
Moody's	Aa2.br (stable)	Ba2 (stable)	Jun/2019
Fitch Ratings	AAA (bra) (stable)	BB+ (stable)	Feb/2020



 $Detailed\ information\ can\ be\ seen\ in\ the\ Consolidated\ Financial\ Statements.$

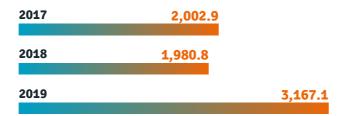
Investment

R\$ 3,167.1 was invested in 2019, 59.9% more than in 2018 (R\$ 1,980.8 million). At the DisCos alone, this amount was R\$ 2,713 million, an increase of 52.4%. The two recently acquired distribution companies received investments of R\$ 834.3 million, with R\$ 622.0 million at Energisa Rondônia and R\$ 212.3 million at Energisa Acre, in order to promote the Energisa efficiency standard.

The other distribution companies have invested heavily in universal electricity access programs, meeting emerging demand and expanding electricity grids, maintaining and replacing assets, combating energy theft, enhancing internal processes, and team training.

A major development was the acquisition of 87% of the capital of Alsol Energias Renováveis S.A, the company of Algar Empreendimentos, which is the leading photovoltaic energy firm in Brazil, for R\$ 11.7 million. A partnership was made through Alsol with the Minas Gerais State Industry Federation (FIEMG) to supply solar energy at a discount to companies associated with the entity. Under this partnership the Company expects to build ventures between 2019 and 2021 for a total of 75 megawatt-peak (MWp) and capacity and investments of R\$ 300 million.

INVESTMENTS (R\$ million)

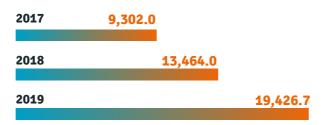


Capital market

Traded on B3, the Energisa shares with the greatest liquidity ENGI11 - Units closed 2019 at R\$ 53.53, an increase of 47.3% over the year. Over the same period, the main stock exchange index, Ibovespa, gained 31.6%, while the IEE sector index gained 55.5%. Over ten years Energisa's shares gained 628.4%, versus 79.4% of Ibovespa and 218.2% of IEE. The Company's market value rose to R\$ 19,426.70 million, 36.2% more than the previous year (R\$ 13,464.0 million).

The average daily trading volume in the 12 months was R\$ 62.5 million, 109.9% more than in 2018.

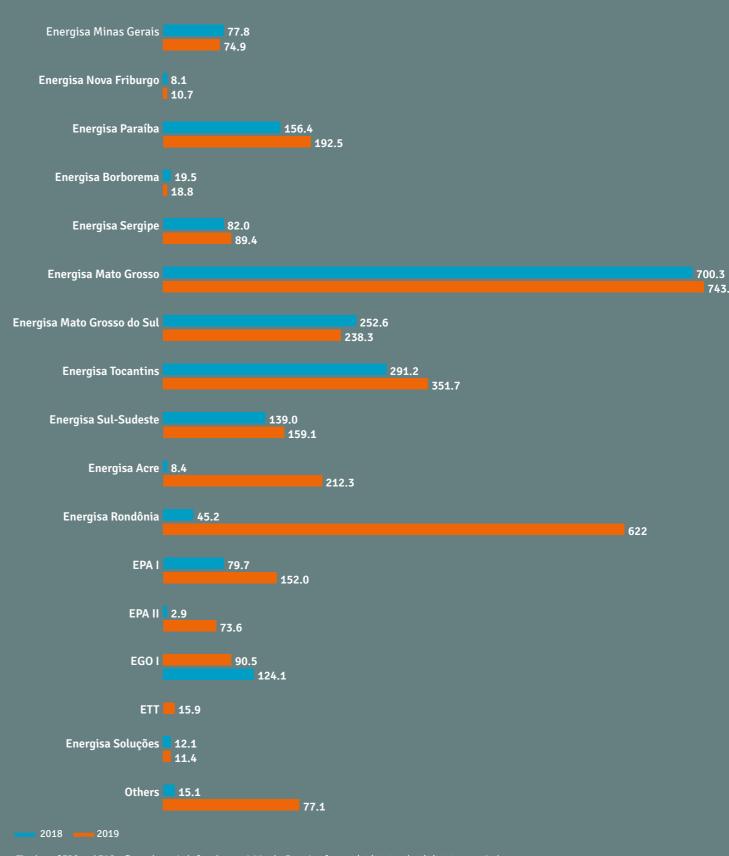
MARKET VALUE (R\$ million)



ENERGISA UNITS VERSUS IBOVESPA AND IEE - 2019



INVESTMENTS BY COMPANY (R\$ million)



743.3

The data of ERO and EAC reflects the period after the acquisition by Energisa, from 10/30/2018 and 12/6/2018 respectively.

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Clients and consumers

Employees

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Employees

Organizational climate

Our goal of being ranked among the best workplaces in Brazil was achieved in 2019 by three of our distribution companies:
Energisa Tocantins ranked 65th in the by Great Place to Work survey (GPTW),
Energisa Mato Grosso do Sul ranked among the best in the Midwest and Energisa
Paraíba was among the top-ranked companies in its state.

With an employee response rate of 81.4%, Energisa Tocantins had an average satisfaction rate of 87%. Energisa Mato Grosso do Sul had a response rate of 89.4% and a satisfaction rate of 80%, while Energisa Paraíba recorded an 82.6% response rate and an 82% satisfaction rate.

In addition to our annual organizational climate survey—in which we worked to engage a larger number of employees in 2019—we also conducted a survey on health and safety aspects. We interviewed managers, facilitators and employees in operational positions, and created an intranet channel where employees could report any dissatisfaction and concerns.

At Energisa we recognize that people are an essential asset in continuously improving results. We prioritize investment in the professional development of people who share our values, identify with our goals and can help to improve the quality of service we deliver.

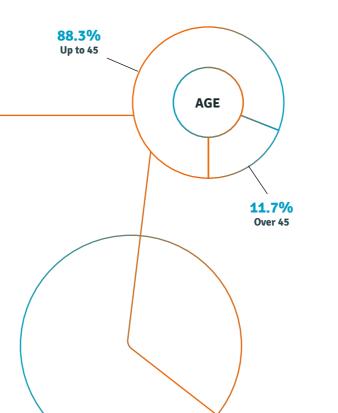
With the expansion of the business, including the Energisa Rondônia and Energisa Acre acquisitions and our new transmission and distributed generation business, Energisa's workforce grew to 20,900 employees at year-end 2019, including direct employees, interns and third-party employees.

As part of our efforts to build a strong reputation as an employer that has high-performance, sustainable management practices and is among the best places to work, we created a People and Management Department under a vice president that also includes Our Sustainability and Performance & Transformation functions (read more in "Governance").

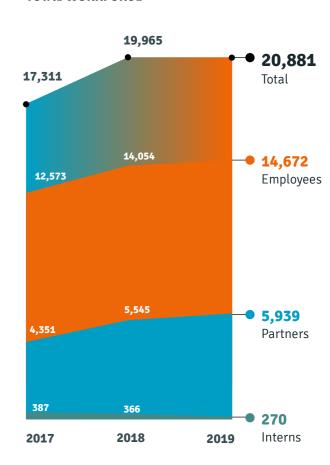
We migrated our HR systems to Rhevolution to improve our management capabilities. All activities have been centralized on a single platform, providing a more efficient and user-friendly process for staff. System modules include Payroll, Timekeeping, Benefits, Performance Assessment, Health & Safety, Training, Recruiting & Selection, Personnel Budget and Classification & Compensation.

Diversity

Diversity is a Group value that positively affects our business results and supports progress on equity and equal opportunity. At year-end 2019, our Group had 2,803 women employees, representing 19.3% of the total workforce. Women held 21.9% of leadership positions.

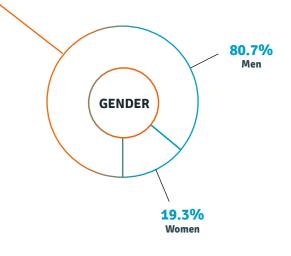


TOTAL WORKFORCE



We have partnerships with organizations such as the National Foundation for People with Disabilities (FUNAD) and the Integrated Support Center for People with Disabilities (PwDs) to advertise job vacancies available for and to recruit people with disabilities. We believe these organizations are essential in supporting us in becoming a diverse company and in ensuring that all selection processes are open to people with disabilities. Our workforce currently includes 467 people with disabilities.

In 2019 we undertook internal and external initiatives and campaigns to attract women to operational positions and expand the share of women in our workforce. Diversity is addressed in regular initiatives and in training and development programs. The number of operational positions filled by women increased by 70% compared to 2018, with more than 23 women hired as commercial and electrician assistants.



Training and coaching

Energisa preferably sources talent from within its existing talent pool, providing attractive career prospects for our employees. We use a Skillset Management model in which candidates for each position are required to demonstrate specific skills, in addition to Energisa's core skills. These skills are further developed in training and capacity building initiatives.

The number of employees receiving training increased in 2019, especially as part of programs implemented at Energisa Acre and Energisa Rondônia. During the period, R\$ 6.5 million was invested in a total of 16,246 training attendances, or an average of 60.47 hours of training per employee. Our training programs build employees' skills and competencies at all levels—leadership, future leaders and staff. Energisa also provides continued education opportunities, including education and language-learning grants, that further develop both technical and behavioral skills.

Training for field crews—from operations center staff to field electricians—included classroom training, reading assignments, technical visits, videoconferencing content and distance learning courses on electrical safety and operational procedures, helping to develop our teams' hard and soft skills. Training is supported by state-of-the-art learning tools, including simulations, virtual rooms and laboratories.

We created a pathway-based online education platform, called *Educativa*, that is modeled after our Leadership Training Pathway. Development of the platform, which is still at an early stage, was informed by studies on ways to hone employee skills and encourage a self-development mindset through education and training covering all Group businesses. *Educativa* has a chat bot solution, called '*Edu*', that answers questions about training pathways, content and learning methods.

Managers also attend our Leadership Academy, an accelerated training program, while employees in other positions receive training based on Individual Development Plans prepared during Performance Assessments.

A Succession Program trains leaders to hold key positions. Following the Group's recent expansion through acquisitions, the program was revisited in 2019 to identify opportunities and each employee's potential. Our goal is to accelerate succession to key positions to support business growth.

Professional training

In 2019, 865 people attended distribution electrician and electrotechnical technician courses in our School of Energy. In a partnership with the National Industry Training Service (SINAI), these training courses are administered at 21 schools in the states of Paraíba, Tocantins, Mato Grosso, Mato Grosso do Sul, Acre and Rondônia. Approximately R\$ 2.5 million was invested in upgrading laboratory equipment and supplies, training teachers and instructors and purchasing special equipment for the electrotechnical technician course (for further information, see pages 74 and 75).

Our Operator Training Center, launched in 2013 in Cataguases (MG), expanded its reach to include Mato Grosso, Mato Grosso do Sul, Tocantins and the South-Southeast, in an investment of R\$ 1.3 million in new infrastructure and technology and an expanded instructor team.

Trainee gateway program

Our Trainee Program is an important gateway for new talent at Energisa. In 2019, an artificial intelligence platform was used for the initial candidate screening step. In a second, in-person step, a team of evaluators focused on targeted candidate skills. The selection process now uses a third-party software system to better manage the process. To improve the candidate

We invested

R\$ 6.5 million

in training

experience, the platform now features a dedicated careers page where candidates can apply for vacancies, check their results and track their progress through the selection process.

In 2019 we received a total 7,500 applications, or approximately 470 per vacancy. We also received a record number of applications from local candidates, with 65% meeting job requirements. The selection process included online and on-premise stages, and led to seven new talents joining the Group.

Energisa has hired a total of 127 trainees since 2010. With a 56% retention rate, 49% of active trainees are in leadership positions. In 2020 we will restructure our trainee development plan, in a process that will implement changes in induction, job rotation and challenge project completion. The restructuring process will be conducted by current and former trainees in a collaborative workshop using agile methods.

Recognition

The Energisa Recognition System (ERS) honors employees who demonstrate mindsets and behaviors that translate into outstanding results. The system, comprising a physical and a digital platform, consists of four programs:

- Selo Valeu An accolade that recognizes employees for outstanding work, efficiency and collaboration.
 An online system allows employees to nominate peers for recognition at any business unit or workplace.
- High-Value Team To enhance our leadership culture, we provide our managers with pins, badges and other items they can use to recognize employees for outstanding performance.
- Best Practices Employees receive awards for demonstrating best practices and for providing simple or complex ideas to improve day-to-day processes. In 2019, idea submissions were evaluated by a more robust evaluation team and were rated on return on investment and results.
- Value Creation Employees at different organizational levels and in different functions were selected to work on projects as a way to support their professional growth and improve performance.

As an additional form of recognition, direct employees receive variable compensation as part of a Profit Sharing Program, based on their performance against targets. These consist of company and department metrics and individual skill assessments.

We offer the usual benefits such as medical, hospital and dental assistance plans, supplementary retirement plans, meal vouchers, crèche allowances, life insurance, study grants and others.

7.5 thousand
candidates enrolled in the Trainee Program

Health & Safety

Energisa strives to implement best practices in preventing workplace injuries as part of our ambition to be an industry leader in occupational health and safety. We regularly revisit our processes and invest in training and disseminating a safety culture in all our operations, ensuring they are compliant with the performance requirements outlined by the Eloy Chaves Medal program, which recognizes companies in the electric power sector that demonstrate best practices and the lowest occupational injury rates.

We continued our Safe Operations project, which seeks to bring about cultural transformation focusing on recognizing risk, identifying behavioral barriers and opportunities for operational improvements which guarantee safe operations.

Initiatives to disseminate a safety culture in the year included a review of our action plan, workshops with the leadership team and talks for employees. A new edition of our Occupational Health and Safety Workshop in 2019 was attended by health and safety coordinators from our business units and safety technicians from all Group companies.

An Executive Health & Safety Committee provides tone from the top and ensures that our directors and other leaders address strategic health and safety issues. This helps to engage the entire organization in discussions and preventive and corrective actions, and streamlines the flow of information and decision-making on health and safety matters.

As part of our health and safety activities in 2019, we:

- Identified critical areas requiring mitigation of potential risks
- Revised the preventive maintenance expiration dates for equipment
- Structured an in-field safety inspection model
- Revised Group companies' technical certificates.

Safety management

Our processes and tools for managing safety, risks and impacts are monitored against a set of indicators, and performance is assessed on a monthly basis using a Balanced Scorecard (BSC) for each business unit's leadership team and coordinators.

To further enhance and achieve greater control in safety management, in 2019 we implemented an online Integrated Management System for monitoring indicators and managing training and toolbox talks (employee discussions on safety before each work shift).

Also in the year, Energisa Soluções was certified to OHSAS 18001 (Occupational Health and Safety Assessment Series), becoming the first Group company to receive this certification, and expanded the scope of its ISO 9001 (quality management) certification. This certification attests that the company conforms to the highest international standards on occupational health and safety.

Training

A pilot project using analytics to optimize training, with a focus on health and safety, identified several gaps in training and development process and informed the development of new or improved activities to instill safe behaviors in employees. The goal of the project is to ensure employees effectively understand the safety rules and procedures applying to their tasks.

Following the assessment, a range of initiatives have been planned for implementation throughout 2020, including: segregation of practical training by business function; post-training sessions to discuss and answer questions; giving tests after practical training; a content committee composed of facilitators and occupational safety technicians; and a platform where employees can generate content and videos as an additional source of information.

Virtual reality for more safety

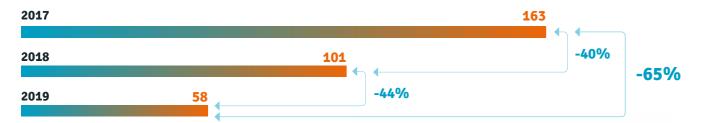
In 2019 we initiated an innovation project that will develop a tool to provide field crew training through a fully immersive virtual reality experience.

The platform, designed by a team at the Rio de Janeiro Industry Federation (FIRJAN), provides newly hired electricians with a walk-through of a power substation and the path that electricity travels to reach the distribution system. Increased familiarity with the system will support safer work. The initiative is being developed as part of Energisa's School of Energy program (for further formation, see pages 56 and 74).

The goal is to teach electricians basic skills without exposing them to job-related risks. When development of the platform has been completed, it will be implemented at SENAI schools in João Pessoa (PB), Campina Grande (PB), Aracaju (SE), Cuiabá (MT) and Palmas (TO).



LOST-TIME INJURIES Company employees



Indicators

Reflecting initiatives in recent years, in 2019 we recorded a 44% reduction in injuries compared to the previous year, and a total reduction of 65% from a 2017 baseline. Lost-time injury performance also improved, with the number of injuries declining from 193 in 2016 to 47 in 2019. There were no fatalities involving direct employees during the period.

Quality of life

In 2019 we created a quality-of-life program, called Viva Energia, that works across three pillars:

- **Occupational Health** A multidisciplinary team administers workplace exercise sessions and organizes health campaigns. In 2019, the team also conducted a review of our occupational health processes. Among the initiatives within this pillar is a partnership with RH Health to track and monitor employees' periodic health checkups, and register new clinics.
- **Health care** Providing care to people with chronic diseases, pregnant women and cancer patients.
- Quality of Life Muscle training, swimming and other activities through a partnership with Gympass providing access to a network of 21,000 partner fitness centers and more than 800 different fitness activities.



Achieving leadership

In 2020 we will continue working toward a target of zero injuries involving direct and third-party employees, as part of our goal of becoming an industry leader for occupational safety. Achieving these goals will involve a range of employee and contractor management initiatives.

PEOPLE MANAGEMENT

- Define the behaviors expected of role models for
- Establish a succession and career plan for specific operational roles.
- Define minimum safety training requirements for critical roles.
- Establish a methodology for monitoring development and assessing proficiency in these roles.
- Implement an artificial intelligence tool to identify essential attributes and behaviors for safety-critical roles.
- Teach employees in operational roles to identify risks, through training provided by employees' managers after they themselves have received risk training.
- Develop the executive leadership team through individual development plans addressing health and safety topics.
- Implement working groups to address health and safety issues in our operations.
- Implement active health and safety governance through local committees of operations managers and SESMT and HR representatives.

CONTRACTOR MANAGEMENT

- Implement a safety recognition program for contractors.
- Review our procurement rules and requirements to include contract-specific safety requirements depending on the level of risk and exposure.
- Establish a contract management process including safety items.
- Train contract managers on the safety requirements they need to monitor.



Customers and consumers

As part of our commitment to simplifying life for customers, we strive to achieve the highest standards of efficiency, quality, respect and integrity in our services. A culture of service is embedded in the strategy undertaken by our Customer Experience department, which is focused on programs to enhance the customer experience.

Our customers are classified as residential, rural and small business customers; medium- and high-voltage customers (manufacturing sites and other large operations); and government customers (municipal governments and state and federal agencies). To increase synergies, standardization, optimization and efficiency, customer service is provided by a single call center company, Multi Energisa Serviços S.A.

Customer service

In 2019 our efforts were focused on studies and pilots to expand our customer communications channels. "Gisa", a 24-hour WhatsApp ChatBot service launched as a pilot in 2018, was rolled out at commercial scale in 2019. The program uses artificial intelligence to mimic conversation and provide prompt and efficient responses to customers' questions and solutions to issues.

DIGITAL ADVANCE (%)

Channel	2017	2018	2019
Telephone (call center)	30.88	30.43	25.35
In loco (store)	15.90	18.87	13.55
Virtual branch (Internet)	34.70	26.33	31.11
Application (Energisa ON)	14.26	21.40	27.38
Totem	2.26	2.88	1.49
Chatbot	0	0.02	1.12

At our customer service offices, we implemented self-service kiosks where customers can request services such as reconnections, invoice reprints and invoice payments without having to wait in line. Kiosks are now available at most Group distribution companies, with the exception of Acre and Rondônia, which are still undergoing a systems migration.

In another innovative initiative in 2019, we converted our traditional invoices into regular bank payslips. This allows customers to pay their electricity bills at any bank branch or banking correspondent, via internet or mobile banking platforms, or at an ATM.

We also printed our first invoices in braille for people with visual impairment, in a collaboration with the Mato Grosso Institute for the Blind.

Other customer service channels include: telephone contact centers; in-person service (customer service offices, mobile offices); website (virtual customer service office); the Energisa ON mobile app (for questions, information, news, new solutions, etc.), printed materials (electricity invoices, leaflets), social media (Facebook, Twitter and YouTube) and ChatBot service (WhatsApp and online chat).

Digital channels handled

61.1%

of calls in 2019, compared with 53.8% in 2018

Satisfaction

We use two indexes to monitor consumer satisfaction which reflect energy sector surveys:

- The Perceived Quality Satisfaction Rating (ISQP), compiled annually for sector companies and assessing five areas: supply, information and communications, light bill, assistance and image. The average index for Brazil in 2019 was 76%.
- The Aneel Customer Satisfaction Rating (lasc), compiled annually from a questionnaire addressing five categories: perceived quality, trust, loyalty, value and satisfaction. Concession operators in Brazil scored an average of 67.38 in 2019.

In the latest edition of the ISQP survey in 2019, 8 of Energisa Group's 11 distribution companies presented indexes equal to or greater than the Brazilian average.

Energisa Sul-Sudeste took third spot in the domestic ranking for distribution companies with more than 500 thousand clients. Energisa Nova Friburgo came second amongst distribution companies with up to 500 thousand clients.

Energisa Tocantins came first in the General Satisfaction Rate (ISG), for companies with more than 500 thousand consumers. Energisa Sergipe boasted the best result in the Northeast amongst companies with more than 500 thousand consumers (78.60) and the second best in the Northeast, and was a national benchmark in the Perceived Quality Excellence Index (IEQP), amongst companies with more than 500 thousand consumers. In the Aneel 2019 awards, Energisa Sul-Sudeste and Energisa Tocantins excelled, winning awards for the south-east and north regions respectively.

The consumer management processes of all distribution companies are ISO 9001 certified (Quality Management System), and complaints are handled in accordance with 10002 (Customer Satisfaction and Complaints Handling Guidelines).

A leading initiative at Energisa Rondônia in 2019 involved the legal advisory team, who filed collective actions for legal proceedings in partnership with the Mediation and Reconciliation Center of the Rondônia Court of Appeal. The aim was to expedite the resolution of conflicts with consumers, and consequently reduce the number of cases related to the grid incorporation, which account for 70% of the Company's legal cases, and the backlog of cases in the courts.

CONSUMER SATISFACTION

	ISQP (Abradee)					Iasc (Aneel)
Company	2017	2018	2019	2017	2018	2019
Energisa Minas Gerais	81.20	86.70	80.70	71.18	70.52	73.94
Energisa Nova Friburgo	83.51	82.00	84.70	57.97	70.14	72.13
Energisa Paraíba	83.84	81.20	77.30	67.62	67.81	65.14
Energisa Borborema	83.31	82.00	78.20	65.85	73.10	70.36
Energisa Sergipe	85.56	80.88	78.60	63.64	70.12	65.94
Energisa Mato Grosso	77.66	75.60	71.30	55.67	63.90	61.42
Energisa Mato Grosso do Sul	82.64	78.50	67.20	64.44	66.83	63.04
Energisa Tocantins	76.58	76.00	76.70	45.15	62.98	64.96
Energisa Sul-Sudeste	81.47	86.00	80.70	68.98	70.72	74.94
Energisa Acre	60.10	51.70	54.60	50.91	55.30	46.41
Energisa Rondônia	69.20	58.10	63.40	53.00	62.48	43.84

Suppliers

To forge enduring business relationships with our supply chain, we work not only to ensure the quality of the services and products we procure, but also to develop suppliers that are critical for the proper operation of our power systems and for the individual and collective safety of our employees and consumers.

Requirements on the quality standards to be met to ensure customer satisfaction and continuous improvement are described in two documents: materials manufacturers are required to implement the Energisa Group Supplier Quality Management Manual, based on the most recent edition of ISO 9001:2015. Service providers are required to conform to NDU 036 – Onboarding of Distribution Services Suppliers, a standard implemented in 2019 (for further information, see "Standardization").

The Supplier Quality Management Manual contains social and environmental guidelines, requirements on extending the management system to sub-suppliers, labeling conventions, rules on recyclable materials, and guidance on advanced product quality planning. It also requires anti-bribery provisions to be incorporated in all contracts. In 2019 we introduced a number of enhancements to the Manual. One enhancement requires financial risk assessments to be performed by independent third parties rather than internally, in order to increase transparency and reliability. As a second enhancement, the Manual has been translated into English to support onboarding of global suppliers.

Quality Assurance Certification

We launched a Quality Assurance purchase listing, which consists of an in-depth checklist to evaluate the entire production system of suppliers. The list includes assessing the procedures of suppliers applied to sub-suppliers, which can involve second party assessments, periodical assessments of financial risk, scoring system, ranking and other things. It also checks that the supplier maintains a multidisciplinary team for evaluation of sub-suppliers based on the purchase demands of raw materials or components.

Certifying suppliers guarantees greater agility of processes, better prices, delivery time, safety and promotes continuous improvement. This aims to optimize internal processes, costs and lead times, attesting that all product manufacturing risks have been analyzed and mitigated.

In 2019, 18 suppliers were certified, with 11 Quality Assurance terms being extended, and seven new suppliers entering the process. Purchases from QA-certified suppliers now account for 40% of total purchases. For grades between 60% and 80% the certificate is valid for six months, and for grades above 80%, for 12 months. During this time the supplier is exempt from further inspections. However, to ensure the quality of the materials, some periodic receipt inspections are applied to the most critical suppliers. Our aim is to have at least 50% of material and equipment expenses enlisted in the program by 2021.

Standardization

In 2019 we developed a Contractor Standard containing guidelines on screening and onboarding contractors for commercial building, maintenance and technical services in conformity to Energisa Group requirements. The purpose of the Standard is to improve safety, transparency and standardization in contractor capacity building processes.

In line with ANEEL Resolution 414/2010, which requires that any expansion, upgrade or modification of existing electrical installations be performed by legally qualified contractors, this Standard also provides guidance to partners seeking qualification and capacity building for electrical installation work. It additionally covers aspects to be observed during visits by Energisa Group inspectors to contractor facilities.

Development

In 2019, further progress was made on our Sinergisa program. The program, developed in a collaboration with the National Quality Foundation (FNQ), aims to improve our approach to supplier management through four pillars: capacity building, coaching/mentoring, Service Level Agreement (SLA) monitoring and final assessments.

In the period 2019-2020 we completed the first stage of the program, in which 46 participants were assessed against the program rules and criteria. The next stage will involve developing improvement initiatives based on the strengths and opportunities for improvement identified in the assessment reports, and providing mentoring. The goal of the program is to develop a culture of excellence and transformation in our suppliers through improvements in management.

SINERGISA PILLARS



Training:

Productivity and quality, safety at work, environment, labor management, financial management and social security management.



Orientation/Mentoring

Relationship through a shared learning environment with suppliers included in the program.



Monitoring Service Level Agreements (SLAs)

Follow-up of action plans and both current and new SLAs in real time, in which the implementation of action plans can be assessed to eliminate gaps and/or strengthen/maintain strong points.





From the initial assessment, to measure the degree of management maturity, as well as to identify strengths and opportunities for improvement, a final evaluation is carried out in the cycle of six to seven months to measure progress and compliance with the program.

Oversight

Supplier Risk Audits (ARPF) help to track progress and, where necessary, adjust course. These audits cover operational aspects such as quality of infrastructure, controls and laboratory infrastructure, and social and environmental performance including suppliers' social and environmental projects, practices and approach to managing impacts.

We also monitor the quality indicator for the supply of materials and equipment, including progress targets, which enables us to formally monitor non-conformity events, cause analyses, mitigating actions studies, roll-out and problem solving.

Performance analytics

Supplier performance is analyzed every six months in terms of financial health, quality management system, compliance with contractual conditions, product quality and compliance with health, safety and environmental standards.

Companies that do not meet the minimum service requirements are directed to the Escalation program,

dedicated to the recovery of up to ten strategically chosen suppliers from jointly set up action plans, which are monitored by Energisa. In 2019, 11 suppliers participated in our *Escalada* program, which resulted in three suppliers being permanently barred from doing business with the company, while the remaining suppliers were brought back to minimum performance levels during the course of the process.

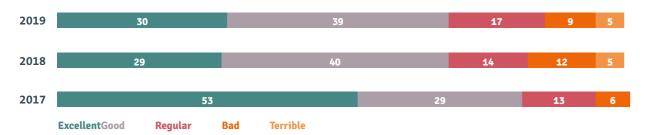
In the year, Energisa Borborema and Energisa Paraíba organized the 3rd edition of the Energisa Partner Awards, which recognize suppliers for efforts to improve their quality of management. The award program assesses suppliers based on our Management Excellence Model (MEG 21), on aspects such as schedule performance, quality of service, and their health, safety and environment practices. The two distribution companies received an Excellence in Management seal of approval within the Paraiba Quality Program (PPQ), in recognition of their efforts to improve management practices among their suppliers.

In 2020 the Energisa Partner Awards will be organized at a national level, based on supplier assessments within the Sinergisa program.

PERFORMANCE OF MATERIALS SUPPLIERS (%)



PERFORMANCE OF SERVICE SUPPLIERS (%)



Communities

Aware of our responsibility towards the social, cultural and economic life in the communities where we operate, Energisa runs initiatives that positively impact society. The social investments policy prioritizes educational and cultural initiatives and the fostering of economic and social development in the communities. In 2019 alone we allocated R\$ 18.2 million to social projects, an amount similar to the previous year.

The Cultural Ormeo Junqueira Botelho Foundation runs the initiatives, an institution funded by Energisa Group and its distribution companies.

EXTERNAL SOCIAL INVESTMENT (R\$ thousand)

2017	11,597	
2018		18,131
2019		18,173

The social investments policy prioritizes educational and cultural initiatives and the fostering of economic and social development in the communities.



Projeto Letra de Luz, in Cataguases



Cipa in Schools



Mostra infantil



Ecological trekking



Junior Achievement



Projeto Ilumina in Muriaé



Rua de Lazer in Cataguases

INVESTMENTS IN SOCIAL PROJECTS (R\$ thousand)

Incentive	2017	2018	2019
Culture	5,801.5	10,086.0	12,479.6
Federal Law (Rouanet, Audiovisual)	2,000.0	3,108.0	3,751.0
State Law Incentivizing Culture – MG	1,811.0	6,227.0	7,848.2
State Law Incentivizing Culture – RJ	775.0	0	174.0
State Law Incentivizing Culture – SP	1,215.5	751.0	706.4
Sports	4,730.7	4,964.0	2,158.0
Federal law incentivizing sport	521.7	776.0	1,386.0
PB State law (Gol de Placa)	4,209.00	3,561.0	0
State Law - RJ	0	0	345.2
State Law - SP	0	627.0	426.8
Social	1,065.0	3,081.0	3,535.3
National Dental Care Program (Pronon)¹	499.0	776.0	0
National Health Care Program for the Disabled (Pronas/PwD)	0	776.0	554.8
Infancy and Adolescence Fund (FIA)	314.0	753.0	1,204.5
Elderly Fund	252.0	776.0	1,326.0
Donation to Oscip	0	0	450.0
Total	11,597.2	18,131.0	18,172.9

 $^{^{\}mbox{\scriptsize 1}}$ In 2019, there were no Pronon-eligible projects in the concession area.



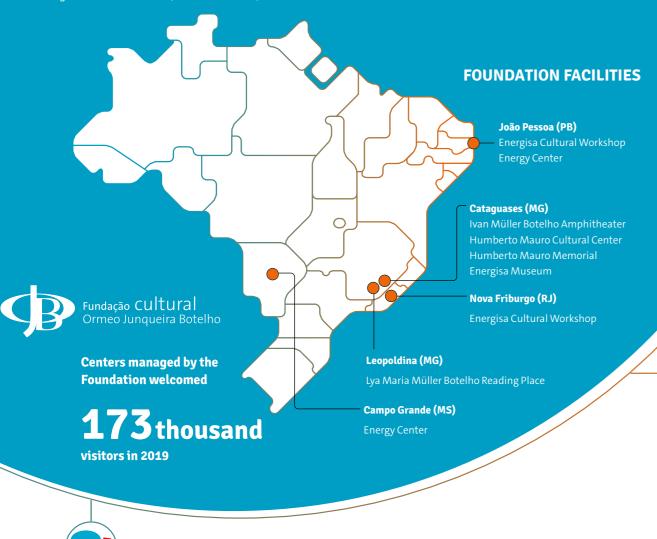
R\$ 18.2 million

allocated to social projects in 2019

Giving blood

The Cultural Ormeo Junqueira Botelho Foundation

Based in Cataguases (MG), the Cultural Ormeo Junqueira Botelho Foundation has been engaged in the technical and cultural analysis of sponsored projects since 1987. It is also responsible for managing the cultural centers maintained by Energisa in Minas Gerais, Rio de Janeiro, Paraíba and Mato Grosso do Sul states.



Cultural workshops

Through literature, music, cinema, theater, plastic arts, and creative and sustainable economy activities, the centers in Nova Friburgo (RJ) and João Pessoa (PB) foster culture and science. In 2019 more than 80 thousand people visited the João Pessoa Workshop, which underwent renovation to make it more comfortable for visitors. The Musical Marquee was reopened in the year - alongside two galleries, the Vladimir Carvalho room (which hosted more than 150 events, with 55% being for charity), the Workshop Cafe (which organized more than 180 events) and a souvenir shop. Activities included the Christmas at the Workshop project, with shows, choir singing, audiovisual presentations, manger competition, theater shows, visits to the museum and Santa Claus' grotto, street lighting and a gastronomical fair. The workshop also hosted nine editions of cultural vacations and creative economy, generating income for exhibitors and facilitating access for visitors to the products. A day was dedicated to Jackson do Pandeiro, to commemorate the master of rhythm's centenary year. The Nova Friburgo unit completed 18 years and promoted 31 events for a total public of 6,031 people.



Humberto Mauro Cultural Center and Memorial

Also located in Cataguases (MG), this is a multi-purpose center that serves the population in the Zona da Mata region in Minas Gerais state. The center hosts plastic arts exhibitions, stages Brazilian and international plays, dance presentations and musicals, cinema festivals and seminars, and forums and talks involving different cultural sectors. In 2019 our agenda included more than 34 events involving 15,578 people.



Energisa Museum

Located at Energisa Paraíba (since 2005, as part of the

Cultural Workshop) and at Energisa Mato Grosso do Sul

(since 2015), it provides guidance to the population on

how to efficiently and safely use electricity, providing visitors the opportunity of becoming familiar with the principles of physics and the history of electricity. It supported by models, prototypes, a video room, recreation room, audiovisual experiences, works by local

artists and an area that represents a home of years ago

and another current home, for comparing consumption

34,107 at Paraíba and 10,643 at Mato Grosso do Sul, and

the center also put on displays in shopping centers in the

two capital cities. Further good news came in the form

of the construction of the Energy Center in Bragança

Paulista (SP), set to serve 45 thousand students, 150

teachers and 139 schools in 2020 and 2021.

and technology. In 2019 the number of visitors was

Located in Cataguases (MG), this museum presents the wide-reaching history of the development of Energisa and the regional economy in an educational and interactive way, alongside the history of electricity (from the 'Big Bang' that brought the universe into being to modern hydro-electric power plants). The pilot project Letra de Luz was rolled out in 2019, aimed at helping young people look after the environment, be good citizens and improve the quality of life and learning of students in grades 4 and 5 of public schools. The students visited the Energisa Museum and the Humberto Mauro Cultural Center, taking in works of art from local artists and carrying out various classroom activities. 3,502 visitors came through its doors in the year.



Ivan Müller Botelho Amphitheater

Located in an annex to the Energisa Museum, the amphitheater has 300 seats and is dedicated to theatrical and musical performances. In 2019 it welcomed 2,240 people, with the 3rd International Meeting of Diverse Clowns, with shows for schools and free entry for the public in general.



Lya Botelho Reading Place

This venue is dedicated to promoting children's literature and educational exhibitions, and is based in Leopoldina (MG). In addition to rooms for reading and exhibitions, it houses the Ormeo Junqueira Botelho Memorial, in tribute to the Foundation's founder, in addition to a multimedia room. In 2019 it reached the milestone of 21.1 thousand visitors and one of the leading events was the Ouro de Minas exhibition, which presents an amusing history of the gold rush, one of the most important cycles in Brazil's economy.



espaço energia

Energy Center

Further information about the Foundation's projects and cultural facilities can be found at http://www.fundacaoormeo.org.br/

Cultural projects

Zona da Mata Audiovisual Zone - The result of a Culture Program and Local Development movement sponsored by Energisa, the Zona da Mata Audiovisual Zone in Minas Gerais creates opportunities for professional qualification, employment, income, business and new ventures that spur on the economy in various cities of the region. In 2019, the feature films (Derrapada, Dentro da Caxinha and Natureza Morta) and a documentary (Castelo de Terra) were produced, and one feature film finished (A Queda). A film was pre-produced that will be released in 2020 (As Órfãs da Rainha) and the film Maria do Caritó was released commercially. Thanks to the Zone, the city of Cataguases was recognized in the year by the Minas Gerais government with the Local Productive Arrangement (APL) certificate, which enables the use of financial institutions in order to reduce interest rates and brings in the government to strengthen domestic and international trade for the region.

