COPEL
Companhia Paranaense de Energia

PARANÁ
GOVERNO DO ESTADO

(A free translation of the original in Portuguese)

Companhia Paranaense de Energia

Corporate Taxpayer's ID (CNPJ/MF) 76.483.817/0001-20

State registration 10146326-50

Publicly-Held Company- CVM 1431-1

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MANAGEMENT'S REPORT

AND

FINANCIAL STATEMENTS

2019

COPEL
Companhia Paranaense de Energia

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SUMMARY

(A free translation of the original in Portuguese)

MESSAGE FROM THE CEO

One of the main tasks of this management has been to honor and maintain the Company's main asset, its highly technical staff and, at the same time, to develop strategies to advance in efficiency and reduce costs.

We reached our 65th anniversary in October as the largest company in the State and the fourth in the Brazilian electricity sector, with businesses in 10 states and a renewed focus on our activities in Paraná. We allocated R$ 920 million to improve the electrical distribution system, which serves almost 4.8 million consumers in the State, which is the largest amount ever allocated to the segment in the entire history of the Company.

We are at the forefront of an intense movement of technological transformation, researching and implementing innovations that, in the medium term, will increase the quality of supply for the productive sector and change the way people relate to energy. This is possible thanks to management based on the search for efficiency, profitable investments and the excellence of our professionals. This movement is already becoming a reality at Copel Distribuição through the Transformation Program, which will have R$ 2.9 billion invested in the three phase networks that serve our rural area, through smart grids, with total reliability.

An important part of this process began with the centralization of all operations and services units that were in the interior of Paraná. With almost 3 thousand square meters, Polo Smart Copel, a new integrated operations and services center, applies the most advanced technology to meet the future needs of the electrical system. With Smart Copel it is possible to monitor smart meters, electric car charging stations, distributed generation system, sensors, automatic reclosers from all over Paraná, among other technologies that are beginning to emerge in the state.

The efficiency that has already been implemented in Ipiranga, our first 100% smart city, will be applied in other locations. Replacing all traditional energy meters with smart models allows us to automate the measurement of consumption and is transforming our distribution system into an integrated energy network. We can observe connectivity, predict system failures and the consumer also monitors the evolution of their consumption, giving a real parameter for the use of energy.

We will also start the Paraná Three-Phase Project, which consists of replacing 25 thousand kms of single-phase networks with three-phase networks in the rural area of Paraná, improving the quality of supply and providing greater security for employees and the population.

Another very important milestone for Copel, the *electrovia* that connects the Port of Paranaguá to the Iguaçu Falls, completed a year of a fruitful partnership with Itaipu Binacional where the Company took the lead in relation to urban mobility and decarbonization, issues that have become a global priority.

The use of systems that generate abundant, renewable and clean energy was highlighted in 2019 with the entry into operation of the last three generating units of the Cutia Windf Farm Complex, and the conclusion of the works of the Bento Miguel Wind Farm Complex, both on the coast of Rio Grande do Norte. Together, the two complexes will produce enough energy to serve more than 800,000 people.

In March, we started the commercial operation of the first energy generating unit at the Colíder Hydroelectric Plant. This was another step towards closing a cycle of investments in clean energy generation. Colíder has significant importance in the national scenario since Brazil, even though it already has wind farms, still depends on hydroelectric plants to guarantee the proper operation of the interconnected system.

Copel Energia, our subsidiary responsible for selling electricity to the free market, reached a significant 1.3 GW of average energy sold in 2019. This result brings us closer to achieving our goal of being among the main players in the segment.

All of these advances and plans require committed management. This commitment was proven through the awards achieved by the Company throughout 2019. We have the best governance among state-owned companies according to B3's Highlights in State Governance program. We remain at the top of the most valuable companies in Paraná and in the Top 3 in the South of Brazil. We have the second best distributor in Latin America, an award given by the Comisión de Integración Energética Regional *(Cier)* and the best in Brazil in terms of customer evaluation, according to research by the Brazilian Association of Electricity Distributors - Abradee.

Our Audit received international Quality Assessment certification. This certification attests to the use of global best practices and compliance with international standards for the professional practice of internal auditing. Copel Distribuição's Ombudsman, for the second consecutive year, received the Aneel Ombudsman Award.

Honoring our commitment to work towards the Sustainable Development Goals, the Internet Without Bullying project, created by Copel Telecom in partnership with *Abrace Programa Preventivos*, received the trophy for best sustainable practice in the large companies category. Through lectures at state schools, already connected by Copel's internet, teams of volunteers from all subsidiaries and strategic business partners impacted more than 700 public school students with the theme of cyberbullying.

We emphasize that Copel Telecomunicações, with 100% optical fiber technology, provides a highly demanded and valued service, but needs intensive investments to face the competition. Therefore, during 2019 we reviewed our performance, our market, investment and return, always seeking to maintain the quality already consolidated by the Copel Group, while we are deepening studies on the potential sale of control of Copel Telecomunicações S.A. with external financial and legal advisory firms.

Another social initiative, the Cultivar Energia program supported by Copel Geração e Transmissão, received the Benchmarking Brazil trophy. This program allows the creation of community gardens under power transmission lines.

The financial results obtained in 2019 reflect our belief that financial discipline is one of the most important pillars for the sustained growth of the business. For the first time, our consolidated net income exceeded R$ 2 billion. In addition, our EBITDA increased by R$ 1,141.3 million in relation to 2018, demonstrating our efficiency and increased productivity.

Finally, I would like to highlight the excellent work of all employees. Its dedication and commitment has led Copel to achieve efficiency rates that equal or even exceed those of the best private companies in the electricity sector.

In 2020, we are facing an unprecedented crisis in Brazil and in the world. We face an invisible enemy, which has imposed severe restrictions on people and economic activity. We will have a huge challenge ahead: to reconcile health protection measures with productive activity. By the very nature of the company we choose to work for, we are at the forefront. We have a responsibility to more than 11 million people from Paraná, especially to the most vulnerable sections of the population, and we will not fail in our mission. It is the path we have followed so far that we must continue to follow: maintain the stability of a public company but with a private company mindset.

There are many projects, but we must work hard to effectively leave a legacy.

Daniel Pimentel Slaviero

CEO of Copel

1. ORGANIZATIONAL PROFILE

Copel was created in October 1954 and is the largest company in Paraná State in net revenue. It operates with state-of-the-art technology in the areas of generation, transmission, commercialization and distribution of energy, as well as in telecommunications and natural gas.

It operates a comprehensive and effective electrical system with its own generating plants, transmission lines, substations, electrical lines and grids of the distribution system, and a modern telecommunications system that integrates all the cities of the State.

Although the Company is headquartered in Curitiba, Copel is present in ten other Brazilian states as follows:

• Awards and Certifications in 2019

Awards and certifications	Certification Body
Abradee Award - Customer evaluation 2019	Associação Brasileira de Distribuidores de Energia Elétrica - Abradee
Abradee Award - Best company in Southern Brazil 2019	Abrace
Abradee Award - 2nd place Management Quality 2019	Abrace
CIER Award - Best Distribution Company (silver category)	Comisíon de Integración Energética Regional - CIER América Latina
Selo Clima Paraná Ouro	State of Paraná government
Citizen Company Certificate - information presented at Social Report	Regional Accounting Council of Rio de Janeiro, Firjan System and Fecomércio
500 Largest in the South Award - Largest company in Paraná	Amanhã Magazine
500 Largest in the South Award - Highest net revenue in the energy sector	Amanhã Magazine
Sesi ODS Award - Recognition of practices in favor of sustainable development objectives - industry category	SESI - Serviço Social da Indústria
ODS Sesi Seal - Internet Without Bullying project	SESI - Serviço Social da Indústria
ODS Sesi Seal - Cultivar Energia Program	SESI - Serviço Social da Indústria
Honorable Mention ODS Sesi - Zero carbon	SESI - Serviço Social da Indústria
2nd place - Award Quality Aneel South (formerly IASC) - Dealers above 400 thousand consumer units	Aneel
Aneel Ombudsman Award - Second place	Aneel
Best socio-environmental practices - 1st place	Benchmarking Brasil
Best Fleet Management in the country	Instituto Parar
Abraconee Award for Best Disclosure of Financial Statements for 2018 - 3rd place in the category large company in the electricity sector	Associação Brasileira dos Contadores do Setor de Energia Elétrica - Abraconee
Highlight in governance of state - owned companies	B3 S.A. - Brasil, Bolsa, Balcão
ISE - Corporate Sustainability Index	B3 S.A. - Brasil, Bolsa, Balcão
Pro-Ethics Award 2018-2019 - Corporate Integrity	CGU e Instituto Ethos
Ibero-American Quality Award - finalist	Fundação Ibero-americana de Gestão da Qualidade - FUNDIBEQ
WOB seal - for the female presence in CAD	United Nations

• Participation in the Market

Main products (%)	Brazil	South Region	Paraná
Electricity generation [(1)]	3.0	[(2) (3)] 19.9	[(2) (3)] 48.0
Electricity transmission [(4)]	2.3	11.3	21.2
Electricity distribution [(5)]	[(6)] 6,2	[(6)] 33.5	[(7)] 97.2
Gas distribution	1.8	20.7	58.5
Telecommunications [(7)]	0.6	2.9	7.8

(1) Installed capacity. Equity interest of Copel and wind farms are not included
(2) Itaipu Power Plant not included
(3) Paranapanema river power plants not included
(4) The market refers to Permitted Annual Revenues - RAP
(5) Distribution wire market
(6) Source: Empresa de Pesquisa Energética - EPE
(7) Number of hits

• Strategic Reference

Copel's actions and management decisions are directed by the guidelines established in its Mission, Vision and Values, as follows:

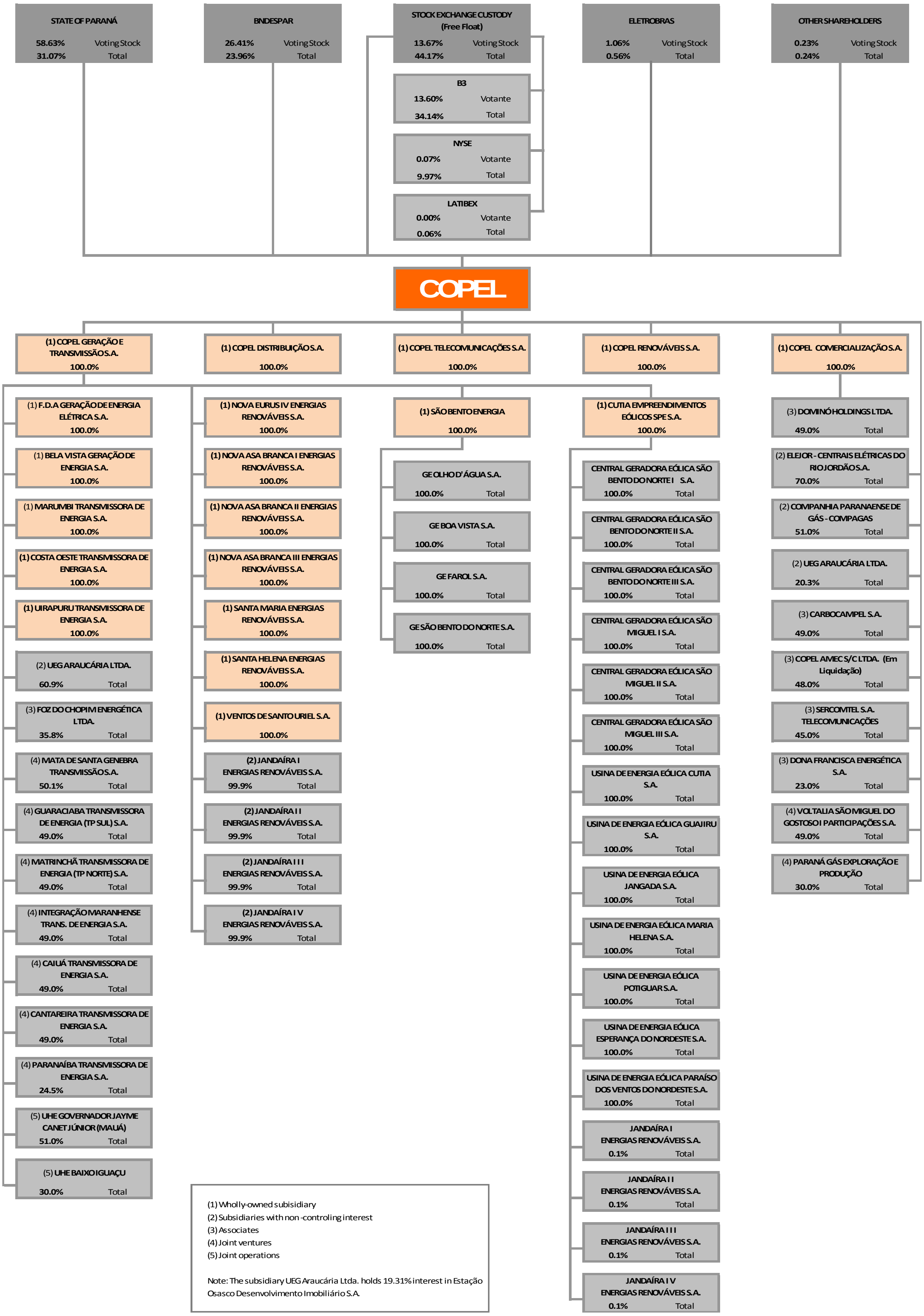
Mission: Provide energy and sustainable development solutions.

Vision: To be a reference in the businesses in which it operates generating value in a sustainable way.

Values:

- **Ethics:** Result of a collective agreement that defines individual behaviors in line with a common goal.
- **Respect for people:** Taking others into account.
- **Commitment:** Ability to engage intensely and completely in the work, contributing to the achievement of the organization’s goals.
- **Transparency:** Accountability of the decisions and achievements of the company to report its positive or negative aspects to all stakeholders.
- **Safety and Health:** Healthy working environment in which workers and managers collaborate to use a process of continuous improvement of the protection and promotion of safety, health and well-being for all.
- **Responsibility:** Conducting the company's life in a sustainable manner, respecting the rights of all stakeholders, including the future generations, and the commitment to sustaining all life forms.
- **Innovation:** Applying ideas in processes, products or services in order to improve something that already exists or to build something different and better.

- **Organizational structure on December 31, 2019:**



- **Copel in Numbers**

	2019	2018	variation %
Accounting Indicators			
Total assets	38,312,551	35,930,100	6.6
Cash and cash equivalents	2,941,727	1,948,409	51.0
Bonds and securities	282,081	344,296	(18.1)
Total debt	11,572,094	11,565,438	0.1
Net debt	8,348,286	9,272,733	(10.0)
Gross operating revenues	25,227,782	23,725,810	6.3
Deductions from revenues	8,983,508	8,791,030	2.2
Net operating revenue	16,244,274	14,934,780	8.8
Operating costs and expenses	13,160,350	12,676,621	3.8
Equitiy in earnings of investees	106,757	135,888	(21.4)
Equity pick-up	3,083,924	2,258,159	36.6
EBITDA ou LAJIDA	4,284,517	3,143,226	36.3
Financial result	488,486	438,050	11.5
IRPJ/CSLL	639,326	511,993	24.9
Operating profit	2,702,195	1,955,997	38.1
Net income for the year	2,062,869	1,444,004	42.9
Shareholder's equity	17,598,213	16,336,214	7.7
Interest on shareholder's equity	643,000	280,000	129.6
Dividends	-	98,542	(100.0)
Economic and Financial Indicators			
Currrent liquidity (index)	1.5	1.0	50.0
Overall liquidity (index)	0.9	0.9	-
EBITDA Margin (%)	26.4	21.0	25.7
Earnings per share - Common shares	6.94344	4.91091	41.4
Earnings per share - Class “A” preferred shares	9.11525	5.40201	68.7
Earnings per share - Class “B” preferred shares	7.63812	5.40201	41.4
Equity value per share - R$ (shareholders' equity/number of shares)	64.3	59.7	7.7
Debt on shareholders' equity (%)	65.8	70.8	(7.1)
Operating margin (operating profit/net operating revenue) (%)	16.6	13.1	26.7
Net margin (net income/net operating revenues) (%)	12.7	9.7	30.9
Participation of third-party capital (%)	54.1	54.5	(0.7)
Return on shareholder's equity (%) (1)	12.6	9.3	35.5

(1) LL ÷ (PL initial)

2. CORPORATE GOVERNANCE

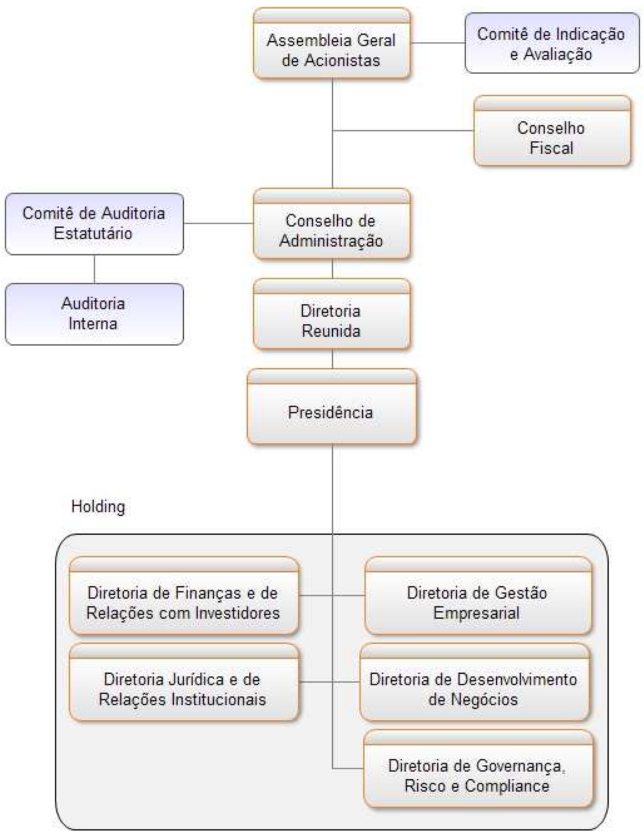
In addition to Law 13,303/2016, Copel's management has as a reference the Code of Best Corporate Governance Practices, from the Brazilian Corporate Governance Institute (IBGC), CVM Instruction 586/2017, the decisions of the Securities and Exchange Commission - SEC, and the Sarbanes-Oxley Act - SOX. The Company has a Corporate Governance Policy, in which establishes its responsibility, objectives and commitments, based on the principles of transparency, equity, accountability and corporate responsibility.

COPEL has been improving its corporate governance practices to fully comply with legal requirements, the Brazilian Securities and Exchange Commission (CVM), to the B3 Issuer Regulations and the strict practices imposed by the US legislation for companies listed on the New York Stock Exchange, aligned with the best corporate governance practices.

In Brazil, Copel is a member of B3's Corporate Governance at Level 1. In December 2018, Copel was certified with the B3 State Governance Outstanding Program, and in 2019, Copel increased its score from 58 to 60 points, meeting all the required measures. Standing out so far, as the only state-owned company to reach the maximum score.

2.1. Governance Structure

The Company's governance structure is as follows:



General meeting of shareholders

It is the Company´s highest authority, with powers to decide on all businesses related to its corporate purpose, guided by the legislation in force.

Nomination and evaluation committee

A permanent body whose purpose is to assist the shareholders by verifying the compliance of the appointment and evaluation process of managers, tax advisors and members of Statutory Committees for Copel (Holding Company), its wholly-owned subsidiaries and also for its affiliated and controlled companies, in accordance with the legislation in force.

Fiscal Council

PA permanent body that analyzes and issues an opinion on the financial statements and supervises the acts of the directors regarding their legal and statutory duties. It consists of five full members and an equal number of alternates, elected by the Ordinary General Meeting of Shareholders for a unified mandate of two years, with a maximum of two consecutive renewals permitted.

Board of Directors - BOD

The deliberative body responsible for defining the general business orientation, in accordance with the powers established in Copel's Bylaws and Internal Regulations. It consists of nine members, seven of whom are independent, appointed and elected in accordance with the rules provided for in current legislation.

Executive Board

Executive management and representation body of Copel (Holding), with responsibility for ensuring the regular operation of the Company, in line with the general strategy outlined by the Board of Directors. It is composed of a CEO, a Chief Executive Officer, a Chief Financial and Investor Relations Officer, a Chief Legal and Institutional Relations Officer, a Chief Business Development Officer, and a Chief Governance, Risk and Compliance Officer.

Statutory Audit Committee

An independent, advisory and permanent body that advises the Board of Directors, consisting of five members, the majority of whom are independent, chosen from among the Board members. Its main duties are to supervise, review, supervise, monitor and, where appropriate, present recommendations on the Company's activities. It is also responsible for monitoring the Reporting Channel.

Internal Audit

Independent body that assesses the effectiveness of the risk management process, the adequacy of the treatment actions and internal control mechanisms, the compliance with standards and the reliability of the processes related to the preparation of the financial statements, providing information to support the decision-making process in the various hierarchical levels of the Company, recommending, when necessary, improvements in processes to the risk manager, in addition to periodically reporting its assessments to the Statutory Audit Committee.

Major improvements in Corporate Governance

Copel has been improving its corporate governance practices in addition to meeting legal requirements and in alignment with good corporate governance practices.

Among the improvements implemented in 2019, we highlight:

- publication of the Annual Public Policy and Corporate Governance Charter and the Corporate Governance Report;
- review of the Code of Conduct and the Integrity Program;
- election of the members of the Nominating and Evaluation Committee for the 2019-2021 term;
- review of the Corporate Governance structures of Copel (Holding) and its wholly-owned subsidiaries;
- establishment of the Annual Performance Evaluation Policy for Statutory Bodies, Donations and Voluntary Contributions Policy.

The complete description of the administrative structure and other relevant information is available on the Reference Form, in the Annual Public Policy and Corporate Governance Letter and other corporate reports, available at www.copel.com, on the Investor Relations page.

2.2. Integrity

• Integrity Program

In accordance with Federal Law 12,846/2013, Federal Decree 8,420/2015 and Federal Law 13,303/2016, Copel published in 2017 its Integrity Program, a set of internal mechanisms for integrity, ethics, transparency, risk management, internal controls, *compliance*, internal audit and application of the Code of Conduct, which must be observed by all employees, managers and members of the supervisory board. The purpose of the Program is to prevent, detect and remedy any acts that may have an impact on the Company. The initiative is coordinated by the Governance, Risk and Compliance Office, monitored by internal and external audit, and submitted to Copel´s Statutory Audit Committee.

The disclosure and dissemination of the Integrity Program and other *compliance* initiatives are digitally made from time to time across the Company. The content in its entirety can be accessed through Copel´s *online* internal and external channels, through the Compliance Portal.

• Internal Controls

Operating processes are evaluated annually for risks related to errors or fraud that could interfere with the results of the financial statements. The evaluations are based on internal controls, submitted to tests by the Internal Audit and by the Independent Auditor, who report the results to Senior Management. The tests performed by the Internal Audit occur annually, beginning in October and are finalized with an assessment of the severity and magnitude of the weaknesses at the time of filing Form 20-F with the SEC in April of each year.

Taking into account the number of processes mapped to comply with the Sarbanes Oxley Act, 100% of Copel's operations were subject to risk assessments related to corruption.

The Company also carries out activities intended to safeguard the internal control environment and to comply with legal and regulatory requirements in force, particularly of SOX. The structure of internal control follows the standards of the Committee of Sponsoring Organizations for the Treadway Commission - COSO, which is an internationally recognized reference model.

• Reporting channels

In order to receive opinions, criticisms, complaints, claims and personal inquiries, Copel provides communication channels that, in addition to contributing to the fight against fraud and corruption, also expand the organization's relationship with its stakeholders. These are:

- Confidential Communication Channel: intended to receive complaints and communications regarding noncompliance with laws and regulations, particularly of fraud or irregularities involving finance, auditing or accounting matters. The channel guarantees protection, preservation of the identity of the person making the claim and an answer to the complaint. It is available 24 hours a day, seven days a week through https://www.copel.com/canaldedenuncias/ (in Portuguese and English) or by phone: 0800 643 5665.
- Ethics Committee, approved at the 197th ordinary meeting of Copel's Board of Directors held in December 2019, consisting of members of the Executive Board and the Board of Directors, being responsible for monitoring the Reporting Channel and with authority to apply disciplinary measures;
- Commission for Analysis of Complaints of Harassment - CADAM: assists and supports every employee who is a victim of bullying in his or her work environment. The information is confidential and both the complainant and the respondent have a guarantee of identity preservation. Email: cadam@copel.com.
- Ombudsman: there are two channels open to all audiences, internal and external, for communications and complaints. The Copel Distribuição Ombudsman is available through the phone number 0800 647 0606 and also through the email ouvidoria@copel.com. In addition, it can receive the complaints in person, on weekdays from 9 a.m. to 5 p.m., or through correspondence sent to its address at Rua Professor Brasilio Ovidio da Costa, 1703, Santa Quitéria, CEP: 80310-130, Curitiba - Paraná. Copel Telecomunicações Ombudsman is available at 0800 649 3949 and ouvidoriatelecom@copel.com, being able to receive the demonstrations in person, on working days from 10 a.m. to 4 p.m., or by mail sent to your address at Rua José Izidoro Biazetto, 158 Bloco A Sala 6 - Mossunguê 81.200-240 - Curitiba - Paraná.

• External Audit

Under the terms of Instruction 381/2003, of the Brazilian Securities and Exchange Commission, in an internal Corporate Governance standard and under the review and supervision of the Audit Committee, the Company and its wholly-owned subsidiaries have a contract with Deloitte Touche Tohmatsu Auditores Independentes since March 21, 2016, to provide audit services of the financial statements. The work necessary for the evaluation of the fiscal year will extend until June 30, 2020, date that will correspond to its final term, and may be formally extended by up to 12 months.

The Company changes the firm responsible for auditing its financial statements in accordance with the independent auditor's rotation criterion, in accordance with CVM Instruction 308/1999, and/or Law 8,666 /1993 - "Bid to Tender Law".

When hiring other services from its external auditors, the Company's practice foresees the prior analysis by the Audit Committee of the Board of Directors, which should take into account in this evaluation whether a relationship or service rendered by an independent auditor: (a) creates conflicting interests with its audit client; (b) puts them in a position to audit their own work; (c) results in working as a manager or an employee of the audit client; or (d) puts them in a position of being an advocate to the audit client.

The Audit Committee also considers in this type of assessment if any service rendered by the independent audit firm may impair in fact or apparently the firm’s independence. Whenever necessary, the Audit Committee can count on the technical support of the Internal Audit, or independent advisory service for a technical evaluation that may be required in each specific case, the discussions on the hiring of other independent auditor services are recorded in the minutes of meeting of these boards.

Pursuant to article 2 of CVM Instruction 381/03, Copel informs that Deloitte Touche Tohmatsu Auditores Independentes, an independent auditor of the Company and its subsidiaries, rendered services not related to the independent audit, during the year ended December 31, 2019, as follows:

Type	Contract date	Period
Review of Fiscal Procedures	03/21/19	12 months
Analysis of claims related to the implementation of HPP Colíder contract for supply of goods and services	03/21/19	12 months
UEG Araucária Review of Tax Procedures	07/02/18	24 months

The Company contracted a total of R $ 1.2 million for the services described above, which is equivalent to 40% of the fees related to those of external audit services contracted for 2019.

As provided by CVM Instruction 381/03, Deloitte declared to Management that, due to the scope and processes performed, the provision of the aforementioned services does not affect the independence and objectivity required for the performance of external audit services.

3. OPERATING PERFORMANCE

3.1. Macroeconomic analysis

The Brazilian economy started 2019 with elevated expectations for resumption of investment, a drop in unemployment, improvement in public accounts and a consequent increase in economic growth. Despite the optimistic scenario, business confidence was drained as the main reforms planned for the beginning of the legislature took time to come on the scene, among them the much desired pension reform, which took almost eleven months to be approved. These factors, associated with small political crises, have created obstacles to the country's economic recovery. In an attempt to remedy the unfavorable situation that was taking over the national scenario, the Government decided to release part of the balance of the FGTS (Government Severance Indemnity Fund for Employees) accounts with the purpose of leveraging household consumption. With inflation likely to close the year near the center of the target, it was also possible for the Central Bank's Monetary Policy Committee to reduce the SELIC rate four times in a row, establishing a new historic rate of 4.5% per year, which would be reflected in more accessible resources for investment and consumption. Although the effort may have mitigated the deterioration of economic conditions in the period, the job market did not react as expected, remaining with unemployment rates in the double digits, and with increasing informality. Within this context, the outlook for 2019's gross domestic product growth was below expectations.

At the local level, the behavior of the economy was more favorable, with several economic indicators showing positive results. The vigorous recovery of the industry, ascertained through the IBGE's monthly industrial survey - physical production, placed Paraná in a prominent position among the States of the Federation that expanded most in 2019. The main influencers of this result were the segments linked to the vehicle and machinery & equipment industries and mainly to the food sector. Crop recovery has also acted as a wealth multiplier in various sectors linked to agriculture, such as industry and commerce. The state has also consolidated itself as the fourth State that created the most formal employment during the year, according to data from the General Register of Employment and Unemployment (CAGED) of the Ministry of Labor, reflecting the good results of the sectors of civil construction, commerce and services.

3.2. Regulatory environment

Since 2017, the Ministry of Mines and Energy - MME has been discussing proposals for improving the legal and regulatory framework of the Electric Sector, with agents from the sector and society. On April 4, 2019, a specific Working Group was set up to address the Modernization of the Electric Sector, which carried out a general diagnosis and prepared a report on proposals for improving the sector's legislation. MME established, through Ordinance No. 403 of October 29, 2019, the "Implementation Committee for Modernization of the Electric Sector" with the purpose of executing the action plan contained in MME Ordinance No. 187, of April 4, 2019, as well as to propose supplementary measures to promote the best solutions for the sectorial modernization.