Factory of the Future - The leading endeavor in 2019 of the school studio associated with the Audiovisual Zone was the Transmedia Creative Residency - Retrilha, which sets out dynamics and various methodologies and emerging technologies to form and expand a more humane, fair, fun and sustainable city. A range of experts, teachers and students participated. There were four workshop stages in the year: Inspirational (collective meeting), Selective Challenge (submission of proposals), Cocreation (workshop for 28 selected participants and other activities) and Coproduction (two workshops involving the preparation and development of projects). A fifth stage will take place in 2020: Urban Intervention - exhibition and practical exercises involving all participants. The residency sets out the dynamics to form and expand the view of the city, through an "interactive social game" using a range of emerging technologies and methodologies.

Watch and Make Movies Festival – In the 7th edition held in November in Cataguases (MG), some 2 thousand people - including educators, students, cultural managements, businesspeople, filmmakers, producers, artists, technicians and the local population - participated in several activities including: Children's Session, with the special session of the feature film Maria do Caritó and broadcasting of the TV series Árvores do Araújo, both made in the region; Creative School Forum for teachers and specialists; announcement of the result of the Regional Coinvestment Tender, selecting 17 new audiovisual work projects to be made in the region in the years ahead; an award session for the five short films made by professionals in the Zona da Mata region, selected by Edital Usina Criativa de Cinema in 2019. A special tribute was made to Mônica Botelho, president of the Cultural Ormeo Jungueira Botelho Foundation.

Literary Inclusion - Reading and Citizenship - This project with support from Energisa Mato Grosso focuses on disclosing literature and motion pictures as learning and social education instruments. The project covers the state on board a pickup truck and donates books, comics and animes to needy communities. In 2019, the project handed out over 15 thousand books and covered roughly 80 thousand persons directly and over 200 thousand indirectly. Visits included 62 locations to both cities and rural communities - including a native village - in four states (Mato Grosso, Goiás, Tocantins and Pará).

Natal Iluminado - Christmas lighting and decorations with over 2 million light sources in four venues in Aracaju (SE): Praça Fausto Cardoso, Parque da Sementeira, Ponto Construtor João Alves and Edifício Maria Feliciana. This was the largest Christmas lights exhibition ever held in the city.



Orquestra Jovem de Sergipe - This project provides musical training for underprivileged youth from the neighborhoods of Santa Maria and 17 de Março in Aracaju, directly benefiting 120 young people.

São João na Rua São João - São João is the most expressive and popular festival held in the state of Sergipe. Rua São João in Aracaju hosts the city's oldest open São João festival (held since 1919). This event sponsored by Energisa Sergipe attracted close to 25,000 persons during the four days of festivities.

Flor de Maracujá - The Flor de Maracujá village square event sponsored by Energisa Rondônia, held at Parque dos Tanques in Porto Velho and featuring 50 attractions including dancing troupes (such as carimbó), boibumbá, adults' and children's square dancing.

Native myths in Travessia - The project involves young people from settlements in Mato Grosso, Mato Grosso do Sul and Tocantins, in producing motion pictures with chapters on native traditions. The main object was to gather and disclose the culture of native communities by

means of workshops, resulting in co-creating an audiovisual script and collection of images. The end product, a medium-length film, depicts six native myths by means of animation and shot in the natural scenario where the stories took place, according to native tradition. The idea is to keep these myths alive in their villages of origin and to disclose native culture, one of the pillars of Brazilian culture. With support from Energisa, this project was developed by 15 young people from ethnic groups such as the Javaé, from the São João settlement in Parque Nacional do Araguaia (TO); the Kuikuro from the Afukuri settlement in Parque do Xingu (MT); and the Kadiwéu from the São João settlement in the Pantanal region (MS). Young people learned to handle equipment by means of workshops and acquired technical knowledge in communications and expression. Based on narratives by their elders and other settlement members, they recovered old storytelling traditions.

Education and health

Escola Energia - Training of professionals in the community to serve as electricians and occupy future vacancies both in the distributing enterprise and in the market in general. The program developed by Energisa Sul-Sudeste trained 54 participants during the year. The Escola Energia project was also adopted at Energisa Acre after revamping two training centers (in Rio Branco and Cruzeiro do Sul), with training provided to 60 electricians.

Rondônia that trains pupils ending their military service, placing them in the job market. This action involves the Army, which aims to place former soldiers in the job market after having complied with their civic duty; Senai, which provides the necessary training; and Energisa, which needs specialized labor. The enlisted servicemen attended during roughly two months the electricians' distribution network course provided by Energisa through its Escola de Energia project. On concluding the course, it is expected that these enlisted servicemen will be hired shortly after exiting from the Army. Two classes were formed in 2019: the first with 26 participants, and the second with 37.

Caravana da Visão - This project held in Cajazeiras (PB) seeks to reduce truancy by children from classrooms, as many students face learning difficulties due to eyesight problems. During its first edition, 3,401 children underwent screening and 626 eye tests were performed, with the donation of 252 pairs of glasses with lenses and 370 sunglasses.

Educação Financeira Familiar - This workshop held at Energisa Paraíba aims at teaching people how to control household expenditure and explaining issues related to financial costs.

young people between 16 and 29 years of age from the states of Acre and Rondônia will be submitted to one-year professional qualification under the Geração Energia project

Corrida do Bem - Support for initiatives in João Pessoa and Campina Grande, intended to raise funds respectively, for the Napoleão Laureano and FAP hospitals, dedicated to cancer treatment.

Instituto Vicente Lenílson - Energisa Mato Grosso's support for a project aimed at removing children from risky situations by means of sports after school hours, based on good school performance. The Institute benefited 60 children directly.

Futuro do Trabalho - Developed in a partnership with Junior Achievement, a non-profit association that encourages education and learning opportunities to provide access by young people to the job market, the project includes students from high school grades 1 to 3. They attended classes by Energisa Sul-Sudeste volunteer teachers during which several topics were addressed in order to bring out an entrepreneurial spirit in young people, stimulating personal development, a clear vision of the business world and easing access to the job market.

Electricity Generation

One thousand young people between 16 and 29 years of age living in the states of Acre and Rondônia, will be given one-year professional training (as network electricians, light-meter readers, industrial training, service quality and administration assistants). The idea is that 500 young people in each state, found to be in a vulnerably social condition with material and cultural needs, will attend classes given with innovative educational methods and social technology, stressing skills such as planning, communications, financial education, citizenship and emotional intelligence.

Energisa's action will be put in place until 2020 under a partnership with the United Nations Educational, Scientific and Cultural Organization (Unesco), Serviço Social da Indústria - Sesi (Social Service for Industry) and Serviço Nacional de Aprendizagem Industrial - Senai (National Service for Industrial Qualification). Unesco will also be in charge of selecting young people from public schools in underprivileged regions. At the end of the course a portion of successful pupils will be hired by Energisa Group companies.

There will be four selection stages throughout the process - through an on-line learning platform and on-site sessions - to detect the most suitable students for professional courses at Senai, with the possibility of being employed at Energisa Acre and Energisa Rondônia. This action also envisages a selection of 30 young people for Youth and Adult Education (EJA) courses, providing them with the opportunity to complete elementary or high school.

Programa Geração Energia is a fusion of the Escola de Energia projects in which Energisa and Senai are engaged in improving facilities and training professionals for the power industry - and Educação Livre, developed by Unesco and Sesi for professional qualification and referral to the job market.

Social development

Juntos pelo Desenvolvimento Sustentável - Energisa Minas Gerais supports the Comunitas program, a non-governmental organization that involves and engages civil society in cooperating with government in actions that improve municipal administration and services, especially in the field of education. In 2019, actions in support of administrative reform were carried out and sanctioned by the state government in May as a first step in the process. A review of legislation is still in the planning stage.

Bem da Gente - For the empowerment of new and existing community entrepreneurs in the district of Conselheiro Paulino (Nova Friburgo) by means of courses and guidelines on business practices, aiming at social and economic development based on self-sustained and inclusive businesses. There were 30 entrepreneurs participating in the project by means of a partnership between Sebrae and the Nova Friburgo local government. In 2020, Bem da Gente will take place at Energisa Paraíba, Mato Grosso do Sul, Mato Grosso and Tocantins.

Natal de Carinho e Dia das Crianças Solidário - An action held by Energisa Sul-Sudeste in nursing homes, combining charity and solidarity by means of visits by volunteer employees. Gift donations benefited 280 elderly people during the Christmas season. Activities were also held and educational materials handed out to 75 children assisted by Lar Santa Filomena in Presidente Prudente (SP).

Solidarity with Brumadinho - Energisa provided support to the rescue teams that acted in the tragedy at Brumadinho (MG) in January 2019, due to collapse of mining dams. Search helicopters and satellite telephones were made available, in addition to disposable packaging, gloves, vests, goggles, garments and paper - items requested by the case's Crisis Committee.

Social Rate

Paid for by a federal government subsidy for low income families, the Social Electricity Rate awards discounts on energy bills ranging from 10% to 65%. Various initiatives were adopted in 2019 to identify consumers entitled to the benefit, supported by the use of analytical tools to identify clients in municipal databases who qualified for the social rate but were not using it. At the end of 2019 our 11 distribution companies were serving 1.3 million customers classed as low income, or 16.8% of total consumer units.

By way of the project Services for Villages, Energisa Tocantins visited the villages of Canuanã, Tixuiri and São João (Formoso do Araguaia), Porteira (Tocantínia), Lago do Boto Velho (Lagoa da Confusão), Santa Izabel and Fontoura (Ilha do Bananal), Pedra Branca (Goiatins) and Mariazinha (Tocantinópolis). The endeavors resulted in more than 400 engagements, involving swapping standard lamps for LED lamps, registry people for the Social Electricity Rate, and negotiating 206 overdue electric bills.

LOW INCOME CUSTOMERS (thousand)

2017	1,169.9
2018	1,170.7
2019	1,340.6

Light for All

The Light for All Program brings electricity access to remote areas at rates subsidized by the federal government, by way of a set of public measures. In 2019 three of the Group's distribution companies provided services under the program, investing R\$ 178.6 million, comprising own funds of R\$ 62 million and R\$ 116.6 million in federal government contributions. 8,547 families were assisted in Mato Grosso do Sul; Energisa Acre made 2,513 connections; and in Rondônia the service benefited 2,454 consumer units. The other eight distribution companies concluded the universal access of energy supply in their concession areas.

NUMBER OF LOW INCOME CUSTOMERS (thousand)

Company	2017	2018	2019
Energisa Minas Gerais	56.3	56.8	66.1
Energisa Nova Friburgo	5.1	6.0	6.3
Energisa Paraíba	353.6	346.5	383.6
Energisa Borborema	39.6	39.0	47.3
Energisa Sergipe	204.0	202.7	213.0
Energisa Mato Grosso	141.4	129.7	148.0
Energisa Mato Grosso do Sul	116.0	121.5	143.9
Energisa Tocantins	116.6	123.3	134.0
Energisa Sul-Sudeste	61.0	72.1	79.1
Energisa Acre	30.1	31.6	55.0
Energisa Rondônia	46.2	41.5	64.0
Total	1,169.9	1,170.7	1,340.6

Energy efficiency

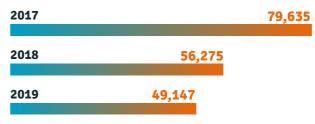
By way of the Energy Efficiency Program (PEE) and in accordance with Aneel legislation, in 2019 our distribution companies invested R\$ 110.7 million in projects to encourage the safe and conscientious use of energy.

The results are determined according to the procedures of Aneel's energy efficiency program (PROPEE) and the international performance measurement & verification protocol (PIMVP). 104,268 consumer units benefited in the period, with energy savings of 49,147 MWh/year - enough to power 27,301 homes for 12 months, based on an average consumption of 150 KWh/month. A notable achievement was installation of more than 20 photovoltaic systems in the concession area, with an installed capacity of 938.95 KWp.

INVESTMENTS IN ENERGY EFFICIENCY(R\$ thousand)

2017	65,589	
2018	44,710	
2019		110,652

ENERGY SAVED (MWh/YEAR)



UNITS SERVED (NUMBER)

OMITS	SERVED (NOIVII	DEN)	
2017		212,613	
2018			318,468
2019	104 268		

R\$
110.7
million
was invested in 2019 in projects
promoting the safe and
conscientious use of energy

Our Energy

Rolled out by all distribution companies, this is the Group's flagship energy efficiency project. It encourages the rational and efficient use of electricity in low-income communities by way of educational initiatives geared towards raising awareness to combat waste and change habits, encouraging conscientious consumption.

It involves exchanging incandescent light lamps for compact fluorescent or LED lamps and replacing inefficient refrigerators with other more efficient refrigerators. Talks, theater shows and dynamic activities are also carried out at the 13 Efficient Mobile Units, a type of laboratory, with state-of-the-art devices that show how to use electricity. The initiatives target the public and private school goers with a fun and digital extracurricular learning experience. In 2019 the project's talks and workshops were attended by 106,294 participants, benefiting 73,978 clients and upgrading 286,405 lamps and 2,053 refrigerators.

In the first year of Our Energy in Rondônia, upwards of 6 thousand socially vulnerable people benefited from talks and new lamps and refrigerators. More than R\$ 16 million was also invested in reducing the energy consumed by public lighting, providing a saving of more than R\$ 4 million in 17 of the state's municipalities.

Energisa Acre appeared at the first edition of ExpoEletroacre, the largest agribusiness trade fair in the state, with an Our Energy stand. During the fair's nine days, clients were given tips on energy safety and savings, information about rates, and could watch seven experiments of the Electrical Efficiency Program, such as an electricity generating bicycle.

Institutional and public

OUR ENERGY

The energy efficiency projects also benefited government authorities, including town lighting and health care institutions in the regions operated in.

The distribution companies' leading initiatives in 2019 included:

Energisa Minas Gerais – Installation of solar heaters in consumer units in housing projects; energy efficiency in hospitals, clinics, old people's homes and public schools, in addition to exchanging lamps used for lighting for LED lights, in the municipalities of Leopoldina, Muriaé, São Sebastião da Vargem Alegre and Cataguases.

Energisa Nova Friburgo – Energy efficiency for lighting systems, refrigeration, environmental conditioning and installation of a photovoltaic system in old people's homes, nurseries and schools in the region, such as Associação São Vicente de Paula – Casa dos Pobres, Lar Abrigo Amor a Jesus, Associação Friburguense de Amigos e Pais do Educando, Creche São José and Centro Municipal de Educação Infantil Brasilina da Rosa

Energisa Paraíba – Replacement of lights in streets and squares in ten municipalities in Paraíba state. Swapping 2,427 inefficient lights for LED lights, which last longer and are more economic, led to an energy consumption saving of 2,278 MWh per annum.

Energisa Borborema – Lighting systems, environmental conditioning installation of solar panels to heat water at Hospital SAS, in Campina Grande. 146 lamps and 61 air-conditioning units were replaced and 10 water heating *kits* (boilers and solar panels) installed.

Energisa Sergipe – Installation of a solar generation system at Hospital de Cirurgia, in Aracaju. 410 photovoltaic panels were installed which helped the hospital save an annual R\$ thousand in its energy bills. It also included projects at Hospital Universitário, of the Federal University of Sergipe, swapping lamps for LED technology in 570 public light posts in the municipalities of Barra dos Coqueiros, Pirambu and Nossa Senhora do Socorro.

Energisa Mato Grosso – Upgrading part of the lighting facilities in Cuiabá, by installing a system that enables remote monitoring of certain points and provide information about consumption, status (on/off), and dimerizsation by controlling the lighting intensity. The system also helps measure electrical quantities and produces information about climate variables, such as ultraviolet (UV) radiation, carbon monoxide, temperature and humidity. A charging station was also installed, which can charge up to two electric vehicles a day, in order to encourage the use of electric vehicles. Installed at the State Environmental Office, the station is powered by a solar generation unit consisting of photovoltaic cells.

Energisa Mato Grosso do Sul – 62 energy efficiency projects were delivered, including installation of new air conditioning and lighting systems in the building housing the Corumbá court and the Mato Grosso do Sul Court of Appeal, resulting in an energy consumption saving of 18%.

Energisa Tocantins – Energy efficiency solutions at Hospital Geral and Hospital do Amor, in Palmas, and Hospital Geral, in Araguaína, entailing the replacement of 5,297 lamps with LED lamps, the installation of 175 photovoltaic panels and 155 air conditioning units. These initiatives should bring an annual saving of R\$ 650 thousand in these three institutions' energy bills.

Energisa Sul-Sudeste – Replacing sodium vapor luminaries with LED technology in 800 points in the city of Adamantina (SP). This exchange resulted in the municipality saving 73,833 kWh/month, enough to power some 370 properties consuming around 200 kWh for a month. A number of projects were also conducted in two hospitals, two universities and a government building, replacing fluorescent lamps with LED lamps in 14,381 points.

Energisa Acre – Arrangement made with Fundação Hospitalar Estadual do Acre, in Rio Branco, to replace 4,258 lamps with LED lamps and install photovoltaic panels to generate energy. This is expected to yield savings of approximately R\$ 110 thousand a year. Efficiency projects were also implemented at Fundação Hospital Estado do Acre, Hospital da Mulher e da Criança do Juruá and the Acre State Federation of Industry, in addition to revitalizing and retrofitting the public lighting system in the municipalities of Rio Branco and Cruzeiro do Sul. Another project, this time benefiting the Federal University of Acre (Ufac), entailed installing a photovoltaic solar power plant, consumption monitoring center, the development of affordable software and equipment to automate the lighting and refrigeration systems, and the replacement of 14,255 lamps, amongst other items.

Energisa Rondônia – 12 projects conducted in partnership with the municipal governments of Costa Marques, Ariquemes, Cacoal, Jaru, Rolim de Moura, Ji Paraná, Nova Mamoré, Nova Brasilândia, Candeias do Jamari, Cerejeiras and Cujubim, to replace 10,404 thousand lamps with LED lamps. Another initiative entailed replacing internal lighting and installing a photovoltaic power plant at the situation Casa Família Rosetta. 78 lamps were replaced with LEDs and 144 photovoltaic panels installed, providing savings of more than 80% in energy bills.

Number of pieces of efficient equipment donated288,458Fridges2,053Lamps286,405Number of units benefited by energy efficiency projects73,978Number of participants attending efficiency workshops and talks106,294





Safety in the community

The safety of the population in municipalities served by the distribution companies is monitored to detect risks of accidents in contact with energy grids. The companies use the same criteria adopted by Fundação Coge and Abradee, standard setters for sector metrics monitoring and analyzing the frequency and severity of accidents caused both by negligent use of electricity and unauthorized intervention in grids.

Procedures are assessed and described and technology used to ensure the quality and efficiency of the service provided. The aim is to eliminate or mitigate risks, such as breaching of cables, scheduled power outages and accidents involved in the operation, in order to guarantee an efficient and preventive approach. Hazardous grids are removed to minimize the dangers facing people, when necessary.

Our approach focuses on providing guidance to the population about safe energy usage, safety procedures and the risks of approaching broken cables or other

situations. The initiatives include the **Energisa Teaching** program, talks for the community, radio programs providing guidelines to the population, the Safety Minute and a range of awareness raising initiatives, such as the Efficient Mobile Units.

There is also the **Zé da Luz** project which raises awareness amongst children and adolescents of the risks and hazards of flying kites near electrical grids. We reached 11 thousand school goers in Minas Gerais, with 45 talks, 2 thousand in Nova Friburgo with 12 talks, and 5.5 thousand in Sergipe. More than one hundred people were directly benefited per event in Mato Grosso.

Another front is the **Energisa in Schools** project, which raises awareness amongst children aged 7 to 10 about conscientious electricity usage, and how to be safe around electrical grids. At Energisa Mato Grosso do Sul alone, 3,202 children from municipal schools in Cuiabá and Várzea Grande benefited.

Raising awareness

A flagship awareness raising initiative in 2019 was the 1st Safety Parade organized by Energisa Minas Gerais and Energisa Nova Friburgo throughout the concession area in order to raise the population's awareness about the risks and hazards of working near electrical grids, as is the case for constructions.

Energisa Tocantins rolled out the program Mapping Out Risks for the Community, by which field teams become inspection agencies detect, record and report situations which could pose a risk to the community's safety. Risks detected in the field are assessed and forwarded to the departments responsible for addressing them, and if necessary are reported to outside agencies.

Another issue is the illegal makeshift connections that jeopardize the community's safety. To this end, Energisa Tocantins, for example, mapped 2.9 thousand families with irregular and makeshift connections in 69 areas. These cases were followed up on and 10 areas with

makeshift connections were regularized, embracing 765 consumers, and an irregular connection area, with 36 consumers. The plan should continue in 2020 with a further 18 areas with makeshift connections and 40 with irregular connections.

The number of serious accidents involving the population rose by 6.2% in 2019, compared with the previous year. Despite these efforts, 37 fatal accidents occurred in the concession area (38 in the previous year). Even broader initiatives were therefore adopted for the community, such as talks at plants, delivery of leaflets to construction material stores, stickers on company vehicles, campaigns and interviews in the local press, talks in municipal schools and guidelines around the use of kites, amongst various other initiatives.



Environmental performance

Resource efficiency Biodiversity ₿₩₩



Supported by an Environmental, Health and Safety Policy reviewed and rolled out in 2019, Energisa strives to ensure a harmonious coexistence with the environment around its operations, rationally using natural resources and continually improving its environmental performance. The policy provides guidelines around issues to be followed to ensure product and service quality, in line with economic feasibility, efficient resource use and the health and safety of its employees and the community. R\$ 286.8 was invested in 2019 in environmental management initiatives, 616% more than in 2018.

The processes are standardized by the Environmental, Social and Health and Safety Management System (SGMASS), based on ISO 14001, OSHAS 18001 standards and the applicable legislation, which can provide the means to adequately monitor environmental, social and health and safety issues.

In the year Energisa Sul-Sudeste initiated the process of implementing ISO 14001. An internal audit was conducted with the support of a specialist consultancy firm, to ascertain opportunities for improvements to address possible nonconformities in preparation for the audit scheduled for 2020. Energisa Mato Grosso renewed its ISO 9001 certification in the period.

To minimize the effects of our geographical coverage, all Energisa Group companies have an Environmental Department. In order to foster the sharing of environmental management experiences and improvements, an environmental workshop was conducted and participated in by all the Group's units. The event was held in Campo Grande in 2019.

R\$ 286.8
million was invested in 2019 in environmental management initiatives

The Sustainability Committee was created in 2019 at Energisa Sergipe, formed of officers, managers and analysts tasked with discussing environmental, social and strategic matters. In the period, members of the Committee took a course about ISO 14001:2015, focusing on the future restructuring of management, in accordance with certification guidelines. An environmental consultancy firm was also hired to prepare a baseline environmental evaluation including municipal, state and federal issues and mapping out points for improvement at the distribution company. After the study has finished in 2020, new environmental management processes and tools will be rolled out.

Energisa Paraíba and Energisa Borborema, in turn, maintain Committees handling environmental responsibilities and activities and processes related to major works.

Environmental licenses

All companies are licensed and carry out the environmental management of their ventures and activities in line with the legal requirements and applicable standards. Energisa Acre mapped out all the operating licenses of its lines and substations to monitor the licenses and ensure compliance. Environmental license renewal processes accordingly began in 2019 with the Acre Environmental Institute (Imac) for seven lines and substations.

Energisa Rondônia made progress in licensing processes for lines and substations in operation, with the creation of the Targets Plan which aims to regularize all substations by 2021. An operating license was obtained in the period for the Vilhena substation, and it applied for operating licenses for 11 substations and five high-voltage distribution lines. Geological surveys are also taking place in five locations where proprietary thermal power plants used to operate, in addition to the monitoring and inspection of surveys carried out by outsourced companies in the deactivated thermal power plants. Three plants were retired and the class I (contaminants) and class II waste removed.

Also in 2019 Energisa Sul-Sudeste secured installation licenses for the new Guarapuava substation and the new 138-kV transmission line, in addition to the operating license for the new Urupês substation. A preliminary environmental license was applied for in São Paulo to certify the environmental viability of the 138-kV line and the new Presidente Prudente II substation.

Resource efficiency



Water

In addition to installing water consumption control equipment, such as self-closing taps in washrooms, active conscientious consumption campaigns are run, content published on the Internet and stickers and notices made, amongst other initiatives. Talks are given at schools for communities, on dates such as Water Day and Environment Week, and informative leaflets handed out.

In 2019 our 11 distribution companies consumed 159,317 cubic meters of water, with 87.3% coming from public supply systems.

At our green buildings, such as the head office of Energisa Minas Gerais, washrooms and canteens are fitted with highly efficient water-saving equipment, with timers on showers and taps. Furthermore, the washing of floors, cleaning of windows and watering of gardens reuse captured rainwater and water returning from the air conditioning system, which generates hydric efficiency of 23%.

Piipee pilot project, which installed dispensers in toilets to release an environmentally friendly, biodegradable solution which treats the physical and chemical properties of urine, neutralizing the without using water.

Energisa Sergipe installed a rainwater recycling system at the company's head office which allows up to 40 thousand liters of water to be collected. A recycling project was also implemented for water from air conditioning units in the substations' control room.

In 2019, Energisa Minas Gerais initiated the smell, changing its color and cleaning the facilities

Waste

Our operations aim to minimize waste and ensure all waste is properly disposed of. There are internal campaigns based around the 3Rs (Reduce, Re-utilize and Recycle), in both the administrative department and in operations. Internal campaigns disseminate the matter and encourage good practices, such as using digital documents. Leaflets are distributed externally and talks given at schools, with consumers encouraged to use digital bills and direct debit, thus reducing our printing volume.

The waste generated in the operations is disposed of properly and responsibly. The insulating oil used in equipment is regenerated and industrial lubricating oil recovered, ensuring the recycling of this material. Nonhazardous waste, such as paper, packaging and scrap, is collected selectively and part of this waste is sold for recycling, in order to contribute to the recycling chain and reduce our environmental footprint. Airconditioning units, furniture and IT equipment is also auctioned, where companies are required to dispose of the items in an environmentally correct way.

Lamps and oil are collected and stored in accordance with the legislation applicable to hazardous waste. This type of waste is disposed of by licensed companies to ensure the correct handling, transportation and final disposal. We also use reverse logistics for materials, conducive with a cleaner and more sustainable production integrated into the business. We also treat sewage at our units, with water and oil segregation boxes and emergency kits for tackling any oil and chemical products bills at our units.

All units have a waste shredding truck to dispose of tree trimmings correctly, and in certain locations partnerships are made with the government to donate these trimmings, which can be used in composting processes. By way of the partnership with the Presidente Prudente Technical School, at Energisa Sul-Sudeste, for example, this waste is sent to academic project such as: organic coffee crops, organic fruit crops, organic allotments, the recovery of degraded pastures, controlling weeds in natural regeneration areas and other activities.

In 2019, the mitigation measures adopted by Energisa Acre, in turn, involved environmental inspections to identify possible nonconformities and to repair equipment to fix or minimize oil leaks, for example. Works plans are also put together for building bunding, set for completion in 2020 and 2021, and the compilation of a PCB oil inventory in distribution equipment.

Energisa Rondônia prepared a plan to build bundles for equipment and thus avoid the impacts of oil leaks in warehouses where the waste storage centers will be installed. As was the case at Energisa Acre, a PCB oil inventory was compiled for distribution equipment.

WATER WITHDRAWAL BY SOURCE (m3)





Sustainable tree trimming

Tree trimmings and organic waste from municipal school canteens is being transformed into compost for use by people participating in the Family Agriculture program and social initiatives of the social development and welfare department of Adamantina, in São Paulo state.

A pioneering initiative in Brazil, this
Energisa Sul-Sudeste program is a part
of the Energy Efficiency Program (PEE)
regulated by the National Electricity
Regulatory Agency (Aneel). Its aims are to
nurture sustainable agriculture, to reduce
urban waste produced in the city - avoiding
the accumulation in landfills - whilst contributing to environmental conservation. The
project was showcased at a ceremony held
during Expoverde, the main agribusiness
event for that region, which occurred in the
month of September.

Branches of trees in the proximity of or touching the electric grid - which are trimmed to avoid energy outages - are shredded and this material is mixed with the waste from schools and given to families once it has been turned into compost.

As a part of the project, the distribution company delivered to the municipality a truck, a compost maker and a tractor, to facilitate the work of the Environment and Agricultural Department.

The project is a partnership between Energisa, the Municipal Government and the Adamantina University Center (Unifai), which carries out research and studies to produce a quality fertilizer to be distributed to farmers for free. The company invested some R\$ 700 thousand in the project and expects to produce approximately one thousand tonnes of fertilizer over the two-year period.



Energy

Internal and external campaigns seek to reduce energy consumption. Our Electrical Efficiency Program, along with Our Energy, promote educational activities for conscientious consumption in all our locations by distributing leaflets and presenting talks at schools on dates such as Environmental Week, and the internal disclosure of materials about the matter.

Energy consumption at the 11 distribution companies amounted to 4,236,520 GJ in 2019, 37.1% more than the previous year, partly explained by the addition of the distribution companies from Acre and Rondônia. The figure includes electricity and fuel (gasoline, alcohol and diesel) sources.

In 2019 Energisa Acre initiated the retrofitting of its head office, replacing fluorescent lamps with LED lamps to reduce consumption and achieve greater efficiency and durability. Energisa Minas Gerais installed an organic photovoltaic system in the head office's parking lot, with technology that uses polymers to generate electricity. The head office has film-covered plate glass, perforated metallic plates and LED lamps. Energisa Sergipe changed the air-conditioning units of its head office, enabling it to reduce consumption by up to 70%, also replacing all lamps at substations.

ELECTRICITY CONSUMPTION (GJ)

2017	3,875,378
2018	3,662,578
2019	4,236,520





Emissions

Fleet management measures are adopted to mitigate greenhouse gas emissions, such as giving preference to biofuels, preferably ethanol. We use S10 diesel in our diesel vehicles, which reduces white smoke and protects the engine from wear and tear and the formation of deposits.

We also carry out periodical preventive services on all vehicles in accordance with the existing environmental legislation, and a policy for renewing the fleet in all units, which involves monitoring and replacing the vehicles, where necessary.

There are also incentives for solidarity transportation, in addition to tracking trips and installing maximum speed rules in our vehicles. Our vehicles have speed control systems in on-board microcomputers, which in addition to helping improve fuel consumption efficiency help reduce the number of road accidents. To comply with Energisa management standards for this matter, in 2019 Energisa Acre and Energisa Rondônia installed telemetry systems in company cars, and provided defensive driving training for employees.

Another initiative was the inclusion of climate change in discussions of Energisa Sul-Sudeste's Socio-environmental Committee, in order to raise employee awareness about the adoption of practices and initiatives, in both their professional and personal lives, which help reduce greenhouse gas emissions.

Biodiversity

Due to the nature of our business, our main impact on biodiversity comes from the construction of high-voltage tension lines and distribution grids. To mitigate these impacts, we work alongside the municipal and state governments and continually train our technical in-house and outsourced staff to ensure the correct procedures are followed for trimming trees.

Wildlife is handled sustainably and projects avoid clearing land as much as possible. In cases where vegetation clearance is necessary, the impact is always mitigated by forest compensation and community initiatives.

The company studies alternative locations and submits the studies required for licensing or permits to the environmental authorities for extensions of grids and lines that cross permanent preservation areas. Compensations are made to keep the impacts to a minimum, with widespread plantation, recovery of springs and fencing off of areas to promote natural rewilding.

We build high-voltage distribution lines and substations in accordance with the legislation in each state. Simplified Environmental Reports (RAS) are prepared, and when necessary preventive archeology studies are carried out, supervised by the National Archaeological Heritage Institute (IPHAN), which indicate the possibility of archaeological remains with an impact on cultural historic heritage.

Insulated cables are used in grids where trees could be more affected by contact with the low-voltage cables, and protected cables are used in medium-voltage grids close to trees, in order to avoid undesirable pruning and to preserve the ecological balance. Drones are used for inspections and monitoring erosion processes in

the administrative areas and easements, in addition to the security of transmission and distribution grids and lines.

A number of the companies' leading initiatives include:

- Restoring permanent protection areas and degraded areas through a partnership between Energisa Minas Gerais and Energisa Nova Friburgo with landowners and municipal governments in the concession areas. The initiative includes periodical planting and maintenance of species native to the Atlantic Forest.
- Energisa Paraíba and Energisa Borborema work to mitigate the environmental impacts in preservation areas with the support of the Environment Management Department (Sudema) and Instituto Chico Mendes de Conservação da Biodiversidade (ICMBio). Energisa Paraíba also took part in the construction of the town square in Cajazeiras and began building its head office in the municipality of Sousa using sustainability principles, such as materials that help reduce energy and water consumption.
- With the support of Energisa Paraíba, Brazilian Society and Sociedade Internacional de Arborização Urbana, the municipal environmental and urban development departments of João Pessoa held the Brazilian Urban Arborization Congress and the Ibero-American Congress on Urban Arborization. Information was addressed about urban trees and overhead underground grids, in addition to direct and indirect initiatives to reduce conflicts with electrical grids. For its work the distribution company received an honorable mention from the Brazilian Society of Urban Arborization (SBAU).

- Energisa Paraíba also sponsored the Sustainable
 OAB project, which aims to create a cultural center
 facing a garden, open to the public, in a ratification
 of our concern for the balance of life, fundamental
 individual rights and socio-environmental issues.
- Energisa Sergipe sponsors Falcon Park, created to create, recover and promote the breeding of birds of prey in captivity. Located in Parque Nacional da Serra de Itabaiana, the park is open to tourists and schools for visiting. The site is visited by researchers from around the world in the pursuit of knowledge and environmental education.
- Energisa Tocantins sponsored initiatives of the Tocantins State government to prevent forest fires and illegal burning of sections of forest. One of the initiatives is D-Day for Preventing Forest Fires and Illegal Burning, which shares information about prevention and safety by way of theater shows, podcasts broadcast on radio and soundcards, in addition to talks at schools.
- Protecting wildlife through an arrangement entered into in 2019 by Energisa Sul-Sudeste with Wildlife Protection Association of Assis (Apass) to tend to animals in the event of accidents, such as coming into contact with the energy grid, works and operations. The Association runs the wildlife recovery center (Cras) and the Wildlife Triage Center (Cetas).
- The Springs Program, which aims to maintain water security to protect biological diversity, run by Energisa Sul-Sudeste. In the year the distribution company received a statement from the São Paulo State Environmental and Infrastructure Department recognizing the importance of ecological recovery projects when implementing Sustainable State Use Conservation Units and Permanent Conservation Areas.

- Energisa Acre and Energisa Rondônia put together four plans for delivery in 2019 and 2020: 1)
 Deforestation to minimize the impacts of trimming on the opening and cleaning of easements; 2)
 Wildlife rescues and removals, with the rescue and relocation to safe areas of wildlife living in the easements, before the clearance takes place;
 Recovery of Degraded Areas, with measures to establish a new dynamic balance and leave the area more attractive and leave the earth ready to future use; 4) Reforestation to compensate the volume of raw materials extracted from natural vegetation, especially when opening up easements.
- Energisa Mato Grosso is a partner of the New Green Project of the Mato Grosso Judiciary Branch, conceived by the Environmental Court of Cuiabá, in order to mobilize society to plant and maintain trees in the state capital. The project entailed 271 awareness raising initiatives in more than 80 districts, enabling the plantation of nearly 70 thousand saplings of native and fruit trees, engaging the community in voluntary work.
- Launching of the City of Trees project by Energisa Mato Grosso do Sul in the city of Campo Grande. Conducted in partnership with the State Prosecutions Department (MP-MS) and TV Morena, it aims to provide guidelines to the population about the importance of preserving and planting trees suited to urban environments.

ibase Social Balance Sheet

1 - Calculation Base	2019 2018					
Net revenue (RL)	19,903,135 15,787,5				15,787,581	
Operating income (RO)	981,638 1,917,385					
Gross payroll (FPB)		1,131,765			969,324	
2 - Internal Social Indicators	Amount	% of FPB	% over RL	Amount	% of FPB	% over RL
Food and Beverages	154,733	13.67%	0.78%	138,630	14.30%	0.88%
Compulsory social charges	269,248	23.79%	1.35%	217,684	22.46%	1.38%
Private pensions	58,803	5.20%	0.30%	74,636	7.70%	0.47%
Health	91,212	8.06%	0.46%	82,631	8.52%	0.52%
Occupational health and safety	34,616	3.06%	0.17%	31,926	3.29%	0.20%
Education	1,203	0.11%	0.01%	3,120	0.32%	0.02%
Training and professional development	7,776	0.69%	0.04%	9,707	1.00%	0.06%
Day care and day care allowance	4,365	0.39%	0.02%	3,144	0.32%	0.02%
Profit sharing	104,168	9.20%	0.52%	101,441	10.47%	0.64%
Other	34,294	3.03%	0.17%	16,163	1.67%	0.10%
Total - Internal social metrics	760,418	67.20%	3.82%	679,082	70.05%	4.29%
3 - External Social Indicators	Amount	% over RO	% over RL	Amount	% over RO	% over RL
Education	8,885	0.91%	0.04%	6,346	0.33%	0.04%
Culture ¹	12,750	1.30%	0.06%	8,592	0.45%	0.05%
Sport ¹	2,158	0.22%	0.01%	776	0.04%	0.00%
Other	4,731	0.48%	0.02%	3,664	0.19%	0.02%
Total contributions to society ¹	28,524	2.91%	0.14%	19,378	1.01%	0.11%
Taxes (not including social charges)	6,847,272	697.54%	34.40%	6,102,431	318.27%	38.65%
Total - External social metrics ¹	6,875,796	700.44%	34.55%	6,121,809	319.28%	38.76%
4 - Environmental Metrics	Amount	% of FPB	% over RL	Amount	% of FPB	% over RL
Investments related to company production / operation	273,348	27.85%	1.37%	174,519	9.10%	1.11%
Investments in external programs and/or projects	13,478	1.37%	0.07%	2,922	0.15%	0.02%
Total environmental investment	286,826	29.22%	1.44%	177,441	9.25%	1.13%
Regarding the establishment of annual targets to minimize waste and overall consumption in production/ operations and improve resource usage efficiency, the company	() has no targets () performs 51 to 75% () performs 0 to 50% (x) performs 76 to 100% () has no targets () performs 51 to 75% () performs 0 to 50% (x) performs 76 to 100%)		
5 - Functional Staff Indicators		2019			2018	
Number of employees at period-end		14,672			14,054	
Number of new hires in the period		2,710			1,812	
Number of outsourced employees		5,939			5,545	
Number of trainees		270			366	
Number of employees over 45		1,715			2,037	
Number of women working at the company $^{\scriptscriptstyle 1}$		2,803			2,598	

5 - Functional Staff Indicators	2019	2018
% management positions held by women ¹	21.9%	14.26%
Number of black people working at the company	7,199	6,492
% management positions held by black employees	21.01%	24.62%
No of workers with handicaps or special needs	492	421
6 - Material information regarding corporate citizenship	2019	2020 Targets
Ratio of lowest to highest earners at the company	56	56
Total number of occupational injuries	 58	 51
The social and environmental projects implemented by the company were defined by:	(x) directors() top and middle management() all employees	(x) directors () top and middle management () all employees
Occupational health and safety standards have been defined by:	(x) directors and managers() all() all + Cipa employees	(x) directors and managers() all() all + Cipa employees
Regarding freedom of association, the right to collective bargaining and internal representation of workers, the company:	() does not get involved (x) follows the OIT rules () promotes and follows OIT	() does not get involved (x) follows the OIT rules () promotes and follows OIT
Profit-sharing embraces:	() directors() directors and managers(x) all employees	() directors () directors and managers (x) all employees
When selecting suppliers the same ethical, social responsibility and environmental standards adopted by the company:	() are not addressed () are suggested (x) are demanded	() are not addressed () are suggested (x) are demanded
In respect of employee participation in voluntary programs, the company:	() does not get involved () gives support (x) offers organization and incentives	() does not get involved () gives support (x) offers organization and incentives
Total number of consumer complaints and criticism:	to the company 2,681,139 to the Consumer Protection Agency 21,290 to the Courts 41,792	to the company 2,292,139 to the Consumer Protection Agency 20,610 to the Courts 42,724
% complaints and criticism handled or resolved:	to the company 99% to the Consumer Protection Agency 97% to the Courts 26%	to the company 100% to the Consumer Protection Agency 98% to the Courts 28%
Added value to be distributed (in R\$ thousand):	13,199,052	11,572,710
Distribution of Added Value (DVA):	68% government 10% employees 2% shareholders 17% third parties 3% retained earnings	75% government 10% employees 1% shareholders 14% third parties 0% retained earnings
7 - Further Information	2019	2018
7) Social investments		
7.1 - The Light for All Program		
7.1.1 - Government Investment	116,556	104,352
7.1.2 - State Investment	,	
7.1.3 - Municipal Investment		
7.1.4 - Concession Operator Investment	62,016	65,146
Total - Light for All program (7.1.1 to 7.1.4)	178,572	169,498
7.2 - Energy efficiency program ²	114,057	57,973
7.3 - Research and development program ²	67,039	30,820
Total social investment (7.1 to 7.3)	359,668	258,291

 $^{^{\}scriptsize 1}$ Adjusted data published in the Social Balance Sheet comprising Energisa's 2019 Financial Statements.

² Includes management costs.

Energisa Minas Gerais

Operating and productivity metrics

Technical information (consumables, production capacity, sales, losses)	2019	2018	2017
Number of consumers served - Captive	460,051	455,359	445,557
Number of consumers served - Free	62	54	51
Number of municipalities served	66	66	66
Number of own employees	850	811	806
Number of outsourced employees	110	234	134
Number of commercial offices	66	66	66
Electricity generated (GWh)	NA	NA	NA
Electricity purchased (GWh)	1,516.54	1,511.20	1,498.32
1) Itaipu	255.27	255.44	281.51
2) Auction (including federal generator auction - 2002)	1,261.27	1,255.76	1,216.81
3) Energy sales of concession operator	-	-	
Global electric losses (GWh)	181.6	179.2	175.3
Electrical losses – (%) total on energy requirement	10.35%	10.12%	10.43%
Technical losses – (%) on energy requirement	10.51%	10.22%	10.19%
Non-technical losses – (%) on energy requirement	-0.16%	-0.09%	0.24%
Energy sold (GWh) ¹	1,238.85	1,220.64	1,200.99
Residential	541.84	516.83	503.53
Industrial	119.26	127.68	130.91
Commercial	228.49	224.51	226.88
Rural	185.15	190.13	183.63
Public authorities	34.91	33.29	33.07
Public lighting	88.07	89.05	83.47
Public utility	41.13	39.15	39.50
Substations (in units)	48	47	47
Installed capacity (MVA)	1,012	1,012	1,012
Transmission lines (km)	1,113	1,095	1,090
Distribution lines (in km)	27,340	27,227	26,691
Distribution transformers (in units)	64,557	63,922	62,769
Sale of energy through installed capacity – GWh/(MVA X no. hours/year)	0.000140	0.000138	0.000135
Electricity sold per employee (MWh)	1,457	1,505	1,490
Number of consumers per employee	541	562	553
Added value/GWh sold	463.43	443.09	414.2
Overall equivalent outage duration per consumer "DEC" of the company - Amount determined	8.85	9.43	8.44
Overall equivalent outage duration per consumer "DEC" of the company - Limit	11.31	11.45	11.52
Overall equivalent outage frequency per consumer "FEC" of the company - Amount determined	4.47	5.33	5.05
Overall equivalent outage frequency per consumer "FEC" of the company - Limit	8.55	8.91	9.36

¹ Refers to captive market only.

Corporate governance

	2019						2019				2018				2017
Managers	CA	DE	CF ¹	Total	CA	DE	CF ¹	Total	CA	DE	CF ¹	Total			
No. of members	6	7	-	13	6	7	-	13	6	6	-	12			
Annual Fixed Compensation (R\$ 000)	696	1,844	-	2,539	623	1,873	-	2,496	715	2,574	-	3,289			
Salaries or management fees	393	1,078	-	1,470	379	991	-	1,370	449	900	-	1,349			
Direct or indirect benefits	139	242	-	381	122	427	-	550	90	435	-	525			
Participations in committees	-	-	-	-	-	-	-	-	-	-	-	-			
Other	164	523	-	688	122	455	-	577	176	1,239	-	1,415			
Description of other fixed compensation	-	-	-	-	-	-	-	-	-	-	-	-			
Variable Compensation (R\$ 000)	-	964	-	964	302	1,064	-	1,366	252	907	-	1,159			
Bonuses	-	-	-	-	-	-	-	-	-	-	-	-			
Profit sharing	-	964	-	964	302	1,064	-	1,366	252	907	-	1,159			
Attending meetings	99	-	-	-	-	-	-	-	-	-	-	-			
Commission	-	-	-	-	-	-	-	-	-	-	-	-			
Other	-	-	-	-	-	-	-	-	-	-	-	-			
Description of other variable compensation	-	-	-	-	-	-	-	-	-	-	-	-			

 $\sf CA$ - Board of Directors; DE - Executive Board; CF - Fiscal Council $^{\scriptscriptstyle 1}$ There is no Fiscal Council at the moment.

Economic and financial metrics

Statements of added value (In thousands of reais)	2019	2018
REVENUE	1,183,116	1,119,965
Electricity sales and services	1,122,258	1,072,727
Other revenue	4,491	3,289
Revenue relating to construction of company assets	57,988	46,274
Allowance for doubtful accounts	(1,621)	(2,325)
(-) Consumables acquired from third parties	(594,398)	(566,246)
Cost of electricity sold	(465,113)	(449,815)
Materials and outsourced services	(62,328)	(57,571)
Other operating costs	(66,957)	(58,860)
GROSS ADDED VALUE	588,718	553,719
Depreciation and amortization	(37,719)	(34,967)
NET ADDED VALUE	550,999	518,752
Transferred value added	23,125	22,100
Finance revenue	23,125	22,100
TOTAL ADDED VALUE TO BE DISTRIBUTED	574,124	540,852
DISTRIBUTION OF ADDED VALUE	574,124	540,852
Personnel	52,296	44,571
Direct remuneration	39,384	31,346
Benefits	10,133	10,450
FGTS	2,779	2,775
Taxes, charges and contributions	438,592	416,872
Federal	90,288	184,911
State	253,696	231,649
Municipal	397	312
Intrasector Obligations	94,211	-
Interest expenses	45,259	43,181
Interest	44,974	42,368
Rent	285	813
Interest on equity	37,977	36,228
Legal Reserve	1,899	-
Additional dividends proposed	7,051	-
Dividends	29,027	34,417
Retained earnings/loss for the year	-	1,811

Investment.		2018	
Investment	R\$ million	Δ%	R\$ million
Electric assets	51.4	49.4%	34.4
Special obligations	8.7	-48.8%	17.0
Non-electric assets	14.8	-43.9%	26.4
Total	74.9	-3.7%	77.8

Internal social metrics

Employees/ Employability/ D&O

General information	2019	2018	2017
Total number of employees	850	811	806
Number of outsourced employees (outsourced, subcontractors, freelancers) by employment type, employment contract and region	110	234	134
Employees aged 30 or under (%)	32.2%	27.5%	34.1%
Employees aged 31 to 40 (%)	43.2%	45.4%	41.7%
Employees aged 41 to 50 (%)	17.8%	18.4%	16.4%
Employees over 50 (%)	6.8%	8.8%	7.8%
Percentage of female employees (%)	19.5%	20.0%	20.8%
Women in managerial positions - out of total managerial positions (%)	36.4%	35.6%	30.4%
Black female employees (black and mixed race) - out of total employees (%)	1.5%	1.0%	1.2%
Black male employees (black and mixed race) - out of total employees (%)	15.9%	14.2%	13.4%
Black employees (black and mixed race) in managerial positions as a percentage of all managerial positions (%)	15.9%	11.1%	13.0%
Percentage of trainees (%)	3.5%	3.8%	2.9%
Employees of the apprentice recruitment program (%)	1.9%	1.8%	1.9%
Disabled employees	23	16	15
Compensation, benefits and career (R\$ 000)	2019	2018	2017
Gross payroll	52,046	49,758	47,981
Compulsory social charges	11,081	12,047	11,186
Education	92	90	69
Food and Beverages	8,111	7,692	7,368
Transportation	-	-	-
Health	1,591	1,872	1,850
Foundation	-	798	808
Occupational health and safety	1,139	1,579	259
Culture	-	-	-
Training and professional development	480	630	403
Day care and day care allowance	361	359	484
Other (funeral allowance, exceptional payments, retirement premium)	623	609	1,621
Profit sharing	2019	2018	2017
Total investment in company profit-sharing program (R\$ 000)	5,524	5,609	4,315
Amounts distributed in relation to gross payroll (%)	34.7%	14.61%	8.99%
Highest compensation divided by the lowest compensation in cash paid by the company	55.90	60.18	59.88
Lowest compensation at the company divided by the minimum salary in force	4.51	1.08	1.06

Compensation profile by category - average salary in the current year	2019	2018	2017
Executive positions	35,175	33,185	39,825
Management positions	12,650	12,973	12,689
Administrative positions	4,110	3,783	3,482
Operating positions	1,607	1,547	1,439
Occupational health and safety	2019	2018	2017
Average overtime per employee/year	55.53	52.58	49.16
Total frequency rate for the period - employees	-	2.49	3.33
Employee seriousness rate in the period	-	16.80	6.00
Total frequency rate for the period - contractors	9.86	4.48	10.68
Seriousness Rate of outsourced/contracted employees in the period	1,980.29	134.41	320.51
Frequency rate of the company for the period - workforce (employees + contractors)	4.42	3.30	5.03
Severity rate for the period - workforce (employees + contractors)	998.12	64.97	51.35
Fatalities – employees	0	0	0
Fatalities – contractors	0	0	0
Professional development	2019	2018	2017
Education levels - specify percentage of total employees			
Primary Education	0.7%	3.0%	3.0%
High School	56.0%	52.5%	51.2%
Technical School	10.0%	14.8%	15.5%
Graduate	31.3%	22.7%	22.5%
Graduate (specialist, Master's degree, PhD)	2.0%	7.0%	7.8%
Amount invested in professional development and education (R\$ 000)	380	452	482
Average number of hours of training per year per employee, broken down into job ty	/pe		
Executive positions	13.0	14.4	14.7
Management positions	34.9	7.6	27.8
Administrative positions	32.3	45.4	40.0
Operating positions	75.7	43.2	90.0
Conduct in light of dismissals	2019	2018	2017
Turnover rate	7.35%	7.21%	5.39%
Labor claims (company and outsourced employees)	2019	2018	2017
Amounted provisioned in the period (R\$ 000)	418	1,465	2,147
Number of labor claims brought against the company in the period	19	22	35
Number of labor claims accepted in the period	25	4	59
Number of labor claims rejected in the period	15	9	12
Value of damages and fines paid under court awards in the period (R\$ 000)	1,108	3,737	1,696
Retirement provision	2019	2018	2017
Investments in supplementary pensions (R\$ 000)	900	798	808
Number of recipients in the supplementary pension program	177	144	62

External social metrics

Consumers

Excellence in service	2019	2018	2017
Profile of consumers and clients			
Energy sales by rate class (GWh): % Total	100.0%	100.0%	100.0%
Residential	36.2%	35.5%	35.0%
Low-income residential	7.5%	6.8%	6.9%
Commercial	9.6%	10.5%	10.9%
Industrial	18.4%	18.4%	18.9%
Rural	14.9%	15.6%	15.3%
Public lighting	2.8%	2.7%	2.8%
Public utility	7.1%	7.3%	7.0%
Public authorities	3.3%	3.2%	3.3%
Client satisfaction	2019	2018	2017
Satisfaction rates obtained by lasc Survey - Aneel	73.94	70.52	71.18
Satisfaction rates obtained by other entities and/or proprietary surveys - Abradee Survey	80.70	86.70	81.20
Customer service	2019	2018	2017
Call Center			
Calls received (unit)	689,636	769,908	679,282
Average number of agents (unit)	73	52	57
INS - Level of Service Rate (%)	89.57%	90.65%	90.41%
IAB - Abandonment rate (%)	1.06%	1.02%	1.25%
ICO - Busy Call Rate (%)	0.00%	-	-
TMA - Average interaction time (s)	193	187	182
Compensation for electrical damages	2019	2018	2017
Volume of requests (unit) ¹	1,560	1,536	1,332
Confirmed (unit) ¹	244	258	265
Complaints metrics	2019	2018	2017
Confirmed complaints (unit) ²	109,614	124,844	98,993
DER (hours)	133.85	101.06	109.25
FER (unit)	6.744	4.945	2.55
Violation of commercial service terms	2019	2018	2017
Service interactions (unit)	198,636	167,202	161,573
Service interactions completed late (unit)	5,388	6,570	4,326
Service efficiency (%)	97.29%	96.07%	97.32%
Number of customer complaints escalated to	2019	2018	2017
To the company ²	137,800	154,485	126,387
Aneel – state/regional agencies	532	440	437
Procon	192	121	134
to the courts	697	509	1,018

¹There are 251 requests in 2019 in progress, i.e. the number of founded complaints can only be changed after these proceedings have been completed. For this reason the figures for 2018 have been changed.

² The figures for December/2019 are preliminary, and can be changed upon the official closure.

The community

Impacts on health and safety	2019	2018	2017
Total number of nonfatal injuries involving consumers	4	7	4
Total number of fatal injuries involving consumers	1	3	2
Legal proceedings resulting from accidents involving consumers – Overall Legal Proceedings	4	5	3
Low-income rate	2019	2018	2017
Number of low-income households served	65,694	56,805	56,287
Total low-income households out of total households served (residential customers/consumers) (%)	19.0%	17.0%	17.0%
Revenue from sales to low-income residential subsector (R\$ 000)	60,284	53,227	47,909
Total revenue from sales to low-income residential subsector out of total residential revenue (%)	11.5%	13.0%	12.0%
Subsidy received for low-income consumers (R\$ 000)	17,656	16,837	17,125
Company involvement in social action	2019	2018	2017
Funds allocated to education (R\$ thousand)	440	570	494
Funds allocated to health care and sanitation (R\$ thousand)	-	-	-
Funds allocated to culture (R\$ thousand)	1,332	1,102	1,158
Funds allocated to sports (R\$ 000)	35	22	29
Other funds allocated to social initiatives (R\$ 000)	214	252	156
Employees carrying out voluntary work in the community outside the Company/total employees (%)	0.03%	2.1%	0.6%
Number of hours donated per month (employees released from normal working hours) by the Company for employee volunteer work ¹	1.33	0.67	3.17
Company involvement in cultural, sporting and social projects (Rouanet Law, Sporting Incentive Law, Pronon, Pronas, Infant and Adolescent Fund, Fund for the Elderly)	2019	2018	2017
Funds allocated to projects (R\$ 000)	8,543	6,114	2,014
Funds allocated to the largest project (R\$ 000)	750	700	500
Project name	Derrapada	Factory of the Future - Studio-school	Film Maria do Caritó
Bidder	Camisa Listrada BH Produções Audiovisuais Ltda	Instituto Fábrica do Futuro	Versão Final Produção e Comunicação Ltda.

¹ Correction of 2018 and 2017, to include monthly hours. The previous figure was registered as hours donated/year.

Electric sector metrics

Universal electricity access

	2019	2018	2017
Service targets	-	-	-
Calls handled (no.)	-	-	-
Performance of targets (%)	-	-	-
Total municipalities with universal access	-	-	-
Municipalities with universal access (%)	100%	100%	100%

Universal access completed in 2010, as per Aneel Order 2.344, issued July 17, 2012.

Energy Efficiency Program (PEE)

					2019	2018					2017				
		estment ousand)	Finan	cing so (R	urces 6 000)		rivestment thousand) Financing sources (R\$ 000) Financing sources		(D¢ thousand)		nancing sources (R\$ 000)				
Project type	Total	(%)	Company	Third party	Customer	Total	(%)	Company	Third party	Customer	Total	(%)	Company	Third party	Customer
Industrial	0	-	0	0	0	0	-	0	0	0	0	-	0	0	0
Trade and Services	292	10.0%	292	0	0	109	5.8%	109	0	0	509	23.8%	509	0	0
Government	42	1.4%	42	0	0	730	39.1%	730	0	0	0	-	0	0	0
Public Utility	0	-	0	0	0	0	-	0	0	0	0	-	0	0	0
Rural	0	-	0	0	0	0	-	0	0	0	0	-	0	0	0
Residential	0	-	0	0	0	0	-	0	0	0	514	24.0%	514	0	0
Low-Income Residential	1,245	42.5%	1,245	0	0	1,027	55.1%	1,027	0	0	1,119	52.2%	1,119	0	0
Public Lighting	1,349	46.1%	1,349	0	0	0	-	0	0	0	0	-	0	0	0
Municipal Energy Management	0	-	0	0	0	0	-	0	0	0	0	-	0	0	0
Education	0	-	0	0	0	0	-	0	0	0	0	-	0	0	0
TOTAL	2,929	100%	2,929	0	0	1,865	100%	1,865	0	0	2,142	100%	2,142	0	0

¹ Excludes funds used in project management.

			2019			2018			2017
Project type	Units served	Energy savings (MWh/ year)	Peak Shaving (kW)	Units served	Energy savings (MWh/ year)	Peak Shaving (kW)	Units served	Energy savings (MWh/ year)	Peak Shaving (kW)
Industrial	0	0	0	0	0	0	0	0	0
Trade and Services	3	160	19	2	33	19	3	357	47
Government	2	238	22	1	89	20	0	0	0
Public Utility	0	0	0	0	0	0	0	0	0
Rural	0	0	0	0	0	0	0	0	0
Residential	0	0	0	0	0	0	3,626	997	8
Low-Income Residential	4,766	470	254	39,978	1,246	378	7,476	2,775	707
Public Lighting	4	684	153	0	0	0	0	0	0
Municipal Energy Management	0	0	0	0	0	0	0	0	0
Education	0	0	0	0	0	0	0	0	0
TOTAL	4,775	1,552	448	39,981	1,368	417	11,105	4,128	762

Funds Invested in technological and scientific research and development R\$ 000 ¹

By field of research (Research & Development Handbook - Aneel)

		2019		2018		2017
	Amount	(%)	Amount	(%)	Amount	(%)
FA – Alternative Electricity Generation Sources	0	-	0	-	0	-
GT – Thermal Generation	0	-	0	-	0	-
GB – River Basin and Reservoir Management	0	-	0	-	0	-
MA – Environment	37	1.2%	1	0.2%	0	-
SE – Safety	0	-	0	-	0	-
EF – Energy Efficiency	0	-	0	-	0	-
PL – Power Systems Planning	0	-	3	0.6%	0	-
OP – Power System Operation	1,044	33.1%	227	40.1%	48	61.3%
SC – Power System Supervision, Control and Protection	779	24.7%	1	0.1%	6	8.1%
QC – Power Supply Quality and Reliability	1	-	326	57.6%	19	23.9%
MF – Metering, Billing and Commercial Loss Reduction	1,287	40.9%	0	-	0	-
OU – Other	0	-	8	1.4%	5	6.8%
TOTAL	3,149	100.0%	566	100.0%	78	100.0%

¹ Excludes funds used in project management.

Environmental indicators

Recover degraded areas	2019	2018	2017
Shielded and insulated lines (ecological grid or green lines) in urban areas (km)	2,042	1,872	1,252
Percentage of shielded and insulted lines out of total distribution lines in urban areas (%)	46.0%	44.7%	42.7%
Waste generation and treatment	2019	2018	2017
Issuance			
Annual volume of greenhouse (CO_2 , CH_4 , N_2O , HFC, PFC, SF_6), emitted into the atmosphere (in tonnes of CO_2 equivalent)	NA	NA	NA
Annual volume of ozone-depleting emissions (in tonnes of CFC equivalent)	Not available	NA	NA
Effluents			
Total water discharge by quality and destination ¹	NA	NA	NA
Solids			
Annual quantity (in tons) of solid waste generated (refuse, waste, rubble etc.)	377	539	306
Percentage of equipment replaced by insulating mineral oil without PCB (ascarel)	100%	100%	100%
Use of resources in the production process and managerial processes	2019	2018	2017
Total electricity consumption by source			
Electricity consumption per kWh distributed (sold) ²	0.11938	0.12163	0.10834
Direct energy consumption by primary source in GJ	532,412	534,466	468,417
Diesel	383,628	387,617	365,938
Gasoline	78,409	65,908	102,479
Ethanol	38,313	61,899	-
Natural gas	-	-	-
Other	32,062	19,042	-
Total water withdrawal by source (m³)			
Supply (public system)	6,727	6,621	6,523
Groundwater (wells)	-	-	-
Surface extraction (waterways)	-	-	-
Total water withdrawal (m³)	6,727	6,621	6,523
Water withdrawal per employee (m³) ³	10	13	15
Environmental education and awareness raising	2019	2018	2017
At the Organization			
Number of employees trained in environmental education programs	70	40	59
Percentage of employees trained in environmental education programs/total employees	8.2%	8.9%	14.4%
Number of hours of environmental training out of total hours of training	NA	NA	NA
In the Community			
Number of primary schools and high schools served	38	37	23
Number of primary school and high school students served	7,656	7,630	2,706
Number of teachers trained	-	-	-
Number of universities and technical schools served	1	4	2
Number of technical school and graduate students served	30	250	110

¹Water waste is sanitary waste and relatively insignificant.

² Revised figures for 2017 and 2018. ³ This includes employees based in the city of Cataguases.

Performance metrics - distribution companies	2019	2018	2017
Deforestation (hectares of land cleared by quarter)	NA	NA	NA
Tree pruning (volume of waste created by month in kg)	NA	NA	NA
Oil leaks (leakage sites by month)	NA	NA	NA

Energisa Nova Friburgo

Operating and productivity metrics

Technical information (consumables, production capacity, sales, losses)	2019	2018	2017
Number of consumers served - Captive	109,467	108,287	105,555
Number of consumers served - Free	9	9	8
Number of municipalities served	1	1	1
Number of own employees	121	125	128
Number of outsourced employees	9	26	24
Number of commercial offices	1	1	1
Electricity generated (GWh)	NA	NA	NA
Electricity purchased (GWh)	315.30	312.36	323.75
1) Itaipu	-	-	
2) Auction (including federal generator auction - 2002)	315.30	7.84	8.11
3) Energy sales of concession operator	-	304.52	315.64
Global electric losses (GWh)	14.92	14.82	15.98
Electrical losses – (%) total on energy requirement	3.90%	3.94%	4.28%
Technical losses – (%) on energy requirement	4.77%	4.61%	5.02%
Non-technical losses – (%) on energy requirement	-0.86%	-0.66%	-0.75%
Energy sold (GWh)¹	299.92	295.83	307.36
Residential	165.53	162.68	161.14
Industrial	26.25	28.59	39.65
Commercial	67.24	64.44	65.3
Rural	5.51	5.1	5.56
Public authorities	7.33	7.1	7.32
Public lighting	19.33	19.92	20.83
Public utility	8.72	8	7.58
Substations (in units)	5	5	5
Installed capacity (MVA)	119	119	119
Transmission lines (km)	19	19	24
Distribution lines (in km)	2,028	1,988	1,977
Distribution transformers (in units)	3,656	3,626	3,618
Sale of energy through installed capacity – GWh/(MVA X no. hours/year)	0.000288	0.000284	0.000295
Electricity sold per employee (MWh)	2,479	2,367	2,401
Number of consumers per employee	905	866	825
Added value/GWh sold	478.55	450.62	396.33
Overall equivalent outage duration per consumer "DEC" of the company - Amount determined	6.64	6.66	5.78
Overall equivalent outage duration per consumer "DEC" of the company - Limit	10.23	10.24	11.12
Overall equivalent outage frequency per consumer "FEC" of the company - Amount determined	4.18	3.9	3.82
Overall equivalent outage frequency per consumer "FEC" of the company - Limit	8.91	9.48	9.8

¹ Relates to the captive market.

Corporate governance

				2019				2018				2017
Managers	CA¹	DE	CF ¹	Total	CA ¹	DE	CF1	Total	CA ¹	DE	CF ¹	Total
No. of members	-	7	-	7	-	7	-	7	-	6	-	6
Annual Fixed Compensation (R\$ 000)	-	545	-	545	-	709	-	709	-	1,439	-	1,439
Salaries or management fees	-	358	-	358	-	473	-	473	-	708	-	708
Direct or indirect benefits	-	1	-	1	-	15	-	15	-	38	-	38
Participations in committees	-	-	-	-	-	-	-	-	-	-	-	-
Other	-	187	-	187	-	221	-	221	-	693	-	693
Description of other fixed compensation	-	-	-	-	-	-	-	-	-	-	-	-
Variable Compensation (R\$ 000)	-	303	-	303	-	263	-	263	-	659	-	659
Bonuses	-	-	-	-	-	-	-	-	-	-	-	-
Profit sharing	-	303	-	303	-	263	-	263	-	659	-	659
Attending meetings	-	-	-	-	-	-	-	-	-	-	-	-
Commission	-	-	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-	-	-
Description of other variable compensation	-	-	-	-	-	-	-	-	-	-	-	-

CA - Board of Directors; DE - Executive Board; CF - Fiscal Council ¹ There is no Board of Directors or Fiscal Council at the moment.

Economic and financial metrics

Statements of added value (In thousands of reais)	2019	2018
REVENUE	286,661	263,768
Electricity sales and services	278,360	256,839
Other revenue	465	525
Revenue relating to construction of company assets	8,461	6,877
Allowance for doubtful accounts	(625)	(473)
(-) Consumables acquired from third parties	(139,973)	(127,051)
Cost of electricity sold	(117,692)	(106,825)
Materials and outsourced services	(11,922)	(11,305)
Other operating costs	(10,359)	(10,113)
GROSS ADDED VALUE	146,688	135,525
Depreciation and amortization	(8,370)	(8,039)
NET ADDED VALUE	138,318	127,486
Transferred value added	5,210	-
Finance revenue	5,210	5,820
TOTAL ADDED VALUE TO BE DISTRIBUTED	143,528	133,306
DISTRIBUTION OF ADDED VALUE	143,528	133,306
Personnel	9,151	9,293
Direct remuneration	6,190	6,429
Benefits	2,533	2,361
FGTS	428	503
Taxes, charges and contributions	113,111	104,528
Federal	22,918	40,771
State	67,845	63,532
Municipal	251	225
Intrasector Obligations	22,097	-
Interest expenses	8,471	10,134
Interest	8,629	10,078
Rent	(158)	56
Interest on equity	12,795	9,351
Legal Reserve	640	-
Additional dividends proposed	2,589	-
Dividends	9,566	8,883
Retained earnings/loss for the year	-	468

		2018	
Investment	R\$ million		R\$ million
Electric assets	9.7	42.6%	6.8
Special obligations	-0.1	-	0.2
Non-electric assets	1.1	-	1.1
Total	10.7	32.1%	8.1

Internal social metrics

Employees/ Employability/ D&O

General information	2019	2018	2017
Total number of employees	121	125	128
Number of outsourced employees (outsourced, subcontractors, freelancers) by employment type, employment contract and region	9	26	17
Employees aged 30 or under (%)	27.3%	27.2%	36.7%
Employees aged 31 to 40 (%)	35.5%	34.4%	30.5%
Employees aged 41 to 50 (%)	26.4%	28.0%	24.2%
Employees over 50 (%)	10.7%	10.4%	8.6%
Percentage of female employees (%)	14.9%	15.2%	17.2%
Women in managerial positions - out of total managerial positions (%)	50.0%	50.0%	33.3%
Black female employees (black and mixed race) - out of total employees (%)	0.0%	0.0%	0.0%
Black male employees (black and mixed race) - out of total employees (%)	17.4%	16.8%	14.8%
Black employees (black and mixed race) in managerial positions as a percentage of all managerial positions (%)	0.0%	0.0%	0.0%
Percentage of trainees (%)	1.7%	1.6%	0.8%
Employees of the apprentice recruitment program (%)	4.1%	5.6%	4.7%
Disabled employees	3	3	3
Compensation, benefits and career (R\$ 000)	2019	2018	2017
Gross payroll	8,732	8,246	9,063
Compulsory social charges	1,903	2,086	2,554
Education	19	23	20
Food and Beverages	1,423	1,395	1,377
Transportation	-	-	-
Health	593	586	581
Foundation	-	-	-
Occupational health and safety	241	397	227
Culture	-	-	-
Training and professional development	62	92	33
Day care and day care allowance	43	45	52
Other (funeral allowance, exceptional payments, retirement premium)	324	336	237
Profit sharing	2019	2018	2017
Total investment in company profit-sharing program (R\$ 000)	763.62	448	1,043
Amounts distributed in relation to gross payroll (%)	38.2%	8.10%	11.51%
Highest compensation divided by the lowest compensation in cash paid by the company	23.96	54.89	55.69
Lowest compensation at the company divided by the minimum salary in force	4.51	1.18	1.14

Compensation profile by category - average salary in the current year	2019	2018	2017
Executive positions	50,501	47,872	44,395
Management positions	10,619	12,572	16,812
Administrative positions	3,192	2,800	2,357
Operating positions	1,560	1,501	1,436
Occupational health and safety	2019	2018	2017
Average overtime per employee/year	45.50	42.80	39.61
Total frequency rate for the period - employees	-	4.13	-
Employee seriousness rate in the period	-	247.83	-
Total frequency rate for the period - contractors	9.43	-	19.23
Seriousness Rate of outsourced/contracted employees in the period	4,716.98	-	576.92
Frequency rate of the company for the period - workforce (employees + contractors)	2.78	2.74	5.39
Severity rate for the period - workforce (employees + contractors)	1,390.80	164.64	43.08
Fatalities – employees	0	0	0
Fatalities – contractors	0	0	0
Professional development	2019	2018	2017
Education levels - specify percentage of total employees			
Primary Education	2.5%	4.8%	6.3%
High School	70.2%	61.6%	58.6%
Technical School	13.2%	21.6%	22.7%
Graduate	12.4%	8.0%	7.8%
Graduate (specialist, Master's degree, PhD)	1.7%	4.0%	4.7%
Amount invested in professional development and education (R\$ 000)	80	67	63
Average number of hours of training per year per employee, broken down into job t	уре		
Executive positions	0	0	0
Management positions	47.0	12.0	24.9
Administrative positions	32.3	68.3	30.8
Operating positions	55.7	46.9	72.1
Conduct in light of dismissals	2019	2018	2017
Turnover rate	0.83%	7.60%	7.03%
Labor claims (company and outsourced employees)	2019	2018	2017
Amounted provisioned in the period (R\$ 000)	0	0	0
Number of labor claims brought against the company in the period	2	3	4
Number of labor claims accepted in the period	0	0	0
Number of labor claims rejected in the period	0	0	0
Value of damages and fines paid under court awards in the period (R\$ 000)	9	46	0
Retirement provision	2019	2018	2017
Investments in supplementary pensions (R\$ 000)	53	75	107
Number of recipients in the supplementary pension program	17	13	7

External social metrics

Consumers

Excellence in service	2019	2018	2017
Profile of consumers and clients			
Energy sales by rate class (GWh): % Total	100.0%	100.0%	100.0%
Residential	51.6%	51.4%	49.4%
Low-income residential	3.6%	3.6%	3.0%
Commercial	8.8%	9.7%	12.9%
Industrial	22.4%	21.8%	21.2%
Rural	1.8%	1.7%	1.8%
Public lighting	2.4%	2.4%	2.4%
Public utility	6.4%	6.7%	6.8%
Public authorities	2.9%	2.7%	2.5%
Client satisfaction	2019	2018	2017
Satisfaction rates obtained by Iasc Survey - Aneel	72.13	70.14	57.97
Satisfaction rates obtained by other entities and/ or proprietary surveys - Abradee Survey	84.705	82.00	83.51
Customer service	2019	2018	2017
Call Center			
Calls received (unit)	143,571	172,727	162,004
Average number of agents (unit)	73	53	47
INS - Level of Service Rate (%)	97.09%	91.82%	92.57%
IAB - Abandonment rate (%)	0.11%	0.83%	0.71%
ICO - Busy Call Rate (%)	0.00%	0.00%	0.00%
TMA - Average interaction time (s)	211	195	190
Compensation for electrical damages	2019	2018	2017
Volume of requests (unit)	729	888	985
Confirmed (unit) ¹	127	202	268
Complaints metrics	2019	2018	2017
Confirmed complaints (unit) ²	18,544	20,420	17,250
DER (hours) ³	118.59	106.69	104.27
FER (unit)	6.71	4.39	2.74
Violation of commercial service terms	2019	2018	2017
Service interactions (unit)	33,420	30,963	33,745
Service interactions completed late (unit)	1,009	1,157	866
Service efficiency (%)	96.98%	96.30%	96.26%
Number of customer complaints escalated to	2019	2018	2017
To the company ²	25,907	28,091	24,638
Aneel – state/regional agencies	123	104	111
Procon	7	38	75
to the courts	120	101	105

¹ Electrical damage: there are 56 claims in 2019 in progress, i.e. the number of founded complaints can only be changed after these proceedings have been completed. For this reason the figures for 2018 have been changed.

² Complaints: the figures for December 2019 are preliminary, and can be changed upon the official closure.

³ Revised figures for 2018.

The community

Impacts on health and safety	2019	2018	2017
Total number of nonfatal injuries involving consumers	0	1	1
Total number of fatal injuries involving consumers	1	-	-
Legal proceedings resulting from accidents involving consumers – Overall Legal Proceedings	-	-	-
Low-income rate	2019	2018	2017
Number of low-income households served	6,330	6,043	5,124
Total low-income households out of total households served (residential customers/consumers) (%)	6.5%	6.3%	5.5%
Revenue from sales to low-income residential subsector (R\$ 000)	7,340	6,048	5,451
Total revenue from sales to low-income residential subsector out of total residential revenue (%)	4.71%	4.46%	4.28%
Subsidy received for low-income consumers (R\$ 000)	1,951	1,678	1,721
Company involvement in social action	2019	2018	2017
Funds allocated to education (R\$ thousand)	95	153	123
Funds allocated to health care and sanitation (R\$ thousand)	-	-	-
Funds allocated to culture (R\$ thousand)	213	142	185
Funds allocated to sports (R\$ 000)	9	-	-
Other funds allocated to social initiatives (R\$ 000)	102	92	117
Employees carrying out voluntary work in the community outside the Company/total employees (%)	-	-	-
Number of hours donated per month (employees released from normal working hours) by the Company for employee volunteer work	-	-	-
Company involvement in cultural, sporting and social projects (Rouanet Law, Sporting Incentive Law, Pronon, Pronas, Infant and Adolescent Fund, Fund for the Elderly)	2019	2018	2017
Funds allocated to projects (R\$ 000)	581	-	-
Funds allocated to the largest project (R\$ 000)	345	-	-
Project name	Tokyo 2020 Siemsen Swan Team	-	-
Bidder	Isabel Swan Marketing Ltda.	-	-

Electric sector metrics

Universal electricity access

	2019	2018	2017
Service targets	-	-	-
Calls handled (no.)	-	-	-
Performance of targets (%)	-	-	-
Total municipalities with universal access	-	-	-
Municipalities with universal access (%)	100%	100%	100%

Universal access completed in 2010, as per Aneel Order 2.344, issued July 17, 2012.