In this context, the Implementation Committee established the following action fronts associated with the proposals for improving the Electric Sector:

- Price Setting;
- Supply Criterion;
- Transition Measures;
- Separation Guarantee and Energy;
- Auction Systematics;
- Debureaucratization and Process Improvement;
- Governance;
- Insertion of New Technologies;
- Opening of Market;
- Rationalization of Charges and Subsidies;
- Distribution Sustainability;
- Energy Reallocation Mechanism;
- Contracting Process;
- Transmission Sustainability; and
- Gas - Electricity Integration.

In October 2019, the MME presented to deputies and senators their contributions in relation to the improvement of the rules of the Electric Sector that need legal alterations, with the objective of proposing amendments to the Draft Laws - PL No. 1917/2015 and PLS No. 232/ 2016, which provide for the commercial model of the electric sector, portability of electricity bills and the concessions for electricity generation.

In addition, MME promoted some measures established on the fronts of operation, in the last quarter of 2019. Resolution CNPE No. 29, dated December 12, 2019, revised the general criterion of guarantee of supply applicable to studies of expansion of supply and planning the operation of the National Interconnected System - SIN, and the calculation of the physical guarantees of energy and power of a generation venture.

Another measure adopted by the MME, together with the Ministry of Science, Technology, Innovation and Communications, the institution of the CTME Working Group, through Interministerial Ordinance No. 464, dated December 12, 2019, with the purpose of proposing the governance of science, technology and innovation activities in the energy sector.

Continuing the market opening process, which began with Ordinance No. 514, of December 27, 2018, the load limits for contracting conventional electricity by free consumers were reviewed through Ordinance No. 465, December 12, 2019, expanding the steps to reduce load limits for the next 3 years.

In order to maintain a dialogue with society and agents in the electricity sector, public hearings were held to receive contributions relating to: the review of the physical guarantee of centrally dispatched plants; the design of the electric energy trading market, considering guarantees and energy products; improvements to computational models; and the performance of the retail distributors, themes that are part of the MME action plan.

In August 2019, the Chamber of Deputies created the Special Commission to propose the Brazilian Electric Energy Code. The objective is to collect contributions from the government, sector entities and consumers for the preparation of the final project. The final draft should bring together all the legislation that is now grouped in ordinances from several government agencies.

As a revision to Normative Resolution No. 63, of May 12, 2004, Normative Resolution No. 846, of June 11, 2019, started to determine the new procedures for imposing penalties on agents in the electricity sector, in addition to the parameters for setting the amount of the fine to be applied in the tax delinquency notices. One of the changes is the application of fines solely to the segment in which the infraction was observed.

Another important point this year are the technical challenges that the Distributed Generation - GD brought to the concessionaires, so that this type of generation can be incorporated without causing disruption to the other consumers in the network. In accordance with data from Aneel, there are 199,965 consumer units that receive GD credits in Brazil, totaling power of 1,907 MW. When resolution No. 482, dated April 17, 2012, which establishes the GD rules in Brazil, was enacted, it was foreseen that the review of the rules should be undertaken in five years.

The following is an overview of the regulatory environment by business segment.

Generation

Although demand from the regulated market has slowed its growth rate in recent years, since 2018 generators have sought to make their projects possible in the free market, which has been expanding since 2016.

In 2019, the installed capacity added to the Brazilian electric network was 7,246.41 MW, exceeding the target of 5,781.58 MW, according to Aneel. The Belo Monte HPP began operations, in addition to the wind power plants, totaling 170,071 MW of installed capacity in the Brazilian electric network.

The sector was awaiting the conclusion of the PL No. 10,985, which establishes new conditions for the renegotiation of the hydrological risk of the electric power generation projects, the Generation Scaling Factor - GSF, through the extension of the grant to compensate for the effects caused, circumstances that did not, in fact, materialize. The GSF corresponds to the relationship between the volume of energy, which is generated by the plants that are part of the Energy Reallocation Mechanism - MRE and their total physical guarantee. If the electrical volume generated is less than the physical guarantee, hydroelectric plants must pay the difference.

This year, Brazil became the eighth country in the world in terms of installed wind capacity, surpassing Canada. Wind energy already occupies the second place in the Brazilian electric network, with more than 15 GW installed.

As for thermoelectric plants, the government launched a program to boost the natural gas market, in accordance with CNPE Resolution No. 16, of June 24, 2019, and the thermal plants have the capacity to create demand for the use of part of the pre-salt gas. For the first half of 2020, there are two auctions scheduled to replace old thermal plants with new, more efficient plants and one type A-6.

- Auctions

This year, MME held five energy auctions, two of which were New Energy Auctions ("A-4" and "A-6"), two Existing Energy Auctions ("A-1" and "A-2") and an Auction for supply to Boa Vista and connected locations (Isolated Systems). In total, 3,674 MW of installed capacity was contracted, totaling R$ 14.7 billion in new investments for the next five years. Much of this additional capacity will be allocated to the free market.

Transmission

In 2019, there were important advances such as the regulation of the quality of the transmission service associated with the availability and operating capacity of direct current installations, and the publication of the review of the price bank, on February 28, 2019, by Approval Resolution No. 2514 . However, the tariff review process for renewed contracts, holders of assets belonging to the Basic Network of the Existing System - RBSE, was once again postponed due to the need to analyze the appraisal reports, delivered to the agency by distributors on July 19, 2019 . Another regulatory improvement was the definition of requirements for the remote operation of transmission facilities.

On December 19, 2019, Aneel held the Transmission Auction No. 02/2019, which ended with all 12 lots auctioned. The concessions are aimed at the construction of 2,470 km of power transmission lines and substations, with a transformation capacity of 7,800 MVA, distributed in states in the five regions of the country. In the event, a record general discount of 60.3% was verified and investments of approximately R$ 4.18 billion was projected in 33 projects, with the expectation of generating 8,782 jobs and the term of works between 36 and 60 months. The reduction in the Annual Permitted Revenue - RAP of assets confirms the desire of the sector's entrepreneurs to invest in transmission assets.

For 2020, Aneel's agenda includes the following themes:

- improvement and consolidation of the standard dealing with reinforcements and improvements;
- classification of transmission facilities;
- consolidation of the general conditions of access to the transmission system;
- improvement and consolidation of the connection to the transmission facilities;
- improvement of rules on contracting the use of the Transmission System; and
- simplified financial settlement of charges.

Trading

2019 was marked by the crisis of leveraged traders. At the end of 2018, the free market had the expectation that prices in early 2019 would fall to the minimum level of PLD. In late December and early 2019, there was a drastic reduction in rainfall, reversing the expectation of low prices, causing prices to skyrocket, creating turbulence in the energy trading market and exposing the fragility of several companies in terms of taking risks greater than their financial strength. This situation persisted until May, when there was a financial settlement of the March operations. There was a relative resumption of normality in the sector, which gradually recovered the volumes of energy sold and liquidity. As a result, companies refined their counterparty credit analysis, making the market healthier and more sustainable.

However, this period was one of advances for the free market considering facts such as:

- the minimum load limit of consumers eligible to purchase energy on the free market will be increased to 1.5 megawatts (MW) on January 1, 2021 and as from January 2020, the minimum load required was 2.5 MW to 2 MW , according to MME Ordinance No. 465, of December 16, 2019;
- the advancement of draft laws PLS No. 232 and PL No. 1917 that are in the National Congress;
- the preparation of a new methodology for defining the maximum and minimum limits of the PLD, according to Resolution No. 858 of October 1, 2019;
- revision of resolution no. 482, by ANEEL and the advances in technology applied to the electricity sector; and
- the definition of the schedule of implementation of the hourly price: the National Electric System Operator - ONS implemented, on January 1, 2020, the DESSEM or Short-Term Hydrothermal Dispatch Model, aiming at optimizing the operation of the SIN, since it considers both aspects related to the electricity network, such as the operation of hydroelectric, thermoelectric and other plants in the sector. The implementation of DESSEM complies with the criteria set forth in MME Ordinance No. 301, of July 31, 2019.

Accordingly, the year 2019 can be considered as consolidating part of the segment's structuring measures and 2020 will be the year of preparation for the next years of energy trading in Brazil.

Distribution

From a regulatory point of view, it is important to highlight the changes towards the reduction of tariff subsidies present in the electricity tariff, as well as the expansion of the free energy market, an objective defined since 2017, with Public Hearing No. 33/2017, opened by MME, in order to improve the legislation of the Electric Sector.

The reduction in tariff subsidies is the result of the publication of Decree No. 9.642/2018, through which the government determined the gradual reduction of tariff subsidies paid by the Energy Development Account - CDE, at the rate of 20% per year, as from January 1, 2019, a measure that has been applied by distributors based on their tariff processes.

The regulatory capital remuneration rate is essential to ensure the availability of resources to distributors for making investments and providing adequate service, and should reflect the risk and return relationship inherent in the business. For its definition, Aneel uses, as methodologies, the Capital Asset Pricing Model - CAPM combined with the Weighted Average Capital Cost - WACC. The proposed methodological review brings some major changes in relation to the current model, related to the following variables:

- Risk-free rate: proposes to use the average return of National Treasury Notes indexed to inflation (IPCA) to replace US Government Bonds and country risk.

- Remuneration of third party capital: proposes to use the average return on debentures issued by transmission and distribution companies linked to the CDI + average issue cost.
- Regulatory capital structure: proposes to use as a proportion of third party capital the percentage resulting from the Net Debt to EBITDA ratio equivalent to 2.5x.
- Distribution activity risk premium: variable to be considered in the cost of equity of the distribution segment, calculated through the difference verified in the remuneration of the capital of third parties between the distribution and transmission segments.

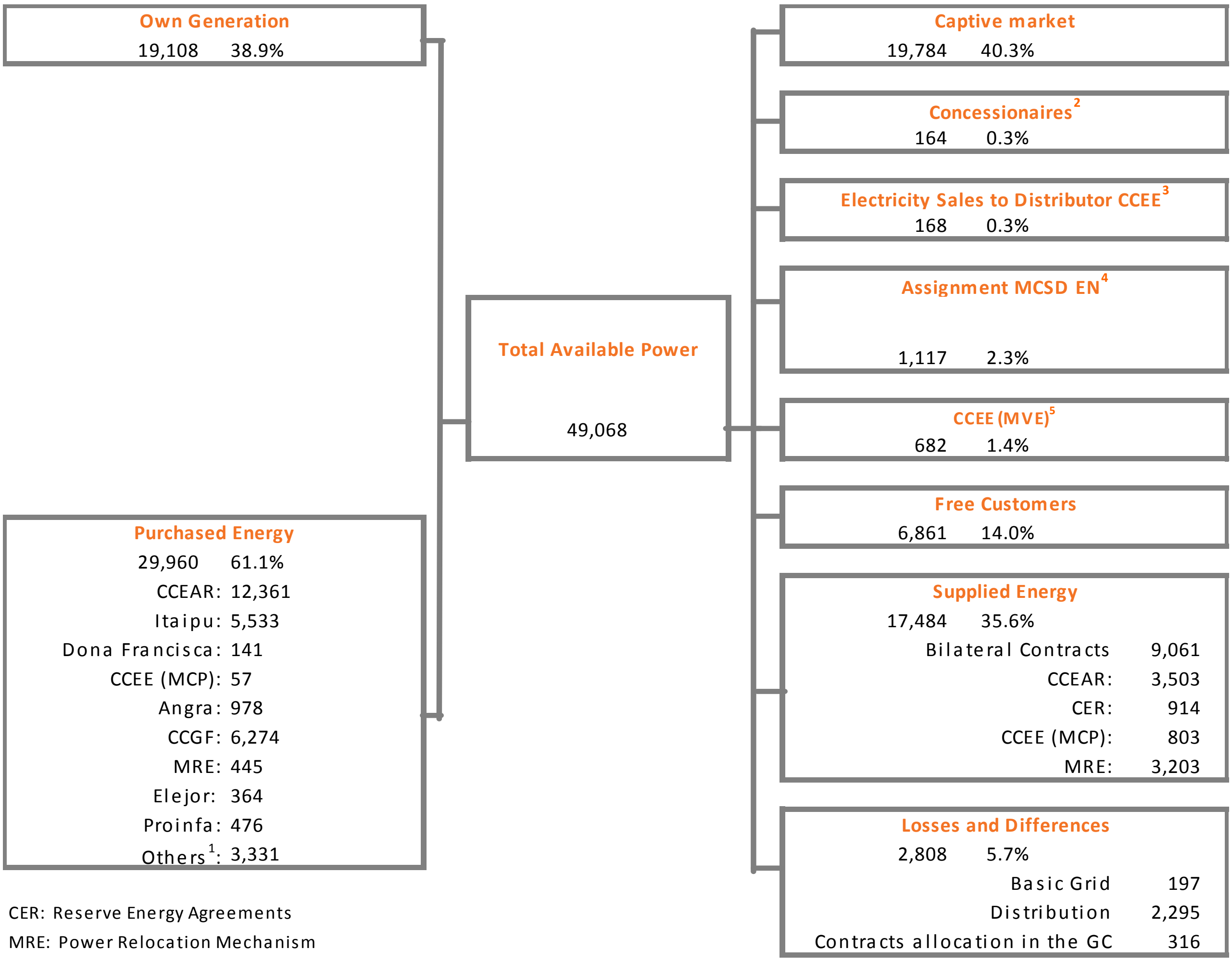
The application of the proposed changes combined with the current economic situation, signal a downward trend for the rate of return on capital in relation to the current WACC. However, it is necessary to emphasize that, before approving the new calculation methodology, Aneel will have to evaluate all contributions sent by agents during this Public Hearing, which may still result in changes in the proposals presented.

Gas

Companhia Paranaense de Gas - Compagas is the concessionaire responsible for the distribution of piped natural gas in the State of Paraná, whereby the concession for which was granted on July 6, 1994 for 30 years. On December 07.12.2017, 205, the State of Paraná published the Supplementary Law No. 205, introducing a new interpretation of the expiry of the concession, understanding that the expiry would be on January 20, 2019..

The management of Compagas, its parent company and other shareholders inquired about the effects of the aforesaid Law since they understand that these conflict with the provisions of the concession agreement currently in force. Compagas has filed a lawsuit contesting the early expiration of the concession, obtaining on October 30, 2018 the injunctive relief, and no appeal was filed by the State of Paraná.. The lawsuit is awaiting judgment.

- **Energy Flow (% and GW /hour)**



CER: Reserve Energy Agreements
MRE: Power Relocation Mechanism
CCEAR: Energy Purchase Agreements in the Regulated Market
CCEE (MCP): Electric Power Trade Chamber (Short-term market)
CG: Center of Gravity of the Submarket (difference between billled and energy received from CG)
1 Others: Energy purchased by Copel Comercialização
2 Electricity sales to concessionaries and licencess with own market of less than 500GWh/year
3 Electricity sales to the agent distributor of CCEE through a Regulated Bilateral Contract – CBR
Assignments MCSD EM – Contractual assignments to other distributors, through the Mechanism for Compensation of Surpluses and Deficits (MCS)
5 CCEE (MVE): Financial settlement of surplus energy from the distributor to the free market through the Surplus Sales Mechanism
Don't consider the energy produced by TPP Araucária which was sold in the short-term market (MCP).

3.3. Business Segments

3.3.1. Generation

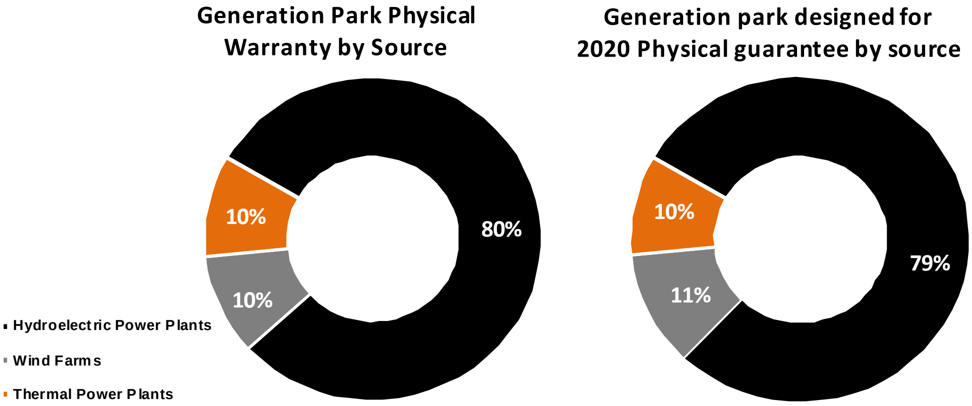
Copel operates 43 plants of its own and has an ownership interest in another 11. Of this total 23 are hydroelectric, 29 wind powered and two thermoelectric plants with a total installed capacity of 6,398.5 MW and a physical guarantee of 3,018.4 MW on average, as shown below:

Plants in Operation on December 31, 2019 - Physical Characteristics

Developments	Installed Capacity (MW)	Physical Assurance (Average MW)	Ownership %	Proportional Installed Capacity (MW)	Proportional Physical Assurance (Avarege MW)	Start of Commercial Operations	Concession expires on
Hidrelétricas							
UHE Gov. José Richa (Salto Caxias) (1)	1,240.0	605.6	100%	1,240.0	605.6	18.02.1999	05.05.2030
UHE Gov. Ney Aminthas de Barros Braga (Segredo) (1)	1,260.0	578.5	100%	1,260.0	578.5	29.09.1992	16.11.2029
UHE Gov. Bento Munhoz da Rocha Netto (Foz do Areia) (1)	1,676.0	603.3	100%	1,676.0	603.3	01.10.1980	17.09.2023
UHE Gov. Pedro Viriato Parigot de Souza (GPS)	260.0	109.0	100%	260.0	109.0	03.09.1971	05.01.2046
UHE Gov. Jayme Canet Júnior (Mauá)	363.1	197.7	51%	185.2	100.8	23.11.2012	02.07.2042
UHE Guaricana	36.0	16.1	100%	36.0	16.1	01.01.1957	16.08.2026
UHE Chaminé	18.0	11.6	100%	18.0	11.6	01.01.1930	16.08.2026
PCH Cavernoso II	19.0	10.5	100%	19.0	10.5	15.05.2013	28.02.2046
UHE Apucaraninha	10.0	6.7	100%	10.0	6.7	06.04.1949	12.10.2025
UHE Derivação do Rio Jordão	6.5	5.9	100%	6.5	5.9	02.12.1997	15.11.2029
CGH Marumbi	4.8	2.4	100%	4.8	2.4	05.04.1961	(2)
UHE São Jorge	2.3	1.5	100%	2.3	1.5	01.01.1945	05.12.2024
CGH Chopim I	2.0	1.5	100%	2.0	1.5	28.05.1963	(3)
UHE Cavernoso	1.3	1.0	100%	1.3	1.0	07.12.1965	07.01.2031
CGH Melissa	1.0	0.6	100%	1.0	0.6	31.01.1966	(4)
CGH Salto do Vau	0.9	0.6	100%	0.9	0.6	01.01.1959	(4)
CGH Pitangui	0.9	0.1	100%	0.9	0.1	01.01.1911	(4)
UHE Baixo Iguaçu	350.2	172.4	30%	105.1	51.7	08.02.2019	30.10.2049
UHE Colíder	300.0	178.1	100%	300.0	178.1	09.03.2019	17.01.2046
UHE Santa Clara e Fundão	240.3	135.4	70%	168.2	94.8	31.07.2005	28.05.2037
UHE Dona Francisca	125.0	78.0	23%	28.8	18.0	05.02.2001	28.08.2033
PCH Arturo Andreoli	29.1	20.4	36%	10.4	7.3	25.10.2001	24.04.2030
UHE Santa Clara I e Fundão I	6.0	4.9	70%	4.2	3.4	13.08.2005	19.12.2032
Total das Hidrelétricas	**5,952.4**	**2,741.8**		**5,340.6**	**2,409.0**		
Eólicas							
Santa Maria	29.7	15.7	100%	29.7	15.7	23.04.2015	08.05.2047
Santa Helena	29.7	16.0	100%	29.7	16.0	06.05.2015	09.04.2047
Olho d'Água	30.0	15.3	100%	30.0	15.3	25.02.2015	01.06.2046
São Bento do Norte	30.0	14.6	100%	30.0	14.6	25.02.2015	19.05.2046
Eurus IV	27.0	14.7	100%	27.0	14.7	20.08.2015	27.04.2046
Asa Branca I	27.0	14.2	100%	27.0	14.2	05.08.2015	25.04.2046
Asa Branca II	27.0	14.3	100%	27.0	14.3	15.09.2015	31.05.2046
Asa Branca III	27.0	14.5	100%	27.0	14.5	04.09.2015	31.05.2046
Farol	20.0	10.1	100%	20.0	10.1	25.02.2015	20.04.2046
Ventos de Santo Uriel	16.2	9.0	100%	16.2	9.0	22.05.2015	09.04.2047
Boa Vista	14.0	6.3	100%	14.0	6.3	25.02.2015	28.04.2046
Cutia	23.1	9.6	100%	23.1	9.6	22.12.2018	05.01.2042
Esperança do Nordeste	27.3	9.1	100%	27.3	9.1	29.12.2018	11.05.2050
Guajiru	21.0	8.3	100%	21.0	8.3	29.12.2018	05.01.2042
Jangada	27.3	10.3	100%	27.3	10.3	29.12.2018	05.01.2042
Maria Helena	27.3	12.0	100%	27.3	12.0	29.12.2018	05.01.2042
Potiguar	27.3	11.5	100%	27.3	11.5	29.12.2018	11.05.2050
Paraíso dos Ventos do Nordeste	27.3	10.6	100%	27.3	10.6	05.01.2019	11.05.2050
São Bento do Norte I	23.1	10.1	100%	23.1	10.1	31.01.2019	04.08.2050
São Bento do Norte II	23.1	10.8	100%	23.1	10.8	29.01.2019	04.08.2050
São Bento do Norte III	23.1	10.2	100%	23.1	10.2	09.04.2019	04.08.2050
São Miguel I	21.0	9.3	100%	21.0	9.3	14.02.2019	04.08.2050
São Miguel II	21.0	9.1	100%	21.0	9.1	02.02.2019	04.08.2050
São Miguel III	21.0	9.2	100%	21.0	9.2	14.02.2019	04.08.2050
Palmas (5)	2.5	0.5	100%	2.5	0.5	12.11.1999	29.09.2029
Santo Cristo	27.0	15.3	49%	13.2	7.5	30.06.2015	18.04.2047
Reduto	27.0	14.4	49%	13.2	7.1	26.06.2015	16.04.2047
São João	27.0	14.3	49%	13.2	7.0	30.06.2015	26.03.2047
Carnaúbas	27.0	13.1	49%	13.2	6.4	30.06.2015	09.04.2047
Total das Eólicas	**701.0**	**332.4**		**645.8**	**303.3**		
Termelétricas							
UTE Figueira (6)	20.0	10.3	100%	20.0	10.3	08.04.1963	27.03.2019
UTE Araucária (7)	484.1	365.2	81%	392.1	295.8	27.09.2002	23.12.2029
Total das Termelétricas	**504.1**	**375.5**		**412.1**	**306.1**		
TOTAL DAS FONTES	**7,157.5**	**3,449.7**		**6,398.5**	**3,018.4**		

To fulfill important strategic and sustainability guidelines established for the generation business, the Company's main purpose is to profitably and sustainably boost the share of renewable alternative sources in the energy mix.

The composition of the generating park by source is as follows:



Currently, the Company is focusing its efforts on the construction of 5 plants, which will add 119.5 MW of installed capacity and 66,0 MW on average of physical guarantee to the generating park:

Power Plant Projects under Construction - Physical Characteristics

Development	Ownership %	Installed Capacity (MW)	Physical Assurance (average MW)	Commercial Operations expected to start on	Concession expires on
Hydroelectric Power Plants					
PCH Bela Vista	100%	29.4	18.4	06.02.2021	02.01.2041
Total Hydroelectric Power Plants		**29.4**	**18.4**		
Wind Energy Plants					
Jandaíra I	100%	10.4	5.3	01.05.2022	16.04.2055
Jandaíra II	100%	24.3	13.5	01.05.2022	16.04.2055
Jandaíra III	100%	27.7	14.6	01.06.2022	16.04.2055
Jandaíra IV	100%	27.7	14.2	01.07.2022	16.04.2055
Total Wind Energy Plants		**90.1**	**47.6**		
Total Sources		**119.5**	**66.0**		

In the segment of electric energy generation, we also emphasize to:

- **Colíder Hydroelectric Power Plant:** Copel Geração e Transmissão won the concession for the implementation and operation of the plant for 35 years in the energy auction held by Aneel on July 30, 2010, with 300 MW of installed capacity. The construction of the plant, located in the Teles Pires River, between the cities of Nova Canaã do Norte and Itaúba, in Mato Grosso, was started in 2011 and absorbed R$ 2.5 billion in investments. Throughout its implementation, the plant faced several impacts resulting from fortuitous and *force majeure* cases, such as fire at the construction site, in addition to acts of the government, delays in the supply of equipment, in electromechanical assembly services, in the construction of the transmission line associated with the plant, and in the issuance of the Operation License by the Mato Grosso State Secretariat of Environment - SEMA/ MT, which postponed its initial schedule. Having overcome these adversities, in March 2019 the plant started commercial operation with its first generating unit and in December 2019 with the third and final unit.
- **Baixo Iguaçu Hydroelectric Power Plant:** The consortium was set up with the purpose of building and operating the enterprise called Baixo Iguaçu Hydroelectric Plant, located in the Iguassu River, between the municipalities of Capanema and Capitão Leônidas Marques, and between the Governador José

Richa Hydroelectric Power Plant and the Iguaçu National Park in the State of Paraná. The plant is now 100% in commercial operation, the start of commercial operation of units 1 and 2 occurred in February 2019, and unit 3 occurred in April 2019.

- **Modernization of the Figueira Thermoelectric Power Plant:** The Company started the modernization work in 2015, in order to increase its efficiency and reduce the emission of gases and particles resulting from the coal burning. The first company hired to perform the services had difficulties in carrying out the activities of the contract, resulting in its replacement. The new supplier had financial and planning problems, which led to the excessive delay of the work. This situation culminated in the triggering of the contract termination process in December 2019. The continuity of the process is in the contract preparation phase, with completion expected in 2020.
- **Cutia and Bento Miguel Wind Farm Complex:** The works of Copel Geração e Transmissão's largest wind energy venture were completed. Named Cutia Empreendimentos Eólicas - CEE SA, it is divided into two large complexes: (a) Cutia Complex, comprised of seven wind farms (Guajiru, Jangada, Potiguar, Cutia, Maria Helena, Esperança do Nordeste and Paraíso do Ventos do Nordeste), with a total installed capacity of 180.6 MW, physical guarantee of 71.4 MW on average, all located in the State of Rio Grande do Norte, and (b) Bento Miguel Complex: comprised of six wind farms (São Bento do Norte I, São Bento do Norte II, São Bento do Norte III, São Miguel I, São Miguel II and São Miguel III) with 132.3 MW of total installed capacity, 58.7 MW on average of physical guarantee, all located in the State of Rio Grande do Norte. All units are now in commercial operation.
- **SHP Bela Vista:** The project foresees the installation of a minimum installed capacity of 29.0 MW. In addition, taking advantage of the ecological flow, a supplementary powerhouse will be installed adding 0.47 MW to the installed power. The works started in August 2019, and the three generating units are expected to start operating in February, March and April 2021, respectively.
- **Jandaíra Wind Farm Complex:** On October 18, 2019, Copel GeT in a consortium with the subsidiary Cutia Empreendimentos Eólicos, participated in the auction of new energy generation A-6, and sold 14.4 average MW of the Jandaíra Wind Farm Complex. The amount of energy sold represents 30% of the physical guarantee, and the rest of the energy was sold through contracts in the free environment. With an estimated investment of R$ 411.0 million, the Jandaíra Wind Farm Complex, which will have 90.1 MW of installed capacity and physical guarantee of 47.6 MWm, will be built in Rio Grande do Norte, a region in which Copel already has other wind generation assets, which will provide operational synergies with the projects that are already in operation.

3.3.2. Transmission

The main responsibility of the segment is to provide electric energy transportation and transformation services, and is responsible for the construction, operation and maintenance of substations, as well as for the lines for the transmission of energy.