Energy Efficiency Program (PEE)

	2019					2018				2					
		stments R\$ 000) ¹	Financ	cing sources (R\$ 000)			Investments Financing Investments (R\$ 000) sources (R\$ 000) (R\$ 000) sources (R\$ 000)				sour	Fina ces (R\$	ncing (000)		
Project type	Total	(%)	Company	Third party	Customer	Total	(%)	Company	Third party	Customer	Total	(%)	Company	Third party	Customer
Industrial	0	-	0	0	0	0	-	0	0	0	0	-	0	0	0
Trade and Services	328	53.8%	328	0	0	0	-	0	0	0	0	-	0	0	0
Government	0	-	0	0	0	0	-	0	0	0	143	28.2%	143	0	0
Public Utility	0	-	0	0	0	0	-	0	0	0	0	-	0	0	0
Rural	0	-	0	0	0	0	-	0	0	0	0	-	0	0	0
Residential	0	-	0	0	0	0	-	0	0	0	148	29.2%	148	0	0
Low-Income Residential	282	46.2%	282	0	0	357	100.0%	357	0	0	216	42.6%	216	0	0
Public Lighting	0	-	0	0	0	0	-	0	0	0	0	-	0	0	0
Municipal Energy Management	0	-	0	0	0	0	-	0	0	0	0	-	0	0	0
Education	0	-	0	0	0	0	-	0	0	0	0	-	0	0	0
TOTAL	610	100%	610	0	0	357	100%	357	0	0	507	100%	507	0	0

¹ Excludes funds used in project management.

			2019			2018				
Project type	Units served	Energy savings (MWh/year)	Peak Shaving (kW)	Units served	Energy savings (MWh/year)	Peak Shaving (kW)	Units served	Energy savings (MWh/year)	Peak Shaving (kW)	
Industrial	0	0	0	0	0	0	0	0	0	
Trade and Services	3	134	34	0	0	0	0	0	0	
Government	0	0	0	0	0	0	1	132	20	
Public Utility	0	0	0	0	0	0	0	0	0	
Rural	0	0	0	0	0	0	0	0	0	
Residential	0	0	0	0	0	0	1,693	624	-	
Low-Income Residential	977	61	39	8,558	350.0	106	617	289	74	
Public Lighting	0	0	0	0	0	0	0	0	0	
Municipal Energy Management	0	0	0	0	0	0	0	0	0	
Education	0	0	0	0	0	0	0	0	0	
TOTAL	980	195	73	8,558	350.0	106	2,311	1,045	94	

Funds Invested in technological and scientific research and development R\$ 000 ¹

By field of research (Research & Development Handbook - Aneel)

		2019		2018		2017
	Amount	(%)	Amount	(%)	Amount	(%)
FA – Alternative Electricity Generation Sources	0	-	0	-	0	-
GT – Thermal Generation	0	-	0	-	0	-
GB – River Basin and Reservoir Management	0	-	0	-	0	-
MA – Environment	0	-	0	-	0	-
SE – Safety	0	-	0	-	0	-
EF – Energy Efficiency	0	-	0	-	0	-
PL – Power Systems Planning	226	50.4%	0	-	0	-
OP – Power System Operation	222	49.6%	0	-	3.9	56.3%
SC – Power System Supervision, Control and Protection	0	-	0	-	0	-
QC – Power Supply Quality and Reliability	0	-	0	-	3.0	43.7%
MF – Metering, Billing and Commercial Loss Reduction	0	-	0	-	0	-
OU – Other	0	-	0	-	0	-
TOTAL	448	100.0%	0	-	6.9	100.0%

¹ Excludes funds used in project management.

Environmental indicators

Recover degraded areas	2019	2018	2017
Shielded and insulated lines (ecological grid or green lines) in urban areas (km)	669	629	636
Percentage of shielded and insulted lines out of total distribution lines in urban areas (%)	57.5%	56.0%	55.0%
Waste generation and treatment	2019	2018	2017
Issuance			
Annual volume of greenhouse (CO ₂ , CH ₄ , N ₂ O, HFC, PFC, SF ₆), emitted into the atmosphere (in tonnes of CO ₂ equivalent)	NA	NA	NA
Annual volume of ozone-depleting emissions (in tonnes of CFC equivalent)	NA	NA	NA
Effluents			
Total water discharge by quality and destination ¹	NA	NA	NA
Solids			
Annual quantity (in tons) of solid waste generated (refuse, waste, rubble etc.)	100	239	176
Percentage of equipment replaced by insulating mineral oil without PCB (ascarel)	100%	100%	100%
Use of resources in the production process and managerial processes	2019	2018	2017
Total electricity consumption by source			
Electricity consumption per kWh distributed (sold) ²	0.07960	0.08263	0.07611
Direct energy consumption by primary source in GJ	85,944	87,997	84,213
Diesel	62,166	64,014	65,113
Gasoline	14,679	11,824	19,100
Ethanol	8,346	12,159	-
Natural gas	-	-	-
Other	753	-	-
Total water withdrawal by source (m³)			
Supply (public system)	2,970	2,460	1,949
Groundwater (wells)	-	-	-
Surface extraction (waterways)	-	-	-
Total water withdrawal (m³)	2,970	2,460	1,949
Water withdrawal per employee (m³)	24	15	14
Environmental education and awareness raising	2019	2018	2017
At the Organization			
Number of employees trained in environmental education programs	2	7	11
Percentage of employees trained in environmental education programs/total employees	1.6%	7.3%	12.7%
Number of hours of environmental training out of total hours of training	NA	NA	NA
In the Community			
Number of primary schools and high schools served	11	10	4
Number of primary school and high school students served	1,669	1,473	263
Number of teachers trained	-	_	-
Number of universities and technical schools served	-	2	-
Number of technical school and graduate students served	-	100	-
1 Water waste is sanitary waste and relatively insignificant			

¹ Water waste is sanitary waste and relatively insignificant. ² Revised figures for 2017 and 2018.

Performance metrics - distribution companies	2019	2018	2017
Deforestation (hectares of land cleared by quarter)	NA	NA	NA
Tree pruning (volume of waste created by month in kg)	NA	NA	NA
Oil leaks (leakage sites by month)	NA	NA	NA

Energisa Paraíba

Operating and productivity metrics

Technical information (consumables, production capacity, sales, losses)	2019	2018	2017
Number of consumers served - Captive	1,438,639	1,424,082	1,404,298
Number of consumers served - Free	66	51	45
Number of municipalities served	216	216	216
Number of own employees	1,828	1,768	1,807
Number of outsourced employees	614	494	342
Number of commercial offices	217	217	217
Electricity generated (GWh)	NA	NA	NA
Electricity purchased (GWh)	4,626.03	4,781.2	4,686.7
1) Itaipu	-	-	-
2) Auction (including federal generator auction - 2002)	4,626.03	4,781.2	4,686.7
3) Energy sales of concession operator	-	-	-
Global electric losses (GWh)	704.0	651.8	640.5
Electrical losses – (%) total on energy requirement	13.19%	12.64%	12.80%
Technical losses – (%) on energy requirement	8.84%	9.35%	10.23%
Non-technical losses – (%) on energy requirement	4.35%	3.29%	2.56%
Energy sold (GWh) ¹	3,763.91	3,718.41	3,640.89
Residential	1,766.43	1,698.23	1,662.52
Industrial	239.16	312.53	335.62
Commercial	720.64	699.35	695.74
Rural	294.70	288.49	266.90
Public authorities	264.45	249.84	234.96
Public lighting	267.79	267.49	258.61
Public utility	210.75	202.49	186.54
Substations (in units)	64	63	63
Installed capacity (MVA)	1,324	1,268	1,255
Transmission lines (km)	2,290	2,290	2,290
Distribution lines (in km)	75,685	75,031	74,374
Distribution transformers (in units)	62,523	61,427	60,332
Sale of energy through installed capacity – GWh/(MVA X no. hours/year)	0.000325	0.000335	0.000331
Electricity sold per employee (MWh) ²	2,411	2,103	2,015
Number of consumers per employee	785	806	777
Added value/GWh sold	438.24	394.20	339.66
Overall equivalent outage duration per consumer "DEC" of the company - Amount determined ³	13.70	13.77	14.6
Overall equivalent outage duration per consumer "DEC" of the company - Limit	16.56	17.12	17.62
Overall equivalent outage frequency per consumer "FEC" of the company - Amount determined ³	5.28	5.62	6.3
Overall equivalent outage frequency per consumer "FEC" of the company - Limit	10.07	10.64	11.16

¹ Relates to the captive market.

Corporate governance

				2019				2018				2017
Managers	CA	DE	CF ¹	Total	CA	DE	CF ¹	Total	CA	DE	CF1	Total
No. of members	7	7	-	14	7	7	-	14	7	6	-	13
Annual Fixed Compensation (R\$ 000)	801	3,107	-	3,908	843	2,478	-	3,321	1,388	6,149	-	7,537
Salaries or management fees	598	1,675	-	2,274	578	1,327	-	1,905	959	1,097	-	2,056
Direct or indirect benefits	18	596	-	615	16	544	-	560	39	426	-	465
Participations in committees	-	-	-	-	-	-	-	-	-	-	-	-
Other	184	835	-	1,019	250	607	-	856	390	2,567	-	2,957
Description of other fixed compensation	-	-	-	-	-	-	-	-	-	-	-	-
Variable Compensation (R\$ 000)	-	1,414	-	1,414	503	1,969	-	2,472	310	789	-	1,099
Bonuses	-	-	-	-	-	-	-	-	-	-	-	-
Profit sharing	-	1,414	-	1,414	503	1,969	-	2,472	310	789	-	1,099
Attending meetings	7	-	-	-	-	-	-	-	-	-	-	-
Commission	-	-	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-	-	-
Description of other variable compensation	-	-	-	-	-	-	-	-	-	-	-	-

CA - Board of Directors; DE - Executive Board; CF - Fiscal Council

² 2017 figures revised. ³ Revised figures for 2018.

¹ There is no Oversight Board at the moment.

Economic and financial metrics

Statements of added value (In thousands of reais)	2019	2018
REVENUE	3,205,498	2,990,824
Revenue from energy sales and services	3,064,979	2,878,873
Other revenue	10,502	9,029
Revenue relating to construction of company assets	157,100	126,619
Formation and reversal of allowance for doubtful accounts	(27,083)	(23,697)
(-) Consumables acquired from third parties	(1,634,154)	(1,532,074)
Cost of electricity sold	(1,300,543)	(1,253,561)
Materials and outsourced services	(153,122)	(131,018)
Other operating costs	(180,489)	(147,495)
GROSS ADDED VALUE	1,571,344	1,458,750
Amortization and depreciation	(76,297)	71,337
NET ADDED VALUE	1,495,047	1,387,413
Transferred value added	154,433	-
Finance revenue	154,433	78,380
Total added value to be distributed	1,649,480	1,465,793
DISTRIBUTION OF ADDED VALUE	1,649,480	1,465,793
Personnel	118,755	117,057
Direct remuneration	86,024	84,747
Benefits	27,275	26,501
FGTS	5,456	5,809
Taxes, charges and contributions	1,058,750	998,025
Federal	254,794	399,453
State	659,719	597,962
Municipal	988	610
Intrasector Obligations	143,249	-
Interest expenses	157,750	112,496
Interest	157,150	110,634
Rent	600	1,862
Interest on equity	314,225	238,215
Legal Reserve	66,558	-
Additional dividends proposed	108,894	182,777
Dividends	138,773	182,777
Retained earnings/loss for the year	-	55,438

	20	2018	
Investment	R\$ million	Δ%	R\$ million
Electric assets	163.5	32.1%	123.7
Special obligations	13.8	64.3%	8.5
Non-electric assets	15.2	-37.2%	24.1
Total	192.5	23.1%	156.3

Internal social metrics

Employees/ Employability/ D&O

General information	2019	2018	2017
Total number of employees	1,828	1,768	1,807
Number of outsourced employees (outsourced, subcontractors, freelancers) by employment type, employment contract and region	614	494	342
Employees aged 30 or under (%)	23.9%	20.1%	26.0%
Employees aged 31 to 40 (%)	49.7%	50.8%	51.2%
Employees aged 41 to 50 (%)	20.0%	21.5%	15.8%
Employees over 50 (%)	6.5%	7.6%	6.9%
Percentage of female employees (%)	14.2%	13.6%	14.4%
Women in managerial positions - out of total managerial positions (%)	26.6%	28.4%	30.0%
Black female employees (black and mixed race) - out of total employees (%)	5.4%	4.9%	5.3%
Black male employees (black and mixed race) - out of total employees (%)	42.9%	43.3%	43.9%
Black employees (black and mixed race) in managerial positions as a percentage of all managerial positions (%)	26.6%	26.9%	25.7%
Percentage of trainees (%)	1.4%	4.6%	5.2%
Employees of the apprentice recruitment program (%)	4.0%	4.1%	4.0%
Disabled employees	89	91	102
Compensation, benefits and career (R\$ 000)	2019	2018	2017
Gross payroll	97,814	98,503	91,476
Compulsory social charges	21,915	21,802	25,173
Education	140	123	126
Food and Beverages	17,714	17,492	18,297
Transportation	-	-	-
Health	7,138	6,477	5,616
Foundation	-	-	-
Occupational health and safety	2,671	3,072	2,670
Culture	-	-	-
Training and professional development	2,432	1,466	1,552
Day care and day care allowance	202	191	223
Other (funeral allowance, exceptional payments, retirement premium)	2,336	2,433	2,456
Profit sharing	2019	2018	2017
Total investment in company profit-sharing program (R\$ 000)	11,238	15,136	6,938
Amounts distributed in relation to gross payroll (%)	38.8%	15.4%	7.6%
Highest compensation divided by the lowest compensation in cash paid by the company	45.41	59.65	49.36
Lowest compensation at the company divided by the minimum salary in force	4.5	1.0	1.1

Compensation profile by category - average salary in the current year	2019	2018	2017
Executive positions	35,354	33,641	36,835
Management positions	14,386	13,434	12,132
Administrative positions	3,175	2,972	2,636
Operating positions	1,442	1,361	1,325
Occupational health and safety	2019	2018	2017
Average overtime per employee/year ¹	54.63	60.58	61.39
Total frequency rate for the period - employees	2.58	2.93	6.72
Employee seriousness rate in the period	45.91	227.13	1,747.92
Total frequency rate for the period - contractors	1.57	1.81	2.41
Seriousness Rate of outsourced/contracted employees in the period	231.37	54.30	3,664.26
Frequency rate of the company for the period - workforce (employees + contractors)	6.74	2.59	5.35
Severity rate for the period - workforce (employees + contractors)	1,099.35	165.92	2,356.54
Fatalities – employees	0	0	1
Fatalities – contractors	0	0	1
Professional development	2019	2018	2017
Education levels - specify percentage of total employees			
Primary Education	1.9%	1.9%	2.1%
High School	65.2%	77.2%	77.3%
Technical School	13.9%	3.3%	3.1%
Graduate	18.3%	15.3%	15.4%
Graduate (specialist, Master's degree, PhD)	0.8%	2.3%	2.1%
Amount invested in professional development and education (R\$ 000)	601	623	798
Average number of hours of training per year per employee, broken down into job type			
Executive positions	17.8	16.0	37.9
Management positions	16.8	12.0	40.4
Administrative positions	28.2	34.4	34.9
Operating positions	58.9	60.1	70.6
Conduct in light of dismissals	2019	2018	2017
Turnover rate	7.99%	7.15%	8.36%
Labor claims (company and outsourced employees)	2019	2018	2017
Amounted provisioned in the period (R\$ 000)	3,478	5,035	9,048
Number of labor claims brought against the company in the period	46	104	181
Number of labor claims accepted in the period	62	204	94
Number of labor claims rejected in the period	82	64	46
Value of damages and fines paid under court awards in the period (R\$ 000)	1,156	2,529	18,973
Retirement provision	2019	2018	2017
Investments in supplementary pensions (R\$ 000)	12,504	10,408	22,767
Number of recipients in the supplementary pension program	1,058	455	408
¹ 2017 figures revised.			

¹2017 figures revised.

External social metrics

Consumers

Excellence in service	2019	2018	2017
Profile of consumers and clients			
Energy sales by rate class (GWh): % Total	100.0%	100.0%	100.0%
Residential	35.0%	34.7%	34.1%
Low-income residential	11.9%	11.0%	11.5%
Commercial	6.4%	8.4%	9.2%
Industrial	19.1%	18.8%	19.1%
Rural	7.8%	7.8%	7.3%
Public lighting	7.0%	6.7%	6.5%
Public utility	7.1%	7.2%	7.1%
Public authorities	5.6%	5.5%	5.1%
Client satisfaction	2019	2018	2017
Satisfaction rates obtained by lasc Survey - Aneel	65.14	67.81	67.62
Satisfaction rates obtained by other entities and/or proprietary surveys - Abradee Survey	77.30	81.20	83.84
Customer service	2019	2018	2017
Call Center			
Calls received (unit)	1,877,848	1,945,110	1,872,124
Average number of agents (unit)	73	55	42
INS - Level of Service Rate (%)	88.71%	89.77%	90.28%
IAB - Abandonment rate (%)	1.36%	1.21%	1.74%
ICO - Busy Call Rate (%)	0.00%	0.00%	0.00%
TMA - Average interaction time (s)	209	187	171
Compensation for electrical damages	2019	2018	2017
Volume of requests (unit)	3,130	3,219	2,959
Confirmed (unit)	704	564	325
Complaints metrics	2019	2018	2017
Confirmed complaints (unit) 1	279,342	296,539	286,591
DER (hours)	332.37	254.11	742.59
FER (unit)	16.82	12.39	5.66
Violation of commercial service terms	2019	2018	2017
Service interactions (unit)	447,371	377,326	308,269
Service interactions completed late (unit)	37,427	43,918	15,996
Service efficiency (%)	91.63%	88.36%	94.81%
Number of customer complaints escalated to	2019	2018	2017
The company	364,752	365,069	379,436
Aneel – state/regional agencies	1,647	1,509	1,831
Procon	900	584	378
to the courts	2,815	2,798	3,536

 $^{^{\}scriptsize 1}$ We included all the complaints in Appendix I, including electrical damage, voltage level and outages.

The community

Impacts on health and safety	2019	2018	2017
Total number of nonfatal injuries involving consumers	5	2	7
Total number of fatal injuries involving consumers	5	6	6
Legal proceedings resulting from accidents involving consumers – Overall Legal Proceedings	5	14	12
Low-income rate	2019	2018	2017
Number of low-income households served	382,433	346,446	353,633
Total low-income households out of total households served (residential customers/consumers) (%)	32.3%	29.5%	30.6%
Revenue from sales to low-income residential subsector (R\$ 000)	276,037	264,071	222,426
Total revenue from sales to low-income residential subsector out of total residential revenue (%)	22.48%	24.32%	23.87%
Subsidy received for low-income consumers (R\$ 000)	96,172	88,655	77,631
Company involvement in social action	2019	2018	2017
Funds allocated to education (R\$ thousand)	1,267	1,066	805
Funds allocated to health care and sanitation (R\$ thousand)	-	-	-
Funds allocated to culture (R\$ thousand)	1,154	1,088	1,344
Funds allocated to sports (R\$ 000)	315	189	125
Other funds allocated to social initiatives (R\$ 000)	128	306	531
Employees carrying out voluntary work in the community outside the Company/total employees (%)	-	-	1.0%
Number of hours donated per month (employees released from normal working hours) by the Company for employee volunteer work	-	-	124
Company involvement in cultural, sporting and social projects (Rouanet Law, Sporting Incentive Law, Pronon, Pronas, Infant and Adolescent Fund, Fund for the Elderly)	2019	2018	2017
Funds allocated to projects (R\$ 000)	2,042	1,297	812
Funds allocated to the largest project (R\$ 000)	370	227	402
Project name	Natal na Usina 2019	13 th Aruanda Brazilian Audiovisual Fest	Iluminarte Teatral
Bidder	Dina Lucia Filipe Faria Azeiteiro	Andrea Gonçalves Pereira Villar	Carolina Paiva Neves Frade da Cruz

Electric sector metrics

Universal electricity access

	2019	2018	2017
Service targets	-	-	-
Calls handled (no.)	-	-	-
Performance of targets (%)	-	-	-
Total municipalities with universal access	-	-	-
Municipalities with universal access (%)	100%	100%	100%

Universal access completed in 2010, as per Aneel Order 2.344, issued July 17, 2012.

Energy Efficiency Program (PEE)

				;	2019					2018				;	2017
		stments R\$ 000) ¹	source	Finan s (R\$			stments (\$ 000) ¹	source	Finar es (R\$			estments R\$ 000) ¹	source	Finan s (R\$	
Project type	Total	(%)	Company	Third party	Customer	Total	(%)	Company	Third party	Customer	Total	(%)	Company	Third party	Customer
Industrial	0	-	0	0	0	0	-	0	0	0	0	-	0	0	0
Trade and Services	0	-	0	0	0	27	-	27	0	0	402	7.3%	402	0	0
Government	0	-	0	0	0	1	-	1	0	0	329	6.0%	329	0	0
Public Utility	0	-	0	0	0	0	-	0	0	0	0	-	0	0	0
Rural	0	-	0	0	0	0	-	0	0	0	0	-	0	0	0
Residential	0	-	0	0	0	6	-	6	0	0	893	16.3%	893	0	0
Low-Income Residential	4,129	44.9%	4,129	0	0	3,338	51.2%	3,338	0	0	2,621	47.9%	2,621	0	0
Public Lighting	4,088	44.5%	4,088	32	0	2,045	31.4%	2,045	0	0	0	-	0	0	0
Municipal Energy Management	0	-	0	0	0	0	-	-	0	0	0	-	0	0	0
Education	978	10.6%	978	0	0	1,097	16.8%	863	234	0	1,226	22.4%	1,226	0	0
TOTAL	9,195	100%	9,195	32	0	6,514	100%	6,280	234	0	5,471	100%	5,471	0	0

¹ Excludes funds used in project management.

			2019			2018			2017
Project type	Units served	Energy savings (MWh/year)	Peak Shaving (kW)	Units served	Energy savings (MWh/year)	Peak Shaving (kW)	Units served	Energy savings (MWh/year)	Peak Shaving (kW)
Industrial	0	0	0	0	0	0	0	0	0
Trade and Services	0	0	0	17,001	14,460	54	17,001	14,460	54
Government	0	0	0	1	167	175	1	167	175
Public Utility	0	0	0	0	0	0	0	0	0
Rural	0	0	0	0	0	0	0	0	0
Residential	0	0	0	1	34	8	2,559	2,860	353
Low-Income Residential	26,548	2,367	1,353	30,000	2,030	849	2,092	812	421
Public Lighting	19	3,703	849	6	1,255	287	-	-	-
Municipal Energy Management	0	0	0	0	0	0	0	0	0
Education	30,543	0	0	26,900	0	0	22,816	0	0
TOTAL	57,110	6,070	2,203	73,909	17,946	1,372	44,469	18,299	1,003

Funds Invested in technological and scientific research and development R\$ 000 ¹

By field of research (Research & Development Handbook - Aneel)

	2019			2018		2017
	Amount	(%)	Amount	(%)	Amount	(%)
FA – Alternative Electricity Generation Sources	1,600	30.5%	0	-	0	-
GT – Thermal Generation	0	-	0	-	0	-
GB – River Basin and Reservoir Management	0	-	0	-	0	-
MA – Environment	0	-	0	-	0	-
SE – Safety	196	3.7%	0	-	0	-
EF – Energy Efficiency	0	0.0%	0	-	0	-
PL – Power Systems Planning	1,785	34.0%	45	2.6%	4	0.2%
OP – Power System Operation	1	-	5	0.3%	340	18.0%
SC – Power System Supervision, Control and Protection	1,615	30.8%	0	-	266	14.1%
QC - Power Supply Quality and Reliability	0	-	2	0.1%	153	8.1%
MF – Metering, Billing and Commercial Loss Reduction	43	-	0	-	0	-
OU – Other	3	-	1,672	97.0%	1,119	59.5%
TOTAL	5,244	100.0%	1,724	100.0%	1,881	100.0%

¹ Excludes funds used in project management.

Environmental indicators

Recover degraded areas	2019	2018	2017
Shielded and insulated lines (ecological grid or green lines) in urban areas (km)	6,465	5,085	4,668
Percentage of shielded and insulted lines out of total distribution lines in urban areas (%)	44%	40%	37%
Waste generation and treatment	2019	2018	2017
Issuance			
Annual volume of greenhouse (CO_2 , CH_4 , N_2O , HFC, PFC, SF_6), emitted into the atmosphere (in tonnes of CO_2 equivalent)	2,985	3,035	2,280
Annual volume of ozone-depleting emissions (in tonnes of CFC equivalent)	NA	NA	108.8
Effluents			
Total water discharge by quality and destination ¹	174	195	224
Solids			
Annual quantity (in tons) of solid waste generated (refuse, waste, rubble etc.)	1	27	47
Percentage of equipment replaced by insulating mineral oil without PCB (ascarel)	100%	100%	100%
Use of resources in the production process and managerial processes	2019	2018	2017
Total electricity consumption by source			
Electricity consumption per kWh distributed (sold) ²	0.00348	0.00360	0.00441
Direct energy consumption by primary source in GJ	47,130	48,224	57,823
Diesel	29,010	29,480	37,105
Gasoline	18,120	18,744	20,718
Ethanol	-	-	-
Natural gas	-	-	-
Other	-	-	-
Total water withdrawal by source (m³)			
Supply (public system)	3,770	3,970	4,646
Groundwater (wells)	NA	NA	NA
Surface extraction (waterways)	NA	NA	NA
Total water withdrawal (m³)	3,770	3,970	4,646
Water withdrawal per employee (m³)	1.9	2.2	2.5
Environmental education and awareness raising	2019	2018	2017
At the Organization			
Number of employees trained in environmental education programs	310	294	140
Percentage of employees trained in environmental education programs/total employees	18.0%	17.0%	7.0%
Number of hours of environmental training out of total hours of training	3.5%	3.0%	2.0%
In the Community			
Number of primary schools and high schools served	20	455	384
Number of primary school and high school students served	600	21,676	32,357
Number of teachers trained	0	1,901	61
Number of universities and technical schools served	1	49	4
Number of technical school and graduate students served	25	2,310	225

 $^{^{\}mbox{\tiny 1}}$ Water waste is sanitary waste and relatively insignificant.

² Revised figures for 2017 and 2018.

Performance metrics - distribution companies	2019	2018	2017
Deforestation (hectares of land cleared by quarter)	-	-	-
Tree pruning (volume of waste created by month in kg)	2,800	4,700	NA
Oil leaks (leakage sites by month)	12	16	22

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Operating and productivity metrics

Technical information (consumables, production capacity, sales, losses)	2019	2018	201
Number of consumers served - Captive	219,527	212,744	209,98
Number of consumers served - Free	15	14	1
Number of municipalities served	6	6	
Number of own employees	211	206	23
Number of outsourced employees ¹	52	37	2
Number of commercial offices	6	6	
Electricity generated (GWh)	NA	NA	N
Electricity purchased (GWh)	640.81	657.85	734.4
1) Itaipu	-	-	
2) Auction (including federal generator auction - 2002)	640.81	657.85	734.4
3) Energy sales of concession operator	-	-	
Global electric losses (GWh)	48.0	42.9	41.
Electrical losses – (%) total on energy requirement	6.37%	5.85%	5.869
Technical losses – (%) on energy requirement	5.72%	6.65%	7.649
Non-technical losses – (%) on energy requirement	0.66%	-0.79%	-1.789
Energy Sold (GWh) 2	552.54	559.34	549.0
Residential	254.40	244.68	240.3
Industrial	59.02	69.29	64.8
Commercial	134.71	139.49	140.2
Rural	23.92	23.8	23.7
Public authorities	33.56	33.21	32.4
Public lighting	35.16	37.61	39.2
Public utility	11.76	11.25	8.1
Substations (in units)	8	8	
Installed capacity (MVA)	185	185	18
Transmission lines (km)	45	45	4
Distribution lines (in km)	5,812	5,648	5,52
Distribution transformers (in units)	4,722	4,591	4,43
Sale of energy through installed capacity – GWh/(MVA X no.hours/year) ³	0.000341	0.000345	0.00033
Electricity sold per employee (MWh)	3.145	2,715	2,35
Number of consumers per employee	1,040	1,033	90
Added value/GWh sold	343.50	393.16	376.1
Overall equivalent outage duration per consumer "DEC" of the company - Amount determined 4	4.19	4.56	4.0
Overall equivalent outage duration per consumer "DEC" of the company - Limit	13.16	13.16	13.1
Overall equivalent outage frequency per consumer "FEC" of the company - Amount determined 4	3.15	2.63	2.4
Overall equivalent outage frequency per consumer "FEC" of the company - Limit This does not include outsourced employees working at other Group companies.	8.96	9.84	9.9

 $^{^{\}mbox{\tiny 1}}$ This does not include outsourced employees working at other Group companies.

Corporate governance

				2019				2018				2017
Managers	CA	DE	CF ¹	Total	CA	DE	CF ¹	Total	CA	DE	CF ¹	Total
No. of members	7	7	-	14	7	7	-	14	7	6	-	13
Annual Fixed Compensation (R\$ 000)	582	847	-	1,429	571	826	-	1,397	631	1,761	-	2,393
Salaries or management fees	449	537	-	985	433	602	-	1,035	437	719	-	1,156
Direct or indirect benefits	11	65	-	76	9	52	-	61	12	80	-	92
Participations in committees	-	-	-	-	-	-	-	-	-	-	-	-
Other	123	245	-	368	128	172	-	300	182	962	-	1,144
Description of other fixed compensation	-	-	-	-	-	-	-	-	-	-	-	-
Variable Compensation (R\$ 000)	-	405	-	405	302	556	-	858	515	639	-	1,154
Bonuses	-	-	-	-	-	-	-	-	-	-	-	-
Profit sharing	-	405	-	405	302	556	-	858	515	639	-	1,154
Attending meetings	66	_	-	-	-	-	-	-	-	-	-	-
Commission	-	-	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-	-	-
Description of other variable compensation	-	-	-	-	-	-	-	-	-	-	-	-

CA - Board of Directors; DE - Executive Board; CF - Fiscal Council

² Captive sales only.

³ Revised figures for 2017.

⁴ Revised figures for 2018.

¹ There is no Oversight Board at the moment.

Economic and financial metrics

Statements of added value (In thousands of reais)	2019	2018
REVENUE	439,303	427,914
Electricity sales and services	426,784	415,688
Other revenue	1,548	991
Revenue relating to construction of company assets	14,179	12,431
Allowance for doubtful accounts	(3,208)	(1,196)
(-) Consumables acquired from third parties	(226,665)	(215,945)
Cost of electricity sold	(191,694)	(181,119)
Materials and outsourced services	(18,604)	(17,981)
Other operating costs	(16,367)	(16,845)
GROSS ADDED VALUE	212,638	211,969
Depreciation and amortization	(7,185)	(7,029)
NET ADDED VALUE	205,453	204,940
Transferred value added	22,490	
Finance revenue	22,490	14,972
TOTAL ADDED VALUE TO BE DISTRIBUTED	227,943	219,912
DISTRIBUTION OF ADDED VALUE	227,943	219,912
Personnel	16,304	15,502
Direct remuneration	10,860	10,178
Benefits	4,494	4,232
FGTS	950	1,092
Taxes, charges and contributions	153,283	158,329
Federal	33,752	64,233
State	95,941	93,949
Municipal	209	147
Intrasector Obligations	23,381	-
Interest expenses	21,681	15,123
Interest	21,647	14,961
Rent	34	162
Interest on equity	36,675	30,958
Legal Reserve	7,647	-
Additional dividends proposed	4,970	-
Dividends	24,058	25,117
Retained earnings/loss for the year		5,841

		2019			
Investment	R\$ million	Δ%	R\$ million		
Electric assets	14.3	53.8%	9.3		
Special obligations	1.7	-66.0%	5		
Non-electric assets	2.8	-46.2%	5.2		
Total	18.8	-3.6%	19.5		

Internal social metrics

Employees/ Employability/ D&O

General information	2019	2018	2017
Total number of employees	211	206	207
Number of outsourced employees (outsourced, subcontractors, freelancers) by employment type, employment contract and region	52	37	26
Employees aged 30 or under (%)	19.4%	16.5%	16.9%
Employees aged 31 to 40 (%)	48.3%	48.1%	48.8%
Employees aged 41 to 50 (%)	22.3%	23.8%	24.2%
Employees over 50 (%)	10.0%	11.7%	10.1%
Percentage of female employees (%)	10.9%	12.1%	11.6%
Women in managerial positions - out of total managerial positions (%)	33.3%	33.3%	33.3%
Black female employees (black and mixed race) - out of total employees (%)	3.8%	4.9%	3.4%
Black male employees (black and mixed race) - out of total employees (%)	38.9%	36.4%	40.1%
Black employees (black and mixed race) in managerial positions as a percentage of all managerial positions (%)	33.3%	33.3%	66.7%
Percentage of trainees (%)	0.9%	2.9%	5.3%
Employees of the apprentice recruitment program (%)	4.3%	3.9%	3.9%
Disabled employees	8	6	9
Compensation, benefits and career (R\$ 000)	2019	2018	2017
Gross payroll	14,755	14,646	15,205
Compulsory social charges	3,390	3,488	4,068
Education	15	19	10
Food and Beverages	2,312	2,261	2,274
Transportation		-	-
Health	1,183	1,068	1,089
Foundation		-	-
Occupational health and safety	489	628	412
Culture	-	-	-
Training and professional development	89	76	24
Day care and day care allowance	418	382	403
Other (funeral allowance, exceptional payments, retirement premium)	602	525	87
Profit sharing	2019	2018	2017
Total investment in company profit-sharing program (R\$ 000)	1,371	1,640	1,531
Amounts distributed in relation to gross payroll (%)	39.6%	11.2%	10.1%
Highest compensation divided by the lowest compensation in cash paid by the company	19.5	59.6	49.4
Lowest compensation at the company divided by the minimum salary in force	4.5	1	1.1

Compensation profile by category - average salary in the current year	2019	2018	2017
Executive positions	53,153	51,674	44,282
Management positions	9,256	8,602	12,640
Administrative positions	2,904	2,661	2,397
Operating positions	1,465	1,422	1,486
Occupational health and safety	2019	2018	2017
Average overtime per employee/year	44.15	44.58	45.70
Total frequency rate for the period - employees	_	2.50	4.65
Employee seriousness rate in the period	-	12.49	23.25
Total frequency rate for the period - contractors	3.33	_	5.26
Seriousness Rate of outsourced/contracted employees in the period	100.00	_	157.89
Frequency rate of the company for the period - workforce (employees + contractors)	1.58	3.58	4.84
Severity rate for the period - workforce (employees + contractors)	47.35	62.65	64.51
Fatalities – employees	0	0	0
Fatalities – contractors	0	0	0
Professional development	2019	2018	2017
Education levels - specify percentage of total employees	'		
Primary Education	2.4%	2.4%	3.9%
High School	73.5%	81.6%	78.3%
Technical School	12.3%	3.9%	3.9%
Graduate	11.8%	11.7%	13.5%
Graduate (specialist, Master's degree, PhD)	0.0%	0.5%	0.5%
Amount invested in professional development and education (R\$ 000)	21	16	24
Average number of hours of training per year per employee, broken down into job type			
Executive positions	-	-	8.0
Management positions	12.5	12.5	125.7
Administrative positions	11.3	10.7	22.7
Operating positions	61.0	71.7	58.5
Conduct in light of dismissals	2019	2018	2017
Churn rate ¹	6.87%	12.38%	5.07%
Labor claims (company and outsourced employees)	2019	2018	2017
Amounted provisioned in the period (R\$ 000)	438	1,163	1,300
Number of labor claims brought against the company in the period	16	28	43
Number of labor claims accepted in the period	20	34	23
Number of labor claims rejected in the period	5	32	6
Value of damages and fines paid under court awards in the period (R\$ 000)	839	283.28	3,183.23
Retirement provision	2019	2018	2017
Investments in supplementary pensions (R\$ 000)	210	197	187
Number of recipients in the supplementary pension program	69	30	38

¹ Revised figures for 2017.

External social metrics

Consumers

Excellence in service	2019	2018	2017
Profile of consumers and clients			
Energy sales by rate class (GWh): % Total	100.0%	100.0%	100.0%
Residential	37.2%	36.1%	35.8%
Low-income residential	8.8%	7.6%	8.0%
Commercial	10.7%	12.4%	11.8%
Industrial	24.4%	24.9%	25.6%
Rural	4.3%	4.3%	4.3%
Public lighting	6.1%	5.9%	5.9%
Public utility	6.4%	6.7%	7.2%
Public authorities	2.1%	2.0%	1.5%
Client satisfaction	2019	2018	2017
Satisfaction rates obtained by lasc Survey - Aneel	70.36	73.1	65.9
Satisfaction rates obtained by other entities and/ or proprietary surveys - Abradee Survey	78.20	82.00	83.31
Customer service	2019	2018	2017
Call Center			
Calls received (unit)	237,864	292,910	283,651
Average number of agents (unit)	73	55	39
INS - Level of Service Rate (%)	90.48%	91.48%	92.69%
IAB - Abandonment rate (%)	0.62%	0.71%	0.73%
ICO - Busy Call Rate (%)	0.00%	-	-
TMA - Average interaction time (s)	205	189	181
Compensation for electrical damages	2019	2018	2017
Volume of requests (unit)	521	545	507
Confirmed (unit)	97	124	61
Complaints metrics	2019	2018	2017
Confirmed complaints (unit)	20,436	21,713	19,368
DER (hours)	258.85	175.78	279.57
FER (unit)	9.57	5.42	5.75
Violation of commercial service terms	2019	2018	2017
Service interactions (unit)	95,604	82,376	65,053
Service interactions completed late (unit)	1,610	3,964	2,700
Service efficiency (%)	98.32%	95.19%	95.85%
Number of customer complaints escalated to	2019	2018	2017
To the company¹	30,729	32,706	31,637
Aneel – state/regional agencies	130	93	149
Procon	24	58	10
to the courts	319	450	772

 $^{^{\}scriptsize 1}$ We included all the complaints in Appendix I, including electrical damage, voltage level and outages.

The community

Impacts on health and safety	2019	2018	2017
Total number of nonfatal injuries involving consumers	3	0	1
Total number of fatal injuries involving consumers	0	1	3
Legal proceedings resulting from accidents involving consumers – Overall Legal Proceedings	0	0	1
Low-income rate	2019	2018	2017
Number of low-income households served	47,158	39,018	39,637
Total low-income households out of total households served (residential customers/consumers) (%)	25.2%	21.6%	22.3%
Revenue from sales to low-income residential subsector (R\$ 000)	26,506	26,614	22,936
Total revenue from sales to low-income residential subsector out of total residential revenue (%)	12.89%	15.87%	16.25%
Subsidy received for low-income consumers (R\$ 000)	9,835	9,269	8,325
Company involvement in social action	2019	2018	2017
Funds allocated to education (R\$ thousand)	183	154	119
Funds allocated to health care and sanitation (R\$ thousand)	-	-	-
Funds allocated to culture (R\$ thousand)	254	337	269
Funds allocated to sports (R\$ 000)	36	10	20
Other funds allocated to social initiatives (R\$ 000)	158	48	6
Employees carrying out voluntary work in the community outside the Company/total employees (%)	-	-	-
Number of hours donated per month (employees released from normal working hours) by the Company for employee volunteer work	-	-	-
Company involvement in cultural, sporting and social projects (Rouanet Law, Sporting Incentive Law, Pronon, Pronas, Infant and Adolescent Fund, Fund for the Elderly)	2019	2018	2017
Funds allocated to projects (R\$ 000)	179	92	121
Funds allocated to the largest project (R\$ 000)	118	42	33
Project name	Youth Orchestra	Visual Arts Occupation Workshop	Youth Orchestra
Bidder	Instituto Banese	Dyogenes Chaves Gomes	Instituto Banese

Electric sector metrics

Universal electricity access

	2019	2018	2017
	2019	2018	2017
Service targets	-	-	-
Calls handled (no.)	-	-	-
Performance of targets (%)	-	-	-
Total municipalities with universal access	-	-	-
Municipalities with universal access (%)	100%	100%	100%

Universal access completed in 2010, as per Aneel Order 2.344, issued July 17, 2012.

Energy Efficiency Program (PEE)

					2019		2018							2017	
	Investments (R\$ 000) ¹		Financing sources (R\$ 000)						Investments (R\$ 000) ¹			ancing R\$ 000)			
Project type	Total	(%)	Company	Third party	Customer	Total	(%)	Company	Third party	Customer	Total	(%)	Company	Third party	Customer
Industrial	0	-	0	0	0	0	-	0	0	0	0	-	0	0	0
Trade and Services	369	26.5%	369	0	0	0	-	0	0	0	0	-	0	0	369
Government	0	-	0	0	0	0	-	0	0	0	0	-	0	0	0
Public Utility	0	-	0	0	0	0	-	0	0	0	0	-	0	0	0
Rural	0	-	0	0	0	0	-	0	0	0	0	-	0	0	0
Residential	0	-	0	0	0	0	-	0	0	0	154	24.0%	154	0	0
Low-Income Residential	875	62.9%	875	0	0	1,083	100.0%	1,083	0	0	489	76.0%	489	0	875
Public Lighting	147	10.6%	147	0	0	0	-	0	0	0	0	-	0	0	147
Municipal Energy Management	0	-	0	0	0	0	-	0	0	0	0	-	0	0	0
Education	0	-	0	0	0	0	-	0	0	0	0	-	0	0	0
TOTAL	1,390	100%	1,390	0	0	1,083	100.0%	1,083	0	0	643	100.0%	643	0	1,390

¹ Excludes funds used in project management.

			2019			2018				
Project type	Units served	Energy savings (MWh/year)	Peak Shaving (kW)	Units served	Energy savings (MWh/year)	Peak Shaving (kW)	Units served	Energy savings (MWh/year)	Peak Shaving (kW)	
Industrial	0	0	0	0	0	0	0	0	0	
Trade and Services	1	3	0	0	0	0	0	0	0	
Government	0	0	0	0	0	0	0	0	0	
Public Utility	0	0	0	0	0	0	0	0	0	
Rural	0	0	0	0	0	0	0	0	0	
Residential	0	0	0	0	0	0	1,418	738	103	
Low-Income Residential	1,267	1,014	579	10,200	609	255	257	159	82	
Public Lighting	1	65	17	0	0	0	0	0	0	
Municipal Energy Management	0	0	0	0	0	0	0	0	0	
Education	0	0	0	0	0	0	0	0	0	
TOTAL	1,269	1,082	596	10,200	609	255	1,675	897	186	

Funds Invested in technological and scientific research and development R\$ 000 ¹

By field of research (Research & Development Handbook - Aneel)

	2019			2018		2017
	Amount	(%)	Amount	(%)	Amount	(%)
FA – Alternative Electricity Generation Sources	0	-	0	-	0	-
GT – Thermal Generation	0	-	0	-	0	-
GB – River Basin and Reservoir Management	0	-	0	-	0	-
MA – Environment	0	-	0	-	0	-
SE – Safety	0	-	0	-	0	-
EF – Energy Efficiency	0	-	0	-	0	-
PL – Power Systems Planning	370	61.9%	0	-	0	-
OP – Power System Operation	0	-	0	-	0	-
SC – Power System Supervision, Control and Protection	0	-	0	-	4	5.7%
QC – Power Supply Quality and Reliability	0	-	0	-	67	94.3%
MF – Metering, Billing and Commercial Loss Reduction	227	38.1%	0	-	0	-
OU - Other	0	-	0	-	0	-
TOTAL	597	100.0%	0	-	71	100.0%

¹ Excludes funds used in project management.

Environmental indicators

Recover degraded areas	2019	2018	2017
Shielded and insulated lines (ecological grid or green lines) in urban areas (km)	835	782	749
Percentage of shielded and insulted lines out of total distribution lines in urban areas (%)	44.0%	44.0%	43.0%
Waste generation and treatment	2019	2018	2017
Issuance			
Annual volume of greenhouse (CO ₂ , CH ₄ , N ₂ O, HFC, PFC, SF ₆), emitted into the atmosphere (in tonnes of CO ₂ equivalent)	347	356	285
Annual volume of ozone-depleting emissions (in tonnes of CFC equivalent)	NA	NA	-
Effluents			
Total water discharge by quality and destination ¹	-	-	-
Solids			
Annual quantity (in tons) of solid waste generated (refuse, waste, rubble etc.)	2	2	2
Percentage of equipment replaced by insulating mineral oil without PCB (ascarel)	100%	100%	100%
Use of resources in the production process and managerial processes	2019	2018	2017
Total electricity consumption by source			
Electricity consumption per kWh distributed (sold) ²	0.00263	0.00276	0.00325
Direct energy consumption by primary source in GJ	5,230	5,560	6,426
Diesel	2,550	2,795	3,497
Gasoline	2,680	2,765	2,929
Ethanol	-	-	-
Natural gas	-	-	-
Other	-	-	-
Total water withdrawal by source (m³)			
Supply (public system)	980	1,100	1,200
Groundwater (wells)	NA	NA	NA
Surface extraction (waterways)	86.1	86.1	86.1
Total water withdrawal (m³)	980	1,100	1,200
Water withdrawal per employee (m³)	4.8	5.2	5.3
Environmental education and awareness raising	2019	2018	2017
At the Organization			
Number of employees trained in environmental education programs	60	57	6
Percentage of employees trained in environmental education programs/total employees	24.0%	23.0%	3.0%
Number of hours of environmental training out of total hours of training	5.0%	5.0%	1.0%
In the Community			
Number of primary schools and high schools served	6	5	20
Number of primary school and high school students served	120	330	600
Number of teachers trained	0	-	-
Number of universities and technical schools served	0	1	2
Number of technical school and graduate students served	0	35	30
Water waste is canitary waste and relatively insignificant			

¹ Water waste is sanitary waste and relatively insignificant. ² Revised figures for 2017 and 2018.

Performance metrics - distribution companies	2019	2018	2017
Deforestation (hectares of land cleared by quarter)	NA	NA	NA
Tree pruning (volume of waste created by month in kg)	NA	NA	NA
Oil leaks (leakage sites by month)	NA	NA	NA

Energisa Sergipe

Operating and productivity metrics

Technical information (consumables, production capacity, sales, losses)	2019	2018	2017
Number of consumers served - Captive	788,265	776,347	761,924
Number of consumers served - Free	67	52	42
Number of municipalities served	63	63	63
Number of own employees	818	819	825
Number of outsourced employees ¹	162	163	97
Number of commercial offices	63	63	63
Electricity generated (GWh)	NA	NA	NA
Electricity purchased (GWh)	3,784.21	3,470.0	3,808.0
1) Itaipu	-	-	-
2) Auction (including federal generator auction - 2002)	3,409.68	3,470.0	3,417.0
3) Energy sales of concession operator	374.53	-	391
Global electric losses (GWh)	348.39	342.9	333.9
Electrical losses – (%) total on energy requirement	10.17%	9.63%	8.78%
Technical losses – (%) on energy requirement	7.49%	7.11%	6.85%
Non-technical losses – (%) on energy requirement	2.68%	2.53%	1.93%
Energy Sold (GWh) ²	2,497.97	2,433.68	2,354.53
Residential	1,099.99	1,046.25	1,010.94
Industrial	193.76	200.75	213.8
Commercial	516.09	508.51	489.72
Rural	123.31	122.31	108.81
Public authorities	142.67	137.52	134.19
Public lighting	203.41	198.37	184.59
Public utility	218.73	219.95	212.48
Substations (in units)	33	33	33
Installed capacity (MVA)	750	738	741
Transmission lines (km)	1,350	1,378	1,334
Distribution lines (in km)	26,894	26,697	26,488
Distribution transformers (in units)	46,895	46,079	45,447
Sale of energy through installed capacity – GWh/(MVA X no. hours/year)	0.000380	0.000376	0.000363
Electricity sold per employee (MWh)	2,879	2,972	2,854
Number of consumers per employee	964	948	924
Added value/GWh sold	379.60	348.54	368.46
Overall equivalent outage duration per consumer "DEC" of the company - Amount determined ³	10.63	10.51	12.09
Overall equivalent outage duration per consumer "DEC" of the company - Limit	12.35	12.39	12.8
Overall equivalent outage frequency per consumer "FEC" of the company - Amount determined ³	4.81	6.33	6.99
Overall equivalent outage frequency per consumer "FEC" of the company - Limit	8.79	8.88	9.3

¹ This does not include outsourced employees working at other Group companies. ² Captive sales only. ³ Revised figures for 2018.

Corporate governance

				2019				2018				2017
Managers	CA	DE	CF ¹	Total	CA	DE	CF ¹	Total	CA	DE	CF ¹	Total
No. of members	7	7	-	14	7	7	_	14	7	6	-	13
Annual Fixed Compensation (R\$ 000)	831	2,001	-	2,832	774	2,270	-	3,044	916	5,016	-	5,932
Salaries or management fees	598	1,267	-	1,865	578	1,471	-	2,048	643	1,676	-	2,319
Direct or indirect benefits	18	228	-	246	16	355	-	370	22	316	-	338
Participations in committees	-	-	-	-	-	-	-	-	-	-	-	-
Other	214	506	-	721	181	444	-	625	251	2,108	-	2,359
Description of other fixed compensation	-	-	-	-	-	-	-	-	-	-	-	-
Variable Compensation (R\$ 000)	-	976	-	976	503	949	-	1,453	363	940	-	1,303
Bonuses	-	-	-	-	-	-	-	-	-	-	-	-
Profit sharing	-	976	-	976	503	949	-	1,453	363	940	-	1,303
Attending meetings	106	-	-	-	-	-	-	-	-	-	-	-
Commission	-	-	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-	-	-
Description of other variable compensation	-	-	-	-	-	-	-	-	-	-	-	-

CA - Board of Directors; DE - Executive Board; CF - Fiscal Council

¹ There is no Oversight Board at the moment.

Economic and financial metrics

Statements of added value (In thousands of reais)	2019	2018
REVENUE	2,016,657	1,894,178
Electricity sales and services	1,941,152	1,835,350
Other revenue	6,499	5,996
Revenue relating to construction of company assets	78,867	62,277
Allowance for doubtful accounts	(9,861)	(9,445)
(-) Consumables acquired from third parties	(1,108,890)	(1,040,049)
Cost of electricity sold	(929,963)	(885,094)
Materials and outsourced services	(80,085)	(70,961)
Other operating costs	(98,842)	(83,994)
GROSS ADDED VALUE	907,767	854,129
Depreciation and amortization	(53,589)	66,148
NET ADDED VALUE	854,178	787,981
Transferred value added	39,790	60,248
Finance revenue	39,790	60,248
TOTAL ADDED VALUE TO BE DISTRIBUTED	893,968	848,229
DISTRIBUTION OF ADDED VALUE	893,968	848,229
Personnel	80,039	93,236
Direct remuneration	62,220	72,232
Benefits	13,772	16,368
FGTS	4,047	4,636
Taxes, charges and contributions	588,835	574,005
Federal	147,826	251,624
State	348,402	321,459
Municipal	1,102	922
Intrasector Obligations	91,505	-
Interest expenses	77,995	88,454
Interest	77,494	87,289
Rent	501	1,165
Interest on equity	147,099	92,534
Legal Reserve	34,196	15,877
Additional dividends proposed	29,601	-
Dividends	83,302	76,657

Annual mana		2019	2018
Investment	R\$ million	∆%	R\$ million
Electric assets	70.6	23.9%	57.0
Special obligations	4.8	-58.3%	11.5
Non-electric assets	14	3.7%	13.5
Total	89.4	9.0%	82.0

Internal social metrics

Employees/ Employability/ D&O

General information	2019	2018	2017
Total number of employees	818	819	825
Number of outsourced employees (outsourced, subcontractors, freelancers) by employment type, employment contract and region	162	163	97
Employees aged 30 or under (%)	34.1%	30.0%	37.8%
Employees aged 31 to 40 (%)	45.5%	47.0%	41.8%
Employees aged 41 to 50 (%)	14.8%	16.1%	13.9%
Employees over 50 (%)	5.6%	6.8%	6.4%
Percentage of female employees (%)	11.4%	11.7%	12.2%
Women in managerial positions - out of total managerial positions (%)	8.7%	10.0%	22.2%
Black female employees (black and mixed race) - out of total employees (%)	8.4%	8.8%	9.2%
Black male employees (black and mixed race) - out of total employees (%)	72.1%	70.9%	71.2%
Black employees (black and mixed race) in managerial positions as a percentage of all managerial positions (%)	34.8%	25.0%	22.2%
Percentage of trainees (%)	3.4%	4.2%	5.8%
Employees of the apprentice recruitment program (%)	3.1%	1.2%	4.2%
Disabled employees	37	37	40
Compensation, benefits and career (R\$ 000)	2019	2018	2017
Gross payroll	65,306	63,189	64,286
Compulsory social charges	14,890	15,693	17,893
Education	166	141	107
Food and Beverages	8,904	8,787	8,514
Transportation	-	-	-
Health	3,692	6,701	4,673
Foundation	-	22,060	46,834
Occupational health and safety	1,852	1,313	959
Culture	-	-	197
Training and professional development	425	479	297
Day care and day care allowance	367	372	509
Other (funeral allowance, exceptional payments, retirement premium)	736	732	931
Profit sharing	2019	2018	2017
Total investment in company profit-sharing program (R\$ 000)	3,687	3,870	3,685
Amounts distributed in relation to gross payroll (%)	29.7%	9.30%	6.10%
Highest compensation divided by the lowest compensation in cash paid by the company	75.18	53.56	57.11
Lowest compensation at the company divided by the minimum salary in force	3.61	1.08	1.05

Compensation profile by category - average salary in the current year	2019	2018	2017
Executive positions	46,948	45,653	45,475
Management positions	11,483	11,724	12,494
Administrative positions	2,637	2,754	2,969
Operating positions	1,840	1,821	1,692
Occupational health and safety	2019	2018	2017
Average overtime per employee/year	56.07	55.9	57.65
Total frequency rate for the period - employees	0	8	14
Employee seriousness rate in the period	0.00	62.00	64.00
Total frequency rate for the period - contractors	2	2	2
Seriousness Rate of outsourced/contracted employees in the period	67.16	67.00	3,969
Frequency rate of the company for the period - workforce (employees + contractors)	0.3	6	9
Severity rate for the period - workforce (employees + contractors)	0.70	64.00	429
Fatalities – employees	0	0	0
Fatalities – contractors	0	0	0
Professional development	2019	2018	2017
Education levels - specify percentage of total employees			
Primary Education	1.0%	1.1%	1.6%
High School	73.5%	79.4%	78.4%
Technical School	12.6%	7.1%	6.4%
Graduate	12.7%	8.8%	9.7%
Graduate (specialist, Master's degree, PhD)	0.2%	3.7%	3.9%
Amount invested in professional development and education (R\$ 000)	198	203	297
Average number of hours of training per year per employee, broken down into job ty	/pe		
Executive positions	14.0	16.0	40.0
Management positions	33.3	11.4	56.1
Administrative positions	33.3	60.7	80.8
Operating positions	87.9	96.2	106.8
Conduct in light of dismissals	2019	2018	2017
Turnover rate	7.52%	5.68%	9.58%
Labor claims (company and outsourced employees)	2019	2018	2017
Amounted provisioned in the period (R\$ 000)	25,432	23,073	21,092
Number of labor claims brought against the company in the period	30	55	58
Number of labor claims accepted in the period	53	37	51
Number of labor claims rejected in the period	29	9	20
Value of damages and fines paid under court awards in the period (R\$ 000)	9,847	4,093	4,896
Retirement provision	2019	2018	2017
Investments in supplementary pensions (R\$ 000)	2,843	3,243	23,595
Number of recipients in the supplementary pension program	620	407	575

External social metrics

Consumers

Excellence in service	2019	2018	2017
Profile of consumers and clients			
Energy sales by rate class (GWh): % Total¹	100.0%	100.0%	100.0%
Residential	34.4%	33.4%	34.1%
Low-income residential	9.6%	9.6%	8.9%
Commercial	20.7%	20.9%	20.8%
Industrial	7.8%	8.2%	9.1%
Rural	4.9%	5.0%	4.6%
Public lighting	8.1%	8.2%	7.8%
Public utility	8.8%	9.0%	9.0%
Public authorities	5.7%	5.7%	5.7%
Client satisfaction	2019	2018	2017
Satisfaction rates obtained by lasc Survey - Aneel	65.94	70.12	63.64
Satisfaction rates obtained by other entities and/ or proprietary surveys - Abradee Survey	78.60	80.88	85.56
Customer service	2019	2018	2017
Call Center			
Calls received (unit)	844,172	812,119	872,092
Average number of agents (unit)	56	51	52
INS - Level of Service Rate (%)	89.46%	90.60%	90.70%
IAB - Abandonment rate (%)	0.89%	0.63%	1.02%
ICO - Busy Call Rate (%)	0.00%	0.00%	0.00%
TMA - Average interaction time (s)	257	192	183
Compensation for electrical damages	2019	2018	2017
Volume of requests (unit)	3,598	3,360	4,162
Confirmed (unit) ²	792	718	827
Complaints metrics	2019	2018	2017
Confirmed complaints (unit)	114,826	102,755	119,630
DER (hours)	197	162.76	151.34
FER (unit)	7.7	5.1	3.0
Violation of commercial service terms	2019	2018	2017
Service interactions (unit)	241,001	217,797	216,960
Service interactions completed late (unit)	23,317	20,415	16,189
Service efficiency (%)	90.32%	90.63%	92.54%
Number of customer complaints escalated to	2019	2018	2017
The company	156,259	141,235	161,237
Aneel – state/regional agencies	747	532	600
Procon	109	121	122
to the courts	1,364	1,159	1,362

 $^{^{\}rm 1}$ Revised figures for 2017 and 2018. $^{\rm 2}$ Revised figures for 2018.

The community

Impacts on health and safety	2019	2018	2017
Total number of nonfatal injuries involving consumers	9	6	2
Total number of fatal injuries involving consumers	0	3	2
Legal proceedings resulting from accidents involving consumers – Overall Legal Proceedings	13	10	13
Low-income rate	2019	2018	2017
Number of low-income households served	211,913	202,599	204,098
Total low-income households out of total households served (residential customers/consumers) (%)	29.8%	28.9%	42.2%
Revenue from sales to low-income residential subsector (R\$ 000) 1	138,014	129,645	87,900
Total revenue from sales to low-income residential subsector out of total residential revenue (%) ¹	19.1%	19.8%	16.5%
Subsidy received for low-income consumers (R\$ 000)	48,978	47,563	40,917
Company involvement in social action	2019	2018	2017
Funds allocated to education (R\$ thousand)	407	218	123
Funds allocated to health care and sanitation (R\$ thousand)	-	-	-
Funds allocated to culture (R\$ thousand)	696	611	198
Funds allocated to sports (R\$ 000)	70	89	85
Other funds allocated to social initiatives (R\$ 000)	859	275	109
Employees carrying out voluntary work in the community outside the Company/total employees (%)	5.0%	1.0%	0.7%
Number of hours donated per month (employees released from normal working hours) by the Company for employee volunteer work	NA	NA	NA
Company involvement in cultural, sporting and social projects (Rouanet Law, Sporting Incentive Law, Pronon, Pronas, Infant and Adolescent Fund, Fund for the Elderly)	2019	2018	2017
Funds allocated to projects (R\$ 000)	492	402	666
Funds allocated to the largest project (R\$ 000)	200	166	300
Project name	Youth Orchestra	Barulho da Noite	Film Arigó
Bidder	Instituto Banese	D G Mazaroni Eireli ME	Write Produções Artísticas Ltda.

² Revised figures for 2018.

Electric sector metrics

Universal electricity access

	2019	2018	2017
Service targets	-	-	-
Calls handled (no.)	-	-	-
Performance of targets (%)	-	-	-
Total municipalities with universal access	-	-	-
Municipalities with universal access (%)	100%	100%	100%

Universal access completed in 2010, as per Aneel Order 2.344, issued July 17, 2012.

Energy Efficiency Program (PEE)

				2018					2017						
	Investments (R\$ 000) ¹		Financing sources (R\$ 000)		Investments (R\$ 000) ¹		Financing sources (R\$ 000)			Investments (R\$ 000) ¹		Financing sources (R\$ 000)			
Project type	Total	(%)	Company	Third party	Customer	Total	(%)	Company	Third party	Customer	Total	(%)	Company	Third party	Customer
Industrial	0	-	0	0	0	0	-	0	0	0	0	-	0	0	0
Trade and Services	0	-	0	0	0	1,029	36.0%	1,029	0	0	0	-	0	0	0
Government	549	10.5%	549	0	0	0	-	0	0	0	0	-	0	0	0
Public Utility	0	-	0	0	0	0	-	0	0	0	0	-	0	0	0
Rural	0	-	0	0	0	0	-	0	0	0	0	-	0	0	0
Residential	0	-	0	0	0	0	-	0	0	0	1,951	40.7%	1,951	0	0
Low-Income Residential	3,162	60.7%	3162	0	0	1,857	64.0%	1,857	0	0	2,843	59.3%	2,843	0	0
Public Lighting	825	15.8%	825	0	0	0	-	0	0	0	0	-	0	0	0
Municipal Energy Management	0	-	0	0	0	0	-	0	0	0	0	-	0	0	0
Education	673	12.9%	673	0	0	0	-	0	0	0	0	-	0	0	0
TOTAL	5,209	100%	5,209	0	0	2,886	100.0%	2,886	0	0	4,794	100.0%	4,794	0	0

¹ Excludes funds used in project management.

			2019			2018	2017			
Project type	Units served	Energy savings (MWh/year)	Peak Shaving (kW)	Units served	Energy savings (MWh/year)	Peak Shaving (kW)	Units served	Energy savings (MWh/year)	Peak Shaving (kW)	
Industrial	0	0	0	0	0	0	0	0	-	
Trade and Services	0	0	0	1	236.00	5	-	-	-	
Government	1	273	43	0	0	0	0	0	-	
Public Utility	0	0	0	0	0	0	0	0	-	
Rural	0	0	0	0	0	0	0	0	-	
Residential	0	0	0	0	0	0	12,205	8,563	1,416	
Low-Income Residential	10,372	35	35	50,165	1,248.0	777	96,302	6,750	1,575	
Public Lighting	3	877	200	0	0	0	0	0	-	
Municipal Energy Management	0	0	0	0	0	0	0	0	-	
Education	0	0	0	0	0	0	0	0	-	
TOTAL	10,376	1,185	278	50,166	1,484.0	782	108,507	15,313	2,991	

By field of research (Research & Development Handbook – Aneel)

		2019		2018		2017
	Amount	(%)	Amount	(%)	Amount	(%)
FA – Alternative Electricity Generation Sources	0	-	0	-	0	-
GT – Thermal Generation	0	-	0	-	0	-
GB – River Basin and Reservoir Management	0	-	0	-	0	-
MA – Environment	749	17.3%	303	36.9%	0	-
SE – Safety	0	-	0	-	0	-
EF – Energy Efficiency	0	-	0	-	0	-
PL – Power Systems Planning	3,498	80.6%	0	-	0	-
OP – Power System Operation	935	2.1%	157	19.1%	288	73.6%
SC – Power System Supervision, Control and Protection	0	-	0	-	9	2.3%
QC – Power Supply Quality and Reliability	0	-	0	-	95	24.2%
MF – Metering, Billing and Commercial Loss Reduction	0	-	0	-	0	-
OU – Other	0	-	361	44.0%	0	-
TOTAL	4,340	100%	821	100.0%	392	100.0%

¹ Excludes funds used in project management.

Recover degraded areas	2019	2018	2017
Shielded and insulated lines (ecological grid or green lines) in urban areas (km)	159	150	144
Percentage of shielded and insulted lines out of total distribution lines in urban areas (%)	7.1%	6.8%	7.1%
Waste generation and treatment	2019	2018	2017
Issuance			
Annual volume of greenhouse (CO ₂ , CH ₄ , N ₂ O, HFC, PFC, SF ₆), emitted into the atmosphere (in tonnes of CO ₂ equivalent)	1,452	1,554	NA
Annual volume of ozone-depleting emissions (in tonnes of CFC equivalent)	NA	NA	NA
Effluents			
Total water discharge by quality and destination ¹	-	-	-
Solids			
Annual quantity (in tons) of solid waste generated (refuse, waste, rubble etc.)	235	112	640
Percentage of equipment replaced by insulating mineral oil without PCB (ascarel)	-	-	-
Use of resources in the production process and managerial processes	2019	2018	2017
Total electricity consumption by source			
Electricity consumption per kWh distributed (sold)	0.00321	0.00302	0.00317
Direct energy consumption by primary source in GJ	28,828	26,462	26,876
Diesel	19,351	18,111	18,045
Gasoline	8,877	8,351	8,831
Ethanol	-	-	-
Natural gas	-	-	-
Other	-	-	-
Total water withdrawal by source (m³)			
Supply (public system)	15,030	13,734	14,877
Groundwater (wells)	-	-	528
Surface extraction (waterways)	-	-	7
Total water withdrawal (m³)	15,030	13,734	15,412
Water withdrawal per employee (m³)	18.37	16.8	18.03
Environmental education and awareness raising	2019	2018	2017
At the Organization			
Number of employees trained in environmental education programs	337	354	128
Percentage of employees trained in environmental education programs/total employees	41.4%	43.0%	16.0%
Number of hours of environmental training out of total hours of training	4.09%	4.90%	2.4%
In the Community			
Number of primary schools and high schools served	25	50	50
Number of primary school and high school students served	3,398	10,600	10,584
Number of teachers trained	-	-	-
Number of universities and technical schools served	-	2	2
Number of technical school and graduate students served	-	12	12

 $^{^{\}mbox{\tiny 1}}$ Water waste is sanitary waste and relatively insignificant.

Performance metrics - distribution companies	2019	2018	2017
Deforestation (hectares of land cleared by quarter)	-	-	-
Tree pruning (volume of waste created by month in kg)	162,127	187,616	179,537
Oil leaks (leakage sites by month)	-	-	-

Energisa Mato Grosso

Operating and productivity metrics

Technical information (consumables, production capacity, sales, losses)	2019	2018	2017
Number of consumers served - Captive	1,458,048	1,403,355	1,365,659
Number of consumers served - Free	236	210	200
Number of municipalities served	141	141	141
Number of own employees	2,418	2,433	2,423
Number of outsourced employees ¹	1,010	785	1,389
Number of commercial offices	142	142	144
Electricity generated (GWh)	NA	NA	NA
Electricity purchased (GWh)	9,594.33	9,045.1	8,897.3
1) Itaipu	1,365.79	1,283.4	1,310.7
2) Auction (including federal generator auction - 2002)	8,228.14	7,761.7	7,586.6
3) Energy sales of concession operator	0.40	0	NA
Global electric losses (GWh) ²	1,487.8	1,437.0	1,448.4
Electrical losses – (%) total on energy requirement	13.58%	14.01%	14.48%
Technical losses – (%) on energy requirement	9.64%	9.42%	9.51%
Non-technical losses – (%) on energy requirement	3.93%	4.59%	4.97%
Energy Sold (GWh) ³	7,630.76	7,156.82	7,017.17
Residential	3,099.11	2,833.83	2,771.58
Industrial	660.20	641.89	656.02
Commercial	1,618.40	1,542	1,524
Rural	1,268.07	1,192	1,131
Public authorities	405.88	367.7	379.52
Public lighting	371.87	379.31	363.33
Public utility	207.24	199.39	191.75
Substations (in units)	164	160	159
Installed capacity (MVA)	3,876	3,861	3,841
Transmission lines (km)	6,578	6,302	6,302
Distribution lines (in km)	195,298	184,624	176,044
Distribution transformers (in units)	205,479	194,311	182,079
Sale of energy through installed capacity – GWh/(MVA X no. hours/year)	0.000225	0.000212	0.000209
Electricity sold per employee (MWh)	3,156	2,942	2,896
Number of consumers per employee	603	577	564
Added value/GWh sold	397.61	447.63	359.59
Overall equivalent outage duration per consumer "DEC" of the company - Amount determined ²	19.85	20.90	25.35
Overall equivalent outage duration per consumer "DEC" of the company - Limit	22.36	23.18	23.94
Overall equivalent outage frequency per consumer "FEC" of the company - Amount determined ²	8.20	9.15	12.49
Overall equivalent outage frequency per consumer "FEC" of the company - Limit	18.07	19.05	19.85

 $^{^{\}mbox{\tiny 1}}$ This does not include outsourced employees working at other Group companies.

Corporate governance

				2019				2018				2017
Managers	CA	DE	Fiscal Council	Total	CA	DE	Fiscal Council	Total	CA	DE	CF ¹	Total
No. of members	5	7	6	18	5	7	6	18	6	7	-	13
Annual Fixed Compensation (R\$ 000)	679	5,987	205	6,871	495	4,744	95	5,333	685	2,548	-	3,233
Salaries or management fees	466	3,460	140	4,066	354	3,037	66	3,457	370	1,297	-	1,667
Direct or indirect benefits	0	701	0	701	-	293	-	293	-	229	-	229
Participations in committees	-	-	-	-	-	-	-	-	-	-	-	-
Other	213	1,827	65	2,104	141	1,414	29	1,583	315	1,022	-	1,337
Description of other fixed compensation	-	-	-	-	-	-	-	-	-	-	-	-
Variable Compensation (R\$ 000)	-	2,941	-	2,941	472	4,953	-	5,425	293	1,107	-	1,400
Bonuses	-	-	-	-	-	-	-	-			-	
Profit sharing	-	2,941	-	2,941	472	4,953	-	5,425	293	1,107	-	1,400
Attending meetings	113	-	3	-	-	-	-	-	-	-	-	-
Commission	-	-	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-	-	-
Description of other variable compensation	-	-	-	-	-	-	-	-	-	-	-	-

CA - Board of Directors; DE - Executive Board; CF - Fiscal Council

² Revised figures for 2018.

³ Captive sales only.

¹ Fiscal Council did not operate in 2017.

Economic and financial metrics

Statements of added value (In thousands of reais)	2019	2018
REVENUE	7,563,904	6,749,519
Electricity sales and services	7,005,708	6,338,552
Other revenue	24,167	36,630
Revenue relating to construction of company assets	636,002	421,467
Allowance for doubtful accounts	(101,973)	(47,130)
(-) Consumables acquired from third parties	(3,831,690)	(3,474,712)
Cost of electricity sold	(2,796,166)	(2,605,234)
Materials and outsourced services	(313,096)	(322,167)
Other operating costs	(722,428)	(547,311)
GROSS ADDED VALUE	3,732,214	3,274,807
Depreciation and amortization	(198,263)	208,816
NET ADDED VALUE	3,533,951	3,065,991
Transferred value added	164,342	137,649
Finance revenue	164,342	137,649
TOTAL ADDED VALUE TO BE DISTRIBUTED	3,698,293	3,203,640
DISTRIBUTION OF ADDED VALUE	3,698,293	3,203,640
Personnel	178,082	173,821
Direct remuneration	115,587	115,540
Benefits	47,913	46,714
FGTS	14,582	11,567
Taxes, charges and contributions	2,607,756	2,298,745
Federal	538,674	990,933
State	1,529,464	1,306,460
Municipal	2,109	1,352
Intrasector Obligations	537,509	-
Interest expenses	318,299	304,106
Interest	316,496	301,136
Rent	1,803	2,970
Interest on equity	594,156	426,968
Legal Reserve	442,699	-
Additional dividends proposed	-	-
Dividends	151,457	255,850
Retained earnings/loss for the year	-	171,118

		2019			
Investment	R\$ million	Δ%	R\$ million		
Electric assets	701.3	30.3%	538.3		
Special obligations	10.6	-92.4%	139.3		
Non-electric assets	31.4	38.9%	22.6		
Total	743.3	6.2%	700.2		

Internal social metrics

Employees/ Employability/ D&O

General information	2019	2018	2017
Total number of employees	2,418	2,433	2,423
Number of outsourced employees (outsourced, subcontractors, freelancers) by employment type, employment contract and region	1,010	785	1,389
Employees aged 30 or under (%)	31.4%	28.9%	38.2%
Employees aged 31 to 40 (%)	49.7%	50.2%	45.0%
Employees aged 41 to 50 (%)	15.2%	16.4%	13.2%
Employees over 50 (%)	3.7%	4.5%	3.6%
Percentage of female employees (%)	13.6%	13.3%	13.6%
Women in managerial positions - out of total managerial positions (%)	20.4%	16.3%	18.6%
Black female employees (black and mixed race) - out of total employees (%)	8.1%	8.1%	8.1%
Black male employees (black and mixed race) - out of total employees (%)	62.8%	63.4%	65.4%
Black employees (black and mixed race) in managerial positions as a percentage of all managerial positions (%)	28.6%	34.9%	41.9%
Percentage of trainees (%)	1.2%	0.4%	2.1%
Employees of the apprentice recruitment program (%)	3.8%	3.3%	2.5%
Disabled employees	111	83	97
Compensation, benefits and career (R\$ 000)	2019	2018	2017
Gross payroll	208,001	206,084	171,032
Compulsory social charges	52,695	47,002	44,621
Education	129	98	90
Food and Beverages	30,301	29,852	28,081
Transportation	-	-	104
Health	15,748	15,589	13,202
Foundation	-	6,787	20,750
Occupational health and safety	5,890	6,845	6,553
Culture	-	-	-
Training and professional development	1,359	1,597	881
Day care and day care allowance	283	298	277
Other (funeral allowance, exceptional payments, retirement premium)	1,790	1,507	1,419
Profit sharing	2019	2018	2017
Total investment in company profit-sharing program (R\$ 000)	13,178	19,407	11,325
Amounts distributed in relation to gross payroll (%)	27.7%	9.4%	6.6%
Highest compensation divided by the lowest compensation in cash paid by the company	78.83	44.19	44.87
Lowest compensation at the company divided by the minimum salary in force	4.61	1.40	1.37

Compensation profile by category - average salary in the current year	2019	2018	2017
Executive positions	53,435	51,117	49,588
Management positions	13,211	12,716	10,527
Administrative positions	2,766	2,841	2,854
Operating positions	2,073	2,048	1,937
Occupational health and safety	2019	2018	2017
Average overtime per employee/year	105.16	113.27	124.74
Total frequency rate for the period - employees	1.82	1.43	5.79
Employee seriousness rate in the period	62.62	38.67	1,381.64
Total frequency rate for the period - contractors	0.77	4.41	8.18
Seriousness Rate of outsourced/contracted employees in the period	1,856.57	285.95	369.20
Frequency rate of the company for the period - workforce (employees + contractors)	1.14	3.12	13.97
Severity rate for the period - workforce (employees + contractors)	1,087.32	177.71	1,750.84
Fatalities – employees	0	0	1
Fatalities – contractors	2	0	0
Professional development	2019	2018	2017
Education levels - specify percentage of total employees			
Primary Education	1.2%	1.4%	1.3%
High School	70.1%	82.5%	82.8%
Technical School	11.7%	0.0%	0.0%
Graduate	15.0%	13.8%	14.2%
Graduate (specialist, Master's degree, PhD)	2.0%	2.3%	1.7%
Amount invested in professional development and education (R\$ 000)	616	719	880
Average number of hours of training per year per employee, broken down into job t	уре		
Executive positions	2.0	16.0	0
Management positions	29.3	9.0	36.3
Administrative positions	33.7	36.0	34.1
Operating positions	70.9	68.3	93.1
Conduct in light of dismissals	2019	2018	2017
Turnover rate	12.70%	9.25%	14.80%
Labor claims (company and outsourced employees)	2019	2018	2017
Amounted provisioned in the period (R\$ 000)	5,041	4,415	5,432
Number of labor claims brought against the company in the period	117	113	246
Number of labor claims accepted in the period	137	50	80
Number of labor claims rejected in the period	48	51	110
Value of damages and fines paid under court awards in the period (R\$ 000)	1,325	2,787	1,955
Retirement provision	2019	2018	2017
Investments in supplementary pensions (R\$ 000)	4,936	4,480	5,799
Number of recipients in the supplementary pension program	2,435	2,433	0

External social metrics

Consumers

Excellence in service	2019	2018	2017
Profile of consumers and clients			
Energy sales by rate class (GWh): % Total	100.0%	100.0%	100.0%
Residential	36.8%	36.0%	35.6%
Low-income residential	3.8%	3.6%	3.9%
Commercial	21.2%	9.0%	9.4%
Industrial	8.7%	21.6%	21.7%
Rural	16.6%	16.7%	16.1%
Public lighting	4.9%	5.1%	5.4%
Public utility	2.7%	5.3%	5.2%
Public authorities	5.3%	2.8%	2.7%
Client satisfaction	2019	2018	2017
Satisfaction rates obtained by lasc Survey - Aneel	61.42	63.9	55.67
Satisfaction rates obtained by other entities and/or proprietary surveys - Abradee Survey	71.30	75.60	77.66
Customer service	2019	2018	2017
Call Center			
Calls received (unit)	2,684,429	2,772,757	3,011,475
Average number of agents (unit)	75	69	73
INS - Level of Service Rate (%)	89.15%	89.77%	86.45%
IAB - Abandonment rate (%)	1.58%	1.35%	1.82%
ICO - Busy Call Rate (%)	0.00%	0.00%	0.00%
TMA - Average interaction time (s)	199	189	186
Compensation for electrical damages	2019	2018	2017
Volume of requests (unit)	7,477	7,897	8,814
Confirmed (unit)	2,273	1,974	1,742
Complaints metrics	2019	2018	2017
Confirmed complaints (unit)	511,288	443,505	374,528
DER (hours)	188.82	161.25	199.32
FER (unit)	13.094	9.97	8.67
Violation of commercial service terms	2019	2018	2017
Service interactions (unit)	748,820	762,291	710,420
Service interactions completed late (unit)	31,210	32,086	36,329
Service efficiency (%)	95.83%	95.79%	94.89%
Number of customer complaints escalated to	2019	2018	2017
The company	678,222	665,376	648,038
Aneel – state/regional agencies	2,430	2,210	2,887
Procon	14,173	8,815	7,462
to the courts	11,281	12,894	11,354

The community

Impacts on health and safety	2019	2018	2017
Total number of nonfatal injuries involving consumers	0	4	4
Total number of fatal injuries involving consumers	11	9	13
Legal proceedings resulting from accidents involving consumers – Overall Legal Proceedings	39	38	23
Low-income rate	2019	2018	2017
Number of low-income households served	147,089	129,563	141,445
Total low-income households out of total households served (residential customers/consumers) (%)	12.9%	11.9%	13.3%
Revenue from sales to low-income residential subsector (R\$ 000)	190,009	151,500	130,860
Total revenue from sales to low-income residential subsector out of total residential revenue (%) ¹	6.8%	6.5%	6.7%
Subsidy received for low-income consumers (R\$ 000)	45,981	43,306	38,361
Company involvement in social action	2019	2018	2017
Funds allocated to education (R\$ thousand)	2,109	-	220
Funds allocated to health care and sanitation (R\$ thousand)	-	-	-
Funds allocated to culture (R\$ thousand)	1,614	545	205
Funds allocated to sports (R\$ 000)	364	69	18
Other funds allocated to social initiatives (R\$ 000)	1,992	14	104
Employees carrying out voluntary work in the community outside the Company/total employees (%)	NA	NA	NA
Number of hours donated per month (employees released from normal working hours) by the Company for employee volunteer work	NA	NA	NA
Company involvement in cultural, sporting and social projects (Rouanet Law, Sporting Incentive Law, Pronon, Pronas, Infant and Adolescent Fund, Fund for the Elderly)	2019	2018	2017
Funds allocated to projects (R\$ 000)	2,109	2,198	20
Funds allocated to the largest project (R\$ 000)	364	400	20
Project name	Minas em busca do pódio - Year IV	Cuiabá 300 Years	Young Sailing II
Bidder	Instituto Sergio Sette Camara	Associação Cultural Cena Onze	Brazilian Sailing Confederation

¹ Revised figures published in 2018.