The Company owns and participates in transmission concessions in operation, corresponding to 7,441 kilometers of transmission lines, with a processing power of its substations in the order of 16,174 MVA. The composition of transmission lines and substations in operation is shown below:

Transmission Lines and Substations in Operation on December 31, 2019

Transmission Lines and Substations		Property	Circuit	Tension (kV)	Extension (km)	Transformation capacity (MVA)	Commercial Operations expected to start on	Concession expires on
Own Transmission Lines and Substations					**3,089**	**14,202**		
Contract nº 060/2001	Miscellaneous transmission installations [1]		Both	Varied	2,068	12,352	Multiple	01.01.2043
Contract nº 075/2001	LT Bateias - Jaguariaíva		CS	230 kV	137	-	01.11.2003	17.08.2031
Contract nº 006/2008	LT Bateias - Pilarzinho		CS	230 kV	32	-	14.09.2009	17.03.2038
Contract nº 027/2009	LT Foz do Iguaçu - Cascavel Oeste		CS	525 kV	116	-	06.12.2012	19.11.2039
Contract nº 010/2010	LT Araraquara 2 - Taubaté		CS	500 kV	334	-	27.07.2018	06.10.2040
Contract nº 015/2010	SE Cerquilho III		-	230/138 kV	-	300	01.06.2014	06.10.2040
Contract nº 022/2012	LT Londrina - Figueira C2		CS	230 kV	92	-	30.06.2015	27.08.2042
	LT Foz do Chopim - Salto Osório C2		CS	230 kV	10	-		-
Contract nº 002/2013	LT Assis - Paraguaçu Paulista II		CD	230 kV	42	-	25.01.2016	25.02.2043
	SE Paraguaçu Paulista II		-	230 kV	-	200		-
Contract nº 005/2014	LT Bateias - Curitiba Norte		CS	230 kV	31	-	29.07.2016	29.01.2044
	SE Curitiba Norte		-	230/138 kV	-	300		-
Contract nº 021/2014	LT Foz do Chopim - Realeza		CS	230 kV	52	-	05.03.2017	05.09.2044
	SE Realeza		-	230/138 kV	-	150		-
Contract nº 022/2014	LT Assis - Londrina C2		CS	500 kV	122	-	05.09.2017	05.09.2044
Contract nº 006/2016	SE Medianeira Norte		-	230/138 kV	-	300	09.06.2019	07.04.2046
	SE Andirá Leste		-	230/138 kV	-	300	07.09.2019	07.04.2046
	SE Curitiba Centro		-	230/138 kV	-	300	04.09.2019	07.04.2046
	LT Curitiba Centro - Uberaba C1		CS	230 kV	8	-	04.09.2019	07.04.2046
	LT Curitiba Centro - Uberaba C2		CS	230 kV	8	-	04.09.2019	07.04.2046
	LT Baixo Iguaçu - Realeza Sul		CS	230 kV	37	-	04.08.2019	07.04.2046
Special Purpose Entity					**4,352**	**1,972**		
Costa Oeste Transmissora de Energia S.A.		100.0%						
Contract nº 001/2011	LT Cascavel Norte - Cascavel Oeste		CS	230kV	30			
Contract nº 001/2012	LT Cascavel Norte - Umuarama Sul		CS	230 kV	130	-	31.08.2014	12.01.2042
	SE Umuarama		-	230/138 kV	-	300	27.07.2014	
Caiuá Transmissora de Energia S.A.		49.0%						
Contract nº 007/2012	LT Umuarama - Guaíra		CS	230 kV	105	-	12.05.2014	10.05.2042
	LT Cascavel Oeste - Cascavel Norte		CS	230 kV	37	-	02.07.2014	
	SE Santa Quitéria - SF6		-	230/138/13,8 kV	-	400	01.06.2014	
	SE Cascavel Norte		-	230/138 kV	-	300	02.07.2014	
Marumbi Transmissora de Energia S.A.		100.0%						
Contract nº 008/2012	LT Curitiba - Curitiba Leste		CS	525 kV	29	-	28.06.2015	10.05.2042
	SE Curitiba Leste		-	525/230 kV	-	672		
Integração Maranhense e Transmissora de Energia S.A.		49.0%						
Contract nº 011/2012	LT Açailândia - Miranda II		CS	500 kV	365	-	02.12.2014	10.05.2042
Matrinchã Transmissora de Energia (TP NORTE) S.A.		49.0%						
Contract nº 012/2012	LT Paranatinga - Ribeirãozinho		CD	500 kV	355	-	29.07.2016	10.05.2042
	LT Paranaíta - Cláudia		CD	500 kV	300	-		
	LT Cláudia - Paranatinga		CD	500 kV	350	-		
	SE Paranaíta [2]		-	500 kV	-	-		
	SE Cláudia [2]		-	500 kV	-	-		
	SE Paranatinga [2]		-	500 kV	-	-		
Mata de Santa Genebra Transmissão S.A.		50.1%						
Contract nº 001/2014	SE Santa Bárbara D´Oeste (Compensador Estático / Mvar)			440kV	-	300	30.04.2019	
	LT Itatiba - Bateias		CS	500 kV	414	-	08.03.2020	14.05.2044
	LT Araraquara 2 - Itatiba		CS	500 kV	222	-	23.03.2020	
	SE Itatiba [2]		-	500kV	-	-	28.02.2020	
Guaraciaba Transmissora de Energia S.A.		49.0%						
Contract nº 013/2012	LT Ribeirãozinho - Rio Verde Norte C3		CS	500 kV	250	-	30.08.2016	10.05.2042
	LT Rio Verde Norte - Marimbondo II		CD	500 kV	350	-		
	SE Marimbondo II [2]		-	500 kV	-	-		
Paranaíba Transmissora de Energia S.A		24.5%						
Contract nº 007/2013	LT Barreiras II - Rio das Éguas		CS	500 kV	239	-	30.01.2017	02.05.2043
	LT Rio das Éguas - Luziânia		CS	500 kV	368	-		
	LT Luziânia - Pirapora 2		CS	500 kV	346	-		
Cantareira Transmissora de Energia S.A.		49.0%						
Contract nº 019/2014	LT Estreito - Fernão Dias		CD	500 kV	342	-	05.03.2018	05.09.2044
Uirapuru Transmissora de Energia S.A.								
Contract nº 02/2005	LT Ivaiporã - Londrina ESUL	100.0%	CS	500 kV	120	-	09.07.2006	04.03.2035
Total					**7,441**	**16,174**		

[1] Concession extended under the terms of Provisional Measure No. 579/2012.

[2] Exclusive for reactive control of the transmission lines of the National Interconnected System, improving the quality of the transmitted energy.

The transmission concessions in operation at December 31, 2019 currently generate RAP to Copel Geração e Transmissão of R$ 950,0 million, proportional to its share in the projects. Currently, the Company is focusing its efforts on the following projects, which will add 391 kilometers in extension and 3,600 MVA of transformation capacity to the set of own and partnership transmission lines and substations, as follows:

Transmission Lines and Substations Projects - Physical Characteristics

Transmission Lines and Substations	Property	Circuit	Tension (kV)	Extension (km)	Transformation capacity (MVA)	Commercial Operations expected to start on	Concession expires on
Own lines and Substations				**142**	**-**		
Contract nº 006/2016 LT Curitiba leste - Blumenau		CS	525 kV	142	-	04.03.2021	07.04.2046
Special Purpose Entity				**249**	**3,600**		
Mata de Santa Genebra Transmissão S.A.	**50.1%**						
Contract nº 001/2014 LT Araraquara 2 - Fernão Dias		CS	500 kV	249	-	30.04.2020	14.05.2044
SE Fernão Dias (2)		-	500/440 kV	-	3,600	31.05.2020	
Total				**391**	**3,600**		

(1) Exclusive for reactive control of the transmission lines of the National Interconnected System, improving the quality of the transmitted energy.

• Transmission works:

- **Lote E - Leilão Aneel nº 05/2015:**: Through public transmission service concession contract 06/2016, Copel received a concession to build, operate and maintain several transmission projects, which represent about 67.6% of the total RAP of this contract.< Commercial operations began in 2019:
  a) Medianeira substation 230/138 kV - 300 MVA;
  b) Baixo Iguaçu – Realeza, 230 kV Transmission Line, in a simple circuit of approximately 38 km;
  c) Andirá Leste Substation 230/138 kV - 300 MVA;
  d) Curitiba Centro Substation (isolated in SF6) 230/138 kV - 300 MVA;
  e) 230 kV Curitiba Centro - Uberaba underground, 8 km long Transmission Line,.

The concession contract also includes the 525 kV Curitiba Leste - Blumenau transmission line with commercial operation scheduled for March 2021. The entire lot of projects represents a RAP for Copel in the order of R$ 116.9 million.

In addition to the works gained in the auctions promoted by Aneel, Copel Geração e Transmissão has works stemming from the authorization resolutions in order to expand and improve existing facilities, such as:

- **Authorization Resolution 5,711 /2016**: implementation at the 230 kV Figueira substation, of the first 138 kV - 15 Mvar capacitor bank, with an investment of R$ 4,8 million and RAP of approximately R$ 0.8 million, from the commercial start-up scheduled for December 2020.
- **Authorization Resolution 5,834 /2016**: implementation at the 230 kV Apucarana substation of the 138 kV – 30 Mvar capacitor bank, with an investment of R$ 5,5 million and RAP of approximately R$ 0.9 million from the commercial start-up scheduled for December 2020.
- **Authorization Resolution 7,384/2018:** implementation of extra capacity at 230 kV Realeza Sul, São Mateus do Sul, Pato Branco, Ponta Grossa Sul, Londrina ESU and Ibiporã substations, with an

investment of approximately R$ 111.0 million and RAP of approximately R$ 15.0 million, as of the start of commercial operation, whose term as predicted by Aneel is the second half of 2021.

- **Authorization Resolution 7,515/2018:** implementation of extra capacity at the 230 kV Cascavel, Ponta Grossa Norte, Umbará, Maringá and Uberaba substations, with an investment of approximately R$ 70.0 million and RAP of approximately R$ 9.5 million, as of the start of commercial operation, whose term as predicted by Aneel is the second half of 2021.

3.3.3. Distribution

In the scope of electric energy distribution, Copel Distribuição's main activities are to provide, operate and maintain the infrastructure, as well as to provide related services, described in the Concession Agreement 046/1999, signed on June 24, 1999, the Fifth Amendment Term of which was entered into on December 9, 2015, extending the concession until July 7, 2045. Decree 8,461, dated 2 June 2015, regulated the extension of the electric energy distribution concessions referred to in article 7, of Law 12,783, of January 11, 2013, establishing, as a condition for the concession extension, efficiency indicators that shall be observed by the concessionaire for five years counted from January 1, 2016.

Copel Distribuição's activities are intended to serve approximately 4.6 million energy consumers in 1,113 locations in 394 cities in Paraná and one in Santa Catarina (Porto União). The cities of Guarapuava and Coronel Vivida are partially served. It also operates and maintains installations with voltage levels up to 138kV.

- **Distribution lines and Substations**

In 2019, substations were connected to reinforce the electrical distribution system, improving quality and increasing the availability of electric energy to consumers. The works of new substations and completed expansions are as follows:

Substation	Power (MVA)	Location
Implantations		
SE Bituruna 138 kV	41.67	Bituruna
SE Paranapoema 34.5 kV	7.00	Paranapoema
SE Itaperuçu 34.5 kV	14.00	Itaperuçu
SE Iguaraçu 34,5 kV	7.00	Iguaraçu
SE Roseira 34,5 kV	7.00	São José Dos Pinhais
SE Agua Verde 69 kV	41.67	Curitiba
Expansions		
SE Novo Mundo 69 kV	41.67	Curitiba
SE Francisco Beltrão 138 kV	41.67	Francisco Beltrão
SE Pinhais 69 kV	41.67	Pinhais
SE Vila Nova 34,5 kV	7.00	Toledo
SE Jaguariaíva 230 kV	20.83	Jaguariaíva
SE Porto Rico 34,5 kV	7.00	Porto Rico
Total	**278.18**	

New 69 kV and 138 kV high voltage lines completed:

Location	Power	Lenght in km
LDAT Andirá Leste - Bandeirantes	138 kV	2.45
LDAT Andirá Leste - Secc. (ADA-SPL)	138 kV	0.80
LDAT Água Verde - Secc. (SQT-PRO)	69 kV	0.50
LDAT Jardim Tropical - Jardim Alvorada	138 kV	5.60
LDAT Telêmaco Borba - Tibagi	138 kV	9.06
Total		**18.41**

In all, in 2019 these developments added approximately 278.18 MVA to the distribution system and 18.41 km of new 69 kV and 138 kV transmission lines.

The following table shows the extension of the distribution lines of Copel Distribuição:

Distributon Lines	Lenght in km
13,8 kV	106,956
34,5 kV	85,735
69,0 kV	756
138,0 kV	6,507
Total	**199,954**

The following table presents the Copel Distribuição substation park, open for voltage:

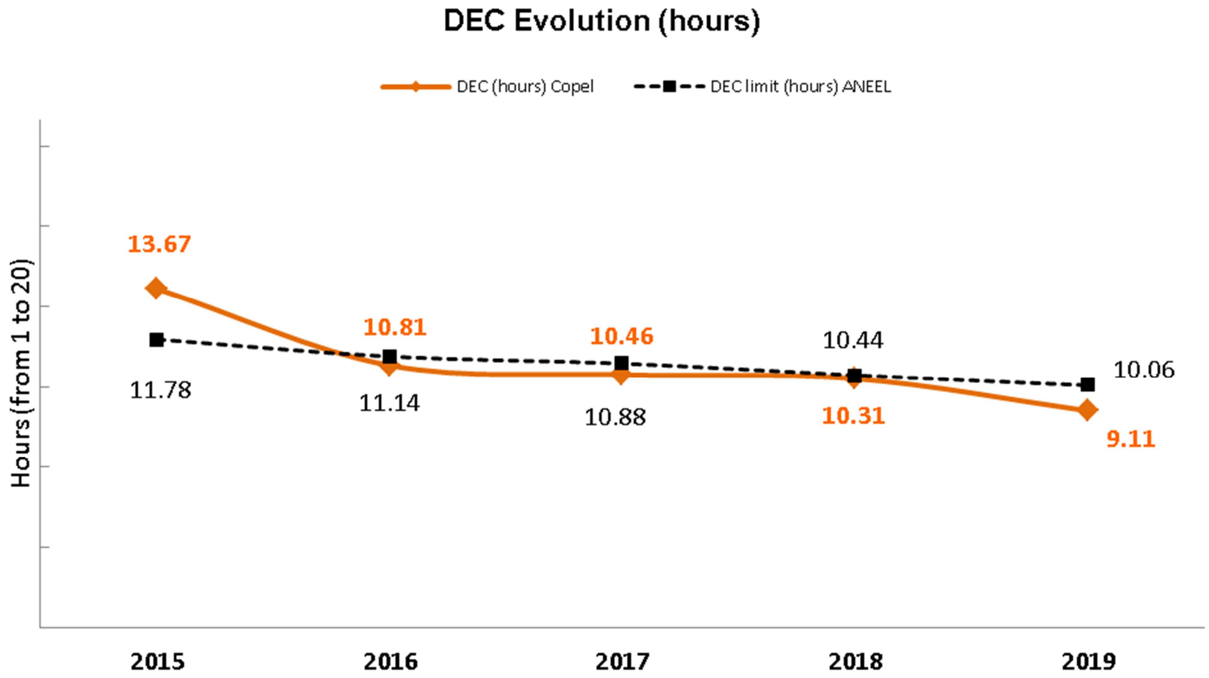
Power	Automated Substations	MVA
34,5 kV	227	1,546
69,0 kV	36	2,351
88,0 kV	-	5
138,0 kV	111	7,302
Total	**374**	**11,204**

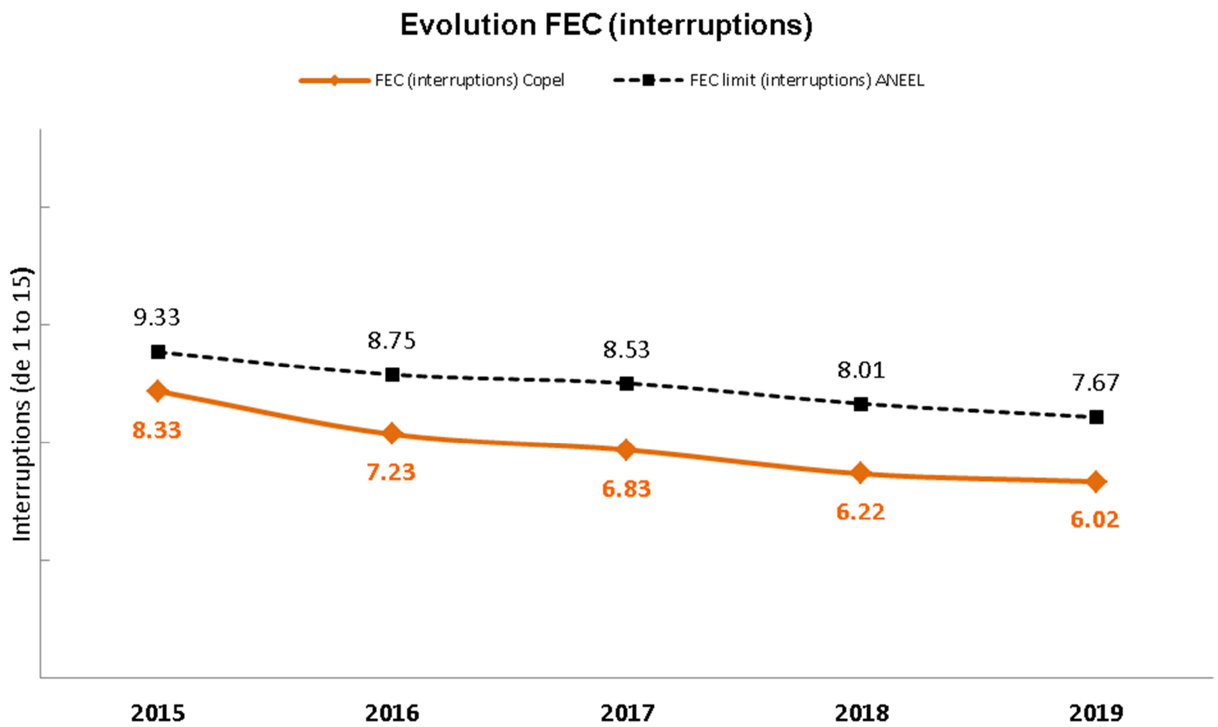
- ## Quality of Supply

Supply quality is measured by indicators that monitor distributors' performance in terms of continuity of the service provided. The System Average Interruption Duration Index (SAIDI) measures the number of hours on average that consumers remain without power during a certain period. The Customer Average Interruption Duration Index (CAIDI) indicates the average number of outages per consumer unit. Based on SAIDI and CAIDI, Aneel establishes individual continuity parameters (Individual interruption duration per consumer unit, Individual interruption frequency per consumer unit, and Maximum continuous interruption duration per consumer unit or connection point) which are itemized in electric energy consumers' monthly bills.

These indicators are reviewed in the Periodic Tariff Review and are increasingly becoming stricter in order to improve the quality of customer service.

Copel Distribuição's results of SAIDI and CAIDI indicators showed an improvement in the number and duration of outages for 2019 compared to the previous year, due to investments in performance and expansion work, increase in the periodic maintenance and preventive inspections, presented, as shown below:





<u>DEC and FEC versus DECi and FECi Note</u>

It is important to stress that the DEC (Equivalent Duration of Interruption by Consumer Unit) and FEC (Frequency Duration of Interruption by Consumer Unit) indicators are distinct from the internal DECi and FECi indicators presented in the item "Concession Extension" of this report.

DECi and FECi include only events that occurred with the distributor's assets, excluding events from transmission lines. The internal indicators are established in the Concession Agreement, and non-compliance with the efficiency criterion for the quality of the service provided, for two consecutive years during the period assessed, or in the year 2020, will result in the extinction of the concession.

DEC and FEC are global indicators, covering all occurrences, regardless of origin, including losses in the basic network that are external to the concessionaire's distribution system and have an imminent technical origin. The objective of these indicators is to improve the quality of the service provided to the consumer.

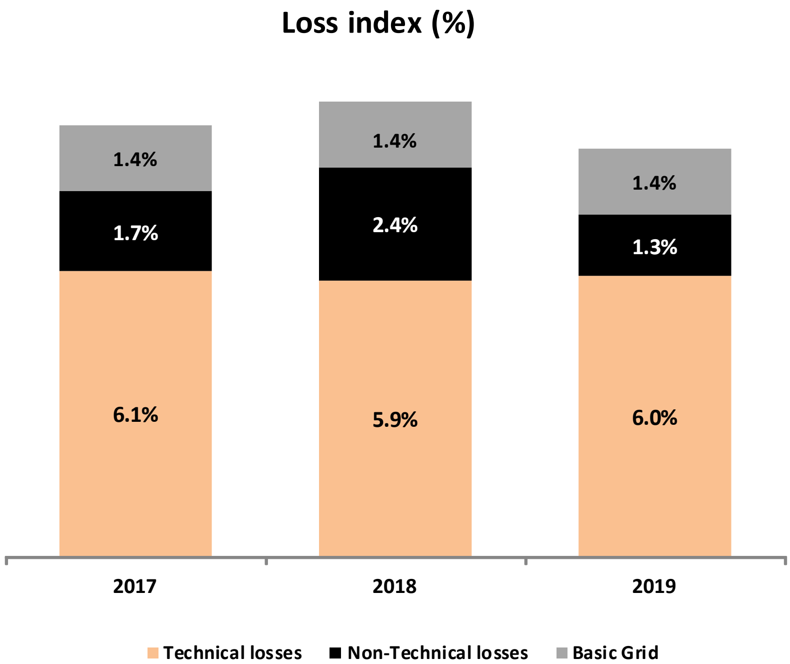
- **Management of energy losses**

The electrical system consists of generation, transmission and distribution. The losses refer to the electric energy generated that passes through the transmission lines (Basic Network) and distribution networks, but that is not traded for technical or commercial reasons.

In this context, losses may be segmented between Losses in the Basic Grid, which are external to the concessionaire’s distribution system and are imminently technical in their origin, and Distribution Losses that may be of a technical or non-technical nature.

The technical losses refer to the portion of losses in the distribution inherent to the transmission process, voltage transformation and energy measurement in the concessionaire’s grid. Non-technical losses, in turn, represent all other losses associated with the distribution of electric energy, such as energy theft, measurement errors, errors in the billing process, consumer units that do not have measuring equipment, among others.

In 2019, global losses represented 8.7% of all energy injected into the distributor's system, with 6.0% of technical losses, 1.3% of non-technical losses and 1.4% of losses in the basic network.



Copel Distribuição maintains a Non-Technical Loss Combatting Program that consists of several activities that intend to reduce or maintain the current level of non-technical losses through the following activities:

- Constant mapping of the situation regarding underground power connections, by identifying the areas and the number of families with illegal connections;
- Improvement of actions to combat irregular procedures, improving the performance of targeted inspections;
- Investments for the provision and /or acquisition of equipment for inspection;
- Preparation and execution of specific training and recycling related to commercial losses;
- Conducting inspections, both in Medium and Low Voltage;
- Educational notes in the press and messages on electric bills.
- Joint operations with the Civil Police and Prosecution Office;
- Opening of the police investigation in regions where significant numbers of irregular procedures are identified.

Due to the actions taken, the effectiveness of inspections has increased significantly in recent years, from 11.1% in 2012 to 22.7% in 2019, when 47,813 inspections were carried out and 10,849 irregular procedures were detected. Prospecting, for carrying out inspections, is done through the use of the information available in the registration of consumer units, installation of tax measurement and analysis of niches of fraudsters installed in the various classes of consumption.

• Captive market

The following table shows the behavior of the captive market by consumption class in number of consumers and the performance of energy sold.

Captive Market - Copel Distribuição						
	Number of Consumers			Sold Energy (GWh)		
	December/19	December/18	%	December/19	December/18	%
Residential	3,825,989	3,754,598	1.9	7,499	7,238	3.6
Industrial	71,984	73,070	(1.5)	2,648	2,935	(9.8)
Commercial	406,775	400,209	1.6	4,730	4,653	1.7
Rural	349,914	352,074	(0.6)	2,361	2,288	3.2
Others	58,578	57,853	1.3	2,546	2,480	2.7
Total	4,713,240	4,637,804	1.6	19,784	19,594	1.0

• Grid Market (TUSD)

In 2019, Copel Distribuição's grid market, which takes into account all consumers who accessed the distributor's network, grew by 2.3%. This is the third consecutive positive result, since the worst moment of the recession that started in mid-2014. The 2019 result was influenced by the migration of two industrial consumers to the basic network (230 kV), in view of the adjustments to Normative Resolution 722 from Aneel. In the case of adjustment in the comparison basis, the market would register growth of 3.3%.

Market Power Wire - Copel Distribuição						
	Number of Consumers			Sold Energy (GWh)		
	December/19	December/18	%	December/19	December/18	%
Captive market	4,713,240	4,637,804	1.6	19,784	19,594	1.0
Concessionaires and Permissionaires	2	3	(33.3)	164	279	(41.2)
Free Customers	1,389	1,121	23.9	10,002	9,568	4.5
Wire Concessionaries	5	4	25.0	684	511	33.9
Wire Market	**4,714,636**	**4,638,932**	**1.6**	**30,634**	**29,952**	**2.3**

- **Purchase of energy**

Under the current regulatory framework, the energy contracting by the distributors mainly occurs through auctions overseen by Aneel. To supply the market in the coming years, in 2018 Copel Distribuição participated in the following auctions: 28th New Energy Auction (A-4), hold on September 9, 2018, with a 39 MW average acquired and shall begin the supply on January 1, 2024.

In order to serve the market in 2019, the supply of contracts negotiated in previous years started: 16th New Energy Auction (A-5) and 18th New Energy Auction (A-5), both contracted in 2013 and the 22nd New Energy Auction (A-3), contracted in 2015.

- **Overcontracting**

In the current regulatory model, the purchase of energy by distributors is regulated by Law No. 10,484/1914 and by Decree No. 5,163 /2004, which determine that these shall acquire the volume required to serve 100% of their market.

The verification that the whole market is being served takes into account the period comprised by the calendar year, being the difference between the costs paid by the tariff and the costs actually realized with the purchase of energy, entirely passed on to the captive consumers, provided that the distributor records a contracting level between 100 % and 105% of its market. However, if distributors reach contracting levels below or above the regulatory limits, these will still be able to maintain a guarantee of neutrality, if it is identified that such violation arises from extraordinary or unforeseeable events, that do not allow management by the buyer.

In recent years, the distribution segment has been exposed to a scenario of widespread overcontracting, as most companies have reached a contracting level of more than 105%.

Understanding that several of the factors that contributed to this situation are extraordinary and unavoidable by the distributors, such as the compulsory allocation of physical guarantee quotas and the mass migration of consumers to the free market, the Regulatory Agency and the Ministry of Mines and Energy implemented a series of measures intended to mitigate overcontracting, highlighting:

- Normative Resolution 706/2016, which regulated the recognition of involuntary overcontracting resulting from the reallocation of physical guarantee quotas for plants renewed in accordance with Law No. 12,783/2013;
- Normative Resolution 693/2015 which regulated the Mechanism for Compensation of New Energy

Surpluses and Deficits - MCSD-EN, focused on the contracts stemming from new generation projects, through which the reallocation of energy between distributors and generators was permitted;

- Normative Resolution 711/2016 which established the criteria and conditions for the signing of bilateral agreements between distributors and generators, which included: temporary reduction, total or partial contracted energy, permanent but partial reduction of the agreement or termination of agreement.
- Decree 9,143/2017 which, among other measures, amended Decree 5,163 /2004, recognizing: i) the involuntary contractual exposures stemming from the migration of special consumers to the free market, provided that Aneel observes an evaluation of maximum effort by the distributors; and (ii) the right to contractual reduction of existing energy auctions, of amounts related to the migration of special consumers to the free market. The eligible agreements are those resulting from the auctions of existing energy made after June 2016, pursuant to Normative Resolution 726/2016; and
- Normative Resolution 824/2018, which established the criteria for the processing of the Mechanism for Sale of Energy Surplus by the distributors.

In relation to contracting, throughout 2019 Copel Distribuição's indicators often identified overcontracting scenarios. During this period, the monitoring of indicators of contracting levels prevailed, and mitigating actions were required.

All available tools were used for contracting management by the Distributor, in order to meet the requirement to make the maximum effort to adjust its contracting level to the regulatory limits. In this context, we can highlight the following actions:

- Surplus Statement in the MCSDs of New Energy and Free Exchanges, related to the amounts of energy in surpluses of physical guarantee quotas and not included in agreements for special consumers;
- Full return on MCSD 4%, referring to market variations of up to 4% of existing contracted energy amounts;
- Full return in the monthly MCSDs, of the available amounts of energy in the Distributor portfolio, related to the termination of agreements for potentially free consumers; and
- Declaration of leftovers in the MVEs (Excess Sale Mechanisms), making available to the free market part of the Distributor's surplus energy to serve its captive market.

Regarding the 2019 hiring, the supply and demand scenarios point to the occurrence of over hiring by Copel Distribuição. Nevertheless, considering that this situation arises mainly from the migration of consumers to the free market, it is considered that the Distributor maintains the guarantee of neutrality, since this factor is susceptible to the recognition of involuntary overcontracting.

- **Tariff Flags**

The purpose of the tariff flag system is for consumer prices to reflect conditions under which electric energy is generated in the SIN, by the charging of additional amounts in the Energy Tariff (TE), thus enabling consumers to adapt their consumption to the actual price of electric energy. Green, yellow and red flags show higher or lower electric energy costs depending on conditions for electric energy generation. Tariff flag amounts are set in a specific document published by Aneel each calendar year, in na approval resolution.

The table below shows the history of tariff flags and the amounts charged:

Month	2018		2019	
	Flag	Value applied in the tariff (every 100 kwh)	Flag	Value applied in the tariff (every 100 kwh)
January	green	-	green	-
February	green	-	green	-
March	green	-	green	-
April	green	-	green	-
May	yellow	1.00	yellow	1.00
June	red	5.00	red	-
July	red	5.00	red	1.50
August	red	5.00	red	4.00
September	red	5.00	red	4.00
October	red	5.00	red	1.50
November	yellow	1.00	yellow	4.17
December	green	-	green	1.34

- **White Tariff**

Since January 1, 2018, the White Tariff has been in effect, a tariff type that presents a change in the energy value according to the day and time of consumption.

The white tariff is to enable the consumer to rationalize the energy consumption at the peak times (5:30 p.m. to 8:29 p.m.) and encourage the use in periods when demand is low. This modality is offered for the low voltage consumer units (127, 220, 380 or 440 Volts), called group B, and also for those served at high voltage, belonging to group A opting for the low voltage tariff, according to the following schedule defined by Aneel:

- In 2018 - New supply requests and HUs met with average annual consumption above 500 kWh.
- In 2019 - New supply requests and HUs met with average annual consumption above 250 kWh.
- In 2020 - Any consumer unit.

The conditions for application of the white tariff are set forth in the Normative Resolutions of Aneel 733/2016.

- **Annual Tariff Adjustment - RTA**

The Tariff Adjustment process is intended to pass on: non-manageable costs (Portion A), which covers costs related to the acquisition of electric energy, use of transmission systems, sectorial charges, unrecoverable revenues, and monetarily restate the manageable costs (Portion B), inherent in the activity of energy distribution, i.e., operational costs and capital remuneration.