Electric sector metrics

Universal electricity access

	2019	2018	2017
Service targets	8,718	8,874	11,626
Calls handled (no.)	8,457	10,602	4,453
Performance of targets (%)	97%	119%	38%
Total municipalities with universal access	122	108	80
Municipalities with universal access (%)	86.5%	76.6%	56.7%

Energy Efficiency Program (PEE)

		2019					2018								2017
	Investments (R\$ 000) 1		Fina	Financing source (R\$ 000			stments \$ 000) ¹	Fina	ncing s (R	ources \$ 000)		stments (\$ 000) ¹	Fina	ncing so (R	ources \$ 000)
Project type	Total	(%)	Company	Third party	Customer	Total	(%)	Company	Third party	Customer	Total	(%)	Company	Third party	Customer
Industrial	38	0.1%	38	0	0	874	6.6%	874	0	0	900	3.6%	900	0	0
Trade and Services	459	1.6%	459	0	0	465	3.5%	465	0	0	4,017	17.0%	4,017	0	0
Government	11,784	41.0%	11,784	0	0	3,860	29.2%	3,860	0	0	6,018	24.0%	6,018	0	0
Public Utility	59	0.2%	59	0	0	2,565	19.4%	2,565	0	0	3,685	14.7%	3,685	0	0
Rural	294	1.0%	294	0	0	377	2.8%	377	0	0	2,432	9.7%	2,432	0	0
Residential	0	-	-	0	0	0	-	0	0	0	820	3.3%	820	0	0
Low-Income Residential	6,093	21.2%	6,093	0	0	5,093	38.5%	5,093	0	0	5,608	22.4%	5,608	0	0
Public Lighting	9,567	33.3%	9,567	0	0	0	-	0	0	0	0	-	0	0	0
Municipal Energy Management	0	-	-	0	0	0	-	0	0	0	0	-	0	0	0
Education	420	1.5%	420	0	0	0	-	0	0	0	862	3.4%	862	0	0
TOTAL	28,714	100%	28,714	0	0	13,234	100.0%	13,234	0	0	25,084	100.0%	24,341	0	0

 $^{^{\}scriptscriptstyle 1}$ Excludes funds used in project management.

			2019	2018			2017		
Project type	Units served	Energy savings (MWh/year)	Peak Shaving (kW)	Units served	Energy savings (MWh/year)	Peak Shaving (kW)	Units served	Energy savings (MWh/year)	Peak Shaving (kW)
Industrial	1	1,763	335	1	1,269	241	1	1,269	242
Trade and Services	2	238	49	6	1,350	285	8	1,988	352
Government	15	4,971	936	14	5,275	1,017	13	4,680	1,045
Public Utility	1	0	0	4	3,569	330	4	3,569	330
Rural	4	2,034	216	4	2,068	727	4	2,068	727
Residential	0	0	0	0	0	0	0	0	0
Low-Income Residential	8,373	622	398	61,140	8,095	5,175	3,138	8,095	5,175
Public Lighting	9	2,773	588	0	0	0	0	0	0
Municipal Energy Management	0	0	0	0	0	0	0	0	0
Education	0	0	0	0	0	0	0	0	0
TOTAL	8,405	12,400	2,522	61,169	21,627	7,777	3,168	21,669	7,871

By field of research (Research & Development Handbook - Aneel)

		2019		2018		2017
	Amount	(%)	Amount	(%)	Amount	(%)
FA – Alternative Electricity Generation Sources	74	0.3%	455	5.8%	573	6.5%
GT – Thermal Generation	0	-	0	-	0	-
GB – River Basin and Reservoir Management	0	-	0	-	0	-
MA – Environment	0	-	0	-	0	-
SE – Safety	0	-	0	-	0	-
EF – Energy Efficiency	0	-	403	5.2%	20	0.2%
PL – Power Systems Planning	14,507	64.6%	1,843	23.7%	911	10.4%
OP – Power System Operation	126	0.6%	28	0.4%	1,703	19.4%
SC – Power System Supervision, Control and Protection	7,047	31.4%	3,086	39.7%	2,825	32.2%
QC – Power Supply Quality and Reliability	0	-	428	5.5%	560	6.4%
MF – Metering, Billing and Commercial Loss Reduction	555	2.5%	332	4.3%	0	-
OU - Other	136	0.6%	1,204	15.5%	2,194	25.0%
TOTAL	22,445	100.0%	7,779	100.0%	8,786	100.0%

¹ Excludes funds used in project management.

Recover degraded areas	2019	2018	2017
Shielded and insulated lines (ecological grid or green lines) in urban areas (km)	10,785	10,306	8,848
Percentage of shielded and insulted lines out of total distribution lines in urban areas (%)	45.6	44.2%	40.8%
Waste generation and treatment	2019	2018	2017
Issuance			
Annual volume of greenhouse (CO ₂ , CH ₄ , N ₂ O, HFC, PFC, SF ₆), emitted into the atmosphere (in tonnes of CO ₂ equivalent)	3,866	3,446	3,966
Annual volume of ozone-depleting emissions (in tonnes of CFC equivalent)	-	-	-
Effluents			
Total water discharge by quality and destination ¹	NA	NA	NA
Solids			
Annual quantity (in tons) of solid waste generated (refuse, waste, rubble etc.)	41	122	101
Percentage of equipment replaced by insulating mineral oil without PCB (ascarel)	98.74	100%	100%
Use of resources in the production process and managerial processes	2019	2018	2017
Total electricity consumption by source			
Electricity consumption per kWh distributed (sold) 2	0.00275	0.00286	0.00301
Direct energy consumption by primary source in GJ ²	75,425	73,711	75,917
Diesel ²	52,506	52,029	54,242
Gasoline ²	4,440	3,575	3,582
Ethanol ²	18,479	18,107	17,823
Natural gas	0	NA	NA
Other	0	NA	NA
Total water withdrawal by source (m³)			
Supply (public system)	23,831	23,940	9,333
Groundwater (wells)	0	-	175
Surface extraction (waterways)	0	-	-
Total water withdrawal (m³)	23,831	23,940	9,508
Water withdrawal per employee (m³)	9.86	9.84	3.92
Environmental education and awareness raising	2019	2018	2017
At the Organization			
Number of employees trained in environmental education programs	521	593	NA
Percentage of employees trained in environmental education programs/total employees	21.5%	23.6%	NA
Number of hours of environmental training out of total hours of training	2.85%	6.20%	NA
In the Community			
Number of primary schools and high schools served	57	3,073	NA
Number of primary school and high school students served	17,845	46,684	NA
Number of teachers trained	NA	NA	NA
Number of universities and technical schools served	NA	NA	NA
Number of technical school and graduate students served	NA	NA	NA

Performance metrics - distribution companies	2019	2018	2017
Deforestation (hectares of land cleared by quarter) ²	7,439	651	562
Tree pruning (volume of waste created by month in kg) 2,3	149,528	2,838	3,053
Oil leaks (leakage sites by month)	NA	NA	NA

¹ Water waste is sanitary waste and relatively insignificant. 2 Revised figures for 2017 and 2018.

³ Units of trees trimmed.

Energisa Mato Grosso do Sul

Operating and productivity metrics

Technical information (consumables, production capacity, sales, losses)	2019	2018	2017
Number of consumers served - Captive	1,039,233	1,018,108	1,015,526
Number of consumers served - Free	193	162	139
Number of municipalities served	74	74	74
Number of own employees	1,315	1,334	1,345
Number of outsourced employees	901	1,054	823
Number of commercial offices	78	78	79
Electricity generated (GWh)	NA	NA	NA
Electricity purchased (GWh)	5,644.98	5,643.1	5,350.6
1) Itaipu	924.91	881.2	906.8
2) Auction (including federal generator auction - 2002)	4,720.07	4,761.9	4,443.8
3) Energy sales of concession operator	-	_	-
Global electric losses (GWh) 1	808.0	780.5	805.00
Electrical losses – (%) total on energy requirement	12.29%	12.68%	13.44%
Technical losses – (%) on energy requirement	9.41%	9.11%	10.00%
Non-technical losses – (%) on energy requirement	2.88%	3.57%	3.44%
Energy Sold (GWh) ²	4,555.16	4,354.57	4,313.36
Residential	1,995.35	1,845.08	1,792.57
Industrial	299.17	304.36	324.23
Commercial	1,052.92	1,031	1,041
Rural	569.69	548	530
Public authorities	259.82	245	247.98
Public lighting	221.26	230.39	231.98
Public utility	156.95	150.48	145.71
Substations (in units)	103	101	101
Installed capacity (MVA)	2,540	2,476	2,466
Transmission lines (km)	3,889	3,880	3,869
Distribution lines (in km) ¹	99,525	98,548	83,901
Distribution transformers (in units)	84,893	83,599	82,533
Sale of energy through installed capacity – GWh/(MVA X no. hours/year)	0.000205	0.000201	0.000200
Electricity sold per employee (MWh)	3,464	3,264	3,019
Number of consumers per employee	790	763	755
Added value/GWh sold	448.26	387.77	364.39
Overall equivalent outage duration per consumer "DEC" of the company - Amount determined	10.81	10.92	11.92
Overall equivalent outage duration per consumer "DEC" of the company - Limit	11.79	11.89	12.26
Overall equivalent outage frequency per consumer "FEC" of the company - Amount determined	4.55	4.73	5.72
Overall equivalent outage frequency per consumer "FEC" of the company - Limit	8.59	8.62	9.22

¹ Revised figures for 2018. ² Captive sales only.

Corporate governance

				2019				2018				2017
Managers	CA	DE	CF1	Total	CA	DE	CF1	Total	CA	DE	CF1	Total
No. of members	5	7	-	12	5	7	-	12	5	7	-	12
Annual Fixed Compensation (R\$ 000)	689	3,217	-	3,906	539	2,703	-	3,242	439	2,853	-	3,292
Salaries or management fees	435	1,900	-	2,335	384	1,867	-	2,251	322	1,920	-	2,242
Direct or indirect benefits	60	363	-	423	57	290	-	347	13	314	-	327
Participations in committees	-	-	-	-	-	-	-	-	-	-	-	-
Other	194	954	-	1,148	98	546	-	644	104	619	-	723
Description of other fixed compensation	-	-	-	-	-	-	-	-	-	-	-	-
Variable Compensation (R\$ 000)	-	1,648	-	1,648	503	2,893	-	3,396	221	879	-	1,100
Bonuses	-	-	-	-	-	-	-	-	-	-	-	-
Profit sharing	-	1,648	-	1,648	503	2,893	-	3,396	221	879	-	1,100
Attending meetings	99	-	-	-	-	-	-	-	-	-	-	-
Commission	-	-	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-	-	-
Description of other variable compensation	-	-	-	-	-	-	-	-	-	-	-	-

CA - Board of Directors; DE - Executive Board; CF - Fiscal Council

¹ There is no Oversight Board at the moment.

Economic and financial metrics

Statements of added value (In thousands of reais)	2019	2018
REVENUE	4,161,295	3,742,276
Electricity sales and services	3,972,402	3,539,514
Other revenue	9,112	10,346
Revenue relating to construction of company assets	206,292	216,592
Allowance for doubtful accounts	(26,511)	(24,176)
(-) Consumables acquired from third parties	(2,101,920)	(2,035,950)
Cost of electricity sold	(1,687,284)	(1,587,984)
Materials and outsourced services	(198,830)	(202,197)
Other operating costs	(215,806)	(245,769)
GROSS ADDED VALUE	2,059,375	1,706,326
Depreciation and amortization	(95,527)	91,586
NET ADDED VALUE	1,963,848	1,614,740
Transferred value added	78,031	73,837
Finance revenue	78,031	73,837
TOTAL ADDED VALUE TO BE DISTRIBUTED	2,041,879	1,688,577
DISTRIBUTION OF ADDED VALUE	2,041,879	1,688,577
Personnel	191,219	216,005
Direct remuneration	138,754	170,333
Benefits	43,096	42,589
FGTS	9,369	3,083
Taxes, charges and contributions	1,391,694	1,157,924
Federal	395,552	599,730
State	656,031	557,038
Municipal	1,132	1,156
Intrasector Obligations	338,979	
Interest expenses	125,803	144,033
Interest	125,168	142,210
Rent	635	1,823
Interest on equity	333,163	170,615
Legal Reserve	16,658	-
Additional dividends proposed	112,386	-
Dividends	204,119	162,084
Retained earnings / loss for the year	-	8,531

		2018	
Investment	R\$ million	Δ %	R\$ million
Electric assets	204.7	14.3%	179.1
Special obligations	15.4	-38.6%	25.1
Non-electric assets	18.2	-62.4%	48.4
Total	238.3	-5.7%	252.6

Internal social metrics

Employees/ Employability/ D&O

General information	2019	2018	2017
Total number of employees	1,315	1,334	1,345
Number of outsourced employees (outsourced, subcontractors, freelancers) by employment type, employment contract and region	901	1,054	823
Employees aged 30 or under (%)	36.3%	31.9%	41.4%
Employees aged 31 to 40 (%)	46.8%	48.4%	44.2%
Employees aged 41 to 50 (%)	12.8%	13.9%	9.3%
Employees over 50 (%)	4.0%	5.9%	5.1%
Percentage of female employees (%)	12.9%	13.2%	13.7%
Women in managerial positions - out of total managerial positions (%)	16.7%	12.5%	17.8%
Black female employees (black and mixed race) - out of total employees (%)	2.8%	2.6%	2.7%
Black male employees (black and mixed race) - out of total employees (%)	36.4%	34.7%	38.8%
Black employees (black and mixed race) in managerial positions as a percentage of all managerial positions (%)	11.9%	10.0%	11.1%
Percentage of trainees (%)	2.0%	3.4%	3.6%
Employees of the apprentice recruitment program (%)	1.6%	2.5%	1.7%
Disabled employees	25	39	41
Compensation, benefits and career (R\$ 000)	2019	2018	2017
Gross payroll	137,552	128,587	192,134
Compulsory social charges	31,495	31,158	35,562
Education	206	186	169
Food and Beverages	22,463	22,216	21,848
Transportation		-	-
Health	15,538	15,746	17,448
Foundation		6,618	4,390
Occupational health and safety	4,961	7,336	4,404
Culture	-	-	-
Training and professional development	1,131	1,088	576
Day care and day care allowance	311	293	260
Other (funeral allowance, exceptional payments, retirement premium)	22,147	3,583	3,110
Profit sharing	2019	2018	2017
Total investment in company profit-sharing program (R\$ 000)	11,267	15,782	6,821
Amounts distributed in relation to gross payroll (%)	39.0%	12.27%	3.55%
Highest compensation divided by the lowest compensation in cash paid by the company	61.86	35.94	35.93
Lowest compensation at the company divided by the minimum salary in force	4.71	1.49	1.46

Compensation profile by category - average salary in the current year	2019	2018	2017
Executive positions	46,224	42,097	39,000
Management positions	12,189	12,379	11,793
Administrative positions	3,785	4,042	3,835
Operating positions	2,033	2,033	1,896
Occupational health and safety	2019	2018	2017
Average overtime per employee/year	153.23	155.74	201.59
Total frequency rate for the period - employees	6.70	6.77	8.23
Employee seriousness rate in the period	45.05	4,638.59	2,244.41
Total frequency rate for the period - contractors	7.28	8.14	8.99
Seriousness Rate of outsourced/contracted employees in the period	1,175.79	2,527.63	2,058.12
Frequency rate of the company for the period - workforce (employees + contractors)	7.07	9.09	17.22
Severity rate for the period - workforce (employees + contractors)	684.16	3,551.66	4,302.53
Fatalities – employees	0	1	1
Fatalities – contractors	0	1	1
Professional development	2019	2018	2017
Education levels - specify percentage of total employees			
Primary Education	0.7%	0.6%	0.6%
High School	62.1%	83.1%	65.7%
Technical School	21.1%	0.0%	17.1%
Graduate	15.7%	16.0%	16.6%
Graduate (specialist, Master's degree, PhD)	0.5%	0.3%	0.1%
Amount invested in professional development and education (R\$ 000)	462	604	576
Average number of hours of training per year per employee, broken down into job ty	ре		
Executive positions	9.0	16.0	0
Management positions	27.3	12.4	62.7
Administrative positions	38.0	80.5	71.0
Operating positions	79.3	108.3	95.6
Conduct in light of dismissals	2019	2018	2017
Turnover rate	12.47%	10.98%	11.97%
Labor claims (company and outsourced employees)	2019	2018	2017
Amounted provisioned in the period (R\$ 000)	72,402	115,317	139,350
Number of labor claims brought against the company in the period	135	159	505
Number of labor claims accepted in the period	267	289	106
Number of labor claims rejected in the period	126	83	88
Value of damages and fines paid under court awards in the period (R\$ 000)	51,947	10,929	37,688
Retirement provision	2019	2018	2017
Investments in supplementary pensions (R\$ 000)	3,431	4,077	4,323
Number of recipients in the supplementary pension program	1,637	1,209	1,262

External social metrics

Consumers

Excellence in service	2019	2018	2017
Profile of consumers and clients			
Energy sales by rate class (GWh): % Total	100.0%	100.0%	100.0%
Residential	38.3%	37.6%	37.1%
Low-income residential	5.5%	4.8%	4.4%
Commercial	6.6%	7.0%	7.5%
Industrial	23.1%	23.7%	24.1%
Rural	12.5%	12.6%	12.3%
Public lighting	5.7%	5.6%	5.8%
Public utility	4.9%	5.3%	5.4%
Public authorities	3.4%	3.5%	3.4%
Client satisfaction	2019	2018	2017
Satisfaction rates obtained by lasc Survey - Aneel	63.04	66.83	64.44
Satisfaction rates obtained by other entities and/ or proprietary surveys - Abradee Survey	67.20	78.5	82.6
Customer service	2019	2018	2017
Call Center			
Calls received (unit)	1,956,538	1,868,493	1,673,738
Average number of agents (unit)	30	35	20
INS - Level of Service Rate (%)	88.66%	89.80%	90.30%
IAB - Abandonment rate (%)	1.86%	0.82%	0.85%
ICO - Busy Call Rate (%)	0.00%	0.00%	0.00%
TMA - Average interaction time (s)	195	178	167
Compensation for electrical damages	2019	2018	2017
Volume of requests (unit)	3,443	2,925	3,638
Confirmed (unit)	566	406	593
Complaints metrics	2019	2018	2017
Confirmed complaints (unit) ¹	18,117	14,036	8,690
DER (hours)	164.11	130.03	105.72
FER (unit)	16.48	13.17	8.69
Violation of commercial service terms	2019	2018	2017
Service interactions (unit)	572,476	514,857	469,325
Service interactions completed late (unit)	28,937	41,145	12,540
Service efficiency (%)	94.95%	92.01%	97.33%
Number of customer complaints escalated to	2019	2018	2017
To the company¹	42,015	27,591	19,910
Aneel – state/regional agencies	2,133	1,639	700
Procon	2,141	4,707	1,898
to the courts	3,443	3,008	2,483

¹ Revised figures for 2017 and 2018.

The community

Impacts on health and safety	2019	2018	2017
Total number of nonfatal injuries involving consumers	9	5	4
Total number of fatal injuries involving consumers	8	5	4
Legal proceedings resulting from accidents involving consumers – Overall Legal Proceedings	26	48	39
Low-income rate	2019	2018	2017
Number of low-income households served	142,870	121,068	115,974
Total low-income households out of total households served (residential customers/consumers) (%)	16.8%	15.0%	11.0%
Revenue from sales to low-income residential subsector (R\$ 000)	166,200	128,797	101,501
Total revenue from sales to low-income residential subsector out of total residential revenue (%)	9.44%	9.40%	3.20%
Subsidy received for low-income consumers (R\$ 000)	41,639	36,340	31,609
Company involvement in social action	2019	2018	2017
Funds allocated to education (R\$ thousand)	1,152	409	406
Funds allocated to health care and sanitation (R\$ thousand)	-	-	31
Funds allocated to culture (R\$ thousand)	887	539	337
Funds allocated to sports (R\$ 000)	320	139	84
Other funds allocated to social initiatives (R\$ 000)	42	539	18
Employees carrying out voluntary work in the community outside the Company/total employees (%)	7.6%	NA	NA
Number of hours donated per month (employees released from normal working hours) by the Company for employee volunteer work	58	NA	NA
Company involvement in cultural, sporting and social projects (Rouanet Law, Sporting Incentive Law, Pronon, Pronas, Infant and Adolescent Fund, Fund for the Elderly)	2019	2018	2017
Funds allocated to projects (R\$ 000)	990	950	673
Funds allocated to the largest project (R\$ 000)	350	160	300
Project name	Festival América do Sul Pantanal	19 th Bonito Winter Festival	Mitos Indígenas em Travessia
Bidder	MS Cultural Foundation	MS Cultural Foundation	Zureta Serviços e Produções Artísticas Ltda. – ME

Electric sector metrics

Universal electricity access

	2019	2018	2017
Service targets	-	-	-
Calls handled (no.)	-	-	-
Performance of targets (%)	-	-	-
Total municipalities with universal access	74	74	74
Municipalities with universal access (%)	100.0%	100.0%	100.0%

Energy Efficiency Program (PEE) ¹

				2	019				2	2018				2	017	
		estments R\$ 000) ¹	F sources	inand (R\$ 0			estments (R\$ 000) ¹	Financin	g sou (R\$ (estments (R\$ 000) ¹			sources R\$ 000)	
Project type	Total	(%)	Company	Third party	Customer	Total	(%)	Company	Third party	Customer	Total	(%)	Company	Third party	Customer	
Industrial	0	-	0	0	0	0	-	0	0	0	0	-	0	0	0	
Trade and Services	646	4.5%	646.13	0	0	732	9.8%	732	0	0	1,177	11.40%	1,177	0	0	
Government	5,295	36.8%	5,295	0	0	2,569	34.4%	2,569	0	0	1,011	9.8%	1,011	0	0	
Public Utility	0	-	0	0	0	0	-	0	0	0	0	-	-	0	0	
Rural	0	-	0	0	0	19	0.3%	19	0	0	164	1.6%	164	0	0	
Residential	0	-	0	0	0	0	-	0	0	0	1,317	12.7%	1,317	0	0	
Low-Income Residential	4,400	30.6%	4,400	0	0	3,365	45.1%	3,365	0	0	5,480	52.9%	5,480	0	0	
Public Lighting	2,307	16.1%	2306.9	0	0	0	-	0	0	0	0	-	0	0	0	
Municipal Energy Management	0	-	0	0	0	0	-	0	0	0	0	-	0	0	0	
Education	1,725	12.0%	1,725	0	0	776	10.4%	776	0	0	1,215	11.7%	1,215	0	0	
TOTAL	14,373	100%	14,373	0	0	7,462	100.0%	7,462	0	0	10,364	100.0%	10,364	0	0	

¹ Excludes funds used in project management.

			2019			2018			2017
Project type	Units served	Energy savings (MWh/year)	Peak Shaving (kW)	Units served	Energy savings (MWh/year)	Peak Shaving (kW)	Units served	Energy savings (MWh/year)	Peak Shaving (kW)
Industrial	0	0	0	0	0	0	0	0	0
Trade and Services	8	353	118	4	336	146	7	640	217
Government	28	3,424	1,058	3	242	96	7	647	264
Public Utility	0	0	0	0	0	0	0	0	0
Rural	0	0	0	1	107	26	1	107	26
Residential	0	0	0	0	0	0	2,739	10,757	2,875
Low-Income Residential	8,591	3,199	1,663	25,524	2,464	1,575	21,840	2,464	1,575
Public Lighting	20	1,015	230	0	0	0	0	0	0
Municipal Energy Management	0	0	0	0	0	0	0	0	0
Education	1	0	0	4,064	0	0	8,660	0	0
TOTAL	8,648	7,991	3,069	29,596	3,148	1,842	33,254	14,616	4,956

By field of research (Research & Development Handbook - Aneel)

		2019		2018		2017
	Amount	(%)	Amount	(%)	Amount	(%)
FA – Alternative Electricity Generation Sources	0	-	0	-	464	11.7%
GT – Thermal Generation	0	-	0	-	0	-
GB – River Basin and Reservoir Management	0	-	0	-	0	-
MA – Environment	2	0.02%	0	-	0	-
SE – Safety	0	-	0	-	0	-
EF – Energy Efficiency	0	-	0	-	0	-
PL – Power Systems Planning	1,785	19.4%	52	0.7%	451	11.3%
OP – Power System Operation	343	3.7%	6	0.1%	0	-
SC – Power System Supervision, Control and Protection	40	0.4%	0	-	6	0.2%
QC – Power Supply Quality and Reliability	417	4.5%	0	-	0	-
MF – Metering, Billing and Commercial Loss Reduction	3,236	35.3%	2,838	38.1%	977	24.5%
OU – Other	3,355	0.1%	4,554	61.1%	2,083	52.3%
TOTAL	9,178	100.0%	7,450	100.0%	3,981	100.0%

¹ Excludes funds used in project management.

Recover degraded areas	2019	2018	2017
Shielded and insulated lines (ecological grid or green lines) in urban areas (km)	5,077	1,010	930
Percentage of shielded and insulted lines out of total distribution lines in urban areas (%)	32%	19%	18%
Waste generation and treatment	2019	2018	2017
Issuance			
Annual volume of greenhouse (CO ₂ , CH ₄ , N ₂ O, HFC, PFC, SF ₆), emitted into the atmosphere (in tonnes of CO ₂ equivalent)	1,173,200	623	798
Annual volume of ozone-depleting emissions (in tonnes of CFC equivalent)	-	-	-
Effluents			
Total water discharge by quality and destination ¹	20,193	20,253	21,085
Solids			
Annual quantity (in tons) of solid waste generated (refuse, waste, rubble etc.)	383	485	363
Percentage of equipment replaced by insulating mineral oil without PCB (ascarel)	100%	100%	100%
Use of resources in the production process and managerial processes	2019	2018	2017
Total electricity consumption by source			
Electricity consumption per kWh distributed (sold) 2	0.00325	0.00347	0.00401
Direct energy consumption by primary source in GJ	53,283	54,445	62,226
Diesel	45,006	45,408	52,624
Gasoline	7,994	8,998	9,602
Ethanol	283	49	NA
Natural gas	NA	NA	NA
Other	NA	NA	NA
Total water withdrawal by source (m³)			
Supply (public system)	18,484	9,146	8,705
Groundwater (wells)	14,971	23,503	21,005
Surface extraction (waterways)	NA	NA	NA
Total water withdrawal (m³)	33,455	33,503	17,409
Water withdrawal per employee (m³)	25.44	25.1	12.2
Environmental education and awareness raising	2019	2018	2017
At the Organization			
Number of employees trained in environmental education programs	850	384	286
Percentage of employees trained in environmental education programs/total employees	64.6%	27.2%	20.0%
Number of hours of environmental training out of total hours of training	2.5%	2.07%	2.0%
In the Community			
Number of primary schools and high schools served	-	32	82
Number of primary school and high school students served	-	4,064	15,385
Number of teachers trained	-	46	215
Number of universities and technical schools served	-	-	-
Number of technical school and graduate students served	-	-	-
1 Water waste is capitary waste and volatively insignificant			

 $^{^{\}mbox{\tiny 1}}$ Water waste is sanitary waste and relatively insignificant.

² Revised figures for 2017 and 2018.

Performance metrics - distribution companies	2019	2018	2017
Deforestation (hectares of land cleared by quarter)	152	50	4.38
Tree pruning (volume of waste created by month in kg)	65,526	1,254,240	86,456
Oil leaks (leakage sites by month)	NA	NA	NA

Energisa Tocantins

Operating and productivity metrics

Technical information (consumables, production capacity, sales, losses)	2019	2018	2017
Number of consumers served - Captive	599,584	586,458	573,855
Number of consumers served - Free	44	34	21
Number of municipalities served	139	139	139
Number of own employees	1,322	1,240	1,174
Number of outsourced employees	703	718	714
Number of commercial offices	140	140	139
Electricity generated (GWh)	NA	NA	NA
Electricity purchased (GWh)	2,671.77	2,685.3	2,561.3
1) Itaipu	-	-	
2) Auction (including federal generator auction - 2002)	2,671.77	2,685.3	2,561.3
3) Energy sales of concession operator	-	-	
Global electric losses (GWh) 1	352.6	356.2	334.50
Electrical losses – (%) total on energy requirement ¹	12.61%	13.26%	12.98%
Technical losses – (%) on energy requirement ¹	11.47%	11.46%	11.41%
Non-technical losses – (%) on energy requirement ¹	1.15%	1.79%	1.57%
Energy Sold (GWh) ²	2,171.70	2,100.24	2,089.25
Residential	1,050.33	973.84	949.32
Industrial	130.57	163.16	173.13
Commercial	399.99	395	403
Rural	230.37	222	221
Public authorities	172.70	162.91	161.75
Public lighting	122.88	122.17	121.34
Public utility	64.64	60.97	59.82
Substations (in Units)¹	103	99	101
Installed capacity (MVA)¹	1,562	1,477	1,454
Transmission lines (km)	2,815	2,735	2,735
Distribution lines (in km)	97,984	95,165	92,327
Distribution transformers (in units)	81,969	79,857	76,974
Sale of energy through installed capacity – GWh/(MVA X no.hours/year) ¹	0.000159	0.000162	0.000164
Electricity sold per employee (MWh)	1,643	1,694	1,780
Number of consumers per employee	454	473	489
Added value/GWh sold	477.16	412.27	392.99
Overall equivalent outage duration per consumer "DEC" of the company - Amount determined ¹	21.55	23.09	27.98
Overall equivalent outage duration per consumer "DEC" of the company - Limit	24.68	25.92	27.19
Overall equivalent outage tradition per consumer "FEC" of the company - Amount determined 1	7.90	9.37	12.72
Overall equivalent outage frequency per consumer "FEC" of the company - Limit	16.75	18.01	19.33

¹ Revised figures for 2018. ² Captive sales only.

Corporate governance

				2019				2018				2017
Managers	CA	DE	CF ¹	Total	CA	DE	CF ¹	Total	CA	DE	CF ¹	Total
No. of members	5	8	-	13	5	8	-	13	5	8	-	13
Annual Fixed Compensation (R\$ 000)	419	3,812	0	4,231	277	3,328	-	3,605	290	2,003	-	2,293
Salaries or management fees	286	2,176	0	2,462	199	2,023	-	2,223	189	1,136	-	1,325
Direct or indirect benefits	0	473	0	473	-	320	-	320	-	244	-	244
Participations in committees	-	-	-	-	-	-	-	-	-	-	-	
Other	133	1,163	0	1,296	77	985	-	1,063	101	623	-	724
Description of other fixed compensation	-	-	-	-	-	-	-	-	-	-	-	
Variable Compensation (R\$ 000)	-	2,066	-	2,066	302	3,134	-	3,436	94	406	-	500
Bonuses	-	-	-	-	-	-	-	-	-	-	-	
Profit sharing	-	2,066	-	2,066	302	3,134	-	3,436	94	406	-	500
Attending meetings	-	-	-	-	-	-	-	-	-	-	-	
Commission	-	-	-	-	-	-	-	-	-	-	-	
Other	-	-	-	-	-	-	-	-	-	-	-	
Description of other variable compensation	-	-	-	-	-	-	-	-	-	-	-	

CA - Board of Directors; DE - Executive Board; CF - Fiscal Council

¹ There is no Oversight Board at the moment.

Economic and financial metrics

Statements of added value (In thousands of reais)	2019	2018
REVENUE	2,324,064	2,130,596
Electricity sales and services	1,982,909	1,836,336
Other revenue	13,513	10,892
Revenue relating to construction of company assets	334,969	291,092
Allowance for doubtful accounts	(7,327)	(7,724)
(-) Consumables acquired from third parties	(1,306,327)	(1,257,336)
Cost of electricity sold	(808,001)	(800,826)
Materials and outsourced services	(140,572)	(140,249)
Other operating costs	(357,754)	(316,261)
GROSS ADDED VALUE	1,017,737	873,260
Depreciation and amortization	(79,634)	64,843
NET ADDED VALUE	938,103	808,417
Transferred value added	97,889	57,456
Finance revenue	97,889	57,456
TOTAL ADDED VALUE TO BE DISTRIBUTED	1,035,992	865,873
DISTRIBUTION OF ADDED VALUE	1,035,992	865,873
Personnel	104,516	96,969
Direct remuneration	69,975	64,953
Benefits	28,258	26,014
FGTS	6,283	6,002
Taxes, charges and contributions	611,374	565,142
Federal	168,639	235,305
State	360,910	328,477
Municipal	1,435	1,360
Intrasector Obligations	80,390	-
Interest expenses	141,748	104,885
Interest	141,620	102,456
Rent	128	2,429
Interest on equity	178,354	98,877
Legal Reserve	37,060	-
Additional dividends proposed	35,470	-
Dividends	105,824	82,619
Retained earnings/loss for the year	-	16,258

		2019	2018	
Investment	R\$ million	Δ %	R\$ million	
Electric assets	339.6	19.6%	284.0	
Special obligations	-13.0	766.7%	-1.5	
Non-electric assets	25.1	188.5%	8.7	
Total	351.7	20.8%	291.1	

Internal social metrics

Employees/ Employability/ D&O

General information	2019	2018	2017
Total number of employees	1,322	1,240	1,174
Number of outsourced employees (outsourced, subcontractors, freelancers) by employment type, employment contract and region	703	718	714
Employees aged 30 or under (%)	35.5%	30.9%	36.8%
Employees aged 31 to 40 (%)	46.8%	48.1%	46.3%
Employees aged 41 to 50 (%)	15.1%	17.6%	13.9%
Employees over 50 (%)	2.6%	3.4%	3.1%
Percentage of female employees (%)	9.5%	9.9%	10.9%
Women in managerial positions - out of total managerial positions (%)	17.2%	16.7%	20.0%
Black female employees (black and mixed race) - out of total employees (%)	5.2%	5.2%	5.7%
Black male employees (black and mixed race) - out of total employees (%)	69.4%	68.9%	71.2%
Black employees (black and mixed race) in managerial positions as a percentage of all managerial positions (%)	31.0%	30.0%	28.0%
Percentage of trainees (%)	1.0%	0.7%	1.2%
Employees of the apprentice recruitment program (%)	3.3%	3.3%	3.2%
Disabled employees	45	51	49
Compensation, benefits and career (R\$ 000)	2019	2018	2017
Gross payroll	101,716	94,594	85,457
Compulsory social charges	23,384	21,396	20,425
Education	117	114	92
Food and Beverages	15,576	14,516	13,067
Transportation	-	-	143
Health	11,072	10,136	8,577
Foundation	-	3,078	3,749
Occupational health and safety	5,220	4,584	2,501
Culture	-	-	-
Training and professional development	809	724	726
Day care and day care allowance	199	186	211
Other (funeral allowance, exceptional payments, retirement premium)	1,489	1,503	1,038
Profit sharing	2019	2018	2017
Total investment in company profit-sharing program (R\$ 000)	6,677	10,521	5,496
Amounts distributed in relation to gross payroll (%)	31.0%	11.1%	6.4%
Highest compensation divided by the lowest compensation in cash paid by the company	43.22	41.14	40.21
Lowest compensation at the company divided by the minimum salary in force	4.01	1.28	1.28

Compensation profile by category - average salary in the current year	2019	2018	2017
Executive positions	50,045	46,176	36,795
Management positions	11,767	11,037	10,563
Administrative positions	3,022	2,993	3,101
Operating positions	1,782	1,694	1,646
Occupational health and safety	2019	2018	2017
Average overtime per employee/year	103.30	99.84	137.95
Total frequency rate for the period - employees	3.06	8.62	8.57
Employee seriousness rate in the period	2,366.85	157.21	135.88
Total frequency rate for the period - contractors	5.32	6.41	6.12
Seriousness Rate of outsourced/contracted employees in the period	159.57	1,780.96	2,618.00
Frequency rate of the company for the period - workforce (employees + contractors)	4.43	7.96	7.21
Severity rate for the period - workforce (employees + contractors)	1,039.51	1,288.01	1,349.00
Fatalities – employees	0	0	0
Fatalities – contractors	0	1	1
Professional development	2019	2018	2017
Education levels - specify percentage of total employees			
Primary Education	1.2%	1.2%	1.9%
High School	70.2%	84.4%	83.5%
Technical School	15.4%	0.0%	0.0%
Graduate	11.2%	12.2%	12.3%
Graduate (specialist, Master's degree, PhD)	2.0%	2.3%	2.4%
Amount invested in professional development and education (R\$ 000)	380	295	499
Average number of hours of training per year per employee, broken down into job ty	pe		
Executive positions	3.0	16.0	14.8
Management positions	33.7	13.0	43.8
Administrative positions	34.2	58.9	54.0
Operating positions	79.2	65.0	75.2
Conduct in light of dismissals	2019	2018	2017
Turnover rate	10.85%	12.62%	10.82%
Labor claims (company and outsourced employees)	2019	2018	2017
Amounted provisioned in the period (R\$ 000)	13,697	18,395	27,359
Number of labor claims brought against the company in the period	115	223	815
Number of labor claims accepted in the period	324	97	280
Number of labor claims rejected in the period	136	88	127
Value of damages and fines paid under court awards in the period (R\$ 000)	8,202	10,624	11,471
Retirement provision	2019	2018	2017
Investments in supplementary pensions (R\$ 000)	2,733	2,359	2,402
Number of recipients in the supplementary pension program	1,409	1,240	1,199

External social metrics

Consumers

Excellence in service	2019	2018	2017
Profile of consumers and clients			
Energy sales by rate class (GWh): % Total	100%	100%	100%
Residential	39.1%	37.5%	37.1%
Low-income residential	9.3%	8.8%	8.4%
Commercial	6.0%	7.8%	8.3%
Industrial	18.4%	18.8%	19.3%
Rural	10.6%	10.6%	10.6%
Public lighting	8.0%	7.8%	7.7%
Public utility	5.7%	5.8%	5.8%
Public authorities	3.0%	2.9%	2.9%
Client satisfaction	2019	2018	2017
Satisfaction rates obtained by lasc Survey - Aneel	64.96	62.98	45.15
Satisfaction rates obtained by other entities and/ or proprietary surveys - Abradee Survey	76.70	76.00	76.58
Customer service	2019	2018	2017
Call Center			
Calls received (unit)	1,804,360	1,690,377	1,762,517
Average number of agents (unit)	71	63	57
INS - Level of Service Rate (%)	90.71%	91.08%	90.20%
IAB - Abandonment rate (%)	1.27%	0.92%	1.11%
ICO - Busy Call Rate (%)	0.00%	0.00%	0.00%
TMA - Average interaction time (s)	175	178	173
Compensation for electrical damages	2019	2018	2017
Volume of requests (unit)	3,108	2,928	2,800
Confirmed (unit)	727	705	671
Complaints metrics	2019	2018	2017
Confirmed complaints (unit)	6,047	4,700	5,285
DER (hours)	118.12	129.59	198.23
FER (unit)	10.09	8.01	9.21
Violation of commercial service terms	2019	2018	2017
Service interactions (unit)	376,830	358,132	318,899
Service interactions completed late (unit)	16,758	13,641	20,384
Service efficiency (%)	95.55%	96.19%	93.61%
Number of customer complaints escalated to	2019	2018	2017
The company	14,248	301,968	348,914
Aneel – state/regional agencies	734	727	1,183
Procon	200	339	466
to the courts	1,002	1,393	1,016

The community

Impacts on health and safety	2019	2018	2017
Total number of nonfatal injuries involving consumers	16	7	12
Total number of fatal injuries involving consumers	6	3	4
Legal proceedings resulting from accidents involving consumers – Overall Legal Proceedings	9	21	22
Low-income rate	2019	2018	2017
Number of low-income households served	133,315	123,127	116,612
Total low-income households out of total households served (residential customers/consumers) (%)	26.8%	25.4%	24.8%
Revenue from sales to low-income residential subsector (R\$ 000)	99,897	75,142	76,405
Total revenue from sales to low-income residential subsector out of total residential revenue (%)	11.83%	12.70%	11.60%
Subsidy received for low-income consumers (R\$ 000)	40,893	36,797	32,434
Company involvement in social action	2019	2018	2017
Funds allocated to education (R\$ thousand)	1,174	-	71
Funds allocated to health care and sanitation (R\$ thousand)	-	176	126
Funds allocated to culture (R\$ thousand)	700	64	400
Funds allocated to sports (R\$ 000)	135	88	6
Other funds allocated to social initiatives (R\$ 000)	378	178	46
Employees carrying out voluntary work in the community outside the Company/total employees (%)	-	-	-
Number of hours donated per month (employees released from normal working hours) by the Company for employee volunteer work	-	-	-
Company involvement in cultural, sporting and social projects (Rouanet Law, Sporting Incentive Law, Pronon, Pronas, Infant and Adolescent Fund, Fund for the Elderly)	2019	2018	2017
Funds allocated to projects (R\$ 000)	840	792	655
Funds allocated to the largest project (R\$ 000)	300	200	400
Project name	What do we want for the world?	Christmas in Usina	What do we want for the world?
Bidder	Cocriativa Conteúdos Audiovisuais Ltda.	Dina Lucia Filipe Faria Azeiteiro	Cocriativa Conteúdos Audiovisuais Ltda.

Electric sector metrics

Universal electricity access

	2019	2018	2017
Service targets	-	6,416	3,795
Calls handled (no.)	_	2,676	1,378
Performance of targets (%)	-	42%	36%
Total municipalities with universal access	139	105	66
Municipalities with universal access (%)	100%	76%	47%

Energy Efficiency Program (PEE) ¹

				:	2019					2018					2017
		estments R\$ 000) ¹	source	Finan es (R\$			estments (R\$ 000) ¹	source	Finar s (R\$				Financi sources (R\$ 00		
Project type	Total	(%)	Company	Third party	Customer	Total	(%)	Company	Third party	Customer	Total	(%)	Company	Third party	Customer
Industrial	0	-	0	0	0	0	-	0	0	0	0	-	0	0	0
Trade and Services	936	10.7%	936	0	0	1,717	37.8%	1,717	0	0	1,307	26.2%	1,307	0	0
Government	3,431	39.4%	3,431	0	0	1,360	30.0%	1,360	0	0	0	-	0	0	0
Public Utility	0	-	0	0	0	0	-	0	0	0	0	-	0	0	0
Rural	0	-	0	0	0	0	-	0	0	0	0	-	0	0	0
Residential	0	-	0	0	0	0	-	0	0	0	0	-	0	0	0
Low-Income Residential	4,056	46.6%	4,056	0	0	1,464	32.2%	1,464	0	0	3,672	73.8%	3,672	0	0
Public Lighting	288	3.3%	288	0	0	0	-	0	0	0	0	-	0	0	0
Municipal Energy Management	0	-		0	0	0	-	0	0	0	0	-	0	0	0
Education	0	-	0	0	0	0	-	0	0	0	0	-	0	0	0
TOTAL	8,712	100.0%	8,712	0	0	4,541	100.0%	4,541	0	0	4,979	100.0%	4,979	0	0

 $^{^{\}mbox{\tiny 1}}$ Excludes funds used in project management.

			2019			2018			2017
Project type	Units served	Energy savings (MWh/year)	Peak Shaving (kW)	Units served	Energy savings (MWh/year)	Peak Shaving (kW)	Units served	Energy savings (MWh/year)	Peak Shaving (kW)
Industrial	0	0	0	0	0	0	0	0	0
Trade and Services	1	448	157	2	1,565	281	2	252	61
Government	5	1,426	236	1	744	127	-	-	-
Public Utility	0	0	0	0	0	0	0	0	0
Rural	0	0	0	0	0	0	0	0	0
Residential	0	0	0	0	0	0	0	0	0
Low-Income Residential	3,209	1,456	825	17,188	1,552	992	5,923	1,196	656
Public Lighting	1	100	23	0	0	0	0	0	0
Municipal Energy Management	0	0	0	0	0	0	0	0	0
Education	0	0	0	0	0	0	0	0	0
TOTAL	3,216	3,430	1,240	17,191	3,861	1,400	5,925	1,447	716

By field of research (Research & Development Handbook - Aneel)

		2019		2018		2017
	Amount	(%)	Amount	(%)	Amount	(%)
FA – Alternative Electricity Generation Sources	0	-	0	-	0	-
GT – Thermal Generation	0	-	0	-	0	-
GB – River Basin and Reservoir Management	0	-	0	-	0	-
MA – Environment	0	-	0	-	0	-
SE – Safety	0	-	0	-	0	-
EF – Energy Efficiency	0	-	0	-	0	-
PL – Power Systems Planning	3,120	78.3%	1,398	58%	1,114	32%
OP – Power System Operation	157	3.9%	1,015	42%	2,172	62%
SC – Power System Supervision, Control and Protection	705	17.7%	0	-	0	-
QC – Power Supply Quality and Reliability	5	0.1%	0	-	0	-
MF – Metering, Billing and Commercial Loss Reduction	0	-	0	-	0	-
OU – Other	0	-	0	-	0	-
TOTAL	3,987	100.0%	2,413	100%	3,507	100%

¹ Excludes funds used in project management.

lded and insulated lines (ecological grid or green lines) in urban areas (km) 4, entage of shielded and insulted lines out of total distribution lines in urban areas (%) 42.	019 548 1% 019 519	2018 4,339 40.7% 2018	2017 3,858 37.6% 2017
entage of shielded and insulted lines out of total distribution lines in urban areas (%) te generation and treatment ance ual volume of greenhouse (CO ₂ , CH ₆ , N ₂ O, HFC, PFC, SF ₆),	1% 0 19 519	40.7% 2018	37.6%
te generation and treatment ance ual volume of greenhouse (CO ₂ , CH ₆ , N ₂ O, HFC, PFC, SF ₆),	519	2018	
ance ual volume of greenhouse (CO ₂ , CH ₄ , N ₂ O, HFC, PFC, SF ₆),	519		2017
ual volume of greenhouse (CO ₂ , CH ₆ , N ₂ O, HFC, PFC, SF ₆),		172,318	
ual volume of greenhouse (CO ₂ , CH ₄ , N ₂ O, HFC, PFC, SF ₆), ted into the atmosphere (in tonnes of CO ₂ equivalent)		172,318	
	NA		208,325
ual volume of ozone-depleting emissions (in tonnes of CFC equivalent)		NA	NA
ients			
water discharge by quality and destination ¹ 11,	732	10,277	12,116
ds			
ual quantity (in tons) of solid waste generated (refuse, waste, rubble etc.)	30	47	8
entage of equipment replaced by insulating mineral oil without PCB (ascarel)	0%	100%	100%
of resources in the production process and managerial processes 2	019	2018	2017
l electricity consumption by source			
tricity consumption per kWh distributed (sold) 2 0.00	600	0.00631	0.00629
ct energy consumption by primary source in GJ ³ 46,	939	47,767	47,294
esel 31,	458	29,925	28,225
asoline 15,	371	17,763	19,049
hanol	20	79	20
atural gas	0	0	0
her	0	0	C
l water withdrawal by source (m³)			
oly (public system) 14,	665	12,846	15,145
indwater (wells)	NA	NA	NA
ace extraction (waterways)	0	0	0
l water withdrawal (m³) 14,	665	12,846	15,145
er withdrawal per employee (m³)	.09	10.53	12.58
ronmental education and awareness raising 20	019	2018	2017
ne Organization			
ber of employees trained in environmental education programs	259	234	148
entage of employees trained in environmental education programs/total employees 20.	0%	18.0%	12.3%
ber of hours of environmental training out of total hours of training 0.1	0%	0.40%	0.9%
e Community			
ber of primary schools and high schools served	251	181	2
ber of primary school and high school students served 9,	549	16,888	349
ber of teachers trained	471	684	
ber of universities and technical schools served	2	2	
ber of technical school and graduate students served	231	84	

¹ Calculated as 80% of water consumption. ² Revised figures for 2017 and 2018. ³ Adjusted figures for 2018.

Performance metrics - distribution companies	2019	2018	2017
Deforestation (hectares of land cleared by quarter)	359.3	NA	NA
Tree pruning (volume of waste created by month in kg)	390,000	191,000	NA
Oil leaks (leakage sites by month)	NA	NA	NA

Energisa Sul-Sudeste

Operating and productivity metrics

Technical information (consumables, production capacity, sales, losses)	2019	2018	2017
Number of consumers served - Captive	799,811	784,064	767,611
Number of consumers served - Free	181	152	130
Number of municipalities served	82	82	82
Number of own employees	1,028	1,041	1,064
Number of outsourced employees ¹	222	239	194
Number of commercial offices	83	83	83
Electricity generated (GWh)	NA	NA	NA
Electricity purchased (GWh)	4,097.17	4,761.0	4,281.0
1) Itaipu	772.70	778.0	746.0
2) Auction (including federal generator auction - 2002)	3,284.63	3,948.0	3,502.0
3) Energy sales of concession operator	39.84	36	32
Global electric losses (GWh)	302.1	297.8	283.4
Electrical losses – (%) total on energy requirement	6.19%	6.39%	6.32%
Technical losses – (%) on energy requirement	6.24%	6.17%	6.53%
Non-technical losses – (%) on energy requirement	-0.05%	0.22%	-0.21%
Energy Sold (GWh) ²	3,413.26	3,284.56	3,260.30
Residential	1,512.32	1,430.13	1,383.47
Industrial	339.45	348.66	383.27
Commercial	751.90	722	727
Rural	332.86	315	295
Public authorities	122.23	117.72	117.05
Public lighting	191.33	192.58	190.46
Public utility	163.17	158.49	163.52
Substations (in units)	94	93	92
Installed capacity (MVA) ³	2,353	2,323	2,217
Transmission lines (km) ³	444	415	415
Distribution lines (in km) ³	31,971	31,556	31,123
Distribution transformers (in units) ³	48,618	47,797	46,844
Sale of energy through installed capacity – GWh/(MVA X no. hours/year)	0.000166	0.000161	0.000168
Electricity sold per employee (MWh)	4,321	3,155	3,064
Number of consumers per employee	778	753	722
Added value/GWh sold	356.34	353.25	243.2
Overall equivalent outage duration per consumer "DEC" of the company - Amount determined	5.76	6.06	6.6
Overall equivalent outage duration per consumer "DEC" of the company - Limit	7.82	8.13	8.6
Overall equivalent outage frequency per consumer "FEC" of the company - Amount determined	4.40	4.60	4.97
Overall equivalent outage frequency per consumer "FEC" of the company - Limit	7.65	8.27	8.77

 $^{^{\}mbox{\tiny 1}}$ This does not include outsourced employees working at other Group companies.

Corporate governance

				2019				2018				2017
Managers	CA	DE	CF1	Total	CA	DE	CF1	Total	CA	DE	CF ¹	Total
No. of members	3	7	-	10	-	6	-	6	-	7	-	7
Annual Fixed Compensation (R\$ 000)	0	1,988	-	1,988	-	2,859	-	2,859	-	2,956	-	2,956
Salaries or management fees	0	1,036	-	1,036	-	1,784	-	1,784	-	1,702	-	1,702
Direct or indirect benefits	0	352	-	352	-	120	-	120	-	65	-	65
Participations in committees	-	-	-	-	-	-	-	-	-	-	-	-
Other	0	600	-	600	-	956	-	956	-	1,189	-	1,189
Description of other fixed compensation	-	-	-	-	-	-	-	-	-	-	-	-
Variable Compensation (R\$ 000)	-	1,204	-	1,204	-	3,042	-	3,042	-	-94	-	-94
Bonuses	-	-	-	-	-	-	-	-	-	-	-	-
Profit sharing	-	1,204	-	1,204	-	3,042	-	3,042	-	-94	-	-
Attending meetings	9	-	-	-	-	-	-	-	-	-	-	-
Commission	-	-	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-	-	-
Description of other variable compensation	-	-	-	-	-	-	-	-	-	-	-	-

CA - Board of Directors; DE - Executive Board; CF - Fiscal Council

 ² Captive sales only.
 ³ 2018 figures revised.

¹ There is no Oversight Board at the moment.

Economic and financial metrics

Statements of added value (In thousands of reais)	2019	2018
REVENUE	2,746,887	2,581,048
Electricity sales and services	2,602,579	2,454,854
Other revenue	8,301	12,020
Revenue relating to construction of company assets	138,233	114,305
Allowance for doubtful accounts	(2,226)	(131)
(-) Consumables acquired from third parties	(1,533,262)	(1,423,768)
Cost of electricity sold	(1,254,661)	(1,183,661)
Materials and outsourced services	(124,102)	(103,738)
Other operating costs	(154,499)	(136,369)
GROSS ADDED VALUE	1,213,625	1,157,280
Depreciation and amortization	(54,134)	(45,929)
NET ADDED VALUE	1,159,491	1,111,351
Transferred value added	56,792	48,930
Finance revenue	56,792	48,930
TOTAL ADDED VALUE TO BE DISTRIBUTED	1,216,283	1,160,281
DISTRIBUTION OF ADDED VALUE	1,216,283	1,160,281
Personnel	83,476	83,949
Direct remuneration	56,535	55,840
Benefits	22,143	19,439
FGTS	4,798	8,670
Taxes, charges and contributions	951,823	904,690
Federal	198,821	469,931
State	485,317	434,448
Municipal	300	311
Intrasector Obligations	267,385	-
Interest expenses	64,897	60,486
Interest	64,154	58,672
Rent	743	1,814
Interest on equity	116,087	111,156
Legal Reserve	5,804	-
Additional dividends proposed	46,318	-
Dividends	63,965	105,598
Retained earnings/loss for the year	-	5,558

		2019	2018
Investment	R\$ million	Δ %	R\$ million
Electric assets	125.6	10.0%	114.2
Special obligations	16.5	28.9%	12.8
Non-electric assets	17.0	39.3%	12.2
Total	159.1	14.5%	139.0

Internal social metrics

Employees/ Employability/ D&O

General information	2019	2018	2017
Total number of employees	1,028	1,041	1,064
Number of outsourced employees (outsourced, subcontractors, freelancers) by employment type, employment contract and region	222	239	194
Employees aged 30 or under (%)	33.8%	30.1%	32.9%
Employees aged 31 to 40 (%)	40.8%	42.7%	39.1%
Employees aged 41 to 50 (%)	20.9%	22.0%	18.0%
Employees over 50 (%)	4.6%	5.3%	10.0%
Percentage of female employees (%)	13.6%	12.9%	13.9%
Women in managerial positions - out of total managerial positions (%)	3.3%	0.0%	0.0%
Black female employees (black and mixed race) - out of total employees (%)	1.8%	1.5%	1.6%
Black male employees (black and mixed race) - out of total employees (%)	16.8%	15.5%	13.2%
Black employees (black and mixed race) in managerial positions as a percentage of all managerial positions (%)	16.7%	13.3%	11.1%
Percentage of trainees (%)	2.0%	2.8%	3.9%
Employees of the apprentice recruitment program (%)	1.8%	3.2%	4.4%
Disabled employees	35	34	23
Compensation, benefits and career (R\$ 000)	2019	2018	2017
Gross payroll	80,588	88,070	50,076
Compulsory social charges	18,293	21,991	14,185
Education	187	194	294
Food and Beverages	12,840	11,333	8,412
Transportation	-	-	-
Health	8,369	7,268	6,648
Foundation	-	-	-
Occupational health and safety	2,517	2,066	1,136
Culture	-	-	-
Training and professional development	694	850	389
Day care and day care allowance	72	98	291
Other (funeral allowance, exceptional payments, retirement premium)	869	827	1,425
Profit sharing	2019	2018	2017
Total investment in company profit-sharing program (R\$ 000)	7,634	6,426	6,889
Amounts distributed in relation to gross payroll (%)	36.61%	11.36%	6.44%
Highest compensation divided by the lowest compensation in cash paid by the company	64.94	89.23	85.69
Lowest compensation at the company divided by the minimum salary in force	5.51	0.79	0.81

Compensation profile by category - average salary in the current year	2019	2018	2017
Executive positions	51,092	67,476	53,410
Management positions	11,169	11,016	10,632
Administrative positions	2,912	2,933	2,878
Operating positions	1,991	1,916	1,893
Occupational health and safety	2019	2018	2017
Average overtime per employee/year	69.42	70.68	78.51
Total frequency rate for the period - employees	2.37	5.62	3.20
Employee seriousness rate in the period	107.71	66.94	66.00
Total frequency rate for the period - contractors	0.67	8.04	4.89
Seriousness Rate of outsourced/contracted employees in the period	20.08	584.80	147.00
Frequency rate of the company for the period - workforce (employees + contractors)	1.99	7.09	3.76
Severity rate for the period - workforce (employees + contractors)	72.97	290.60	92.00
Fatalities – employees	0	0	0
Fatalities – contractors	0	0	0
Professional development	2019	2018	2017
Education levels - specify percentage of total employees			
Primary Education	2.8%	3.7%	4.9%
High School	69.6%	78.3%	76.6%
Technical School	8.4%	0.0%	0.0%
Graduate	16.5%	15.6%	15.2%
Graduate (specialist, Master's degree, PhD)	2.6%	2.5%	3.3%
Amount invested in professional development and education (R\$ 000)	295	500	394
Average number of hours of training per year per employee, broken down into job ty	/pe		
Executive positions	56.0	16.0	16.0
Management positions	26.4	12.7	71.5
Administrative positions	32.5	49.3	88.2
Operating positions	61.8	68.9	105.4
Conduct in light of dismissals	2019	2018	2017
Turnover rate	12.79%	18.11%	11.04%
Labor claims (company and outsourced employees)	2019	2018	2017
Amounted provisioned in the period (R\$ 000)	10,399	6,751	4,775
Number of labor claims brought against the company in the period	98	82	228
Number of labor claims accepted in the period	40	27	75
Number of labor claims rejected in the period	62	3	193
Value of damages and fines paid under court awards in the period (R\$ 000)	2,428	2,752	1,320
Retirement provision	2019	2018	2017
Investments in supplementary pensions (R\$ 000)	1,945	1,913	1,998
Number of recipients in the supplementary pension program	1,030	1,143	1,117

External social metrics

Consumers

Excellence in service	2019	2018	2017
Profile of consumers and clients			
Energy sales by rate class (GWh): % Total	100.0%	100.0%	100.0%
Residential	40.2%	39.6%	39.1%
Low-income residential	4.1%	4.0%	3.3%
Commercial	9.9%	10.6%	11.8%
Industrial	22.0%	22.0%	22.3%
Rural	9.8%	9.6%	9.1%
Public lighting	3.6%	3.6%	3.6%
Public utility	5.6%	5.9%	5.8%
Public authorities	4.8%	4.8%	5.0%
Client satisfaction	2019	2018	2017
Satisfaction rates obtained by lasc Survey - Aneel	74.94	70.72	69.00
Satisfaction rates obtained by other entities and/ or proprietary surveys - Abradee Survey	80.70	86.00	81.00
Customer service	2019	2018	2017
Call Center			
Calls received (unit)	1,052,641	1,002,177	1,018,922
Average number of agents (unit)	61	40	27
INS - Level of Service Rate (%)	91.13%	92.26%	90.85%
IAB - Abandonment rate (%)	1.00%	0.44%	0.81%
ICO - Busy Call Rate (%)	0	0	0
TMA - Average interaction time (s)	192	199	193
Compensation for electrical damages	2019	2018	2017
Volume of requests (unit)	4,235	4,553	5,461
Confirmed (unit) 1	1,056	832	1,446
Complaints metrics	2019	2018	2017
Confirmed complaints (unit) ²	138,760	146,242	140,167
DER (hours)	139.35	123.94	159.19
FER (unit)	5.45	4.35	3.84
Violation of commercial service terms	2019	2018	2017
Service interactions (unit)	254,534	265,298	272,883
Service interactions completed late (unit)	4,153	7,417	7,123
Service efficiency (%)	98.37%	97.20%	97.39%
Number of customer complaints escalated to	2019	2018	2017
To the company ²	176,304	182,822	190,003
Aneel – state/regional agencies	197	223	258
Procon	574	252	312
to the courts	280	428	527

 $^{^{\}rm 1}$ 2018 data revised due to change in the number of complaints accepted for electrical damage. $^{\rm 2}$ 2018 and 2017 data revised to include complaints for energy outages.

The community

Impacts on health and safety	2019	2018	2017
Total number of nonfatal injuries involving consumers	0	2	1
Total number of fatal injuries involving consumers	2	1	1
Legal proceedings resulting from accidents involving consumers – Overall Legal Proceedings	7	2	9
Low-income rate	2019	2018	2017
Number of low-income households served	78,779	72,074	60,956
Total low-income households out of total households served (residential customers/consumers) (%) $^{\scriptscriptstyle 1}$	11.6%	10.9%	9.6%
Revenue from sales to low-income residential subsector (R\$ 000)	64,027	57,102	41,073
Total revenue from sales to low-income residential subsector out of total residential revenue (%) ¹	6.3%	6.3%	5.0%
Subsidy received for low-income consumers (R\$ 000)	17,687	18,707	14,679
Company involvement in social action	2019	2018	2017
Funds allocated to education (R\$ thousand)	330	248	161
Funds allocated to health care and sanitation (R\$ thousand)	-	-	-
Funds allocated to culture (R\$ thousand)	836	789	536
Funds allocated to sports (R\$ 000)	102	37	60
Other funds allocated to social initiatives (R\$ 000)	244	402	172
Employees carrying out voluntary work in the community outside the Company/total employees (%) ¹	16.1%	5.2%	1.0%
Number of hours donated per month (employees released from normal working hours) by the Company for employee volunteer work ¹	51.92	13.5	2.75
Company involvement in cultural, sporting and social projects (Rouanet Law, Sporting Incentive Law, Pronon, Pronas, Infant and Adolescent Fund, Fund for the Elderly)	2019	2018	2017
Funds allocated to projects (R\$ 000)	1,439	1,713	1,630
Funds allocated to the largest project (R\$ 000)	339	400	304
Project name	18 th Festival de Arte Serrinha	Extrema Pub Food Festival (MG)	Entrando em Cena
Bidder	Arte Serrinha Produções Culturais Ltda.	Sergio Manfrini	Instituto Entrando em Cena

¹ Revised figures for 2018 and 2017.

Electric sector metrics

Universal electricity access

	2019	2018	2017
Service targets	NA	NA	NA
Calls handled (no.)	-	-	-
Performance of targets (%)	-	-	-
Total municipalities with universal access	82	82	82
Municipalities with universal access (%)	100%	100%	100%

Energisa Sul-Sudeste has rolled out complete universal electricity access since 2010.

Energy Efficiency Program (PEE) ¹

					2019					2018					2017
	Investments (R\$ 000) ¹		Finan	Financing sour (R\$ 0			Investments (R\$ 000) ¹							rces 000)	
Project type	Total	(%)	Company	Third party	Customer	Total	(%)	Company	Third party	Customer	Total	(%)	Company	Third party	Customer
Industrial	784	5.4%	784	0	0	0	-	0	0	0	0	-	0	0	0
Trade and Services	1,508	10.4%	1,508	0	0	1,631	26.2%	1,631	0	0	3,662	31.6%	3,662	0	0
Government	1,830	12.6%	1,830	0	0	2,098	33.7%	2,098	0	0	686	5.9%	686	0	0
Public Utility	0	-	0	0	0	0	-	0	0	0	515	4.4%	515	0	0
Rural	0	-	0	0	0	0	-	0	0	0	0	-	0	0	0
Residential	0	-	0	0	0	0	-	0	0	0	676	5.8%	676	0	0
Low-Income Residential	1,381	9.5%	1,381	0	0	1,321	21.2%	1,321	0	0	2,403	20.7%	2,403	0	0
Public Lighting	5,954	40.9%	5,950	3,723	0	1,168	18.8%	1,168	0	0	3,663	31.6%	3,663	0	0
Municipal Energy Management	0	-	0	0	0	0	-	0	0	0	0	-	0	0	0
Education	3,084	21.2%	3,084	0	0	0	-	0	0	0	0	-	0	0	0
TOTAL	14,541	100%	14,537	3,723	0	6,219	100.0%	6,219	0	0	11,605	100.0%	11,605	0	0

¹ Excludes funds used in project management.

			2019			2018			2017
Project type	Units served	Energy savings (MWh/year)	Peak Shaving (kW)	Units served	Energy savings (MWh/year)	Peak Shaving (kW)	Units served	Energy savings (MWh/year)	Peak Shaving (kW)
Industrial	2	911	114	0	0	0	0	0	0
Trade and Services	3	923	226	8	640	92	16	665	175
Government	3	620	95	6	924	190	2	318	86
Public Utility	0	0	0	0	0	0	1	228	85
Rural	0	0	0	0	0	0	0	0	0
Residential	0	0	0	0	0	0	406	83	19
Low-Income Residential	7,311	357	202	27,658	3,100	939	1,761	160	48
Public Lighting	30	4,443	962	7	755	172	13	769	176
Municipal Energy Management	0	0	0	0	0	0	0	0	0
Education	1	0	0	0	0	0	0	0	0
TOTAL	7,350	7,254	1,599	27,679	5,419	1,394	2,199	2,222	589

By field of research (Research & Development Handbook - Aneel)

		2019		2018		2017
	Amount	(%)	Amount	(%)	Amount	(%)
FA – Alternative Electricity Generation Sources	4,957	46.9%	2,635	43.6%	1,043	15.9%
GT – Thermal Generation	0	-	0	-	0	-
GB – River Basin and Reservoir Management	0	-	0	-	0	-
MA – Environment	3,122	29.6%	1,093	18.1%	0	-
SE – Safety	0	-	0	-	0	-
EF – Energy Efficiency	0	-	432	7.1%	1,111	16.9%
PL – Power Systems Planning	46	0.4%	3	-	1,100	16.8%
OP – Power System Operation	590	5.6%	1,350	22.3%	2,892	44.1%
SC – Power System Supervision, Control and Protection	1,681	15.9%	503	8.3%	418	6.4%
QC – Power Supply Quality and Reliability	9	0.1%	0	-	0	-
MF – Metering, Billing and Commercial Loss Reduction	139	1.3%	5	0.1%	0	-
OU – Other	16	0.1%	30	0.5%	0	-
TOTAL	10,560	100.0%	6,049	100.0%	6,565	100.0%

¹ Excludes funds used in project management.

Recover degraded areas	2019	2018	2017
Shielded and insulated lines (ecological grid or green lines) in urban areas (km)	34,964	2,777	2,420
Percentage of shielded and insulted lines out of total distribution lines in urban areas (%)	26.9%	25.0%	22.0%
Waste generation and treatment	2019	2018	2017
Issuance			
Annual volume of greenhouse (CO ₂ , CH ₄ , N ₂ O, HFC, PFC, SF ₆), emitted into the atmosphere (in tonnes of CO ₂ equivalent) ¹	501,898	NA	NA
Annual volume of ozone-depleting emissions (in tonnes of CFC equivalent)	-	-	-
Effluents			
Total water discharge by quality and destination ²	-	7,958	8,058
Solids			
Annual quantity (in tons) of solid waste generated (refuse, waste, rubble etc.)	15	16	7
Percentage of equipment replaced by insulating mineral oil without PCB (ascarel)	NA	NA	NA
Use of resources in the production process and managerial processes	2019	2018	2017
Total electricity consumption by source			
Electricity consumption per kWh distributed (sold) ³	0.00260	0.00303	0.00264
Direct energy consumption by primary source in GJ	31,922	35,794	30,968
Diesel	24,862	24,057	22,833
Gasoline	1,663	4,178	3,416
Ethanol	5,397	7,559	4,719
Natural gas	-	-	-
Other	-	-	-
Total water withdrawal by source (m³)			
Supply (public system)	13,258	11,140	10,073
Groundwater (wells)	5,185	6,749	7,487
Surface extraction (waterways)	-	-	-
Total water withdrawal (m³)	18,443	17,889	17,560
Water withdrawal per employee (m³)	17.94	16.1	15.75
Environmental education and awareness raising	2019	2018	2017
At the Organization			
Number of employees trained in environmental education programs	938	611	349
Percentage of employees trained in environmental education programs/total employees	80.3%	53.0%	31.3%
Number of hours of environmental training out of total hours of training	2.3%	3.2%	0.6%
In the Community			
Number of primary schools and high schools served	-	-	5
Number of primary school and high school students served	-	-	1,910
Number of teachers trained	-	-	11
Number of universities and technical schools served	1	-	-
Number of technical school and graduate students served	17	-	-

¹The first greenhouse gas inventory was compiled in 2019. ² Water waste is sanitary waste and relatively insignificant. ³ Revised figures for 2017 and 2018.

Performance metrics - distribution companies	2019	2018	2017
Deforestation (hectares of land cleared by quarter)	7.02	0.03	NA
Tree pruning (volume of waste created by month in kg)	NA	NA	NA
Oil leaks (leakage sites by month)	NA	NA	NA

Energisa Acre

Operating and productivity metrics

Technical information (consumables, production capacity, sales, losses)	2019	2018	2017
Number of consumers served - Captive	264,436	263,729	259,451
Number of consumers served - Free	21	19	18
Number of municipalities served	22	22	22
Number of own employees	311	339	301
Number of outsourced employees	632	1,263	1,149
Number of commercial offices	26	24	24
Electricity generated (GWh)	NA	NA	NA
Electricity purchased (GWh)	1,558.34	1,924.5	1,655.4
1) Itaipu	-	NA	NA
2) Auction (including federal generator auction - 2002)	1,558.34	1,916.38	1,645.51
3) Energy sales of concession operator	-	8.12	9.89
Global electric losses (GWh) ¹	250.2	255.7	289.6
Electrical losses – (%) total on energy requirement	18.70%	19.60%	21.8%
Technical losses – (%) on energy requirement	9.89%	9.85%	9.9%
Non-technical losses – (%) on energy requirement	8.81%	9.75%	12.4%
Energy Sold (GWh) ²	1,039.06	998.55	992.38
Residential	491.09	465.42	466.16
Industrial	37.32	39.96	38.42
Commercial	222.83	203.76	201.43
Rural	52.73	50.64	49.52
Public authorities	126.73	125.23	129.77
Public lighting	60.93	61.47	53.19
Public utility	47.43	52.07	53.90
Substations (in Units)¹	14	13	13
Installed capacity (MVA)¹	374	312	312
Transmission lines (in km) ¹	444	444	442
Distribution lines (in km) ¹	21,995	20,967	NA
Distribution transformers (in units)	37,401	35,380	34,659
Sale of energy through installed capacity – GWh/(MVA X no.hours/year)	0.000317	0.000365	0.000363
Electricity sold per employee (MWh)	3,341	2,946	3,297
Number of consumers per employee	850	778	862
Added value/GWh sold	439.69	459.2	293.79
Overall equivalent outage duration per consumer "DEC" of the company - Amount determined	37.76	43.81	47.89
Overall equivalent outage duration per consumer "DEC" of the company - Limit	44.18	44.06	27.5
Overall equivalent outage frequency per consumer "FEC" of the company - Amount determined	23.80	31.12	35.55
Overall equivalent outage frequency per consumer "FEC" of the company - Limit	35.28	35.23	23.33
Povised figures for 2019			

¹ Revised figures for 2018. ² Captive sales only.