In June 2019, through Homologation Resolution No. 2,559/2019, Aneel approved the last annual tariff adjustment for Copel Distribuição, which corresponded to the average tariff effect to be charged to consumers of 3,41%, which was 4,32%, on average for high voltage consumers and 2,92% on average for low voltage consumers.

- **Concession Extension**

In November 2015, by the Order of the Minister of Mines and Energy, Copel's request for extension of the concession was granted. In December of the same year, the fifth (5th) contractual addendum was entered into, which formalized the extension of Concession Agreement No. 46/1999 for another 30 years, subject to acceptance of new indicators of service quality and economic and financial sustainability.

The following table sets out the minimum economic-financial sustainability parameters defined for Copel Distribuição in the first five years of renewal:

Economic-Financial Management			Quality - limits[a]		Quality - accomplished	
Year	Goal	Accomplished	DEC i(b)	FECi(b)	DECi	FEC i
2016	-	-	13,61	9,24	10,8	7,14
2017	Lajida ≥ 0[d]	661,4	12,54	8,74	10,41	6,79
2018	Lajida (-) QRR ≥ 0[e] [f]		11,23	8,24	10,29[c]	6,20[c]
2019	{Net Debt / [Lajida (-) QRR ≥ 0]} ≤ 1 / (0,8 * Selic)[e][g]		10,12	7,74	9,1	6,00
2020	{Net Debt / [Lajida (-) QRR ≥ 0]} ≤ 1 / (1,11 * Selic)[e][g]		9,83	7,24	-	-

[a] According to NT 0335/2015 Aneel.

[b] DECi - Equivalent Duration of Interruption of Internal Origin per Consumer Unit; and FECi - Equivalent Frequency of Interruption of Internal Origin per Consumer Unit.

[c] Preliminary data.

[d] Lajida regulatory measure adjusted for non-recurring events (POS, post-employment benefit, provisions and reversals) according to clause six, annex III, of the Fifth Additive Term to the Concession Agreement.

[e]QRR: Regulatory Reintegration Quota or Regulatory Depreciation Expense. It will be the value defined in the last Periodic Tariff Review - RTP, plus the IPCA between the month prior to that of the RTP and the month prior to the 12-month period of the assessment of economic and financial sustainability.

[f] Will be disclosed in DCR - Regulatory Accounting Statements.

[g] Selic: limited to 12.87% a.a.

The Company has achieved the annual indicators and reiterates its commitment to the economic sustainability of the concession and the continuity of the investments supported by cost control management, maximization of productivity and improvement of operational efficiency.

3.3.4. Trading

Copel Comercialização S.A. (Copel Energia) acts with purchase and sale of energy and rendering of services in the Energy Free Market.With only three years of operation, Copel Energia is already one of the largest companies in the market, with a portfolio of more than 384 customers in 14 Brazilian states, the company now ranks 11th in the ranking of energy sales by suppliers in the 2019 accumulated.

In 2019 it also consolidated its activities as a retailer. In addition, it offered management services, consulting for migration, modeling for generators and consumers, demand management, among other products, which allow customers to operate with security in the Free Market.

Having as a value proposition the Company's security and its good relationship with its customers, in 2019 Copel Energia reached the milestone of 1,3 MWm traded on the CCEE, preparing for the imminent opening of the free energy market and the new challenges of the market.

3.3.5. Telecommunications

Copel Telecom is responsible for providing telecommunications services in Paraná. Since 1998, Copel Telecom has been authorized to operate these services and offer the highest technology to businesses, government and retail customers in 85 cities. Through its robust network of optical fibers, which form a 34.2-thousand-kilometer backbone, it carries ultra-speed data and manages an optical ring that serves the 399 municipalities of Paraná, for clients of small, medium and large companies with a portfolio of data, voice and datacenter transport products.

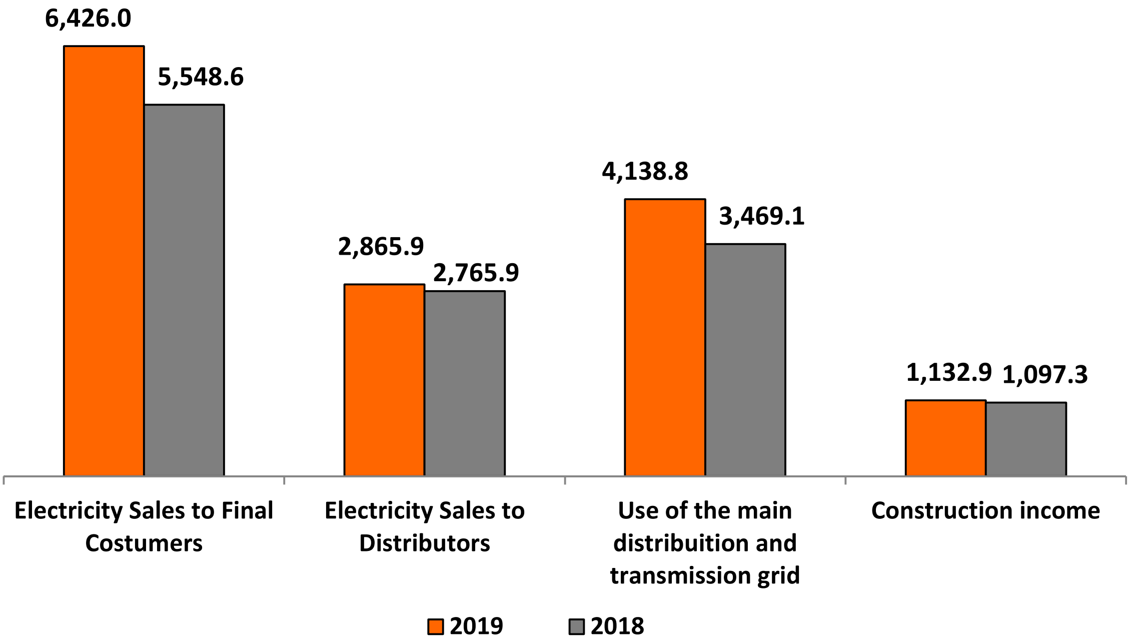
3.3.6. Ownership interests

Copel has ownership interests and associations with companies, consortia and other institutions operating in several sectors in addition to the energy area, as presented in NEs No. 1.1 and 2 to the Financial Statements.

4. ECONOMIC-FINANCIAL PERFORMANCE

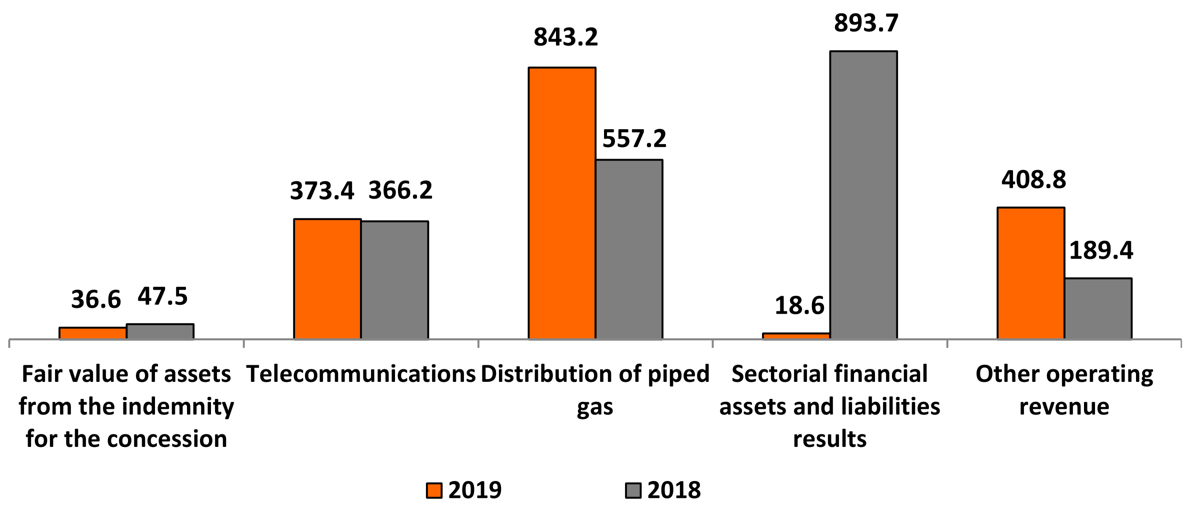
4.1. Net Operating Revenue

In 2019, Net Operating Revenue increased by R$ 1.309,3 million, which represents a 8.8% increase year-on-year. This variation is mainly due to:



1) an increase of R$ 877.4 million in **Electricity Sales to Final Customers**, mainly due to the reflection of Copel DIS's energy tariff readjustment by 15.61% in the 2018/2019 cycle, partially offset by the 4.11% tariff reduction in the 2019/2020 cycle and increased by the increase in sales to final consumers by 3.9%, of which the free market represents an increase of 13.3% of this increase. Copel Comercialização sold a total of 2,715 GWh in 2019, 29.5% higher than the 2,096 GWh of the previous year;
2) increase of R$ 100.0 million in **Electricity Sales to Distributors**, mainly due to the increase in sales through contracts in a regulated environment, in view of the start-up of new projects and the dispatch of UEG Araucária; offset by the settlement of spot market energy with lower average PLD in the period, from R$ 227.10 / MWh in 2019 against R$ 287.62 / MWh in 2018;
3) an increase of R$ 669.7 million in the **Use of the Main Distribution and Transmission Grid**, mainly due to the tariff adjustments to consumers of the distributor by 16.41% and 11.63% applied in June 2018 and 2019, respectively (0.85% in June 2017), due to the 3.3% growth in the grid market of Copel DIS in the period and the recognition of the remuneration of new transmission assets;
4) increase of R$35,6 million in **Construction Income**. The Company accounts for revenue related to the

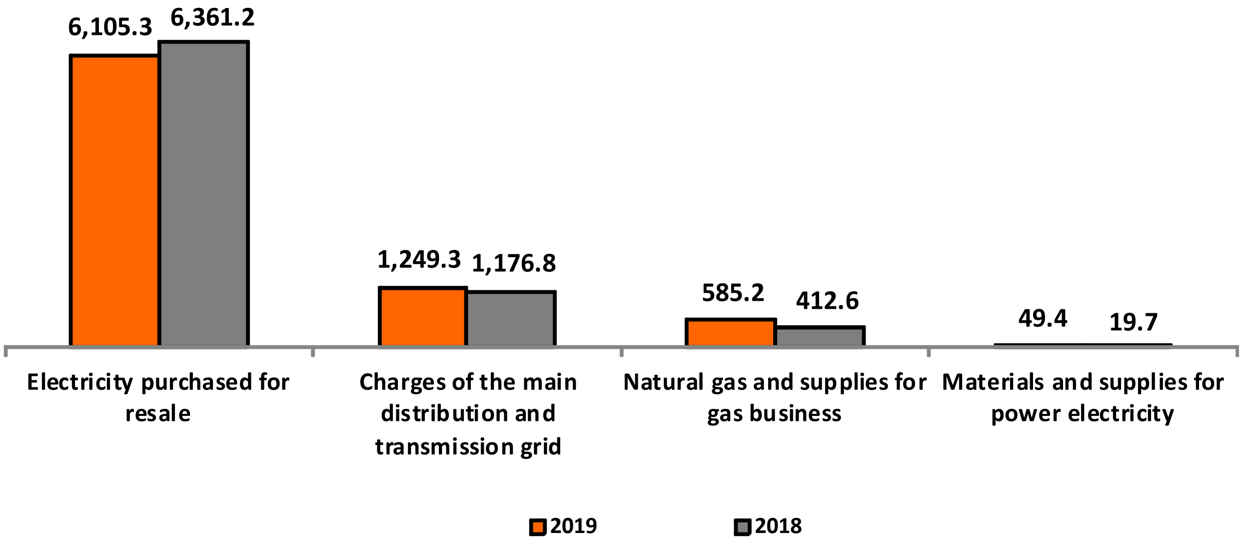
construction or improvement of the infrastructure used in the provision of services of distribution, and transmission of electric energy and gas, which totaled R$ 1,132.9 million in 2019 and R$ 868 million in 2018. Such corresponding expenses are recognized in the statement of income for the period, as **Construction cost**, when incurred;



5) increase of R$ 7.2 million in **Telecommunications Revenue**, mainly due to the increase in the average ticket for broadband sales;
6) increase of R$ 286.0 million in the **Distribution of Piped Gas Revenue**, impacted by the growth in gas sales, the average tariff adjustment of 16% in relation to the previous year and the recovery of Pis and Cofins on ICMS in 2019;
7) reduction of R$ 875.1 million in the **Sectorial financial assets and liabilities results** due, mainly, to the amortization of the amounts considered in the revenue from electricy sales to distributors after the tariff adjustment on June 24, 2018 and the smaller variation of the balances constituted for the adjustment applied as from June 24, 2019;
8) increase of R$ 219.4 million in **Other Operating Revenue** mainly reflecting the recognition at fair value of the portfolio of energy purchase and sale contracts of Copel Comercialização referring to the variation of the contracted price vs. market price.

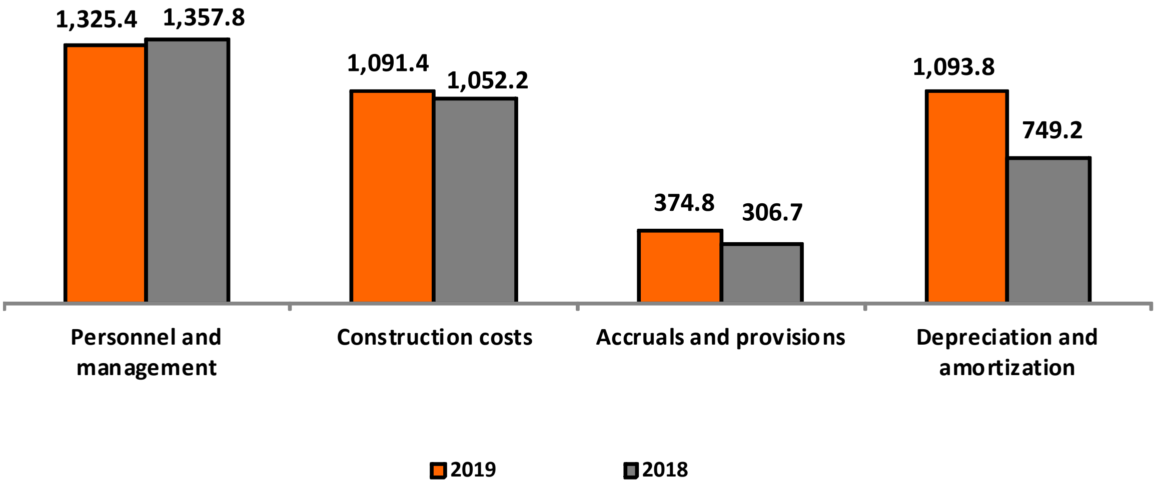
4.2. Operating Costs and Expenses

- **Non-manageable**



1) decrease of R$ 255.9 million in **Electricity Purchased for Resale**, mainly due to the lower PLD value in the period compared to 2018;
2) increase of R$ 72.5 million in **Charges of the Main Distribution and Transmission Grid**, mainly due to the tariff increase and the charges for the transmission infrastructure made available to new generation projects starting in 2019;
3) increase of R$ 172.6 million in **Natural gas and supplies for gas business**, mainly due to the increase in the acquisition cost and higher volume acquired;
4) increase of R$ 29.6 million in **Materials and supplies for electricity production** arising mainly from the dispatch of UEG Araucária;

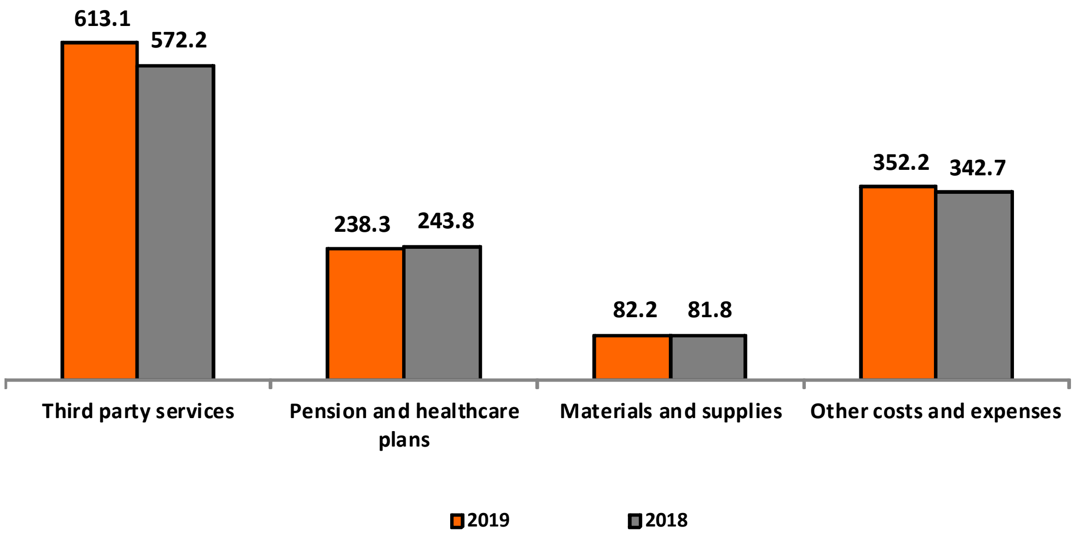
- **Manageable**



5) <0}decrease of R$ 32.4 million in **Personnel and Management**, reflecting the reduction in the number of employees and cost reduction policy; partially offset by the salary adjustment, according to the collective agreement, of 2.92% in October 2019 and higher value of Profit Sharing - PLR;

6) increase in **construction costs,** from R$ 1,052.2 million in 2018 to R$ 1,091.4 million in 2019, reflecting investments made in the transmission, energy distribution and piped gas infrastructure;

7) increase of R$ 68.1 million in **Accruals and provisions**, mainly due to the lower reversal of the provision for litigation related to third party indemnity, the increase in the provision for expected credit losses from customers and the recognition of the provision for impairment of assets in the telecommunications segment, offset by the lower provision for labor claims and the greater net reversal of impairment in the generation segment assets;



8) increase of R$ 40.9 million in Third-Party Services, due to the higher amount in maintenance of the electrical grid, communication, data processing and transmission and in consulting and auditing services;

9) decrease of R$ 5.5 million in **Pension and healthcare plans** due to the lower interest rate and reduction

in the number of participants, according to the values defined in the actuarial report; and

10) increase of R$ 9.5 million in **Other operating costs and expenses** due to the higher value of losses on the deactivation and sale of assets and lower recovery of costs from suppliers and sectorial subsidy, offset by the reversal of the water resources control and inspection fee as a result of the repeal of the state law.

4.3. EBITDA ou LAJIDA

	Consolidated	
In R$ million	**2019**	**2018**
Net Income	2,062.9	1,444.0
Deferred IRPJ and CSLL	205.8	(68.0)
IRPJ and CSLL	433.5	580.1
Financial expenses (income), net	488.5	438.1
Lajir/Ebit	**3,190.7**	**2,394.1**
Depreciation and amortization	1,093.8	749.2
Lajida/Ebitda	**4,284.5**	**3,143.3**
Net Operating Revenue - ROL	16,244.3	14,934.8
Ebitda margin% (Ebitda ÷ ROL)	**26.4%**	**21.0%**

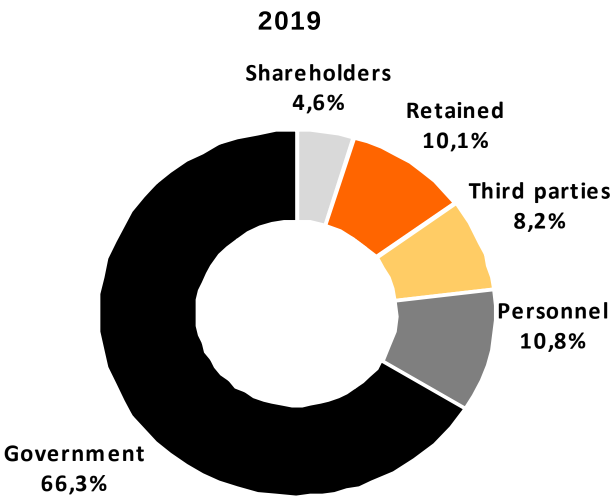
The Company's EBITDA in 2019 was of R$ 4,284.5 million, an increase of R$ 1.141,2 million compared to 2018, which representes a 36,3% increase.

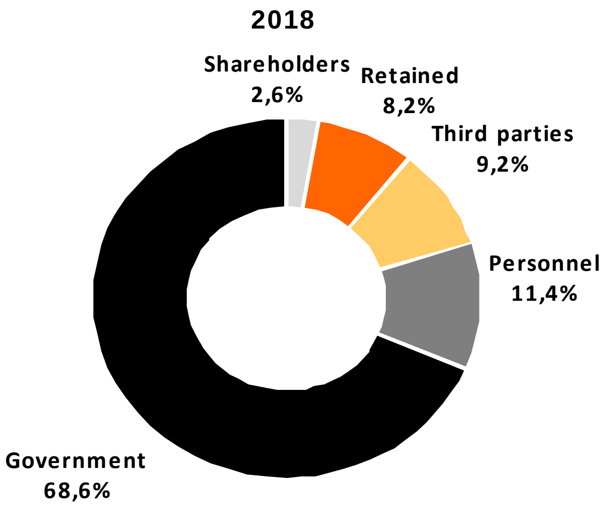
4.4. Financial result

Financial result decreased by R$ 50.4 million, mainly due to the 8.5% decrease in financial income, resulting from interest and monetary variation on CRC transfer and the recognition of tax credits in 2018; and the 1.1% decrease in financial expenses, as a result of the exchange rate variation on the purchase of electricity from Itaipu.

4.5. Added Value

In 2019, Copel recorded R$ 14.103,8 million in Added Value - total 5.5% higher than the previous year, in the amount of R$ 13.365,0 million. The full statement is available in the Financial Statements.





4.6. Debt

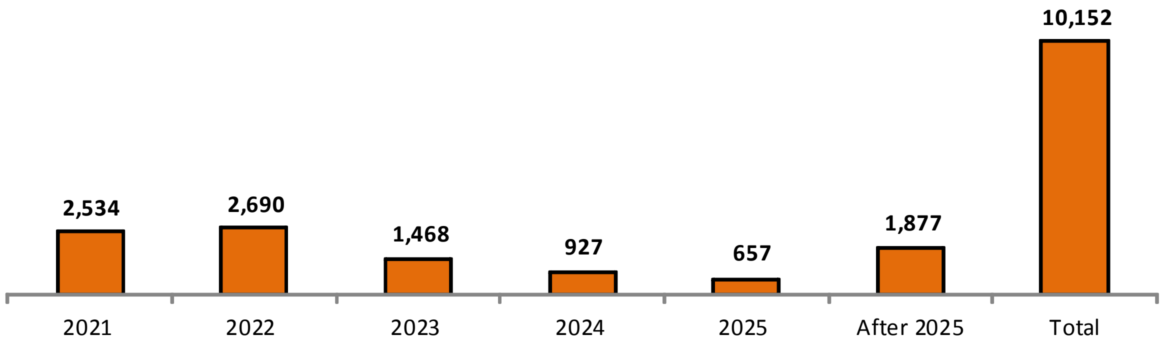
The Company meets its liquidity and capital requirements primarily with cash from operations and financing used to expand and modernize business related to generation, transmission, trade and distribution of energy as well as telecommunications.

An important point to note is that the Company seeks to invest in projects and, accordingly, uses credit facilities available in the market that suit Copel's capital structure in terms of financial leverage compared to returns from projects. It is worth noting that projects for financing as well as cash and cash equivalents will be sufficient to cover the fiscal year's investment plan.

In 2019, there were the following outflows of funds:

Inflow – 2019 (In R$ million)	Company	Financier	Valor
8th Issuance of Debentures	Holding	Debenture holder	500
Release of Funds UHE Colíder	Copel Geração e Transmissão	BNDES	37
Release of Funds UHE Baixo Iguaçu	Copel Geração e Transmissão	BNDES	33
Promissory Notes - 5th Issuance	Copel Geração e Transmissão	Bill holder	650
6th Issuance of Debentures	Copel Geração e Transmissão	Debenture holder	1.000
5th Issuance of Debentures	Copel Distribuição	Debenture holder	850
3rd Issuance of Debentures	Copel Telecomunicações	Debenture holder	210
Release of Funds BNDES Cutia	Cutia Empreendimentos Eólicos	BNDES	76
1st Issuance of Debentures	Cutia Empreendimentos Eólicos	Debenture holder	360
Total			**3.717**

Payments made in the year totaled R$ 4.664,1 million, of which R$ 3,638.0 million in principal and R$ 1.026,1 million in charges. The long-term debt repayment schedule, comprising loans, financing and debentures, is as follows:



4.7. Net Income

In 2019, the net income attributable to parent company's shareholders was R$1,989.9 million, 41.4% higher than 2017, which amounted to R$1,407.1 million.

Distribution of dividends and interest on capital

(in R$ thousands)	2019			2018		
	Total	DIV	JCP	Total	DIV	JCP
Aproval by AGO					29.04.19	29.04.19
Aproval by CAD			05.12.19		-	12.12.18
Payment date	to be determined	-	to be determined	28.06.19	28.06.19	28.06.19
Adjusted Net Income	1,956,675			1,403,796		
Value of ON Shares	325,210	-	325,210	191,369	49,942	141,427
Value of PNA Shares	1,291	-	1,291	950	-	950
Value of PNB Shares	316,499	-	316,499	186,223	48,600	137,623
Gross Total Shared	**643,000**	**-**	**643,000**	**378,542**	**98,542**	**280,000**

Note: The information from JCP 2019 refers to the results of the 1st semester of the respective year, declared by the management bodies on 12/05/2019 to shareholders entitled on 12/23/2019 (§1 of Article 73 of the Bylaws).

- **Shares**

Volume traded in 2019:

	Volume negociado	ON (CPLE3)		PNB (CPLE6)	
		Total	Daily average	Total	Daily average
B3	Trades	199,345	804	1,115,702	4,499
	Quantity	43,433,800	175,136	229,434,700	925,140
	Volume (R$ Thousand)	1,973,991	7,960	10,684,077	43,081
	Presence in trade sessior	248	100%	248	100%
NYSE	Quantity	293,524	1,482	121,241,057	481,115
	Volume (US$ thousand)	2,723	14	1,456,392	5,779
	Presence in trade sessior	198	79%	252	100%
Latibex	Quantity	-	-	66,740	1,131
	Volume (€ thousands)	-	-	727	12
	Presence in trade sessior	-	-	59	23%

Desempenho do preço das ações em 30.12.2019:

	Ação	2019	2018	Variação %
B3	ON (CPLE3)	$ 69.10	$ 29.80	39.3
	ON average	$ 45.85	$ 22.29	(0.5)
	PNB (CPLE6)	$ 69.07	$ 30.55	22.4
	PNB average	$ 46.87	$ 24.62	(13.0)
	Ibovespa	115,645	87,887	15.0
	Electricity Index	76,627	49,266	24.0
NYSE	ON (ELPVY)	US$ 17,10	US$ 7,71	22.4
	ON average	US$ 11,37	US$ 6,04	(12.3)
	PNB (ELP)	US$ 16,94	US$ 7,83	2.6
	PNB average	US$ 11,82	US$ 6,75	(23.9)
	Dow Jones Index	28,538.44	23,327.46	(5.6)
Latibex	PNB (XCOP)	€ 15.20	€ 7.15	13.7
	PNB average	€ 10.55	€ 5.75	(27.9)
	Latibex Index	2,532.70	2,178.40	10.3

4.8. Non-Paying Consumers

Since 2003, the Company has been calculating the default rate for the product "electric power supply", whose calculation methodology considers the consumer with debt overdue for more than 15 days up to 360 days and excluding the recognition of losses from overdue debts.

In December 2019, Copel Distribuição's, also called Corporate Default, amount overdue by consumers was R$226.5 million, equivalent to 1.20% of its revenues, while in 2018 this amount reached R$238.7 million or 1.44% of revenues.

As a result of the various collection actions carried out, and despite the economic scenario still showing low economic growth and unemployment, in 2019 the indicators of Corporate default and Abradee showed excellent results, as shown in the table:

Indicador	2019	2018	Variação %
Abradee Non-Payment	2.18%	2.69%	-18.96%
Company Non-Payment	1.20%	1.44%	-16.67%

4.9. Investment program

The investment program for 2020 was approved by the 184th ordinary meeting of the BOD and updated by the 193rd and 196th ordinary meeting of the BOD. The investments made and projected are as follows:

Companies (in R$ million)	Realized 2019	2018	Estimated 2020	Change % 2019-2018
Copel Geração e Transmissão	850.5	1,510.6	865.2	(43.7)
Copel Distribuição	919.9	696.0	1,073.8	32.2
Copel Telecomunicações	146.3	309.4	123.9	(52.7)
Copel Comercialização	-	0.2	2.4	-
Holding	0.5	2.8	2.6	(82.1)
Other (1) (2)	11.3	50.0	19.3	(77.4)
Total	**1,928.5**	**2,569.0**	**2,087.2**	**(24.9)**

(1) Refers to the participation of Copel in the establishment.
(2) Included Uega - 20% Holding

The amounts incurred in 2018 were mainly intended to finalize works in progress, which also justifies the reduction of the budget foreseen for 2020, since the main projects are being concluded.

4.10. Research & Development-R&D and Energy Efficiency Program - EEP

The legislation requires the application of a minimum percentage of Net Operating Revenue – NOR in R&D and EEP projects. In addition to these amounts, a contribution to the National Fund for Scientific and Technological Development – FNDCT and the Ministry of Mines and Energy - MME and National Electricity Conservation Program - Procel, which in 2019 was R$ 50,8 million.

Generation and Transmission

In 2019, Copel Geração e Transmissão invested R$26.7 million in the execution of 28 R&D projects, of which 7 are strategic, whose themes were established by Aneel through Call for Projects. In 6 projects, it participated cooperatively with other companies. It also applied approximately R$ 0,3 thousand in the management of R&D projects through management projects, totaling R$ 27.0 million invested in R&D.

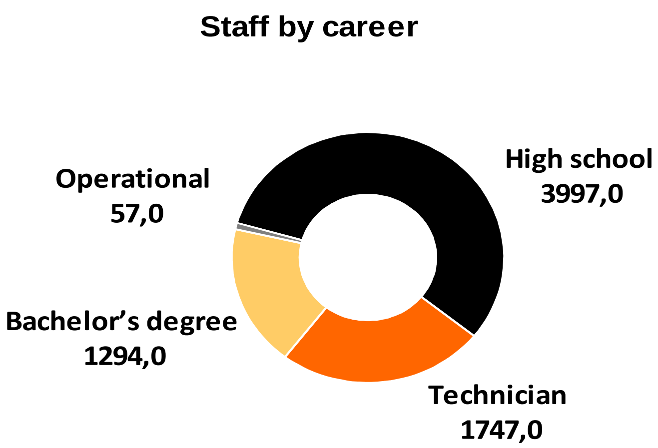
Distribution

In 2019, R$ 35.2 million were invested in: 50 R&D projects (5 completed during the year and 45 are underway) and participation in cooperation with other companies in the electric energy sector in 8 projects, among them 2 strategic projects whose themes were established by Aneel through Call for Projects.

Fifteen new projects were contracted, of which four were selected through the Innovation Committee, the theme of which was established by Aneel. The investments total R$ 68,9 million to be realized in up to 3 years.

5. SOCIAL AND ENVIRONMENTAL PERFORMANCE

5.1. Human Resources



Considering Copel Holding, Copel Distribuição, Copel Geração e Transmissão, Copel Telecomunicações and Copel Comercialização, the Company has 7,095 employees in its headcount. Two new employees were admitted in 2019 through a public tender and six employee were reinstated. During the same period, 524 employees left the Company. 397 left by the PDI. The turnover rate was 3.5% in 2019 and 4.3% in 2018.

- **People Development**

In an era in which people and their knowledge became the main competitive differentials of companies, encourage and promote the education and development of employees, constantly relying on qualified and experienced professionals, is Copel's strategy to face this challenge, allowing all of its professionals to bring to bear their potential in and environment conducive to the development of their skills and development of their career. To accomplish this, several educational actions are promoted, ranging from basic training to graduate courses and research development. These actions are organized into: corporate programs, training courses (for basic training to perform duties), compulsory training (courses for specific activities), training for professional improvement, events (seminars, lectures, workshops, congresses, etc.) and research and development projects.

Copel also offers training for outsourced employees, provided for in an agreement or due to the Company's interest, focused on integration and specific activities to be performed by the professionals when rendering services.

The Corporate Education model is based on the synergistic and cooperative performance of the Corporate University and the training areas of the wholly owned subsidiaries, focusing on business competitiveness and profitability.

In 2019, UniCopel acquired a subscription to a content platform for the professional development of its employees. These are issues such as time planning, feedback, learning to learn, among other titles, which are open to the entire Company. The objective is to provide training opportunities for all employees.

In addition, it developed the learning paths, with an approach geared to the 70-20-10 methodology, in which 70% of the learning takes place during their day to day work, through projects and participation in meetings and work groups, for example; 20% through communities of practices and semi-structured education systems; and 10% through structured education actions such as courses, events and programs.

The Company's proposal is to provide different learning opportunities to all employees who need this content. This is content that is directly linked to work and aims to give access to information, often dispersed by the company's systems or with specialists, which in many cases are not known to everyone.

Transformational Leadership Program

This year, the program served the new managers of the Holding, who did not have the opportunity to participate in the contracted classes. Through timely action, but very adherent to the requirement, the proposal was to gain proximity to managers to understand their difficulties and challenges. The project lasted for 3 months, with the participation of 11 managers. As a result, it is possible to mention greater security of the manager in his/ her practice, involvement of his/ her teams and integration between them.

Also as part of the leadership program, a highlight is the beginning of the development of the management project by management skills. The proposal is, after surveying the behavioral and technical skills of Copel's managers, to apply methodology for assessing and developing the skills of these managers. This raises the level of delivery of this function, while establishing a new way of identifying training and development needs.

In addition, UniCopel coordinated the Implementation of the Managerial Succession Program, called "Trilhando o Futuro" for employees who aspire to a managerial career. This initiative had 607 participants, who responded to a profile identification questionnaire to compose a list of potential successors.

Also, the managers already designated by Copel participated in the Assessment program, with the application of a tool for the development of managerial behavior. This initiative is subsidizing development, training and qualification activities, and is an option used as a tool to support decision-making when managing a nomination in an internal selection process.

Other programs

In addition to Copels's training and qualification programs, the Company encourages the training of its professionals through the following initiatives:

- Foreign Language Training Program - established in 2012, it is intended for employees who perform activities in which another language is required.
- Graduate courses - a program focused on the professional development in specific and strategic subjects focused on the production of researches, dissertations, theses, generating innovations and improvements for the Company and the electric sector.

- **Benefits**

Highlights of the benefits granted by the Company to all its employees, in addition to those provided for by legislation, include: tuition grants; advances on vacation pay and an additional payment of 1/3 of salary in addition to legally required amounts; the advance of the first installment of the 13th monthly salary in January; profit sharing; quality of life incentives, with initiatives such as Copel's choir and the company games; food and meal vouchers; snack voucher; childcare assistance; assistance to employees with disabilities and to employees who have disabled dependents; maternity leave and extended paternity leave; and supplementation of sick pay. In addition to these, as of October 2018, employees may opt to reduce the working day from 8 hours to 6 hours, at no reduction of salary, according to the criteria established in internal regulations. Additionally, Copel´s Pension and Social Assistance Foundation, for which Copel acts as a sponsor grants a: a private pension plan to supplement official social security as well as health and dental care plans. Copel Foundation also provides a portfolio of loans to its participants under legal provisions governing the investment of its pension fund reserves.

- **Compensation policy**

Copel's practices for compensation, recognition and incentives are based on the Company's structured compensation model supported by two pillars: fixed pay (reflecting market levels and individual merit) and variable pay (Profit Sharing Program [PLR]). Copel's employee profit sharing program complies with Federal Law 10,101 /2000, State Decree 1,978 /2007 and State Law 16,560 /2010, and income is distributed equally to all employees. The ratio between the lowest salary paid by the Company in December 2019 (R$ 1,888.42) and the national minimum wage in effect on that date (R$ 998.00) was 1.89 times, and there was no significant difference in the same period in relation to the proportion of basic salary between men and women.

- **Labor relations**

19 trade unions representing the various classes of workers, and Copel holds meetings with them to discuss matters of mutual interest. In the collective bargaining month (October), this relationship intensifies when the unions and Copel discuss demands for the official collective bargaining agreement (ACT).

- **Performance assessment**

Since 2013, Copel's Performance Management is carried out through the Our Energy Program, which is annually improved in accordance with the best market practices. For the 2019 cycle, the evaluation period will occur between January and March.

5.2. Accounts Payable to Suppliers

Copel's suppliers must comply with the legislation in force in Brazil across all areas. The compliance requirement is expressed in the Internal Regulations for Bids and Contracts, contractual clauses, supplier registration manuals and technical standards and manuals, which are permanently available online.

When the object of the contract is the assignment of manpower, outsourced workers undergo an integration process, in which Copel highlights its contractual demands regarding social and environmental issues, human and labor rights, accessibility and inclusion, and combatting child labor. Failure to comply with such requirement may result in administrative penalties, such as fines, contract rescission or even the impediment, for up to two years, to participate in new bids by the Company.

Since 2009, Copel has maintained in its contracts a standard clause of social and environmental responsibility. In 2016, hiring began to be accompanied by Declaration of Suitability and Social Responsibility. In 2018, a new contract model came into force, which also includes aspects of human rights, in particular the fulfillment of the 10 Principles of the Global Compact.

Depending on the object to be contracted, some specific clauses related to environmental requirements are inserted in the drafts in the bid invitation / contract instrument.

5.3. Trade Accounts Receivable

- **Copel Distribuição**

To achieve and maintain elevated levels of satisfaction, Copel Distribuição analyzes the results of satisfaction surveys and develops the necessary action plans. The main actions of the Company include the permanent maintenance of the electric energy network to guarantee quality and continuity in supply. This is accompanied by investments in the development of new service channels, in addition to the improvement of existing channels, both by training participants and by technological developments.

Copel Distribuição was elected the best energy distributor in Brazil in the Abradee 2019 Survey, where distributors from all over the country competed for the award in different categories. The Company received the highest score in the Perceived Quality Satisfaction Index (ISQP).

- **Copel Telecomunicações**

Copel Telecom's clients rely on the Ombudsman as one of the service channels. The function of this channel is to monitor suggestions, complaints and denunciations received directly by the Company; by the regulatory agency's ombudsman, Anatel; and through the platform of the National Consumer Secretariat - Senacon, of the Ministry of Justice; in addition to the demands presented by PROCON and the State Ombudsman. The Ombudsman's goal is to respond to comments within ten working days. In 2019, 100% of the complaints were responded to. As a result, most of the inquiries that would have been forwarded to external entities, such as PROCON, SENACON or even ANATEL, were handled by the Company itself.

5.4. Sustainability Management

Corporate sustainability is integrated and evidenced at Copel through its strategic framework, and is contained in the mission and vision of its business. The Company's activities are in line with the Sustainability Policy, which integrates sustainability planning and management, with the objective of optimizing financial, social and environmental performance. In addition, the Climate Change Policy establishes guidelines for the mitigation of greenhouse gases and business adaptation, assessing the risks and opportunities related to climate change.

For this reason, Copel has been a signatory to the Global Compact since 2000, and is a founding member of the Global Compact Global Network Committee, created in 2003, supporting the movement to spread the principles of the Global Compact, and to achieve the goals of the Sustainable Development - SDG.

Sustainability management is based on the best market practices. In addition to guiding and evaluating business performance, it compares it to global and local references, taking as references the B3 Corporate Sustainability Index - ISE, the Ethos Indicators for Sustainable and Responsible Business Models, the Dow Jones Sustainability Index, and other assessments and ratings related to ESG (Environmental, Social and Governance).

In 2019, the result of sustainability management ensured that Copel remained in the 2020 portfolio of the ISE/ B3 Corporate Sustainability Index.

Through the Copel Integrated Report, sustainability performance is communicated to all stakeholders, following the international guidelines of the standards of the Global Reporting Initiative - GRI and the International Integrated Reporting Initiative - IIRC. In order to guarantee the reliability of the information disclosed, the data is submitted to the assurance of an independent external audit.

Taking a leading role in the sustainable development agenda, the Company has, throughout its history, assumed voluntary commitments recognized worldwide, including:

- Global Compact
- Agenda 2030
- Gender and Race Pro-Equality Program
- Women Empowerment Principles - WEPs
- Principles for Sustainable Business Education - PRME
- National Movement ODS We Can
- Business Network for Learning and Eradication of Child Labor

Copel has a series of programs and projects that act as vectors of actions related to sustainability and social responsibility:

- Eco-efficiency: aims to support cost reduction projects with a sustainable focus and present new actions that can contribute to this purpose. It integrates, strengthens and enhances the various initiatives developed in the company related to the reduction and optimization of the use of natural resources. The actions of the Eco-Efficiency Program are concentrated on the following lines: Water; Energy; Paper; Mobility and Fuel; Education and Communication.
- EducaODS: intends to raise awareness and inform the Company's internal and external audiences about the importance of the SDGs, contributing to raising awareness, changing values and behaviors in relation to sustainable development. In this way, the program encourages action in favor of the SDGs.
- Human Rights Program: its purpose is to spread knowledge and guidelines related to Human Rights, as well as to create mechanisms and practices that assist in the verification and promotion of these rights at Copel and in its production chain. Guided by documents from the United Nations (UN), the program is based in particular on the Universal Declaration of Human Rights, the Global Compact and the Guiding Principles for Business and Human Rights.
- *Eletricidadania* Program: encourages employees to voluntarily and spontaneously dedicate up to 8 hours of their professional work time, every two months, to carry out social activities. The action fronts were inspired by the SDGs and cover topics such as human rights, education, inclusion, health, environment,

citizenship and sustainability.

- Diversity Program: works to guarantee equal rights, opportunities and recognition, with attention to vulnerable groups or those subject to discrimination based on gender, race, color, disability, sexual orientation, age and religion.
- Selective Solidary Collection Program: complies with state legislation on the destination of recyclable waste to garbage pickers' associations and cooperatives, contributing mainly to ODS1, ODS10 and ODS 11.
- Cultivar Energia Program: aims to make community gardens feasible in properties under Copel's power lines, in partnership with municipal governments. The program focuses on food security and the generation of income for communities, promoting sustainable development. The program is also an auxiliary strategy to combat irregular and high-risk occupations for the population. Community gardens benefit the Company by promoting the preservation of properties and improve the urban environment with the disciplined occupation of abandoned, underutilized spaces.

Finally, in 2019, the first edition of the Copel Sustainability Challenge was held, an initiative that included Copel facilities throughout Paraná, directly involving 82% of employees. The goal of the challenge is, through gamification, to spread the SDGs, as well as to improve Copel's environmental and social indicators. It includes actions that involve the community, public institutions, NGOs and other stakeholders.

Further information on Sustainability at Copel is available in the Integrated Report Copel (www.copel.com/sustentabilidade).

6. SOCIAL BALANCE SHEET

	ANNUAL SOCIAL BALANCE SHEET On December 31, 2019 and 2018 (In thousands of Reais, except when indicated otherwise)				
			2019		2018
	1 - CALCULATION BASIS				
NE 32	**Net Revenue (NR)**	**16.244.274**		**14.934.780**	
	2 - INTERNAL SOCIAL INDICATORS		**% on RL**		**% on RL**
NE 32.2	**Management compensation**	**20.114**	0,1	**21.357**	0,1
	Employees compensation	**864.015**	5,3	**904.200**	6,1
	Food (food voucher and other)	**136.017**	0,8	**134.781**	0,9
	Compulsory payroll charges	**288.254**	1,8	**306.836**	2,1
	Pension plan	**73.516**	0,5	**79.806**	0,5
	Health (healthcare plan)	**187.204**	1,2	**184.572**	1,2
	Training and professional development	**8.665**	0,1	**8.053**	0,1
NE 32.2	**Profit sharing**	**155.544**	1,0	**91.526**	0,6
NE 32.2	**Severance pay**	**43.516**	0,3	**69.289**	0,5
(1)	**Other benefits**	**16.576**	0,1	**15.664**	0,1
	Total	**1.793.421**	**11,0**	**1.816.084**	**12,2**
	3 - EXTERNAL SOCIAL INDICATORS		**% on RL**		**% on RL**
	Culture	**19.391**	**0,1**	**12.846**	**0,1**
	Health and sanitation	**1.426**	0,0	**2.280**	**0,0**
	Sports	**1.556**	0,0	**2.883**	**0,0**
	Other	**89.269**	**0,5**	**68.984**	**0,5**
	Research and Development	47.616	0,3	48.866	0,3
	Energy Efficiency Program	32.601	0,2	10.135	0,1
	"Morar Bem" Program	3.559	0,0	2.381	0,0
	Accessibility program	25	0,0	2.355	0,0
	Other	5.468	0,0	5.247	0,0
	Total contribution to society	**111.642**	**0,7**	**86.993**	**0,6**
	Taxes (except payroll charges)	**9.355.014**	**57,6**	**9.165.221**	**61,4**
	Total	**9.466.656**	**58,3**	**9.252.214**	**62,0**
	4 – ENVIRONMENTAL INDICATORS		**% on RL**		**% on RL**
	Investments related to corporate operations	**387.852**	**2,4**	**292.481**	**2,0**
	Investments in programs and/or external projects	**165**	0,0	**198**	0,0
	Total	**388.017**	**2,4**	**292.679**	**2,0**
(2)	**Quantity of environmental sanctions**	**2**		**3**	
	Amount of environmental sanctions (R$ thousands)	**232**		**544**	
	Environmental goals		**2019**		**Goals 2020**
	Regarding the establishment of annual targets to reduce waste; general consumption regarding production/operations; and increasing the efficacy in the use of natural resources, the company:	( ) has no targets ( ) meets 51% to 75% of targets ( ) meets 0% to 50% of targets (X) meets 76% to 100% of targets.		( ) has no targets ( ) meets 51% to 75% of targets ( ) meets 0% to 50% of targets (X) meets 76% to 100% of targets.	

NE - Note

		2019			2018		
	5 – EMPLOYEES INDICATORS (including subsidiaries)						
	Employees at the end of the period			**7.266**			**7.794**
	New hires in the period			**8**			**37**
	Level of education of employees:	Men	Women	Total	Men	Women	Total
	Total Post-Secondary and University Extension	3.169	1.242	**4.411**	2.994	1.241	**4.235**
	Total Senior High School	2.439	380	**2.819**	3.028	503	**3.531**
	Total Junior High School	34	2	**36**	28	0	**28**
	Employees Age Grade:						
	From 18 to 30 years old (exclusive)			**290**			**419**
	From 30 to 45 years old (exclusive)			**3.950**			**4.185**
	From 45 to 60 years old (exclusive)			**2.851**			**3.042**
	Over 60 years old			**175**			**148**
	Women working in the company			**1.618**			**1.744**
	% Women in management positions:						
	In relation to total number of women			**6,4**			**6,0**
	In relation to total number of managers			**21,4**			**20,2**
	Afro descendants working in the company			**938**			**1.011**
	% Afro descendants in management positions:						
	In relation to total number of afro-descendants			**3,7**			**3,7**
	In relation to total number of managers			**7,3**			**7,2**
	Persons with special needs			**178**			**257**
	Dependents			**9.837**			**10.475**
(3)	**Outsourced**			**7.235**			**6.520**
(4)	**Apprentices**			**177**			**195**
(4)	**Interns**			**317**			**252**
	No. of labor claims in course at the end of the year			**3.454**			**3.797**
	No. of labor claims closed in the year			**987**			**1.231**
	6 – MATERIAL INFORMATION REGARDING THE EXERCISE OF CORPORATE CITIZENSHIP						
	Ratio between the highest and the lowest salary			**19**			**19**
(5)	**Number of Occupational Accidents (including accidents with outsourced employees)**			**208**			**300**
	Total number of consumer complaints and criticisms:						
	with the company			**55.103**			**51.757**
(6)	with Procon agency			**7.979**			**7.650**
	in Court			**6.867**			**6.950**
	Percentage of complaints and criticisms answered or resolved:						
	by the company			**100,0%**			**100,0%**
(6)	by Procon agency			**100,0%**			**100,0%**
	in Court			**29,1%**			**21,4%**

	2019	Goals 2019
Social and environmental projects developed by the company were defined by	**Executive board and managers**	**executive board and managers**
Safety and health standards in the workplace were defined by:	**all + Cipa**	**all + Cipa**
Regarding freedom of association, collective bargaining rights and internal representation of workers, the company:	**encourages and follows ILO standards**	**encourages and will follow ILO standards**
Private pension plans cover:	**all**	**all**
Profit sharing includes:	**all**	**all**
In the selection of suppliers, the same ethical, social responsibility and environmental standards adopted by the company:	**are required**	**are required**
Regarding participation of employees in volunteer work, the company:	**organizes and encourages**	**will organize and encourage**

7- WEALTH GENERATION AND DISTRIBUTION	2019	2018
Total added value to be distributed	**14.103.829**	**13.364.990**
Value Added Distribution (DVA):		
Third Parties	8,2%	9,2%
Personnel	10,8%	11,4%
Government	66,3%	68,6%
Shareholders	4,6%	2,6%
Withheld	10,1%	8,2%

8 - OUTRAS INFORMAÇÕES

• Begining 2010, the Brazilian Institute of Social and Economic Analyses (Ibase) no longer requires use of its Social Balance Sheet standard, given that the Institute understands that this tool and methodology are already commonly used by companies, consulting firms and institutes that promote corporate social responsibility in Brazil. Accordingly, Copel, which had already been using this model since 1999, grounded on Ibase guidance, decided to improve the presentation of its Social Balance Sheet by addressing te information requeired by NBCT 15, aiming at transparency of its information.

• The Notes (NEs) are na integral part of the Financial Statements and contain other socio-environmental information not included in this Social Balance Sheet.

• This Social Balance Sheet includes data about Copel's holding, wholly-owned subsidiaries, subsidiaries and consortiums, due to the consolidation of the Company's results, except when stated otherwise.

(1) The item "Other Benefits" includes: additional sick pay, extended maternity leave, insurance, additional transportation ticket, disability allowance, accidental death, day-care assistance, education allowance, culture and occupational and medical safety.

(2) Information regarding fines and socio-environmental assessments of the holding and Copel Distribuição S.A., Copel Geração e Transmissão S.A, Copel Telecomunicações S.A., Copel Comercialização S.A. and Copel Renováveis S.A. These original amounts may change according to the answer to the administrative defense submitted to the environmental authority. The amounts of the sanctions are proportional to Copel's equity interest in the developments.
Amounts regarding the Deeds of Commitment - TCs and Conduct Adjustment Agreements - TACs are included in external or socio-environmental indicators, depending on their nature.

(3) This number corresponds to total outsourced workers hired in the period, regardless of the number of hours worked. It does not include the number of outsourced positions; contractors who work in the implementation of Copel Geração e Transmissão ans the subsidiaries (Plants, Transmission Lines and substations); or those working on the expansion of the Copel Telecom system.

(4) Not included in the Company's headcount.

(5) Calculated using the methodology used in the GRI Sustainability Report G4 - indicator LA6.

(6) Includes the complaints in the Procon, Ombudsman, Consumer Gov.Aneel and Anatel deemed appropriate.

7. COMPOSITION OF GROUPS RESPONSIBLE FOR GOVERNANCE

BOARD OF DIRECTORS	
Chairman	MARCEL MARTINS MALCZEWSKI
Members	ADRIANA ANGELA ANTONIOLLI
	CARLOS BIEDERMANN
	DANIEL PIMENTEL SLAVIERO
	GUSTAVO BONINI GUEDES
	LEILA ABRAHAM LORIA
	LUIZ CLAUDIO MAIA VIEIRA
	MARCO ANTÔNIO BARBOSA CÂNDIDO
	OLGA STANKEVICIUS COLPO
STATUTORY AUDIT COMMITTEE	
Chairman	MARCO ANTÔNIO BARBOSA CÂNDIDO
Members	CARLOS BIEDERMANN
	LEILA ABRAHAM LORIA
	LUIZ CLAUDIO MAIA VIEIRA
	OLGA STANKEVICIUS COLPO
FISCAL COUNCIL	
Chairman	DEMETRIUS NICHELE MACEI
Full Members	HARRY FRANÇÓIA JÚNIOR
	JOSÉ PAULO DA SILVA FILHO
	LETICIA PEDERCINI ISSA MAIA
	ROBERTO LAMB
Substitute Members	EMIR CALLUF FILHO
	ESTEVÃO DE ALMEIDA ACCIOLY
	GILBERTO PEREIRA ISSA
	JOAO LUIZ GIONA JUNIOR
	OTAMIR CESAR MARTINS
EXECUTIVE BOARD	
CEO	DANIEL PIMENTEL SLAVIERO
Chief Enterprise Management Officer	ANA LETÍCIA FELLER
Chief Financial and Investor Relations Officer	ADRIANO RUDEK MOURA
Chief Business Development Officer	CASSIO SANTANA DA SILVA
Chief Legal and Institutional Relations Officer	EDUARDO VIEIRA DE SOUZA BARBOSA
Chief Governance, Risk and Compliance Officer	VICENTE LOIÁCONO NETO
Deputy Officer	DAVID CAMPOS
ACCOUNTANT	
CRC-PR-043819/O-0	RONALDO BOSCO SOARES
More details on this report:	
Investor Relations:	Phone: +55 (41) 3222-2027
	ri@copel.com

Companhia Paranaense de Energia

Corporate Taxpayer's ID (CNPJ/MF) 76.483.817/0001-20
State Registration 10146326-50
Publicly-Held Company - CVM 1431-1
www.copel.com copel@copel.com
Rua Coronel Dulcídio, 800, Batel - Curitiba - PR
CEP 80420-170

FINANCIAL STATEMENTS

2019

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as of December 31, 2019 and 2018

All amounts expressed in thousands of Brazilian reais

ASSETS	Note	Parent Company		Consolidated	
		12.31.2019	12.31.2018	12.31.2019	12.31.2018
CURRENT ASSETS					
Cash and cash equivalents	5	25,304	315,003	2,941,727	1,948,409
Bonds and securities	6	90	123,560	3,112	124,862
Collaterals and escrow accounts		-	129	147	203
Trade accounts receivable	7	-	-	3,120,168	2,944,091
Dividends receivable		760,719	519,100	70,092	76,672
CRC transferred to the Paraná State Government	8	219,236	190,876	219,236	190,876
Sectorial financial assets	9	-	-	355,570	421,184
Accounts receivable - concessions	10	-	-	58,842	53,177
Contract assets	11	-	-	107,443	85,019
Other current receivables	12	1,068	7,027	426,865	363,250
Inventories		-	-	130,442	116,285
Income tax and social contribution receivable		5,876	6,130	236,929	152,157
Other current recoverable taxes	13.2	-	321	205,060	160,842
Prepaid expenses	14	95	40	33,563	40,819
Receivable from related parties	15	6,039	8,134	-	-
		1,018,427	**1,170,320**	**7,909,196**	**6,677,846**
NONCURRENT ASSETS					
Long Term Assets					
Bonds and securities	6	-	-	278,969	219,434
Other temporary investments		27,734	19,511	27,734	19,511
Collaterals and escrow accounts	22.1	-	-	98,433	89,555
Trade accounts receivable	7	-	-	62,399	162,915
CRC transferred to the Paraná State Government	8	1,131,449	1,254,166	1,131,449	1,254,166
Judicial deposits	16	124,219	131,840	504,190	528,290
Sectorial financial assets	9	-	-	118,419	257,635
Accounts receivable - concessions	10	-	-	2,558,796	2,497,514
Contract assets	11	-	-	3,943,941	3,348,211
Other noncurrent receivables	12	7,444	7,444	661,759	228,894
Income tax and social contribution receivable		123,951	148,140	142,532	166,384
Deferred income tax and social contribution	13.1	154,364	147,368	1,011,866	1,007,061
Other noncurrent recoverable taxes	13.2	87,597	86,110	322,011	231,400
Prepaid expenses	14	-	-	132	3,290
Receivable from related parties	15	108,983	104,751	-	-
		1,765,741	**1,899,330**	**10,862,630**	**10,014,260**
Investments	17	**17,286,220**	**16,070,567**	**2,523,179**	**2,368,234**
Property, plant and equipment	18	**1,143**	**996**	**10,592,103**	**10,840,663**
Intangible assets	19	**1,321**	**1,593**	**6,332,611**	**6,029,097**
Right-of-use asset	28	**271**	**-**	**92,831**	**-**
		19,054,696	**17,972,486**	**30,403,354**	**29,252,254**
TOTAL ASSETS		**20,073,123**	**19,142,806**	**38,312,550**	**35,930,100**

Notes are an integral part of these financial statements

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Companhia Paranaense de Energia

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Statements of Financial Position

as of December 31, 2019 and 2018 (continued)

All amounts expressed in thousands of Brazilian reais

LIABILITIES	Note	Parent Company		Consolidated	
		12.31.2019	12.31.2018	12.31.2019	12.31.2018
CURRENT LIABILITIES					
Payroll, social charges and accruals	20	8,437	6,747	337,044	284,179
Accounts payable to related parties		696	755	-	-
Accounts payable to suppliers	21	3,956	2,731	1,685,280	1,419,243
Income tax and social contribution payable		1,811	-	60,132	197,949
Other taxes due	13.2	120	152	501,068	451,433
Loans and financing	22	39,628	129,401	255,521	1,113,047
Debentures	23	315,008	941,677	1,164,301	2,184,881
Dividend payable		588,563	354,203	616,356	375,675
Post-employment benefits	24	378	87	66,004	58,478
Sectorial charges due	25	-	-	28,508	79,872
Research and development and Energy efficiency	26	-	-	375,395	270,429
Accounts payable related to concession	27	-	-	73,032	67,858
Lease liability	28	158	-	33,573	-
Other accounts payable	29	116	135	149,407	192,070
		958,871	**1,435,888**	**5,345,621**	**6,695,114**
NONCURRENT LIABILITIES					
Accounts payable to related parties		145	-	-	-
Payroll, social charges and accruals	21	-	-	187,913	49,956
Deferred income tax and social contribution	13.1	-	-	293,666	157,420
Other taxes due	13.2	2,817	2,602	662,114	796,732
Loans and financing	22	746,075	773,984	2,886,862	2,934,260
Debentures	23	797,713	596,403	7,265,409	5,333,250
Post-employment benefits	24	8,658	4,867	1,128,932	910,285
Research and development and Energy efficiency	26	-	-	282,776	322,306
Accounts payable related to concession	27	-	-	539,555	516,305
Sectorial financial liabilities	9	-	-	102,284	96,531
Lease liability	28	125	-	63,031	-
Other accounts payable	29	1,434	3,957	349,462	116,954
Provisions for legal claims	30	304,871	292,180	1,606,713	1,664,773
		1,861,838	**1,673,993**	**15,368,717**	**12,898,772**
EQUITY					
Attributable to controlling shareholders					
Capital	31.1	10,800,000	7,910,000	10,800,000	7,910,000
Equity valuation adjustments	31.2	591,927	785,610	591,927	785,610
Legal reserve		1,014,248	914,751	1,014,248	914,751
Profit retention reserve		4,846,239	6,422,564	4,846,239	6,422,564
		17,252,414	**16,032,925**	**17,252,414**	**16,032,925**
Attributable to non-controlling interests	17.2.2	**-**	**-**	**345,798**	**303,289**
		17,252,414	**16,032,925**	**17,598,212**	**16,336,214**
TOTAL LIABILITIES & EQUITY		**20,073,123**	**19,142,806**	**38,312,550**	**35,930,100**