Corporate governance ¹

				2019				2018				2017
Managers	CA	DE	CF ²	Total	CA	DE	Fiscal Council	Total	CA	DE	Fiscal Council	Total
No. of members	3	8	-	11	-	-	-	-	-	-	-	-
Annual Fixed Compensation (R\$ 000)	0	2,093	-	2,093	-	-	-	-	-	-	-	-
Salary or management fees	-	1,342	-	1,342	-	-	-	-	-	-	-	-
Direct or indirect benefits	-	1	-	1	-	-	-	-	-	-	-	-
Participations in committees	-	-	-	-	-	-	-	-	-	-	-	-
Other	-	750	-	750	-	-	-	-	-	-	-	-
Description of other fixed compensation	-	-	-	-	-	-	-	-	-	-	-	-
Variable Compensation (R\$ 000)	-	1,478	-	1,478	-	-	-	-	-	-	-	-
Bonuses	-	-	-	-	-	-	-	-	-	-	-	-
Profit sharing	-	1,478	-	1,478	-	-	-	-	-	-	-	-
Attending meetings	-	-	-	-	-	-	-	-	-	-	-	-
Commission	-	-	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-	-	-
Description of other variable compensation	-	-	-	-	-	-	-	-	-	-	-	-

CA - Board of Directors; DE - Executive Board; CF - Fiscal Council

¹ There is no data for 2018 and 2017. Energisa took over the company in August 2018, after the privatization auction.

² There is no Oversight Board at the moment.

Economic and financial metrics

Statements of added value (In thousands of reais)	2019	2018
REVENUE	1,052,000	916,914
Electricity sales and services	822,063	830,144
Other revenue	16,084	34,618
Revenue relating to construction of company assets	205,587	42,529
Allowance for doubtful accounts	8,266	9,623
(-) Consumables acquired from third parties	(650,868)	(488,307)
Cost of electricity sold	(312,088)	(322,329)
Materials and outsourced services	(96,021)	(69,325)
Other operating costs	(242,759)	(96,653)
GROSS ADDED VALUE	401,132	428,607
Depreciation and amortization	25,723	39,857
NET ADDED VALUE	375,409	398,762
Transferred value added	78,337	62,532
Finance revenue	78,337	62,532
TOTAL ADDED VALUE TO BE DISTRIBUTED	453,746	461,294
DISTRIBUTION OF ADDED VALUE	453,746	461,294
Personnel	70,479	53,164
Direct remuneration	55,501	38,186
Benefits	12,622	12,622
FGTS	2,356	2,356
Taxes, charges and contributions	318,477	198,553
Federal	77,388	64,961
State	167,327	133,592
Municipal	-	-
Intrasector Obligations	73,762	-
Interest expenses	114,480	74,571
Interest	113,477	73,402
Rent	1,003	1,169
Interest on equity	(49,690)	55,226
Legal Reserve	-	-
Additional dividends proposed	-	-
Dividends	-	-
Retained earnings/loss for the year	(49,690)	55,226

		2019	2018
Investment	R\$ million	Δ%	R\$ million
Electric assets	216.6	458.2%	38.8
Special obligations	-0.2	-	25.2
Non-electric assets	- 4.1	-	3.0
Total	212.3	216.9%	67.0

Internal social metrics

Employees/ Employability/ D&O

General information	2019	2018	2017
Total number of employees	311	339	301
Number of outsourced employees (outsourced, subcontractors, freelancers) by employment type, employment contract and region	632	1,263	1,149
Employees aged 30 or under (%)	25.4%	10.6%	11.0%
Employees aged 31 to 40 (%)	50.5%	43.4%	41.2%
Employees aged 41 to 50 (%)	19.3%	19.8%	19.9%
Employees over 50 (%)	4.8%	26.3%	27.6%
Percentage of female employees (%)	23.2%	17.1%	17.9%
Women in managerial positions - out of total managerial positions (%)	9.7%	19.7%	18.2%
Black female employees (black and mixed race) - out of total employees (%)	7.4%	12.1%	12.6%
Black male employees (black and mixed race) - out of total employees (%)	39.2%	61.1%	61.1%
Black employees (black and mixed race) in managerial positions as a percentage of all managerial positions (%)	38.7%	49.2%	53.0%
Percentage of trainees (%)	0.0%	8.6%	12.3%
Employees of the apprentice recruitment program (%)	0.0%	3.0%	6.6%
Disabled employees	7	12	12
Compensation, benefits and career (R\$ 000)	2019	2018	2017
Gross payroll	70,479	53,163	24,315
Compulsory social charges	16,567	11,380	10,537
Education	27	23	369
Food and Beverages	5,323	4,741	4,325
Transportation	-	-	142
Health	2,146	1,634	NA
Foundation	-	-	NA
Occupational health and safety	311	283	NA
Culture	-	-	NA
Training and professional development	723	735	229
Day care and day care allowance	226	295	355
Other (funeral allowance, exceptional payments, retirement premium)	2,132	2,179	296
Profit sharing	2019	2018	2017
Total investment in company profit-sharing program (R\$ 000)	87	1,372	370
Amounts distributed in relation to gross payroll (%)	34.6%	69%	20%
Highest compensation divided by the lowest compensation in cash paid by the company	7.05	29.2	28.9
Lowest compensation at the company divided by the minimum salary in force	3.66	2	1

Compensation profile by category - average salary in the current year	2019	2018	2017
Executive positions	34,367	24,803	24,803
Management positions	10,723	10,232	9,943
Administrative positions	3,790	5,761	5,985
Operating positions	2,701	5,014	5,321
Occupational health and safety	2019	2018	2017
Average overtime per employee/year	97.39	91	73
Total frequency rate for the period - employees	7.23	13.88	18.5
Employee seriousness rate in the period	205.32	7,035	129.49
Total frequency rate for the period - contractors	3.51	4.93	16.72
Seriousness Rate of outsourced/contracted employees in the period	600.84	2,794	3,263
Frequency rate of the company for the period - workforce (employees + contractors)	4.94	6.81	17.06
Severity rate for the period - workforce (employees + contractors)	609.52	2,599	2,754
Fatalities – employees	0	0	0
Fatalities – contractors	0	1	1
Professional development	2019	2018	2017
Education levels - specify percentage of total employees			
Primary Education	2.6%	27.1%	26.2%
High School	42.4%	31.7%	30.9%
Technical School	14.8%	24.7%	24.3%
Graduate	35.0%	16.5%	18.3%
Graduate (specialist, Master's degree, PhD)	5.1%	-	0.3%
Amount invested in professional development and education (R\$ 000)	274	NA	100
Average number of hours of training per year per employee, broken down into job t	уре		
Executive positions	96.0	NA	NA
Management positions	31.7	NA	16.96
Administrative positions	43.7	NA	22
Operating positions	69.7	NA	22
Conduct in light of dismissals	2019	2018	2017
Turnover rate	46.46%	2.36%	2.33%
Labor claims (company and outsourced employees)	2019	2018	2017
Amounted provisioned in the period (R\$ 000)	26,920	9,301	3,782
Number of labor claims brought against the company in the period	53	248	55
Number of labor claims accepted in the period	80	160	35
Number of labor claims rejected in the period	43	59	3
Value of damages and fines paid under court awards in the period (R\$ 000)	7,677	506	122
Retirement provision	2019	2018	2017
Investments in supplementary pensions (R\$ 000)	1,785	1,304	972
Number of recipients in the supplementary pension program	8	258	237

External social metrics

Consumers

Excellence in service	2019	2018	2017
Profile of consumers and clients			
Energy sales by rate class (GWh): % Total	100.0%	100.0%	100.0%
Residential	38.9%	41.2%	41.9%
Low-income residential	8.4%	5.4%	5.0%
Commercial	3.6%	4.0%	3.9%
Industrial	21.4%	20.4%	20.3%
Rural	5.1%	5.1%	5.0%
Public lighting	12.2%	12.5%	13.1%
Public utility	5.9%	6.2%	5.4%
Public authorities	4.6%	5.2%	5.4%
Client satisfaction	2019	2018	2017
Satisfaction rates obtained by lasc Survey - Aneel	46.41	55.3	50.91
Satisfaction rates obtained by other entities and/ or proprietary surveys - Abradee Survey	54.6	51.7	60.1
Customer service	2019	2018	2017
Call Center			
Calls received (unit)	445,336	387,470	472,520
Average number of agents (unit)	16	9	11
INS - Level of Service Rate (%)	91.74%	96.11%	93.03%
IAB - Abandonment rate (%)	1.33%	0.60%	1.70%
ICO - Busy Call Rate (%)	0.00%	-	-
TMA - Average interaction time (s)	174	133	136
Compensation for electrical damages	2019	2018	2017
Volume of requests (unit)	569	500	618
Confirmed (unit)	91	79	87
Complaints metrics	2019	2018	2017
Confirmed complaints (unit)	9,433	3,060	4,887
DER (hours)	139.26	175.58	86.58
FER (unit)	34.68	11.6	18.8
Violation of commercial service terms	2019	2018	2017
Service interactions (unit)	149,135	144,840	143,568
Service interactions completed late (unit)	10,079	3,812	11,865
Service efficiency (%)	93.24%	97.36%	91.73%
Number of customer complaints escalated to	2019	2018	2017
The company	20,410	56,187	64,785
Aneel – state/regional agencies	517	243	329
Procon	1,597	313	327
to the courts	2,923	1,680	1,880

The community

Impacts on health and safety	2019	2018	2017
Total number of nonfatal injuries involving consumers	2	4	11
Total number of fatal injuries involving consumers	2	2	1
Legal proceedings resulting from accidents involving consumers – Overall Legal Proceedings	5	2	10
Low-income rate	2019	2018	2017
Number of low-income households served ¹	54,885	31,655	30,079
Total low-income households out of total households served (residential customers/consumers) (%) ¹	36.0%	15.1%	12.8%
Revenue from sales to low-income residential subsector (R\$ 000)	30,823	17,137	15,765
Total revenue from sales to low-income residential subsector out of total residential revenue (%)	13.3%	7.4%	7.1%
Subsidy received for low-income consumers (R\$ 000) 1	14,596	11,375	9,118
Company involvement in social action	2019	2018	2017
Funds allocated to education (R\$ thousand)	-	-	-
Funds allocated to health care and sanitation (R\$ thousand)	-	-	-
Funds allocated to culture (R\$ thousand)	-	-	-
Funds allocated to sports (R\$ 000)	-	-	-
Other funds allocated to social initiatives (R\$ 000)	-	-	-
Employees carrying out voluntary work in the community outside the Company/total employees (%)	-	-	-
Number of hours donated per month (employees released from normal working hours) by the Company for employee volunteer work	-	-	-
Company involvement in cultural, sporting and social projects (Rouanet Law, Sporting Incentive Law, Pronon, Pronas, Infant and Adolescent Fund, Fund for the Elderly)	2019	2018	2017
Funds allocated to projects (R\$ 000)	-	-	-
Funds allocated to the largest project (R\$ 000)	-	-	-
Project name	-	-	-
Bidder	-	-	-

¹ Revised figures for 2018.

Electric sector metrics

Universal electricity access

	2019	2018	2017
Service targets	3,890	1,880	2,630
Calls handled (no.)	2,513	1,796	1,348
Performance of targets (%)	65%	96%	51%
Total municipalities with universal access	5	-	-
Municipalities with universal access (%)	23%	-	_

Energy Efficiency Program (PEE) ¹

					2019					2018					2017
		restments (R\$ 000) ¹	Fina	ncing so (R	ources \$ 000)		stments R\$ 000) ¹	Fina	ncing so (R	ources \$ 000)		estments R\$ 000) ¹	sour	Fina es (R\$	ncing (000)
Project type	Total	(%)	Company	Third party	Customer	Total	(%)	Company	Third party	Customer	Total	(%)	Company	Third party	Customer
Industrial	0	-	0	0	0	0	-	0	0	0	0	-	0	0	0
Trade and Services	232	2.6%	232	0	0	0	-	0	0	0	0	-	0	0	0
Government	1,448	16.4%	1,448	0	0	0	-	0	0	0	0	-	0	0	0
Public Utility	0	-	0	0	0	0	-	0	0	0	0	-	0	0	0
Rural	0	-	0	0	0	0	-	0	0	0	0	-	0	0	0
Residential	0	-	0	0	0	0	-	0	0	0	0	-	0	0	0
Low-Income Residential	2,949	33.4%	2,949	0	0	0	-	0	0	0	0	-	0	0	0
Public Lighting	4,203	47.6%	4,203	0	0	0	-	0	0	0	0	-	0	0	0
Municipal Energy Management	0	-	0	0	0	0	-	0	0	0	0	-	0	0	0
Education	0	-	0	0	0	0	-	0	0	0	0	-	0	0	0
TOTAL	8,832	100.0%	8,832	0	0	0	-	0	0	0	0	-	0	0	0

¹ Excludes funds used in project management.

			2019			2018			2017
Project type	Units served	Energy savings (MWh/year)	Peak Shaving (kW)	Units served	Energy savings (MWh/year)	Peak Shaving (kW)	Units served	Energy savings (MWh/year)	Peak Shaving (kW)
Industrial	0	0	0	0	0	0	0	0	0
Trade and Services	1	175	47	0	0	0	0	0	0
Government	3	238	58	0	0	0	0	0	0
Public Utility	0	0	0	0	0	0	0	0	0
Rural	0	0	0	0	0	0	0	0	0
Residential	0	0	0	0	0	0	0	0	0
Low-Income Residential	877	1,297	305	0	0	0	0	0	0
Public Lighting	2	903	206	0	0	0	0	0	0
Municipal Energy Management	0	0	0	0	0	0	0	0	0
Education	0	0	0	0	0	0	0	0	0
TOTAL	883	2,163	616	0	0	0	0	0	0

By field of research (Research & Development Handbook – Aneel)

		2019		2018		2017
	Amount	(%)	Amount	(%)	Amount	(%)
FA – Alternative Electricity Generation Sources	0	-	0	-	0	-
GT – Thermal Generation	0	-	0	-	0	-
GB – River Basin and Reservoir Management	0	-	0	-	0	-
MA – Environment	0	-	0	-	0	-
SE – Safety	0	-	0	-	0	-
EF – Energy Efficiency	942	100.0%	0	-	0	-
PL – Power Systems Planning	0	-	0	-	0	-
OP – Power System Operation	0	-	0	-	0	-
SC – Power System Supervision, Control and Protection	0	-	0	-	0	-
QC - Power Supply Quality and Reliability	0	-	1,066	100.0%	1,110	100.0%
MF – Metering, Billing and Commercial Loss Reduction	0	-	0	-	0	-
OU - Other	0	-	0	-	0	-
TOTAL	942	100.0%	1,066	100.0%	1,110	100.0%

¹ Excludes funds used in project management.

Recover degraded areas	2019	2018	2017
Shielded and insulated lines (ecological grid or green lines) in urban areas (km)	1,702	1,480	768.73
Percentage of shielded and insulted lines out of total distribution lines in urban areas (%)	42%	42%	31.5%
Waste generation and treatment	2019	2018	2017
Issuance			
Annual volume of greenhouse (CO ₂ , CH ₄ , N ₂ O, HFC, PFC, SF ₆), emitted into the atmosphere (in tonnes of CO ₂ equivalent)	235	NA	N.A
Annual volume of ozone-depleting emissions (in tonnes of CFC equivalent)	NA	NA	N/
Effluents			
Total water discharge by quality and destination ¹	NA	NA	NA
Solids			
Annual quantity (in tons) of solid waste generated (refuse, waste, rubble etc.)	NA	NA	NA
Percentage of equipment replaced by insulating mineral oil without PCB (ascarel)	-	-	
Use of resources in the production process and managerial processes	2019	2018	2017
Total electricity consumption by source			
Electricity consumption per kWh distributed (sold)	0.70614	0.62282	0.63594
Direct energy consumption by primary source in GJ	2,641,393	2,238,892	2,271,955
Diesel	2,076,106	2,238,892	2,271,955
Gasoline	565,287	-	
Ethanol	-		
Natural gas	-	-	
Other	-	-	
Total water withdrawal by source (m³)			
Supply (public system)	8,148	6,797	3,380
Groundwater (wells)	-	-	•
Surface extraction (waterways)	-	-	
Total water withdrawal (m³)	8,148	6,797	3,380
Water withdrawal per employee (m³)	23.82	20.11	13.36
Environmental education and awareness raising	2019	2018	2017
At the Organization		'	
Number of employees trained in environmental education programs	-	-	
Percentage of employees trained in environmental education programs/total employees	-	-	
Number of hours of environmental training out of total hours of training	-	-	
In the Community			
Number of primary schools and high schools served	-	-	
Number of primary school and high school students served	-	-	
Number of teachers trained	-	-	
Number of universities and technical schools served	-	-	
Number of technical school and graduate students served	-	-	
Water waste is sanitary waste and relatively insignificant.		I	

¹ Water waste is sanitary waste and relatively insignificant.

Performance metrics - distribution companies	2019	2018	2017
Deforestation (hectares of land cleared by quarter)	763.25	18,020	24,798
Tree pruning (volume of waste created by month in kg)	NA	NA	NA
Oil leaks (leakage sites by month)	4	NA	NA

Energisa Rondônia

Operating and productivity metrics

Technical information (consumables, production capacity, sales, losses)	2019	2018	2017
Number of consumers served - Captive	645,131	641,995	632,945
Number of consumers served - Free	42	37	30
Number of municipalities served	52	52	52
Number of own employees	932	937	717
Number of outsourced employees	1,403	1,232	1,216
Number of commercial offices	55	59	58
Electricity generated (GWh)	NA	NA	NA
Electricity purchased (GWh)	4,620.80	4,276.75	4,553.88
1) Itaipu	-	-	-
2) Auction (including federal generator auction - 2002)	4,620.76	1,075.79	640.62
3) Energy sales of concession operator	0.05	-	-
Global electric losses (GWh) ¹	1,259.4	1,201.3	1,207.0
Electrical losses – (%) total on energy requirement ¹	27.87%	27.63%	28.3%
Technical losses – (%) on energy requirement 1	12.00%	11.17%	11.2%
Non-technical losses – (%) on energy requirement ¹	15.87%	16.47%	17.1%
Energy Sold (GWh) ²	3,038.94	2,957.97	2,914.92
Residential	1,291.10	1,248.98	1,225.45
Industrial	305.39	310.90	320.77
Commercial	668.49	633.77	629.83
Rural	337.06	333.84	325.76
Public authorities	229.69	221.65	225.07
Public lighting	152.93	156.82	135.69
Public utility	54.28	52.02	52.35
Substations (in units) 1	56	56	60
Installed capacity (MVA) ¹	1,294	1,294	1,281
Transmission lines (km)	907	907	907
Distribution lines (in km) ¹	62,635	61,761	61,761
Distribution transformers (in units) 1	112,116	110,242	101,423
Sale of energy through installed capacity – GWh/(MVA X no.hours/year) ³	0.000268	0.000261	0.000260
Electricity sold per employee (MWh)	3,261	3,157	4,065
Number of consumers per employee	692	685	883
Added value/GWh sold	243.90	265.23	227.54
Overall equivalent outage duration per consumer "DEC" of the company - Amount determined	48.57	35.47	32.32
Overall equivalent outage duration per consumer "DEC" of the company - Limit	27.63	27.61	20.5
Overall equivalent outage frequency per consumer "FEC" of the company - Amount determined	23.40	16.69	19.21
Overall equivalent outage frequency per consumer "FEC" of the company - Limit	18.95	18.94	17.57
Revised figures for 2018			

¹ Revised figures for 2018. ² Captive sales only.

Corporate governance¹

				2019				2018				2017
Managers	CA	DE	CF ²	Total	CA	DE	Fiscal Council	Total	CA	DE	Fiscal Council	Total
No. of members	3	8	-	11	-	-	_	_	-	-	-	-
Annual Fixed Compensation (R\$ 000)	362	2,473	0	2,835	-	-	-	-	-	-	-	-
Salary or management fees	273	1,930	-	2,203	-	-	-	-	-	-	-	-
Direct or indirect benefits	-	68	-	68	-	-	-	-	-	-	-	-
Participations in committees	-	-	-	-	-	-	-	-	-	-	-	-
Other	89	475	-	564	-	-	-	-	-	-	-	-
Description of other fixed compensation	-	-	-	-	-	-	-	-	-	-	-	-
Variable Compensation (R\$ 000)	-	1,418	-	1,418	-	-	-	-	-	-	-	-
Bonuses	-	-	-	-	-	-	-	-	-	-	-	-
Profit sharing	-	1,418	-	1,418	-	-	-	-	-	-	-	-
Attending meetings	-	-	-	-	-	-	-	-	-	-	-	-
Commission	-	-	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-	-	-
Description of other variable compensation	-	-	-	-	-	-	-	-	-	-	-	-

CA - Board of Directors; DE - Executive Board; CF - Fiscal Council

³ Revised figures for 2017 and 2018.

 $^{^{\}scriptsize 1}$ There is no data for 2018 and 2017. Energisa took over the company in August 2018, after the privatization auction.

² There is no Oversight Board at the moment.

Economic and financial metrics

Statements of added value (In thousands of reais)	2019	2018
REVENUE	2,437,087	2,531,552
Electricity sales and services	2,068,253	2,710,245
Other revenue	4,384	(70,701)
Revenue relating to construction of company assets	404,834	(107,992)
Allowance for doubtful accounts	(40,384)	(2,014,583)
(-) Consumables acquired from third parties	(1,753,204)	(1,118,341)
Cost of electricity sold	(1,160,576)	(151,255)
Materials and outsourced services	(233,461)	-
Other operating costs	(359,167)	(744,987)
GROSS ADDED VALUE	683,883	516,969
Depreciation and amortization	(88,343)	(157,279)
NET ADDED VALUE	595,540	359,690
Transferred value added	145,663	339,126
Finance revenue	145,663	339,126
TOTAL ADDED VALUE TO BE DISTRIBUTED	741,203	698,816
DISTRIBUTION OF ADDED VALUE	741,203	698,816
Personnel	218,409	254,214
Direct remuneration	138,800	178,021
Benefits	32,904	68,017
FGTS	46,705	8,176
Taxes, charges and contributions	719,802	793,653
Federal	107,344	487,225
State	397,510	306,428
Municipal	229	-
Intrasector Obligations	214,719	-
Interest expenses	319,007	709,845
Interest	314,249	705,096
Rent	4,758	(4,749)
Interest on equity	(516,015)	(1,058,896)
Legal Reserve	(516,015)	-
Additional dividends proposed	-	-
Dividends	-	-
Retained earnings/loss for the year	-	(1,058,896)

		2018	
Investment	R\$ million	Δ %	R\$ million
Electric assets	425.5	1,851.8%	21.8
Special obligations	153.2	590.1%	22.2
Non-electric assets	43.3	3,508.3%	1.2
Total	622.0	1,276.1%	45.2

Internal social metrics

Employees/ Employability/ D&O

General information	2019	2018	2017
Total number of employees	932	937	717
Number of outsourced employees (outsourced, subcontractors, freelancers) by employment type, employment contract and region	1,403	1,232	1,216
Employees aged 30 or under (%)	38.8%	14.0%	8.0%
Employees aged 31 to 40 (%)	41.7%	30.0%	27.0%
Employees aged 41 to 50 (%)	13.1%	17.0%	20.0%
Employees over 50 (%)	6.4%	39.0%	46.0%
Percentage of female employees (%)	17.8%	18.9%	20.1%
Women in managerial positions - out of total managerial positions (%)	14.6%	27.8%	29.2%
Black female employees (black and mixed race) - out of total employees (%)	10.8%	10.3%	9.6%
Black male employees (black and mixed race) - out of total employees (%)	53.4%	54.6%	50.5%
Black employees (black and mixed race) in managerial positions as a percentage of all managerial positions (%)	39.0%	50.0%	46.0%
Percentage of trainees (%)	5.2%	5.0%	7.0%
Employees of the apprentice recruitment program (%)	6.5%	3.0%	4.0%
Disabled employees	38	19	12
Compensation, benefits and career (R\$ 000)	2019	2018	2017
Gross payroll	157,506	254,214	147,141
Compulsory social charges	62,861	31,875	29,058
Education	8	1,323	1,333
Food and Beverages	14,837	12,302	10,678
Transportation	-	23	22
Health	17,518	16,472	16,236
Foundation	-	-	-
Occupational health and safety	8,091	619	349
Culture	-	-	-
Training and professional development	110	643	336
Day care and day care allowance	1,323	632	691
Other (funeral allowance, exceptional payments, retirement premium)	877	886	981
Profit sharing	2019	2018	2017
Total investment in company profit-sharing program (R\$ 000)	247	4,600	3,348
Amounts distributed in relation to gross payroll (%)	37.6%	3.5%	2.3%
Highest compensation divided by the lowest	13.57	19.63	18.99
compensation in cash paid by the company			

Compensation profile by category - average salary in the current year	2019	2018	2017
Executive positions	47,297	33,721	25,201
Management positions	9,256	15,289	17,512
Administrative positions	2,904	4,918	6,671
Operating positions	1,465	4,287	4,994
Occupational health and safety	2019	2018	2017
Average overtime per employee/year	47.2	45	5
Total frequency rate for the period - employees	-	6.02	3.58
Employee seriousness rate in the period	-	2,873	1
Total frequency rate for the period - contractors	6.23	6.76	5.72
Seriousness Rate of outsourced/contracted employees in the period	4,688.50	2,032.00	5,641.00
Frequency rate of the company for the period - workforce (employees + contractors)	6.21	6.09	5.09
Severity rate for the period - workforce (employees + contractors)	4,673.05	2,284.00	3,972.00
Fatalities – employees	0	0	0
Fatalities – contractors	4	1	3
Professional development	2019	2018	2017
Education levels - specify percentage of total employees			
Primary Education	2.0%	5.0%	6.1%
High School	46.2%	44.2%	42.3%
Technical School	20.7%	9.1%	4.7%
Graduate	25.0%	30.2%	33.1%
Graduate (specialist, Master's degree, PhD)	6.2%	11.5%	13.8%
Amount invested in professional development and education (R\$ 000)	572	74	262
Average number of hours of training per year per employee, broken down into job ty	ре		
Executive positions	122.5	36.6	NA
Management positions	30.5	21.5	NA
Administrative positions	41.2	24.8	NA
Operating positions	75.1	42.7	NA
Conduct in light of dismissals	2019	2018	2017
Turnover rate	56.1%	20.0%	20.0%
Labor claims (company and outsourced employees)	2019	2018	2017
Amounted provisioned in the period (R\$ 000)	40,014	6,044	6,290
Number of labor claims brought against the company in the period	187	754	313
Number of labor claims accepted in the period	574	670	21
Number of labor claims rejected in the period	817	12	39
Value of damages and fines paid under court awards in the period (R\$ 000)	25,333	1,112	482
Retirement provision	2019	2018	2017
Investments in supplementary pensions (R\$ 000)	5,139	7,044	6,804
Number of recipients in the supplementary pension program	275	580	584

External social metrics

Consumers

Excellence in service	2019	2018	2017
Profile of consumers and clients			
Energy sales by rate class (GWh): % Total	100.0%	100.0%	100.0%
Residential	38.2%	39.4%	38.8%
Low-income residential	4.2%	2.9%	3.2%
Commercial	10.0%	10.5%	11.0%
Industrial	22.0%	21.4%	21.6%
Rural	11.1%	11.3%	11.2%
Public lighting	7.6%	7.5%	7.7%
Public utility	5.0%	5.3%	4.7%
Public authorities	1.8%	1.8%	1.8%
Client satisfaction	2019	2018	2017
Satisfaction rates obtained by lasc Survey - Aneel	43.84	62.48	53.00
Satisfaction rates obtained by other entities and/ or proprietary surveys - Abradee Survey	63.40	66.10	69.20
Customer service	2019	2018	2017
Call Center			
Calls received (unit)	1,044,281	631,947	650,920
Average number of agents (unit)	99	50	14
INS - Level of Service Rate (%)	92.10%	94.76%	92.72%
IAB - Abandonment rate (%)	1.70%	1.12%	2.10%
ICO - Busy Call Rate (%)	0.00%	0.00%	0.00%
TMA - Average interaction time (s)	186	148	154
Compensation for electrical damages	2019	2018	2017
Volume of requests (unit)	1,974	1,461	1,166
Confirmed (unit)	242	277	196
Complaints metrics	2019	2018	2017
Confirmed complaints (unit)	27,456	3,840	3,436
DER (hours)	577	130	173
FER (unit)	64.31	6.02	3.81
Violation of commercial service terms	2019	2018	2017
Service interactions (unit)	311,208	259,237	278,631
Service interactions completed late (unit)	57,578	11,451	367,720
Service efficiency (%)	97.30%	96.00%	73.00%
Number of customer complaints escalated to	2019	2018	2017
The company	48,883	9,252	7,661
Aneel – state/regional agencies	1,630	172	250
Procon	1,832	1,263	956
to the courts	487	85	119

The community

Impacts on health and safety	2019	2018	2017
Total number of nonfatal injuries involving consumers	1	5	3
Total number of fatal injuries involving consumers	1	5	1
Legal proceedings resulting from accidents involving consumers – Overall Legal Proceedings	1	14	161
Low-income rate	2019	2018	2017
Number of low-income households served	63,727	41,476	46,228
Total low-income households out of total households served (residential customers/consumers) (%)	13.8%	9.0%	10.0%
Revenue from sales to low-income residential subsector (R\$ 000)	79,965	30,870	27,855
Total revenue from sales to low-income residential subsector out of total residential revenue (%)	7.14%	5.20%	5.20%
Subsidy received for low-income consumers (R\$ 000)	18,114	14,367	14,143
Company involvement in social action	2019	2018	2017
Funds allocated to education (R\$ thousand)	134	-	-
Funds allocated to health care and sanitation (R\$ thousand)	215	-	-
Funds allocated to culture (R\$ thousand)	380	-	-
Funds allocated to sports (R\$ 000)	86	-	-
Other funds allocated to social initiatives (R\$ 000)	-	14.1	283.8
Employees carrying out voluntary work in the community outside the Company/total employees (%)	44.2%	32.0%	-
Number of hours donated per month (employees released from normal working hours) by the Company for employee volunteer work	73	NA	NA
Company involvement in cultural, sporting and social projects (Rouanet Law, Sporting Incentive Law, Pronon, Pronas, Infant and Adolescent Fund, Fund for the Elderly)	2019	2018	2017
Funds allocated to projects (R\$ 000)	NA	NA	NA
Funds allocated to the largest project (R\$ 000)	NA	NA	NA
Project name	NA	NA	NA
Bidder	NA	NA	NA

Electric sector metrics

Universal electricity access

	2019	2018 ¹	2017 1
Service targets	5,000	9,442	3,324
Calls handled (no.)	2,454	513	2,945
Performance of targets (%)	49.0%	5.4%	88.6%
Total municipalities with universal access	7	2	2
Municipalities with universal access (%)	13.5%	3.8%	3.8%

¹ Adjusted figures for 2017 and 2018.

Energy Efficiency Program (PEE) ¹

	_			_											
				- 7	2019	2018								2017	
		estments (R\$ 000) ¹	Financii		rces 000)					stments R\$ 000) 1	Financi		irces 000)		
Project type	Total	(%)	Company	Third party	Customer	Total	(%)	Company	Third party	Customer	Total	(%)	Company	Third party	Customer
Industrial	0	-	0	0	0	0	-	0	0	0	0	-	0	0	0
Trade and Services	1,116	6.9%	1,116	0	0	0	-	0	0	0	0	-	0	0	0
Government	0	-	0	0	0	0	-	0	0	0	0	-	0	0	0
Public Utility	0	-	0	0	0	569	100%	569	0	0	1,950.35	84.2%	1,950.35	0	0
Rural	0	-	0	0	0	0	-	0	0	0	0	-	0	0	0
Residential	0	-	0	0	0	0	-	0	0	0	0	-	0	0	0
Low-Income Residential	3,208	19.9%	3,208	0	0	0	-	0	0	0	0	-	0	0	0
Public Lighting	11,823	73.2%	11,823	0	0	0	-	0	0	0	0	-	0	0	0
Municipal Energy Management	0	-	0	0	0	0	-	0	0	0	0	-	0	0	0
Education	0	-	0	0	0	0	-	0	0	0	365.81	16%	365.81	0	0
TOTAL	16,147	100.0%	16,147	0	0	569	1	569	0	0	2,316.16	100%	2,316.16	0	0

¹ Excludes funds used in project management.

			2019			2018				
Project type	Units served	Energy savings (MWh/year)	Peak Shaving (kW)	Units served	Energy savings (MWh/year)	Peak Shaving (kW)	Units served	Energy savings (MWh/year)	Peak Shaving (kW)	
Industrial	0	0	0	-	-	-	-	-	-	
Trade and Services	3	94	9	-	-	-	-	-	-	
Government	0	0	0	-	-	-	-	-	-	
Public Utility	0	0	0	1	427	84	1	1,516.60	267.7	
Rural	0	0	0	-	-	-	-	-	-	
Residential	0	0	0	-	-	-	-	-	-	
Low-Income Residential	2,115	0	0	-	-	-	-	-	-	
Public Lighting	16	6,753	1,542	-	-	-	-	-	-	
Municipal Energy Management	0	0	0	-	-	-	-	-	-	
Education	0	0	0	-	NA	NA	313	NA	NA	
TOTAL	2,134	6,847	1,551	1	427	84	314	1,516.6	267.7	

By field of research (Research & Development Handbook - Aneel)

		2019		2018		2017	
	Amount	(%)	Amount	(%)	Amount	(%)	
FA – Alternative Electricity Generation Sources	0	-	244	25.15%	1229	39.44%	
GT – Thermal Generation	0	-	0	-	0	-	
GB – River Basin and Reservoir Management	0	-	0	-	0	-	
MA – Environment	0	-	0	-	0	-	
SE – Safety	0	-	0	-	720	23.11%	
EF – Energy Efficiency	0	-	0	-	0	-	
PL – Power Systems Planning	0	-	0	-	61	1.96%	
OP – Power System Operation	385	100%	471	48.6%	851	27.3%	
sc – Power System Supervision, Control and Protection	0	-	0	-	0	-	
QC – Power Supply Quality and Reliability	0	-	137	14.1%	137	4.4%	
MF – Metering, Billing and Commercial Loss Reduction	0	-	0	-	0	-	
OU – Other	0	-	118	12.1%	118	3.8%	
TOTAL	385	100.0%	969	100.0%	3115	100.0%	

¹ Excludes funds used in project management.

Recover degraded areas	2019	2018	2017
Shielded and insulated lines (ecological grid or green lines) in urban areas (km)		2,177	1,783
Percentage of shielded and insulted lines out of total distribution lines in urban areas (%)		22.0%	20.0%
Waste generation and treatment	2019	2018	2017
Issuance			
Annual volume of greenhouse (CO ₂ , CH ₄ , N ₂ O, HFC, PFC, SF ₆), emitted into the atmosphere (in tonnes of CO ₂ equivalent)	479,802	341,165	472,508
Annual volume of ozone-depleting emissions (in tonnes of CFC equivalent)	0.038072	0.036069	0.004996
Effluents			
Total water discharge by quality and destination ¹	NA	NA	NA
Solids			
Annual quantity (in tons) of solid waste generated (refuse, waste, rubble etc.)	1.8	1.3	0.9
Percentage of equipment replaced by insulating mineral oil without PCB (ascarel)	NA	NA	NA
Use of resources in the production process and managerial processes	2019	2018	2017
Total electricity consumption by source			
Electricity consumption per kWh distributed (sold)	0.06289	0.03628	0.05883
Direct energy consumption by primary source in GJ	688,014	386,365	617,351
Diesel	477,892	211,952	455,160
Gasoline	210,122	174,379	162,125
Ethanol	64	34	66
Natural gas	NA	-	-
Other	NA	-	-
Total water withdrawal by source (m³)			
Supply (public system)	31,212	9,671	11,405
Groundwater (wells)	NA	NA	NA
Surface extraction (waterways)	NA	NA	NA
Total water withdrawal (m³)	31,212	9,671	11,405
Water withdrawal per employee (m³)	27.74	22.7	15.9
Environmental education and awareness raising	2019	2017	2016
At the Organization			
Number of employees trained in environmental education programs	1,578	247	663
Percentage of employees trained in environmental education programs/total employees	97%	26%	92%
Number of hours of environmental training out of total hours of training	NA	NA	NA
In the Community			
Number of primary schools and high schools served	10	-	24
Number of primary school and high school students served	1,124	-	4,284
Number of teachers trained	1.7	_	_
Number of universities and technical schools served	43		
Number of universities and technical schools served	2	-	-

¹ Water waste is sanitary waste and relatively insignificant.

Performance metrics - distribution companies	2019	2018	2017
Deforestation (hectares of land cleared by quarter)	4	NA	NA
Tree pruning (volume of waste created by month in kg)	NA	NA	NA
Oil leaks (leakage sites by month)	NA	NA	NA

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