Notes are an integral part of these financial statements

Statements of Income

for the years ended December 31, 2019 and 2018

All amounts expressed in thousands of Brazilian reais

	Note	Parent Company		Consolidated	
		12.31.2019	12.31.2018	12.31.2019	12.31.2018
NET OPERATING REVENUE	32	**-**	**-**	**16,244,274**	**14,934,780**
OPERATING COSTS	33	**-**	**-**	**(11,760,176)**	**(11,501,688)**
GROSS PROFIT		**-**	**-**	**4,484,098**	**3,433,092**
Operational expenses / income					
Selling expenses	33	-	-	(207,059)	(148,709)
General and administrative expenses	33	(59,907)	(67,292)	(734,300)	(723,534)
Other operational income (expenses)	33	1,244	11,696	(458,815)	(302,690)
Equity in earnings of investees	17	2,089,308	1,356,375	106,757	135,888
		2,030,645	**1,300,779**	**(1,293,417)**	**(1,039,045)**
PROFIT BEFORE FINANCIAL RESULTS AND TAXES		**2,030,645**	**1,300,779**	**3,190,681**	**2,394,047**
Financial results	34				
Financial income		209,679	301,729	750,241	813,915
Financial expenses		(235,033)	(238,355)	(1,238,727)	(1,251,965)
		(25,354)	**63,374**	**(488,486)**	**(438,050)**
OPERATING PROFIT		**2,005,291**	**1,364,153**	**2,702,195**	**1,955,997**
INCOME TAX AND SOCIAL CONTRIBUTION	13.3				
Current		(21,195)	(2,083)	(433,555)	(580,065)
Deferred		5,850	44,993	(205,771)	68,072
		(15,345)	**42,910**	**(639,326)**	**(511,993)**
NET INCOME		**1,989,946**	**1,407,063**	**2,062,869**	**1,444,004**
Attributed to controlling shareholders		-	-	1,989,946	1,407,063
Attributed to non-controlling interest	17.2.2	-	-	72,923	36,941
BASIC AND DILUTED NET EARNING PER SHARE ATTRIBUTED TO CONTROLLING SHAREHOLDERS - Expressed in Brazilian Reais	31.3				
Common shares		6.94344	4.91091		
Class "A" Preferred shares		9.11525	5.40201		
Class "B" Preferred shares		7.63812	5.40201		

Notes are an integral part of these financial statements

COPEL
Companhia Paranaense de Energia

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Statements of Comprehensive Income

for the years ended December 31, 2019 and 2018

All amounts expressed in thousands of Brazilian reais

	Note	Parent Company		Consolidated	
		12.31.2019	**12.31.2018**	**12.31.2019**	**12.31.2018**
NET INCOME		**1,989,946**	**1,407,063**	**2,062,869**	**1,444,004**
Other comprehensive income					
Items that will never be reclassified to profit or loss	31.2				
Gain (losses) on actuarial liabilities					
Post employment benefits		(3,371)	(408)	(186,628)	(58,354)
Post employment benefits - equity		(120,358)	(38,245)	-	-
Taxes on other comprehensive income		1,146	139	63,444	19,994
Items that may be reclassified to profit or loss	31.2				
Subsidiary loss with interest variation		(4,874)	-	-	-
Total comprehensive income, net of taxes		**(127,457)**	**(38,514)**	**(123,184)**	**(38,360)**
TOTAL COMPREHENSIVE INCOME		**1,862,489**	**1,368,549**	**1,939,685**	**1,405,644**
Attributed to controlling shareholders				1,862,489	1,368,549
Attributed to non-controlling interest				77,196	37,095

Notes are an integral part of these financial statements

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Statements of Changes in Equity

for the years ended December 31, 2019 and 2018

All amounts expressed in thousands of Brazilian reais

		Attributable to controlling shareholders								
			Equity valuation adjustments		Profit reserves				Attributable to non - controlling interests	
	Note	Capital	Deemed cost	Other comprehensive income	Legal reserve	Profit retention reserve	Accumulated profit	Shareholders' equity		Equity Consolidated
Balance as of December 31, 2017		**7,910,000**	**873,306**	**22,295**	**844,398**	**5,557,843**	**-**	**15,207,842**	**302,661**	**15,510,503**
Adjustments arising from the adoption of CPC 47/IFRS 15 and CPC 48/IFRS 9		-	-	(4,391)	-	-	(160,533)	(164,924)	-	(164,924)
Transfres to profit retention reserve		-	-	-	-	(160,533)	160,533	-	-	-
Balance as of January 1, 2018		**7,910,000**	**873,306**	**17,904**	**844,398**	**5,397,310**	**-**	**15,042,918**	**302,661**	**15,345,579**
Net Income		-	-	-	-	-	1,407,063	1,407,063	36,941	1,444,004
Other comprehensive income		-	-	-	-	-	-	-	-	-
Actuarial gain (losses), net of taxes	31.2	-	-	(38,514)	-	-	-	(38,514)	154	(38,360)
Total comprehensive income		**-**	**-**	**(38,514)**	**-**	**-**	**1,407,063**	**1,368,549**	**37,095**	**1,405,644**
Realization - deemed cost, net of taxes	31.2	-	(67,086)	-	-	-	67,086	-	-	-
Allocation proposed to GSM:		-	-	-	-	-	-	-	-	-
Legal reserve		-	-	-	70,353	-	(70,353)	-	-	-
Interest on ow n capital	30.4	-	-	-	-	-	(280,000)	(280,000)	-	(280,000)
Dividends	30.4	-	-	-	-	-	(98,542)	(98,542)	(36,467)	(135,009)
Profit retention reserve		-	-	-	-	1,025,254	(1,025,254)	-	-	-
Balance as of December 31, 2018		**7,910,000**	**806,220**	**(20,610)**	**914,751**	**6,422,564**	**-**	**16,032,925**	**303,289**	**16,336,214**
Net Income		-	-	-	-	-	1,989,946	1,989,946	72,923	2,062,869
Other comprehensive income		-	-	-	-	-	-	-	-	-
Actuarial gain (losses), net of taxes	31.2	-	-	(122,583)	-	-	-	(122,583)	(601)	(123,184)
Gain (losses) on Subsidiary with interest variation	31.2	-	-	(4,874)	-	-	-	(4,874)	4,874	-
Total comprehensive income		**-**	**-**	**(127,457)**	**-**	**-**	**1,989,946**	**1,862,489**	**77,196**	**1,939,685**
Realization - deemed cost, net of taxes	31.2	-	(66,226)	-	-	-	66,226	-	-	-
Capital increase	31.1	2,890,000	-	-	-	(2,890,000)	-	-	-	-
Deliberation of additional dividends proposed	17.2.2	-	-	-	-	-	-	-	(3,335)	(3,335)
Dividends	17.2.2	-	-	-	-	-	-	-	(7,838)	(7,838)
Allocation proposed to GSM:		-	-	-	-	-	-	-	-	-
Legal reserve		-	-	-	99,497	-	(99,497)	-	-	-
Interest on ow n capital	30.4	-	-	-	-	-	(643,000)	(643,000)	-	(643,000)
Dividends	30.4	-	-	-	-	-	-	-	(23,514)	(23,514)
Profit retention reserve		-	-	-	-	1,313,675	(1,313,675)	-	-	-
Balance as of December 31, 2019		**10,800,000**	**739,994**	**(148,067)**	**1,014,248**	**4,846,239**	**-**	**17,252,414**	**345,798**	**17,598,212**

Notes are an integral part of these financial statements

COPEL Companhia Paranaense de Energia

PARANÁ GOVERNO DO ESTADO

Statements of Cash Flows

for the years ended December 31, 2019 and 2018

All amounts expressed in thousands of Brazilian reais

	Note	Parent Company		Consolidated	
		12.31.2019	12.31.2018	12.31.2019	12.31.2018
CASH FLOWS FROM OPERATIONAL ACTIVITIES					
Net income		**1,989,946**	**1,407,063**	**2,062,869**	**1,444,004**
Adjustments to reconcile net income for the period with cash					
Unrealized monetary and cambial variation and debt charges - net		(26,384)	5,704	815,061	767,751
Interest - bonus from the grant of concession agreements under the quota system	10.3	-	-	(91,404)	(85,986)
Remuneration of transmission concession contracts	10.4 and 11.3	-	-	(501,566)	(351,544)
Recovery of PIS / Pasep and Cofins on ICMS	13.2.1	-	-	(105,184)	-
Income tax and social contribution	13.3	21,195	2,083	433,555	580,065
Deferred income tax and social contribution	13.3	(5,850)	(44,993)	205,771	(68,072)
Equity in earnings of investees	17.1	(2,089,308)	(1,356,375)	(106,757)	(135,888)
Appropriation of acturial calculation of post-employment benefits	24.4	608	563	99,578	97,900
Appropriation of pension and healthcare contributions	24.4	4,797	5,860	138,974	151,215
Creation for research and development and energy efficiency programs	26.2	-	-	130,678	125,369
Recognition of fair value of assets related to concession compensation	32	-	-	(36,646)	(47,499)
Sectorial financial assets and liabilities result	32	-	-	(25,057)	(985,344)
Depreciation and amortization	33	1,953	1,223	1,093,836	749,179
Net operating estimated losses, provisions and reversals	33.4	8,730	24,902	374,815	306,697
Result of business combination carried out with asset swap - gain		-	-	1,414	3,769
Realization of added value in business combinations		-	-	1,536	-
Result of disposal of investment		-	(11,000)	-	(8,174)
Fair value in energy purchase and sale operations	32.1	-	-	(204,876)	(3,786)
Loss on disposal of accounts receivable related to concession	10.1 and 10.2	-	-	146	1,536
Loss on disposal of contract assets	11.1	-	-	7,949	9,762
Loss on disposal of property, plant and equipment	18.2	3	-	158,084	68,450
Loss on disposal of intangible assets	19.1 and 19.4	-	13	26,789	28,742
Result of write-offs of use rights of assets and liabilities of leases - net	28.1 and 28.2	-	-	(31)	-
		(94,310)	**35,043**	**4,479,534**	**2,648,146**
Decrease (increase) in assets					
Trade accounts receivable		-	-	225,624	191,113
Dividends and interest on own capital received		777,651	609,219	36,732	50,858
CRC transferred to the Government of the State of Paraná	8.1	278,586	260,117	278,586	260,117
Judicial deposits		12,179	(1,171)	46,300	87,853
Sectorial financial assets	9.2	-	-	277,265	482,974
Other receivables		5,959	5,243	(55,191)	17,292
Inventories		-	-	(14,220)	(5,726)
Income tax and social contribution		24,443	19,803	(60,904)	360,855
Other current taxes recoverable		(1,166)	(86,140)	(13,338)	(74,003)
Prepaid expenses		(55)	(40)	10,414	8,520
Related parties		(2,137)	8,940	-	-
		1,095,460	**815,971**	**731,268**	**1,379,853**
Increase (decrease) in liabilities					
Payroll, social charges and accruals		1,690	(230)	52,792	(29,845)
Related parties		86	(3,181)	-	(59)
Suppliers		1,225	635	255,534	(572,306)
Other taxes		(56,370)	(32,585)	(132,330)	75,234
Post-employment benefits	24.4	(4,694)	(5,929)	(199,007)	(204,809)
Sectorial charges due		-	-	(51,442)	(70,507)
Research and development and energy efficiency	26.2	-	-	(91,306)	(91,015)
Payable related to the concession	27.1	-	-	(70,569)	(64,365)
Other accounts payable		(2,542)	3,013	(51,484)	103,464
Provisions for legal claims	30.1.1	(187)	(102)	(367,548)	(144,171)
		(60,792)	**(38,379)**	**(655,360)**	**(998,379)**
CASH GENERATED FROM OPERATING ACTIVITIES		**940,358**	**812,635**	**4,555,442**	**3,029,620**
Income tax and social contribution paid		(19,384)	(4,550)	(575,210)	(468,552)
Loans and financing - interest due and paid	22.4	(69,201)	(90,332)	(325,977)	(289,095)
Debentures - interest due and paid	23.2	(163,298)	(64,523)	(700,119)	(501,002)
Charges for lease liabilities paid	28.2.1	(32)	-	(9,130)	-
NET CASH GENERATED FROM OPERATING ACTIVITIES		**688,443**	**653,230**	**2,945,006**	**1,770,971**

(continued)

Statements of Cash Flows

for the years ended December 31, 2019 and 2018 (continued)

All amounts expressed in thousands of Brazilian reais

	Note	Parent Company		Consolidated	
		12.31.2019	12.31.2018	12.31.2019	12.31.2018
CASH FLOWS FROM INVESTMENT ACTIVITIES					
Financial investments		115,376	(124,254)	45,170	(75,804)
Loans and financing granted to related parties		(24,410)	(192,445)	-	-
Receipt of loans and financing granted to related parties		24,512	560,877	-	117,645
Additions to contract assets		-	-	(1,042,093)	(792,835)
Customers contributions - contract assets		-	-	104,067	106,764
Acquisitions of subsidiaries - effect on cash	1.2.2	-	-	(123,794)	7,998
Additions in investments	17.1	(271,968)	(608,934)	(133,874)	(51,557)
Capital reduction of investees	17.1	-	45,000	35,035	35,280
Additions to property, plant and equipment		(285)	(267)	(543,130)	(1,489,067)
Customers contributions - property, plant and equipment		-	-	-	12
Additions to intangible assets		(271)	(3)	(5,032)	(7,589)
NET CASH (USED IN) GENERATED FROM INVESTING ACTIVITIES		**(157,046)**	**(320,026)**	**(1,663,651)**	**(2,149,153)**
CASH FLOWS FROM FINANCING ACTIVITIES					
Loans and financing obtained from third parties	22.4	-	-	796,296	1,314,766
Issue of Debentures	23.2	500,000	600,000	2,965,028	2,890,283
Issue ol lons with related parties		48,000	-	-	-
Payments of principal - loans and financing	22.4	(115,500)	(77,000)	(1,660,869)	(1,126,144)
Payments of principal - debentures	23.2	(853,400)	(333,300)	(1,977,125)	(1,491,667)
Amortization of lons obtained from related parties		(48,000)	-	-	-
Amortization of principal of lease liabilities	28.2.1	(141)	-	(30,946)	-
Dividends and interest on own capital paid		(352,055)	(264,734)	(380,421)	(300,722)
NET CASH GENERATED FROM FINANCING ACTIVITIES		**(821,096)**	**(75,034)**	**(288,037)**	**1,286,516**
TOTAL EFFECTS ON CASH AND CASH EQUIVALENTS		**(289,699)**	**258,170**	**993,318**	**908,334**
Cash and cash equivalents at the beginning of the period	5	315,003	56,833	1,948,409	1,040,075
Cash and cash equivalents at the end of the period	5	25,304	315,003	2,941,727	1,948,409
CHANGE IN CASH AND CASH EQUIVALENTS		**(289,699)**	**258,170**	**993,318**	**908,334**

Notes are an integral part of these financial statements.

COPEL
Companhia Paranaense de Energia

PARANÁ
GOVERNO DO ESTADO

Statements of Added Value

for the years ended December 31, 2019 and 2018

All amounts expressed in thousands of Brazilian reais

ADDED VALUE TO DISTRIBUTE	Parent Company		Consolidated	
	12.31.2019	**12.31.2018**	**12.31.2019**	**12.31.2018**
Income				
Sale of energy, services and other income	-	-	23,888,451	21,462,972
Construction income	-	-	1,576,059	1,799,252
Fair value of indemnifiable concession assets	-	-	36,646	47,499
Sectorial financial assets and liabilities result	-	-	25,057	985,344
Other income	9,978	36,915	49,307	183,435
Expected credit losses	-	-	(153,640)	(96,202)
	9,978	**36,915**	**25,421,880**	**24,382,300**
(-) Supplies acquired from third parties	**-**	**-**	**-**	**-**
Energy purchased for resale	-	-	6,581,602	6,813,043
Charges for use of the main transmission grid (-) ESS and ERR	-	-	1,308,499	1,280,910
Materials, supplies and third parties services	16,492	32,171	774,971	688,635
Natural gas and supplies for gas operations	-	-	750,010	528,021
Construction costs	-	-	1,368,050	1,581,909
Loss / Recovery of assets	3	459	217,071	176,000
Impairment	-	-	(33,290)	(18,920)
Other supplies	27,673	41,162	260,164	302,282
	44,168	**73,792**	**11,227,077**	**11,351,880**
(=) GROSS ADDED VALUE	**(34,190)**	**(36,877)**	**14,194,803**	**13,030,420**
(-) Depreciation and amortization	**1,953**	**1,223**	**1,093,836**	**749,179**
(=) NET ADDED VALUE	**(36,143)**	**(38,100)**	**13,100,967**	**12,281,241**
(+) Transferred added value				
Equity in earnings of investees	2,089,308	1,356,375	106,757	135,888
Financial income	209,679	301,729	750,241	813,915
Other Income	1,120	1,264	145,864	133,946
	2,300,107	**1,659,368**	**1,002,862**	**1,083,749**
	2,263,964	**1,621,268**	**14,103,829**	**13,364,990**

(continued)

Statements of Added Value

for the years ended December 31, 2019 and 2018 (continued)

All amounts expressed in thousands of Brazilian reais

DISTRIBUTION OF ADDED VALUE	Parent Company				Consolidated			
	12.31.2019	%	12.31.2018	%	12.31.2019	%	12.31.2018	%
Personnel								
Salaries and management fees	12,862		8,890		923,900		946,808	
Private pension and health plans	2,511		2,286		238,326		243,750	
Meal and education allowance	1,091		1,108		113,021		113,177	
Social security charges - FGTS	805		655		54,369		58,323	
Voluntary retirement program	1,585		1,659		43,517		69,289	
Provisions for profit sharing	1,430		863		155,544		91,526	
	20,284	**0.9**	**15,461**	**1.0**	**1,528,677**	**10.8**	**1,522,873**	**11.4**
Government								
Federal								
Tax	92,148		(25,949)		2,305,899		2,230,343	
Sectorial charges	-		-		2,460,376		2,685,524	
State	19		13		4,583,593		4,240,617	
Municipal	30		56		7,933		8,737	
	92,197	**4.1**	**(25,880)**	**(1.6)**	**9,357,801**	**66.3**	**9,165,221**	**68.6**
Third Parties								
Interest	160,984		223,473		1,130,882		1,178,497	
Leasing and rent	553		1,151		10,771		41,453	
Donations, subsidies and contributions	-		-		12,829		12,942	
	161,537	**7.1**	**224,624**	**13.9**	**1,154,482**	**8.2**	**1,232,892**	**9.2**
Shareholders								
Retained profits	1,346,946		1,028,521		1,346,946		1,028,521	
Own capital remuneration	643,000		280,000		643,000		280,000	
Dividends	-		98,542		-		98,542	
Non controlling interests	-		-		72,923		36,941	
	1,989,946	**87.9**	**1,407,063**	**86.7**	**2,062,869**	**14.7**	**1,444,004**	**10.8**
	2,263,964	**100.0**	**1,621,268**	**100.0**	**14,103,829**	**100.0**	**13,364,990**	**100.0**

Notes are an integral part of these financial statements

NOTES TO THE FINANCIAL STATEMENTS

For the years ended December 31, 2019 and 2018

All amounts expressed in thousands of Brazilian reais

1 Operations

Companhia Paranaense de Energia (Copel, Company or Parent Company), with its head office located at Rua Coronel Dulcídio, 800, Curitiba - State of Paraná, is a publicly-held mixed capital company controlled by the State of Paraná and its shares are traded at Corporate Governance Level 1 of the Special Listing Segments of B3 S.A. - Brasil, Bolsa Balcão Stock Exchange and also on the New York Stock Exchange (NYSE) and on the Madrid Stock Exchange, in the Latin American segment (Latibex).

The core activities of Copel and its subsidiaries, which are regulated by the Brazilian Electricity Regulatory Agency (ANEEL), linked to the Brazilian Ministry of Mines and Energy (MME), are to carry out research, study, planning, and asset building activities related to the generation, transformation, distribution and trading of energy in any of its forms, primarily electricity. Furthermore, Copel participates in consortiums and in private sector and mixed-capital companies for the purpose of engaging in activities, primarily in the fields of energy, telecommunications and natural gas.

1.1 Copel's equity interests

Copel has direct and indirect interests in subsidiaries (1.1.1), joint ventures (1.1.2), associates (1.1.3) and joint operations (1.1.4).

The changes in relation to equity interests as of December 31, 2018 were the business combination presented in Note 1.2 and the setting up of the following Special Purpose Entities (SPE):

- F.D.A. Geração de Energia Elétrica S.A.
- Entities that are a part of Jandira Wind Complex

In addition, there was dilution of the equity interest of UEG Araucária and Copel's equity interest changed from 20% to 20.3% and that of Copel GeT from 60% to 60.9%, with a consequent reduction in non-controlling interests to 18.8%.

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1.1.1 Subsidiaries

Subsidiaries	Headquarters	Main activity	Interest %	Interest Investor
Copel Geração e Transmissão S.A. (Copel GeT)	Curitiba/PR	Production and transmission of electricity	100.0	Copel
Copel Distribuição S.A. (Copel DIS)	Curitiba/PR	Distribution and marketing of electricity	100.0	Copel
Copel Telecomunicações S.A. (Copel TEL)	Curitiba/PR	Telecommunication and communication	100.0	Copel
Copel Renováveis S.A. (Copel REN) (a)	Curitiba/PR	Control and management of interests	100.0	Copel
Copel Comercialização S.A. (Copel Energia)	Curitiba/PR	Commercialization of electricity	100.0	Copel
Companhia Paranaense de Gás - Compagás	Curitiba/PR	Distribution of pipeline gas	51.0	Copel
Elejor - Centrais Elétricas do Rio Jordão S.A.	Curitiba/PR	Production of electricity	70.0	Copel
UEG Araucária Ltda. (UEG)	Curitiba/PR	Production of electricity from natural gas	20.3	Copel
			60.9	Copel GeT
São Bento Energia, Investimentos e Participações S.A. (São Bento)	Curitiba/PR	Control and management of interests	100.0	Copel GeT
Nova Asa Branca I Energias Renováveis S.A.	S. Miguel do Gostoso/RN	Production of electricity from wind sources	100.0	Copel GeT
Nova Asa Branca II Energias Renováveis S.A.	Parazinho/RN	Production of electricity from wind sources	100.0	Copel GeT
Nova Asa Branca III Energias Renováveis S.A.	Parazinho/RN	Production of electricity from wind sources	100.0	Copel GeT
Nova Eurus IV Energias Renováveis S.A.	Touros/RN	Production of electricity from wind sources	100.0	Copel GeT
Santa Maria Energias Renováveis S.A.	Maracanaú/CE	Production of electricity from wind sources	100.0	Copel GeT
Santa Helena Energias Renováveis S.A.	Maracanaú/CE	Production of electricity from wind sources	100.0	Copel GeT
Ventos de Santo Uriel S.A.	João Câmara/RN	Production of electricity from wind sources	100.0	Copel GeT
Cutia Empreendimentos Eólicos S.A. (Cutia)	Curitiba/PR	Control and management of interests	100.0	Copel GeT
Costa Oeste Transmissora de Energia S.A.	Curitiba/PR	Transmission of electricity	100.0	Copel GeT
Marumbi Transmissora de Energia S.A.	Curitiba/PR	Transmission of electricity	100.0	Copel GeT
Uirapuru Transmissora de Energia S.A (Note 1.2.1)	Florianópolis	Transmission of electricity	100.0	Copel GeT
Bela Vista Geração de Energia S.A. (b)	Curitiba/PR	Production of electricity	100.0	Copel GeT
F.D.A. Geração de Energia Elétrica S.A.	Curitiba/PR	Production of electricity	100.0	Copel GeT
Jandaíra I Energias Renováveis S.A. (c)	Curitiba/PR	Production of electricity from wind sources	100.0	Copel GeT
Jandaíra II Energias Renováveis S.A. (c)	Curitiba/PR	Production of electricity from wind sources	100.0	Copel GeT
Jandaíra III Energias Renováveis S.A. (c)	Curitiba/PR	Production of electricity from wind sources	100.0	Copel GeT
Jandaíra IV Energias Renováveis S.A. (c)	Curitiba/PR	Production of electricity from wind sources	100.0	Copel GeT
GE Olho D'Água S.A.	São Bento do Norte/RN	Production of electricity from wind sources	100.0	São Bento
GE Boa Vista S.A.	São Bento do Norte/RN	Production of electricity from wind sources	100.0	São Bento
GE Farol S.A.	São Bento do Norte/RN	Production of electricity from wind sources	100.0	São Bento
GE São Bento do Norte S.A.	São Bento do Norte/RN	Production of electricity from wind sources	100.0	São Bento
Central Geradora Eólica São Bento do Norte I S.A.	São Bento do Norte/RN	Production of electricity from wind sources	100.0	Cutia
Central Geradora Eólica São Bento do Norte II S.A.	São Bento do Norte/RN	Production of electricity from wind sources	100.0	Cutia
Central Geradora Eólica São Bento do Norte III S.A.	São Bento do Norte/RN	Production of electricity from wind sources	100.0	Cutia
Central Geradora Eólica São Miguel I S.A.	São Bento do Norte/RN	Production of electricity from wind sources	100.0	Cutia
Central Geradora Eólica São Miguel II S.A.	São Bento do Norte/RN	Production of electricity from wind sources	100.0	Cutia
Central Geradora Eólica São Miguel III S.A.	São Bento do Norte/RN	Production of electricity from wind sources	100.0	Cutia
Usina de Energia Eólica Guajiru S.A.	São Bento do Norte/RN	Production of electricity from wind sources	100.0	Cutia
Usina de Energia Eólica Jangada S.A.	São Bento do Norte/RN	Production of electricity from wind sources	100.0	Cutia
Usina de Energia Eólica Potiguar S.A.	São Bento do Norte/RN	Production of electricity from wind sources	100.0	Cutia
Usina de Energia Eólica Cutia S.A.	São Bento do Norte/RN	Production of electricity from wind sources	100.0	Cutia
Usina de Energia Eólica Maria Helena S.A.	São Bento do Norte/RN	Production of electricity from wind sources	100.0	Cutia
Usina de Energia Eólica Esperança do Nordeste S.A.	São Bento do Norte/RN	Production of electricity from wind sources	100.0	Cutia
Usina de Energia Eólica Paraíso dos Ventos do Nordeste S.A.	São Bento do Norte/RN	Production of electricity from wind sources	100.0	Cutia

(a) The company is studying the possible incorporation of the operational activities and version of CopelREN's equity for the shareholder or the change of main activity.
(b) Pre-operating stage.
(c) SPEs established with a 99.99% interest in Copel GeT and 0.1% in Cutia. The transfer of all shares to Copel GeT depends on the granting of Authorizations by Aneel and the signing of the Energy Commercialization Contracts in the Regulated Environment - CCEARs

1.1.2 Joint ventures

Joint ventures	Headquarters	Main activity	Interest	
			%	Investor
Voltalia São Miguel do Gostoso I Participações S.A.	São Paulo/SP	Interests in companies	49.0	Copel
Paraná Gás Exploração e Produção S.A. (a)	Curitiba/PR	Exploration of natural gas	30.0	Copel
Caiuá Transmissora de Energia S.A.	Rio de Janeiro/RJ	Transmission of electricity	49.0	Copel GeT
Integração Maranhense Transmissora de Energia S.A.	Rio de Janeiro/RJ	Transmission of electricity	49.0	Copel GeT
Matrinchã Transmissora de Energia (TP NORTE) S.A.	Rio de Janeiro/RJ	Transmission of electricity	49.0	Copel GeT
Guaraciaba Transmissora de Energia (TP SUL) S.A.	Rio de Janeiro/RJ	Transmission of electricity	49.0	Copel GeT
Paranaíba Transmissora de Energia S.A.	Rio de Janeiro/RJ	Transmission of electricity	24.5	Copel GeT
Mata de Santa Genebra Transmissão S.A. (b)	Rio de Janeiro/RJ	Transmission of electricity	50.1	Copel GeT
Cantareira Transmissora de Energia S.A.	Rio de Janeiro/RJ	Transmission of electricity	49.0	Copel GeT

(a) Project with halted activities due to a Public Civil Action pending judgment by Federal Court. An arbitration proceeding will be started to decide about relief of contractual obligations with no burden for bidders, with consequent return of signing up bonus, refund of incurred costs with collateral and relief of collateral provided.
(b) Pre-operating stage.

1.1.3 Associates

Associated companies	Headquarters	Main activity	Interest	
			%	Investor
Dona Francisca Energética S.A.	Agudo/RS	Production of electricity	23.0303	Copel
Foz do Chopim Energética Ltda.	Curitiba/PR	Production of electricity	35.77	Copel GeT
Carbocampel S.A.	Figueira/PR	Coal exploration	49.0	Copel
Copel Amec S/C Ltda. - in liquidation	Curitiba/PR	Services	48.0	Copel
Sercomtel S.A. Telecomunicações (a)	Londrina/PR	Telecommunications	45.0	Copel
Dominó Holdings Ltda.	Curitiba/PR	Interests in companies	49.0	Copel Energia
Estação Osasco Desenvolvimento Imobiliário S.A. (b)	São Paulo/SP	Incorporation of real estate projects	18.78	UEG

(a) Investment reduced to zero due to the impairment tests.
(b) Pre-operating stage.

1.1.4 Joint operations (consortiums)

Joint operations	Interest (%) Copel GeT	Other consortium members
Hydroelectric Power Plant Gov. Jayme Canet Júnior - Mauá (Note 18.5)	51.0	Eletrosul Centrais Elétricas S.A. (49%)
Hydroelectric Power Plant Baixo Iguaçu (Note 18.5.1)	30.0	Geração Céu Azul S.A (subsidiary of Neoenergia S.A.) (70%)

1.2 Business combination

1.2.1 Subsidiary acquired - Uirapuru

In March 2019, Copel GeT signed a Share Purchase and Sale Agreement - CCVA with Centrais Elétricas Brasileiras S.A. - Eletrobrás and Fundação Eletrosul de Previdência e Assistência Social - ELOS for the transfer of 100% of the shares of SPE Uirapuru Transmissora de Energia S.A., subject to approval by the Brazilian Electricity Regulatory Agency - ANEEL and the Administrative Council for Economic Defense - CADE. After fulfilling the determinants, on June 28, 2019 Copel GeT took control of the company. SPE Uirapuru operates the Transmission Concession Agreement No. 002/2005, which corresponds to the Transmission Line between the municipalities of Ivaiporã and Londrina, consisting of 120 km of 525 kV transmission line, of which the commercial operation started on July 9, 2006. The acquisition of this venture will generate synergy in the use of resources for operation and maintenance, providing dilution of operating costs for the group.

1.2.2 Consideration transferred

The business combination occurred with the payment of R$133,739, corresponding to 100% of SPE Uirapuru shares, of which R$142 was paid in December 2018 and the remainder during the first half of 2019. Considering the cash acquired from the subsidiary, in the amount of R$9,803, we have a net cash effect for the Company of R$123,936 (R$142 in 2018 and R$123,794 in 2019). The amount paid is supported by estimated discounted cash flows from operating activities of the acquired venture.

In the acquisition process, the fair values of the net assets acquired were identified and allocated to the investment, and the amount of concession rights was allocated to the investment in Copel GeT's balance sheet and intangible assets in the consolidated balance sheet.

The concession right generated by the business combination mainly consists of expected synergies and economies of scale and will be amortized over the remaining concession period, which will expire on March 4, 2035.

Consideration transferred	**Net assets acquired**
Fair value on 06.28.2019	113,709
Percentage of interest transferred	100%
Consideration amount	**133,739**
Concession rights	20,030

1.2.3 Assets acquired and liabilities assumed recognized on the date of acquisition

Copel GeT preliminarily measured the fair value of identifiable assets acquired and liabilities assumed as of the date of acquisition, as follows.

	Carrying amount	**Fair value at the acquisition date**
Assets identified	**146,802**	**144,593**
Cash and cash equivalents	9,803	9,803
Trade accounts receivable	2,921	2,921
Taxes recoverable	17	17
Contract assets	133,010	133,010
Other receivables	1,051	1,051
Deferred taxes - business combination	-	10,588
Liabilities assumed	**12,540**	**30,884**
Suppliers	6,115	6,115
Payroll, social charges and accruals	73	73
Taxes due	320	320
Sectorial charges due	1,572	1,572
Deferred taxes	4,097	4,097
Contingent liabilities - business combination	-	18,344
Others liabilities	363	363
Net assets acquired	**134,262**	**113,709**

(a) The book value of contract assets disclosed by the acquired subsidiary was adjusted pursuant to the Company's practices before allocation of fair value in the business combination.

1.2.4 Impact of the acquisitions on the consolidated results

Had this business combination been completed on January 1, 2019, consolidated net operating revenue would have increased by R$ 10,792, totaling R$ 16,255,066 and the consolidated net income for the year would have increased by R$ 7,682, totaling R$ 2,070,551. Management considers these *pro forma* amounts represent an approximate measure of consolidated performance and serve as a reference for comparison in future years.

1.2.5 Conclusion of business combination - Costa Oeste and Marumbi

On June 4, 2019, the Company concluded the business combination involving subsidiaries Costa Oeste and Marumbi, disclosed in the Financial Statements as at December 31, 2018, without determining any relevant differences from the preliminarily calculated values.

2 Concessions and Authorizations

2.1 Concession contracts or authorizations obtained by Copel

Copel		Interest %	Maturity
Concession agreement / authorization of the equity			
Copel DIS	Contract 046/1999, extended by 5th addendum to the contract	100	07.07.2045
Copel TEL	Authorization term 54/2003 - Anatel/SVP/PVST	100	Indeterminate
	Authorization term 305/2012 - Anatel/SVP/PVST	100	Indeterminate
Elejor	Contract 125/2001 - HPP Fundão and Santa Clara	70	05.28.2037
	Authorization - SHP Fundão I and SHP Santa Clara I - 753/2002 and 757/2002	70	12.19.2032
Dona Francisca Energética	Contract 188/1998 - HPP Dona Francisca	23	08.28.2033
UEG Araucária	Authorization 351/1999 - TPP Araucária (60% Copel GET)	20	12.23.2029
Compagás (2.1.1)	Concession gas distribution contract	51	01.20.2019
Paraná Gás (1.1.2 - a)	PART-T-300_R12 4861-.0000.99/2014-00 - ANP	30	05.15.2045
Usina de Energia Eólica São João S.A. (a)	MME Ordinance 173 /2012 - WPP São João	49	03.26.2047
Usina de Energia Eólica Carnaúba S.A. (a)	MME Ordinance 204 /2012 - WPP Carnaúbas	49	04.09.2047
Usina de Energia Eólica Reduto S.A. (a)	MME Ordinance 230 /2012 - WPP Reduto	49	04.16.2047
Usina de Energia Eólica Santo Cristo S.A. (a)	MME Ordinance 233/2012 - WPP Santo Cristo	49	04.18.2047

(a) Subsidiaries of Voltalia São Miguel do Gostoso I Participações S.A.

Hydroelectric Power Plant - HPP
Small Hydroelectric Plant - SHP
Thermal Power Plant - TPP
Wind Power Plant - WPP

2.1.1 Compagás

Compagás is a party to a concession agreement entered with the Concession Grantor, the State of Paraná, setting July 6, 2024 as the expiration date of the concession.

On December 7, 2017, the State of Paraná published Complementary Law 205, introducing a new interpretation to the end of the concession, understanding that expiration occurred on January 20, 2019. Considering that until this date there was no extension/bidding of the concession, the law provides that the concession operator may, after the expiration of the term, remain responsible for its performance until the assumption of the new concession operator, subject to the conditions established.

The Management of Compagás, its Parent company and other shareholders are challenging the effects of the aforesaid law since they understand that it conflicts with the provisions of the concession agreement currently in force. Compagás filed a lawsuit challenging the early termination of the concession and, on October 30, 2018, a preliminary injunction was granted. The Company is awaiting the trial on merit of the case.

Considering that the lawsuit continues outstanding and the law continues in force, it was necessary to consider these effects in this financial statements.. The impacts recorded are as follows:

12.31.2019	End of concession in 2024	Adjustments	End of concession in 2019
STATEMENTS OF FINANCIAL POSITION			
Noncurrent assets			
Accounts receivable related to the concession	144,813	179,572	324,385
Intangible assets	127,598	(127,598)	-
STATEMENTS OF INCOME			
Net operating revenue			
Fair value of assets from the indemnity for the concession	9,181	1,234	10,415
Operating Costs			
Amortization	(28,854)	400	(28,454)

Management will continue to make its best efforts to protect the Company's interests, aiming at appropriately settle the impacts of the new interpretation given by the Concession Grantor and looking for the necessary alternatives to maintain the concession in a sustainable manner.

2.2 Concession contracts or authorizations obtained by Copel Get and its investees

Copel GeT		Interest %	Maturity
ONEROUS CONCESSION BY THE USE OF PUBLIC PROPERTY - UBP			
Generation Concession 001/2007 - HPP Gov. Jayme Canet Júnior (Mauá)		51	07.02.2042
Generation concession 001/2011 - HPP Colíder		100	01.17.2046
Ordinance 133/2011 - SHP Cavernoso II		100	02.28.2046
Generation Concession 002/2012 - HPP Baixo Iguaçu		30	10.30.2049
Generation Concession 007/2013			
HPP Apucaraninha		100	10.12.2025
HPP Chaminé		100	08.16.2026
HPP Derivação do Rio Jordão		100	11.15.2029
HPP Cavernoso		100	01.07.2031
PUBLIC SERVICE CONCESSIONS			
Generation concession 045/1999			
TPP Figueira (Note 36.2.6)		100	03.27.2019
HPP Gov. Bento Munhoz da Rocha Neto (Foz do Areia) (Note 36.2.6)		100	09.17.2023
HPP São Jorge (Note 36.2.6)		100	12.05.2024
HPP Guaricana		100	08.16.2026
HPP Gov. Ney Aminthas de Barros Braga (Segredo)		100	11.16.2029
HPP Gov. José Richa (Salto Caxias)		100	05.05.2030
Authorization 278/1999 - WPP Palmas		100	09.29.2029
Dispatch 182/2002 - Hydroeletric Generating Plant - HGP Melissa, HGP Pitangui and HGP Salto do Vau (only register with ANEEL)			
Generation concession 003/2016 - HPP Gov. Pedro Viriato Parigot de Souza (GPS)		100	01.05.2046
HPP Marumbi - Power generating plant registration: CGH. PH. PR. 001501-6.02		100	-
Authorization Aneel 5,373/2015 - HGP Chopim I (only register with ANEEL)		100	-
Concession agreement / authorization of the equity			
UEG Araucária	Authorization 351/1999 - TPP Araucária (20% - Copel)	60.9	12.23.2029
Nova Asa Branca I	MME Ordinance 267/2011 - WPP Asa Branca I	100	04.25.2046
Nova Asa Branca II	MME Ordinance 333/2011 - WPP Asa Branca II	100	05.31.2046
Nova Asa Branca III	MME Ordinance 334/2011 - WPP Asa Branca III	100	05.31.2046
Nova Eurus IV	MME Ordinance 273/2011 -WPP Eurus IV	100	04.27.2046
Santa Maria	MME Ordinance 274/2012 - WPP SM	100	05.08.2047
Santa Helena	MME Ordinance 207/2012 - WPP Santa Helena	100	04.09.2047
Ventos de Santo Uriel	MME Ordinance 201/2012 - WPP Santo Uriel	100	04.09.2047
GE Boa Vista	MME Ordinance 276 /2011 - WPP Dreen Boa Vista	100	04.28.2046
GE Farol	MME Ordinance 263 /2011 - WPP Farol	100	04.20.2046
GE Olho D'Água	MME Ordinance 343 /2011 - WPP Dreen Olho D'Água	100	06.01.2046
GE São Bento do Norte	MME Ordinance 310 /2011 - WPP Dreen São Bento do Norte	100	05.19.2046
Esperança do Nordeste	MME Ordinance 183/2015 - WPP Esperança do Nordeste	100	05.11.2050
Paraíso dos Ventos do Nordeste	MME Ordinance 182/2015 - WPP Paraíso dos Ventos do Nordeste	100	05.11.2050
Usina de Energia Eólica Jangada	Resolution 3,257/2011 - WPP GE Jangada	100	01.05.2042
Maria Helena	Resolution 3,259/2011 - WPP GE Maria Helena	100	01.05.2042
Usina de Energia Eólica Potiguar	MME Ordinance 179/2015 - WPP Potiguar	100	05.11.2050
Usina de Energia Eólica Guajiru	Resolution 3,256/2011 - WPP Dreen Guajiru	100	01.05.2042
Usina de Energia Eólica Cutia	Resolution 3,258/2011 - WPP Dreen Cutia	100	01.05.2042
São Bento do Norte I	Ordinance 349/2015 - WPP São Bento do Norte I	100	08.04.2050
São Bento do Norte II	Ordinance 348/2015 - WPP São Bento do Norte II	100	08.04.2050
São Bento do Norte III	Ordinance 347/2015 - WPP São Bento do Norte III	100	08.04.2050
São Miguel I	Ordinance 352/2015 - WPP São Miguel I	100	08.04.2050
São Miguel II	Ordinance 351/2015 - WPP São Miguel II	100	08.04.2050
São Miguel III	Ordinance 350/2015 - WPP São Miguel III	100	08.04.2050
Foz do Chopim	Authorization 114/2000 - SHP Arturo Andreoli	35.77	04.24.2030
SHP Bela Vista (a)	Resolution 913/2017 - transfer of title under Resolution 7,802/2019	100	01.02.2041
Jandaíra I Energias Renováveis (a)	Awaiting publication of Ordinance by Aneel	100	.-.
Jandaíra II Energias Renováveis (a)	Awaiting publication of Ordinance by Aneel	100	.-.
Jandaíra III Energias Renováveis (a)	Awaiting publication of Ordinance by Aneel	100	.-.
Jandaíra IV Energias Renováveis (a)	Awaiting publication of Ordinance by Aneel	100	.-.

(a) Building under construction.

Copel GeT		Interest %	Maturity
Transmission lines and substations concession agreements			
Contract 060/2001 - Transmission installations (several Transmission lines and Substations)		100	01.01.2043
Contract 075/2001 - Transmission line 230 kV Bateias - Jaguariaíva		100	08.17.2031
Contract 006/2008 - Transmission line 230 kV Bateias - Pilarzinho		100	03.17.2038
Contract 027/2009 - Transmission line 525 kV Foz do Iguaçu - Cascavel Oeste		100	11.19.2039
Contract 010/2010 - Transmission line 500 kV Araraquara II - Taubaté		100	10.06.2040
Contract 015/2010 - Substation Cerquilho III 230/138 kV		100	10.06.2040
Contract 022/2012 - Transmission line 230 kV Londrina - Figueira and Transmission line 230 kV Foz do Chopim - Salto Osório		100	08.27.2042
Contract 002/2013 - Transmission line 230 kV Assis - Paraguaçu Paulista II e Substation Paraguaçu Paulista II 230 kV		100	02.25.2043
Contract 005/2014 - Transmission line 230 kV Bateias - Curitiba Norte e Substation Curitiba Norte 230/138 kV		100	01.29.2044
Contract 021/2014 - Transmission line 230 kV Foz do Chopim - Realeza e Substation Realeza 230/138 kV		100	09.05.2044
Contract 022/2014 - Transmission line 500 kV Assis - Londrina		100	09.05.2044
Contract 006/2016 - Transmission line 525 kV Curitiba Leste - Blumenau (a)		100	04.07.2046
Transmission line 230 kV Baixo Iguaçu - Realeza			
Transmission line 230 kV Curitiba Centro - Uberaba			
Substation Medianeira 230/138 kV			
Substation Curitiba Centro 230/138 kV			
Substation Andirá Leste 230/138 kV			
Concession agreement / authorization of the equity			
Costa Oeste Transmissora	**Contract 001/2012:**	100	01.12.2042
	Transmission line 230 kV Cascavel Oeste - Umuarama		
	Substation Umuarama 230/138 kV		
Caiuá Transmissora	**Contract 007/2012:**	49	05.10.2042
	Transmission line 230 kV Umuarama - Guaíra		
	Transmission line 230 kV Cascavel Oeste - Cascavel Norte		
	Substation Santa Quitéria 230/138/13,8 kV		
	Substation Cascavel Norte 230/138/13,8 kV		
Marumbi Transmissora	**Contract 008/2012:**	100	05.10.2042
	Transmission line 525 kV Curitiba - Curitiba Leste		
	Substation Curitiba Leste 525/230 kV		
Integração Maranhense	**Contract 011/2012:** Transmission line 500 Kv Açailândia - Miranda II	49	05.10.2042
Matrinchã Transmissora	**Contract 012/2012:**	49	05.10.2042
	Transmission line 500 kV Paranaíta - Cláudia		
	Transmission line 500 kV Cláudia - Paranatinga		
	Transmission line 500 kV Paranatinga - Ribeirãozinho		
	Substation Paranaíta 500 kV		
	Substation Cláudia 500 kV		
	Substation Paranatinga 500 kV		
Guaraciaba Transmissora	**Contract 013/2012:**	49	05.10.2042
	Transmission line 500 kV Ribeirãozinho - Rio Verde Norte		
	Transmission line 500 kV Rio Verde Norte - Marimbondo II		
	Substation Marimbondo II 500 kV		
Paranaíba Transmissora	**Contract 007/2013:**	24.5	05.02.2043
	Transmission line 500 kV Barreiras II - Rio das Éguas		
	Transmission line 500 kV Rio das Éguas - Luziânia		
	Transmission line 500 kV Luziânia - Pirapora 2		
Mata de Santa Genebra (a)	**Contract 001/2014:**	50.1	05.14.2044
	Transmission line 500 kV Itatiba - Bateias		
	Transmission line 500 kV Araraquara 2 - Itatiba		
	Transmission line 500 kV Araraquara 2 - Fernão Dias (a)		
	Substation Santa Bárbara D´Oeste 440 kV (a)		
	Substation Itatiba 500 kV		
	Substation Fernão Dias 500/440 kV (a)		
Cantareira Transmissora	**Contract 019/2014:** Transmission line Estreito - Fernão Dias	49	09.05.2044
Uirapuru Transmissora	**Contract 002/2005:** Transmission line 525 kV Ivaiporã - Londrina	100	03.04.2035

(a) Buildings under construction.

3 Basis of Preparation

3.1 Statements of compliance

The individual financial statements of the Parent Company and the consolidated financial statements have been prepared in accordance with International Financial Reporting Standards (IFRS) issued by the International Accounting Standards Board, IASB, as well as with accounting practices adopted in Brazil (BR GAAP), which comprise the standards, guidelines and interpretations issued by the Accounting Pronouncements Committee (Comitê de Pronunciamentos Contábeis or CPC) and approved by the Brazilian Securities and Exchange Commission (Comissão de Valores Mobiliários or CVM) and the Federal Accounting Council (Conselho Federal de Contabilidade or CFC).

Management declares that all relevant information specific to the individual and consolidated financial statements, and only them, are being disclosed, and that they correspond to those used in management.

The issuance of these individual and consolidated financial statements was approved by Management on March 25, 2020.

3.2 Functional and presentation currency

The individual and the consolidated financial statements are presented in Brazilian Reais, which is the functional and presentation currency of the Company. Balances herein have been rounded to the nearest thousand, unless otherwise indicated.

3.3 Basis of measurement

The individual and the consolidated financial statements were prepared based on the historical cost, except for certain financial instruments measured at fair value and investments, as described in the respective accounting policies and notes.

3.4 Use of estimates and judgments

In the preparation of these individual and consolidated financial statement, Management used judgments, estimates and assumptions that affect the application of accounting policies and the reported amounts of assets, liabilities, income and expenses of the Company. Actual results may differ from those estimates.

Estimates and assumptions are reviewed on a continuous basis. Changes in estimates are recognized prospectively.

3.4.1 Judgments

Information about judgment referring to the adoption of accounting policies which significantly impacts the amounts recognized in the consolidated financial statements, except those involving estimates, is included in the following notes:

- Note 4.1 - Basis of consolidation

- Note 4.2 - Financial instruments; e
- Note 4.17.2 – Uncertainty over income tax treatments

3.4.2 Uncertainties over assumptions and estimates

Information on uncertainties related to assumptions and estimates that pose a chance of resulting in a material change within the next financial year is included in the following notes:

- Notes 4.3 and 9 - Sectorial financial assets and liabilities;
- Notes 4.4 and 10 - Accounts receivable related to the concession
- Notes 4.5 and 11 - Contract assets;
- Notes 4.8 and 18 - Property, plant and equipment;
- Notes 4.9 and 19 - Intangible assets;
- Notes 4.10, 18.7 and 18.8 - Impairment of assets;
- Notes 4.11 and 30 - Provisions for litigation and contingent liabilities;
- Note 4.12 - Revenue recognition;
- Note 4.14 - Power purchase and sale transactions in the Spot Market (Electric Energy Trading Chamber - CCEE);
- Note 4.15 - Derivative financial instruments;
- Note 7.3 - Expected credit losses
- Note 13.1.2 and 13.1.3 - Deferred income tax and social contribution; and
- Note 24 - Post-employment benefits.

3.5 Management's judgment on going concern

Management has concluded that there are no material uncertainties that cast doubt on the Company's ability to continue as a going concern. No events or conditions were identified that, individually or in the aggregate, may raise significant doubts on its ability to continue as a going concern.

The main bases of judgment used for such conclusion are: (i) main activities resulting from long-term concessions; (ii) robust equity; (iii) strong operating cash generation, including financial capacity to settle commitments entered into with financial institutions; (iv) historical profitability; and (v) fulfillment of the objectives and targets set forth in the Company's Strategic Planning, which is approved by Management, monitored and reviewed periodically, seeking the continuity of its activities.

4 Significant Accounting Policies

4.1 Basis of consolidation

4.1.1 Calculation of equity in earnings of investees

Investments in subsidiaries, joint ventures and associate are recognized in the parent company's financial statements based on the equity method and investments in joint ventures and associate are recognized in the consolidated financial statements based on the equity method.

Under this method, investments are initially recorded at cost and their carrying amount is increased or decreased by the recognition of the investor's interest in profit, loss and other comprehensive income generated by investees after acquisition. This method must be discontinued from the date the investment ceases to qualify as a controlled, jointly controlled or associated company.

Payment of dividends decreases the carrying value of investments.

When required, for calculation of equity in earnings of investees, the investees' financial statements are adjusted to align their policies with the Company's accounting policies.

4.1.2 Subsidiaries

The subsidiaries are entities to which the Company is exposed to or has a right over the variable returns arising from its involvement with them and has the ability to affect those returns exerting its power over the entities.

The financial statements of the subsidiaries are included in the consolidated financial statements as from the date they start to be controlled by the Company until the date such control ceases.

The balances of the subsidiaries’ assets and liabilities, and profit or loss, are consolidated and transactions between consolidated companies are eliminated.

4.1.3 Noncontrolling interests

Noncontrolling interests are presented in equity, separately from the equity attributable to the Company's shareholders. Profits, losses and other comprehensive income are also allocated separately from the ones allocated to the Company's shareholders, even if this procedure results in negative noncontrolling interest balance.

4.1.4 Joint ventures and associates

Joint ventures are entities over which the Company, subject to an agreement, has the ability to affect returns exerting its power in conjunction with other parties, irrespective of the percentage of interest in the voting capital.

Associates are entities over which the Company exerts significant influence regarding financial and operational decisions, without control.

When the share in losses of a joint venture or associate equals or exceeds the accounting balance of the investor's equity interest in the investee, the investor should discontinue the recognition of its share in future losses. Additional losses will be considered, and a liability will be recognized, only if the investor incurs legal or constructive obligations, or performs payments on behalf of the investee. Should the investee subsequently post profits, the investor should resume the recognition of its interest in these profits only subsequent to the point at which the portion to which it is entitled to in these subsequent profits equals its share in unrecognized losses.

4.1.5 Joint operations (consortiums)

Joint operation is a joint business according to which parties that jointly control the business have rights on assets and obligations regarding liabilities related to the business.

Joint operations are recorded in proportion to the share of interest held in their assets, liabilities and profit or loss.

4.1.6 Business combination

The acquisition analysis is done on a case-by-case basis to determine whether the transaction represents a business combination or an asset purchase. Transactions between companies under common control do not constitute a business combination.

Assets and liabilities acquired in a business combination are accounted for using the acquisition method and are recognized at their fair value at the acquisition date.

The excess of the acquisition cost over the fair value of the net assets acquired (identifiable assets acquired, net of assumed liabilities) is recognized as goodwill in intangible assets. When the amount generated is negative, the bargain purchase gain is recognized directly in profit or loss.

The amount paid that refers specifically to the concession right acquired in a business combination where the acquired entity is a concession operator, whose right to the concession has a known and defined term, is not characterized as goodwill.

In acquisitions of interests in affiliates and in joint ventures, although they do not constitute a business combination, the net assets acquired are also recognized at fair value. Goodwill is presented in the investment.

4.2 Financial Instruments

Financial instruments are recognized immediately on the trade date, that is, when the obligation or right arises. They are initially recorded at fair value, unless it is a trade receivable without a significant financing component, plus, for an item not measured at fair value through profit or loss, any directly attributable transaction costs. An accounts receivable from customers without a significant component of financing is initially measured at the price of the transaction.

Fair values are determined based on market prices for financial instruments with active market, and by the present value method of expected cash flows, for those that have no quotation available in the market.

The Company does not have financial instruments measured at fair value through other comprehensive income. The Company operates with derivative financial instruments as described in Note 4.15.

Financial assets are not reclassified subsequent to initial recognition, unless the Company changes the business model for the management of financial assets, in which case all affected financial assets are reclassified on the first day of the reporting period subsequent to the change in business model.

The Company's financial instruments are classified and measured as described below.

4.2.1 Financial assets recorded at fair value through profit or loss

Financial assets recorded at fair value through profit or loss include assets classified as held for trading, financial assets designated upon initial recognition as at fair value through profit or loss or financial assets required to be measured at fair value. Financial assets are classified as held for trading if they are acquired for the purpose of being sold or repurchased in the near term. Financial assets with cash flows that are not solely payments of principal and interest are classified and measured at fair value through profit or loss, irrespective of the business model. After initial recognition, transaction costs and attributable interest expenses, when incurred, are recognized through profit or loss.

4.2.2 Financial assets measured at amortized cost

These are so classified and measured when: (i) the financial asset is maintained within a business model whose objective is to maintain financial assets in order to receive contractual cash flows; and (ii) the contractual terms of the financial asset give rise, on specified dates, to cash flows that exclusively comprise payments of principal and interest on the principal amount outstanding.

4.2.3 Financial liabilities measured at amortized cost

Financial liabilities are measured at amortized cost using the effective interest method. This method is also used to allocate interest expense of these liabilities for the period. The effective interest rate is the rate that discounts estimated future cash flows (including fees paid or received that form an integral part of the effective interest rate, transaction costs and other premiums or discounts) over the expected life of the financial liability or, when appropriate, over a shorter period, for the initial recognition of the net carrying amount.

4.2.4 Financial liabilities measured at fair value through Profit or Loss

These are liabilities designated upon initial recognition as at fair value through profit or loss and those classified as held for trading. Financial liabilities designated fair value through profit or loss are stated at fair value with the respective gains or losses in fair value recognized in the statement of income. Net gains or losses recognized in profit or loss include the interest paid on the financial liability.

4.2.5 Derecognition of financial assets and liabilities

The Company derecognizes a financial asset when the contractual rights to the cash flows from the financial asset expire, or it transfers the rights to receive the contractual cash flows in a transaction in which substantially all of the risks and rewards of ownership of the financial asset are transferred or in which the Company neither transfers nor retains substantially all of the risks and rewards of ownership and it does not retain control of the financial asset.

The Company derecognizes financial liabilities only when its obligations are discharged, cancelled or settled. The difference between the carrying amount of the derecognized financial liability and the corresponding disbursement made, or to be made, is recorded to profit or loss.

4.3 Net sectorial financial assets and liabilities

According to the amendment to the concession agreement of distribution companies, the Company records changes in sectorial financial assets and liabilities, until the next tariff adjustment/review process, when the Concession Grantor approves the transfer as components of the power tariff and thus, it passes the adjustment on to consumers in the next tariff cycle, which occurs on June 24 of each year.

The balances of the net sectorial financial assets and liabilities comprise: a) Parcel A Variation Compensation Account - CVA, which records the variation between estimated and actual energy purchase and transmission costs and sector charges, and b) financial items, which correspond to energy over-contracting, neutrality of charges and other rights and obligations included in the tariff.

After approval of the Annual Tariff Adjustment and Periodic Tariff Review, the new tariff applied for the tariff year provides for the collection or return of the constituted assets and liabilities.

In the event of termination of the concession for any reason, the residual values of Part A items and other financial components not recovered or returned through tariff are incorporated in the calculation of compensation or deducted from unamortized assets indemnity values, thus protecting rights or obligations of the distribution company to the Concession Grantor.

4.4 Accounts receivable related to the concession

Refer to financial assets of the concessions with unconditional right to receive cash by the Company, guaranteed by the Concession Grantor by contractual clause and specific legislation.

4.4.1 Power distribution service concession

The concession agreement for electricity distribution provides that the users of the public service remunerate part of the investments made by the concessionaire and the Concession Grantor at the end of the concession indemnifies the other party. This model provides for the recognition of financial assets, contract assets in the construction period and intangible assets.

The portion recognized as financial asset refers to the indemnity set forth in the public power distribution service concession agreements, which the Company understands as an unconditional right to cash payments from the Concession Grantor upon expiration of the concession. This indemnification aims to reimburse the Company for investments made in infrastructure, without recovery, through the tariff.

The cash flows related to these assets are determined taking into account the Regulatory Compensation Basis (Base de Remuneração Regulatória or BRR), defined by the Concession Grantor. The methodology of the BRR is based on the replacement cost of the assets that make up the power distribution infrastructure related to the concession.

4.4.2 Piped gas distribution service concession

Gas concession agreement follows the bifurcated model, whereby part of the investments made by the concession operator is paid by users of the public service and the other part is indemnified by the Concession Grantor, the State of Paraná, at the end of the concession. This model provides for recognition of a financial asset, a contract asset in the construction period and an intangible asset.

The amount recognized as a financial asset is the amount that will be indemnified by the Concession Grantor corresponding to the investments made in the last ten years prior to the end of the concession as foreseen in the agreement and that, according to Management, assures the unconditional right to receive cash at the end of the concession. The indemnity assumption is based on the replacement cost of the concession assets.

4.4.3 Bonus for the grant of quota system generation concession agreement

The quota system generation concession agreement provides for the payment of a bonus for the grant to the Concession Grantor, pursuant to paragraph 7 of article 8 of Law 12,783/2013.

This bonus is recognized as a financial asset because it represents an unconditional right to receive cash, guaranteed by the Concession Grantor during the term of the concession and without risk of demand.

The remuneration of this financial asset is based on the Weighted Average Cost of Capital - WACC defined by the National Energy Policy Council (CNPE) in Resolution 2/2015, which is being presented in the statement of income as operating revenue in accordance with the Company's business model.

4.4.4 Transmission concession – Reassessment of assets of the Basic Network of the Existing System

Refers to the right to reimbursement of the Concession Agreement No. 060/2001 arising from the Annual Revenue Allowed not received in the period from January 2013 to June 2017. The balance includes monetary adjustment and interest rates (Note 10.4).

4.4.5 Concession of power generation

The Company has operated and operates concession agreements for power generation that contain indemnification clauses for the infrastructure not depreciated, amortized and/or received during the concession term. After maturity, the residual balance of the assets is transferred to Accounts receivable related to the concession. At the end of each reporting period, Management evaluates the recoverability of the asset, remeasuring its cash flow based on its best estimate.

4.5 Contract assets

Represented by the construction in progress or in service of the infrastructure delegated by the Concession Grantor, conditional upon the receipt of revenue not only by the passage of time, but after fulfilling the performance obligation to maintain and operate the infrastructure.

4.5.1 Power distribution service concession

Represents the concessionaire's contractual right related to the works under construction to meet the needs of the concession, accounted for at cost plus financial charges, when applicable.

When the assets are put into operation, the assets are transferred to the intangible asset, in the amount equivalent to what will be remunerated by the user through payment of the fee for the use of the services, or to the accounts receivable associated to the concession, in the amount equivalent to the residual portion of the assets not amortized, which will be reverted to the Concession Grantor through indemnification at the end of the concession.

4.5.2 Power gas distribution service concession

Construction in progress for the distribution of piped gas which will be transferred to intangible assets upon their entry in operation and to the extent that the right (authorization) is received to charge the users of the public service. The amount that will not be amortized within the term of the concession is presented in financial assets, indemnified at the end of the concession by the Concession Grantor according to contractual definition.

4.5.3 Power transmission concession

Represents the balance of public electricity transmission contracts signed with the Concession Grantor to build, operate and maintain the high voltage lines and substations of the generation centers up to the distribution points.

During the term of the concession agreement, the Company receives, subject to its performance, a remuneration denominated Annual Revenue Allowance (RAP) that remunerates the investments made in the construction of the infrastructure and covers also, the costs of operation and maintenance incurred. After the start of the commercial operation, this revenue is recognized, monthly, in the statement of income to the extent that the operation and maintenance service are provided, and the portion of the revenue recognized in the construction phase, referring to the remuneration of the constructed assets.

This amount invoiced is reclassified to trade accounts receivable line item until their actual receipt.

The assets arising from the construction of the transmission infrastructure are formed by the recognition of construction revenue (Note 4.13) and by their financial remuneration (Note 4.12.2).

Upon expiration of the concession, any uncollected amounts related to the construction of infrastructure shall be received directly from the Concession Grantor, as an unconditional right to cash reimbursement pursuant to the concession agreement, as compensation for investments made and not recovered through tariffs (RAP).

4.6 Accounts payable related to the concession

These refer to the amounts set forth in the concession agreement in connection with the right to explore hydraulic power generation potential (onerous concession), whose agreement is signed as Use of Public Property (Uso do Bem Público or UBP) agreements. The asset is recognized on the date of signature of the concession agreement corresponding to the present value of future cash payments for the concession. The liability is then remeasured using the effective interest rate and reduced by contractual payments.

4.7 Inventories (including property, plant and equipment and contract assets)

Materials and supplies in inventory, classified under current assets, and those assigned for investments, classified under property, plant and equipment, and contract assets, have been recorded at their average acquisition cost. Recorded amounts do not exceed their net realizable value.

4.8 Property, Plant and Equipment

The property, plant and equipment related to the public service concession agreement are depreciated according to the straight-line method based on annual rates set forth and reviewed periodically by ANEEL, which are used and accepted by the market as representative of the economic useful lives of the assets related to concession's infrastructure. Property, plant and equipment related to contracts for the use of public property under the independent electricity producer scheme are depreciated based on annual rates established by ANEEL limited to the concession period. All other property, plant and equipment are depreciated using the straight-line method based on estimates of their useful lives, which is reviewed annually and adjusted if necessary.

Costs directly attributable to construction works as well as interest and financial charges on borrowings from third parties during construction are recorded under property, plant and equipment in progress, if it is probable that they will result in future economic benefits for the Company.

4.9 Intangible Assets

These comprise software acquired from third parties and software developed in-house and are measured at acquisition cost and amortized over five years, besides Intangible assets from Concession Agreements below.

4.9.1 Onerous concession of electric power generation

Corresponds to acquisition of exploration rights on hydropower potential whose onerous concession contract is signed as Use of Public Property - UBP.

During construction work, this asset is recognized at the present value of future cash disbursements during the Concession Agreement term. When commercial operation starts, the amount starts to be amortized over the concession period.

4.9.2 Hydrological risk renegotiation (Generation Scaling Factor - GSF)

Asset consisting of the renegotiation of the hydrological risk under the terms of Law No. 13,203/2015, arising from the excess amount between the amounts recovered from the cost with the adjustment of the Energy Reallocation Mechanism - MRE (GSF), subtracted from the total cost of the risk premium to be amortized over the energy supply period in the regulated environment. The amount was transformed by ANEEL into an extension of the concession period, which is amortized on a straight-line basis as from January 1, 2016 until the end of the new concession period, according to note 14.1.

4.9.3 Power distribution service concession

This comprises the right to control infrastructure, built or acquired as part of the electric energy public service concession, and the right to charge fees to the users of the public service.

Intangible assets are recorded at their fair acquisition and construction value, less accumulated amortization and impairment losses, when applicable. The amortization of intangible assets reflects the pattern in which it is expected that future economic benefits will flow to the Company during the concession period.

During the infrastructure construction phase costs are classified as contract assets (Note 4.5).

4.9.4 Piped gas distribution service concession

Intangible assets for piped gas distribution services, which correspond to the right to charge users for the gas supply.

This intangible asset was initially recognized at acquisition or construction cost, plus interest and other capitalized finance charges. This asset is amortized using the straight-line basis over its estimated useful life, considering the economic benefits generated by intangible assets.

During the infrastructure construction phase, costs are classified as contract assets (Note 4.5).

4.9.5 Intangible assets acquired separately

Intangible assets with a finite useful life, acquired separately, are recorded at cost, less accumulated amortization and accumulated impairment losses. Amortization is recognized using the straight-line method based on the estimated useful lives of the corresponding assets. The estimated useful lives and the amortization method are reviewed at the end of each reporting period, with the effect of any changes in estimate being accounted for on a prospective basis.

4.9.6 Derecognition of intangible assets

An intangible asset is derecognized when no future economic benefits are expected from use or disposal. Gains or losses arising from disposal of an intangible asset are recognized in profit or loss, measured as the difference between net disposal proceeds and the carrying amount of the asset.

4.10 Impairment of assets

Assets are assessed to detect evidence of impairment.

4.10.1 Financial assets

Provisions for losses on financial assets are based on assumptions about default risk, existing market conditions and future estimates at the end of each year.

The Company applies the simplified approach of IFRS 9 to the measurement of expected credit losses for the entire existence of financial assets that do not have significant financing components, by considering a provision for expected loss over a useful life for all trade accounts receivable. To measure expected credit losses, trade accounts receivable is grouped based on shared credit risk characteristics and overdue days in the amount considered enough to cover losses on the realization of these assets.

4.10.2 Non-financial assets

Assets under formation arising from onerous concession and concession rights and/or authorization to generate electricity are classified as intangible assets. Impairment is tested along with the other assets of that cash-generating unit.

Whenever there is a loss resulting from situations where an asset's carrying value exceeds its recoverable value, defined as the higher of the asset's value in use or its net selling price, this loss is recognized in profit or loss for the year.

For impairment testing purposes, assets are grouped at the lowest levels for which there are separately identifiable cash flows (Cash Generating Units - CGU).

The amount of the impairment of non-financial assets is reviewed at the reporting date. In case of reversal of impairment losses which had been recorded in prior years, this reversal is recognized in current year's profit or loss.

The Impairment of contract assets in their construction phase are tested immediately, mainly considering the use of the effective interest rate fixed at the beginning of the project and carried to the end of the concession cash flow. After the beginning of the commercial operation, the portion of revenue recognized is tested for impairment in the accounts receivable from customers. For the receivable part conditioned to fulfill the performance obligation to maintain and operate the infrastructure, the Company has no history and no expectation of losses, since amount are subject to guarantee structures, via shared apportionment of eventual default losses among the other members of the national interconnected system managed by the "Operador Nacional do Sistema" (ONS) and by jurisdiction of the sector.

4.11 Provisions

Provisions are recognized when: i) the Company has a present obligation (legal or constructive) resulting from a past event, ii) it is probable (i.e., more likely than not) that an outflow of resources embodying economic benefits will be required to settle the obligation, and iii) a reliable estimate can be made of the amount to settle the obligation.

The estimates of outcomes and financial impacts are determined by the Company, which requires use of judgment by Management, supplemented by the experience of similar past transactions and, in some cases, by independent expert reports.

Environmental liabilities are recognized as the Company assumes formal obligations before regulatory agencies or becomes aware of potential risks related to environmental issues, which may lead to cash disbursements that are deemed probable and that may be estimated. During the project implementation phase, the accrued amounts are included in property, plant and equipment (generation), construction cost (transmission) or contract assets (distribution). At the start of operations, all costs included in the Operating License, whose programs will be executed during the concession and the respective disbursement has not yet occurred, are measured and adjusted to present value according to the estimated cash flow of disbursements and recorded as environmental provisions matched against the assets related to the project, being adjusted periodically.

Once the project enters commercial operation, all costs or expenses incurred with environmental programs related to the project's operation and maintenance licenses are analyzed according to their nature and included in profit or loss for the period.

4.12 Revenue recognition

4.12.1 Revenue from contracts with customers

Revenue is measured based on the consideration that the Company expects to receive in a contract with the customer, net of any variable consideration. The Company recognizes revenues when it transfers control of the product or service to the customer and when it is probable to receive the consideration considering the client's ability and intention to pay the consideration when due. The Company's operating revenue comes mainly from the electricity supply and from the electric network availability.

The revenue from electricity supply is recognized monthly based on the data for billing that are determined by the average MW of contracted electricity and declared with the CCEE. When the information is not available, the Company estimates the revenue considering the contracts' rules, the price estimate and the volume provided.

For wind power generation companies subject to minimum generation amounts, the Company understands that it is subject to variable consideration, and for this reason, includes a provision for non-performance based on the annual generation estimates, reducing revenue.

Revenue from electric power supply and network availability is recognized monthly based on measured and effectively billed energy. In addition, the Company records unbilled revenue, calculated from the period between the last billing and the end of each month, by estimate based on the last measurement taken. In the concession contract for the public electricity distribution service, non-performance compensations are provided for quality indicators that, when incurred, reduce electricity availability revenue.

4.12.2 Interest income

Interest income is recognized when it is probable that future economic benefits will flow to the Company and its amount can be reliably measured. Interest income is recognized on a straight-line basis and based on time and the effective interest rate on outstanding principal amounts. The effective interest rate is the one that discounts the estimated future cash receipts calculated during the estimated life of the financial asset in relation to initial net carrying amount of that asset.

Regarding the financial and contract assets of the power transmission concession, financial compensation revenue is recognized using the discount rate established at the beginning of each project, which is presented in the statement of income as operating income in accordance with the Company's business model.

4.13 Construction revenues and costs

Revenue related to construction services for infrastructure in the power transmission and distribution services, and gas distribution, are recognized using the percentage of completion (PoC) method at each reporting period and measured on the basis of the proportion of costs incurred in relation to the total estimated costs of the distribution and transmission concession contracts. Related costs are recognized in the statement of income as construction cost.

Given that Copel DIS and Compagás outsource the construction of distribution infrastructure to unrelated parties through works carried out in the short term, the construction margin to the power and gas distribution activities result in no significant amounts, resulting in the non-recognition of such margin.

The construction margin adopted for the transmission activity for the years 2019 and 2018 was 1.65%, and results from a calculation methodology which considers the respective business risk.

4.14 Power purchase and sale transactions in the Spot Market (Electric Energy Trading Chamber - CCEE

Power purchase and sale transactions in CCEE are recorded on the accrual basis of accounting, based on data released by CCEE, which are calculated by the product of the Differences settlement prices - PLD multiplied by the energy surplus declared with CCEE, or, when such information is not available in a timely manner, by an estimate prepared by Management.

4.15 Derivative Financial Instruments

4.15.1 Power purchase and sale transactions

The Company negotiates energy purchase and sale agreements and part of its contracts are classified as derivative financial instruments measured at fair value through profit or loss.

Unrealized net gains or losses arising from the mark-to-market of these contracts (the difference between contractual and market prices) are recognized in the statement of income.

4.15.2 Non-Deliverable Forward (NDF) contracts

In addition, the Company operates with Non-Deliverable Forward – NDF contracts, which aim exclusively at providing hedge against exchange rate risks associated with cash flows from capital contributions to subsidiaries, when they reflect foreign-currency denominated purchases of projected equipment. They are measured at their fair value, with changes recorded in the statement of income for the year. The fair value is calculated based on the information of each contracted operation and the respective market information on the closing dates of the financial statements.

4.16 Added Value Statement - DVA

This demonstration aims to highlight the wealth generated by the companies as well as their distribution during a certain period. It is presented, as required by Brazilian corporate law, as part of its individual financial statements and as supplementary information to the consolidated financial statements, since it is not an expected or mandatory statement under IFRS.

4.17 Standards applicable to the Company effective January 1, 2019

4.17.1 CPC 06 (R2) / IFRS 16 - Leases

This pronouncement supersedes CPC 06 (R1) / IAS 17 - Leases, as well as related interpretations (ICPC 03 / IFRIC 4, SIC 15 and SIC 27). The adoption of the new standard eliminates accounting for operating leases for lessees, presenting a single lease model that consists of initially recognizing all leases in assets and liabilities at present value and recognizing amortization of the right-of-use asset and lease interest separately in the statement of income.

Transition method

The Company applied the modified retrospective transition method, which does not require the presentation of comparative information. The lease liability and right-of-use asset are recognized at the present value of the remaining lease installments payable. Accordingly, information referring to prior years continues to be presented in accordance with the previous standard.

The Company analyzed its operating lease contracts and applied the pronouncement only to the contracts in effect on January 1, 2019 and that were previously identified as leases.

In accordance with CPC 06 (R2) / IFRS 16, the Company elected to adopt exemptions from recognition provided for short-term leases (lease term of up to 12 months) and leases of low value assets, such as computers, printers and furniture, amounting to less than R$ 18. These contracts are recognized as operating lease costs and/or expenses on a straight-line basis as provided for in the standard, during the term of the contract.

The Company has land lease agreements for the development of wind power generation projects that provide for minimum payment during the study/construction period and payment based on variable remuneration during the period of commercial operation. For contracts that are subject to minimum payment on the date of application of the standard, the Company recognized right-of-use assets and lease liabilities. For contracts that are in commercial operation, the Company recognizes them in its statement of income, when the event or condition is satisfied, as leases and rentals, in operating costs and/or expenses.

Use of judgment

The Company considered, for all lease agreements with related parties and third parties, the interest rate necessary to acquire assets under conditions like those applicable to rents contracted on the date of signature. The rate adopted by the Company considers the cost of the last fundraising made, based on the CDI (Interbank Deposit Certificate) plus a risk spread applicable to the Company. Upon initial adoption, the rate used was 9.10% p.a.

Effects from initial adoption

The new requirements of CPC 06 (R2) / IFRS 16 produced the following impacts on the recognition and presentation of lease and rent contracts.

Financial Statements	Classification as CPC 06 (R1) /IAS17	CPC 06 (R2) / IFRS 16
Statements of Financial Position		
Noncurrent assets	-	Right-of-use asset
Current Liabilities and Noncurrent Liabilities	-	Lease liability
Statements of Income		
Operating Costs	Leases and rentals	Amortization of right-of-use asset
Other operating costs and expense	Leases and rentals	Amortization of right-of-use asset
Financial expenses	-	Interest on lease liability
Sttatements of cash flows		
Payment of interest on lease liability	-	Operating activities
Payment of principal of lease liability	-	Financing activities

The adoption of CPC 06 (R2) / IFRS 16 for leases previously classified as operating leases in accordance with IAS 17 resulted in increase in assets and liabilities in the amount of R$ 118,022, increase in amortization in the amount of R$ 34,205 and increase in interest expense in the amount of R$ 9,675 (Note 27) and the reduction of Other operating costs and expenses in the amount of R$ 40,076.

4.17.2 ICPC 22/IFRIC 23 - Uncertainty over Income Tax Treatments

The interpretation explains how to apply the recognition and measurement requirements of CPC 32 / IAS 12 - Income Taxes where there is un/certainty over a tax treatment. In accordance with certain requirements, such as where the tax authority is most likely not to accept certain treatment, the entity shall recognize and measure its current or deferred tax, asset or liability, applying the requirements of IAS 12 based on taxable profit (tax loss), tax bases, unused tax losses, unused tax credits and ruling statutory tax rates, considering this non-acceptance.

The Company evaluated the income tax treatments and concluded that the application of the standard did not have impacts on its results.

4.18 New standards that are not yet in effect

From January 1, 2020, changes in the following pronouncements will be in effect, without significant impacts on the Company's financial statements:

(i) CPC 00 (R2)/ IAS 1 Conceptual framework;

(ii) Annual review of CPC No. 14/2019: changes in pronouncements arising from the review of CPC 00, change in the definition of business in CPC 15 (R1) / IFRS 3 and change in the definition of materiality in CPC 26 (IAS 1) and CPC 23 (IAS 8).

5 Cash and Cash Equivalents

		Parent Company		**Consolidated**
	12.31.2019	**12.31.2018**	**12.31.2019**	**12.31.2018**
Cash and bank accounts	196	2,044	263,188	167,728
Financial investments with immediate liquidity	25,108	312,959	2,678,539	1,780,681
	25,304	**315,003**	**2,941,727**	**1,948,409**

These comprise cash on hand, deposits with banks and short-term highly-liquid investments, which can be redeemed in cash within 90 days from the investment date. Temporary short-term investments are recorded at cost at the reporting date, plus earnings accrued. Cash and cash equivalents are subject to an insignificant risk of change in value.

Financial investments of the Company and its subsidiaries refer to Bank Deposit Certificates - CDBs and Repurchase Agreements, which are the sale of a security with the commitment of the seller (Bank) to repurchase it, and of the purchaser to resell it in the future. Investments are remunerated between 78% and 100.8% of Interbank Deposit Certificate (Certificado de Depósito Interbancário - CDI) interest.

6 Bonds and Securities

The Company and its subsidiaries hold securities that yield variable interest rates. The term of these securities ranges from 1 to 52 months from the end of the reporting period.

Category	Index	Parent Company 12.31.2019	Parent Company 12.31.2018	Consolidated 12.31.2019	Consolidated 12.31.2018
Quotas in Funds (a)	CDI	90	123,560	225,804	286,855
Bank Deposit Certificates - CDB	95.0% to 101% of CDI	-	-	50,216	50,629
Committed Operation	96.5% to 100% of CDI	-	-	3,632	6,116
National Treasury Bills - LTN	CDI	-	-	1,696	-
Financial Treasury Bonds - LFT	Selic	-	-	733	696
		90	**123,560**	**282,081**	**344,296**
	Current	**90**	**123,560**	**3,112**	**124,862**
	Noncurrent	**-**	**-**	**278,969**	**219,434**

Interbank Deposit Certificate - CDI
Interest rate equivalent to the reference rate of the Special System for Settlement and Custody - Selic
(a) These are fixed income funds in the Parent Company and reserve accounts intended to comply with contracts with BNDES, in other companies.

7 Trade Accounts Receivable

Consolidated	Balances falling due	Overdue up to 90 days	Overdue for 90 days	Total 12.31.2019	Total 12.31.2018
Customers					
Residential	346,883	203,471	29,361	579,715	584,621
Industrial	184,959	30,440	83,320	298,719	365,020
Commercial	271,065	63,557	29,364	363,986	372,914
Rural	77,716	20,419	5,136	103,271	89,634
Public Entities	44,608	7,523	3,716	55,847	56,920
Public lighting	38,470	51	2	38,523	39,114
Public service	43,660	882	441	44,983	42,702
Unbilled - captives	516,203	-	-	516,203	478,328
Energy installments plan - captives (7.1)	124,151	16,280	63,761	204,192	197,951
Low income subsidy - Eletrobras	12,174	-	-	12,174	11,958
Free consumers	128,689				110,528
Other receivables	42,433	23,362	82,580	148,375	138,116
	1,831,011	**365,985**	**297,681**	**2,365,988**	**2,487,806**
Concessionaires, Permission holder and Trading Companies					
Bilateral contracts	183,973	74	7,416	191,463	186,252
Regulated contracts	148,410	4,289	6,793	159,492	66,294
CCEE (7.2)	196,047	-	119,665	315,712	323,657
Energy suplies	**344,457**	**4,289**	**126,458**	**475,204**	**389,951**
Charges from using transmission grid	**203,125**	**4,511**	**7,946**	**215,582**	**208,060**
Telecommunications	**50,752**	**10,094**	**6,458**	**67,304**	**62,985**
Gas distribution	**90,510**	**9,228**	**11,288**	**111,026**	**103,340**
Expected credit losses (7.3)	**(5,966)**	**(11,486)**	**(359,304)**	**(376,756)**	**(331,388)**
	2,513,889	**382,621**	**90,527**	**2,858,348**	**2,920,754**
Current				**3,120,168**	**2,944,091**
Noncurrent				**62,399**	**162,915**

7.1 Energy installments plan

The trade accounts receivable renegotiated are discounted to present value as of December 31, 2019, taking into consideration the future value, the maturity dates, the dates of settlement and the discount rate ranging from 0.26% to 2.81% p.m.

7.2 Electricity Trading Chamber - CCEE

Balance receivable by the electricity generation, trading and distribution subsidiaries deriving from the positive position in the monthly settlement of the spot market centralized by CCEE. Amounts are received in the second month following the recognition of revenue or offset against future settlements when the result is negative for the subsidiary.

The Company is challenging in court the request for exemption of responsibility so that the obligation to supply the energy sold from Colíder HPP should be postponed (Note 18.4).

From the amount determined by CCEE, for the controversial portion arising from the effects of the injunction for exemption of responsibility of Colíder HPP, an allowance for expected losses was recognized in the amount of R$ 119,665 (Note 7.3).

7.3 Expected credit losses

The expected credit losses are recorded based on the analysis of the credit realization risks in an amount considered sufficient to cover any losses on the realization of trade accounts receivable, considering specific criteria according to payment history, collection actions carried out to recover the credit and the materiality of the amount due in the receivables portfolio.

The Company considers the provision for expected credit losses of trade accounts receivable sufficient to cover losses on the realization of these assets, according to the breakdown below:

Consolidated	Balance as of January 1, 2018	Effects of applying new IFRS	Additions / (Reversals)	Reversal of write offs	Balance as of December 31, 2018	Additions / (Reversals)	Reversal of write offs	Balance as of December 31, 2019
Customers								
Residential	22,532	(5,708)	62,274	(57,376)	21,722	71,794	(51,692)	41,824
Industrial	78,779	4,394	10,367	(6,343)	87,197	33,772	(23,015)	97,954
Commercial	59,275	16,973	10,318	(16,849)	69,717	27,866	(26,658)	70,925
Rural	2,731	1,646	3,734	(4,301)	3,810	1,499	(1,920)	3,389
Public Entities	4,835	3,262	(1,313)	(1,910)	4,874	435	(419)	4,890
Public lighting	40	389	(304)	(5)	120	(117)	-	3
Public service	19	460	8	(288)	199	145	(79)	265
Unbilled	-	1,573	(71)	-	1,502	(322)	-	1,180
Adjustment to present value	-	(4,048)	1,165	-	(2,883)	1,442	-	(1,441)
	168,211	**18,941**	**86,178**	**(87,072)**	**186,258**	**136,514**	**(103,783)**	**218,989**
Concessionaires, Permission holder and Trading Companies								
CCEE (7.2)	119,665	-	-	-	119,665	-	-	119,665
Concessionaries and permission holder	14,189	4,155	(8,860)	(10)	9,474	11,608	(657)	20,425
	133,854	**4,155**	**(8,860)**	**(10)**	**129,139**	**11,608**	**(657)**	**140,090**
Telecommunications	**1,511**	**(1,233)**	**12,749**	**(9,148)**	**3,879**	**13,292**	**(12,022)**	**5,149**
Gas distribution	**6,254**	**-**	**6,017**	**(159)**	**12,112**	**1,063**	**(647)**	**12,528**
	309,830	**21,863**	**96,084**	**(96,389)**	**331,388**	**162,477**	**(117,109)**	**376,756**

Trade accounts receivable are written off when there is no reasonable expectation of recovery. Indications for this include, among other things, the inability of the debtor to participate in a plan to renegotiate its debt with the Company or to make contractual payments of overdue debts.

Expected credit losses are presented in selling expenses, in the group of Credit losses, provisions and reversals. Subsequent recoveries of amounts previously written off are also credited to selling expenses, in the group of Other operating costs and expenses, net.

8 CRC Transferred to the Paraná State Government

The Company's Management and the Paraná State Government formalized on October 31, 2017 the fifth amendment to the agreement for renegotiation of the Account for Compensation of Income and Losses - CRC. The State of Paraná complied with the agreed terms and made the payments of the monthly interest until December 2017. With the end of the grace period, the State of Paraná has complied with the payments under the agreed terms, remaining 64 monthly installments to be paid. The contract balance is updated by the IGP-DI variation and interest of 6.65% p.a.

8.1 Changes in CRC

Balance as of January 1, 2018	Interest	Monetary variations	Amortizations	Balance as of December 31, 2018	Interest	Monetary variations	Amortizations	Balance as of December 31, 2019
1,516,362	93,009	95,788	(260,117)	1,445,042	87,710	96,519	(278,586)	1,350,685
Current				**190,876**				**219,236**
Noncurrent				**1,254,166**				**1,131,449**

8.2 Maturity of noncurrent installments

2021	233,817
2022	249,367
2023	265,951
2024	283,638
After 2024	98,676
	1,131,449

9 Net Sectorial Financial Assets and Liabilities

The balance as of December 31, 2019 is composed of amounts related to amortization referring to the 2019 tariff adjustment, which represents the balance approved by ANEEL already included in the tariff, and of future tariff adjustment cycles (2020 tariff adjustment and 2021 periodic tariff review), whose amounts will be approved by ANEEL in the next tariff events.

9.1 Compositions of net sectorial financial assets and liabilities balances per tariff cycle

Consolidated	12.31.2019 Current	12.31.2019 Noncurrent	12.31.2018 Current	12.31.2018 Noncurrent
Sectorial financial assets - Electricity rate adjustment recoverable 2018				
Portion A				
Electricity purchased for resale - CVA Energ	-	-	274,495	-
Electricity purchased for resale - Itaipu	-	-	278,072	-
Transport of energy using the transmission system - basic grid	-	-	28,100	-
Transport of energy purchased from Itaipu	-	-	8,312	-
System Service Charges - ESS	-	-	(240,248)	-
Energy Development Account - CDE	-	-	16,434	-
Proinfa	-	-	3,007	-
Other financial components				
Neutrality	-	-	42,605	-
Overcontracting	-	-	(46,972)	-
Hydrological risk	-	-	(175,117)	-
Tariff refunds	-	-	(36,840)	-
CVA Angra III Adjustment	-	-	6,272	-
Other	-	-	5,429	-
	-	**-**	**163,549**	**-**
Sectorial financial assets - Electricity rate adjustment recoverable 2019				
Portion A				
Electricity purchased for resale - CVA Energ	235,192	-	176,198	176,198
Electricity purchased for resale - Itaipu	342,647	-	304,086	304,086
Transport of energy using the transmission system - basic grid	(47,214)	-	(29,307)	(29,307)
Transport of energy purchased from Itaipu	9,937	-	7,469	7,469
System Service Charges - ESS	(160,277)	-	(120,862)	(120,862)
Energy Development Account - CDE	98,722	-	71,325	71,325
Proinfa	8,528	-	(10)	(9)
Other financial components	-	-	-	-
Neutrality	29,690	-	40,212	40,211
Offset of energy surplus/deficit under CCEAR bilateral contracts	-	-	-	-
Overcontracting	(116,673)	-	(95,722)	(95,722)
Hydrological risk	(119,416)	-	(71,958)	(71,958)
Tariff refunds	(43,538)	-	(23,796)	(23,796)
Other	(448)	-	-	-
	237,150	**-**	**257,635**	**257,635**
Sectorial financial assets - Electricity rate adjustment recoverable 2019				
Portion A				
Electricity purchased for resale - CVA Energ	15,298	15,298	-	-
Electricity purchased for resale - Itaipu	225,340	225,340	-	-
Transport of energy using the transmission system - basic grid	30,126	30,126	-	-
Transport of energy purchased from Itaipu	7,227	7,227	-	-
System Service Charges - ESS	(52,336)	(52,336)	-	-
Energy Development Account - CDE	27,103	27,103	-	-
Proinfa	(30)	(30)	-	-
Other financial components	-	-	-	-
Neutrality	9,408	9,408	-	-
Offset of energy surplus/deficit under CCEAR bilateral contracts	20,096	20,096	-	-
Overcontracting	(25,725)	(25,725)	-	-
Hydrological risk	(113,872)	(113,872)	-	-
Tariff refunds	(24,215)	(24,216)	-	-
	118,420	**118,419**	**-**	**-**
	355,570	**118,419**	**421,184**	**257,635**

Consolidated	12.31.2019		12.31.2018	
	Current	Noncurrent	Current	Noncurrent
Sectorial financial liabilities - Tariff Review 2021				
Financial components				
Tariff refunds	-	(102.284)	-	(96.531)
	-	**(102.284)**	**-**	**(96.531)**
	-	**(102.284)**	**-**	**(96.531)**

9.2 Changes in net sectorial financial assets and liabilities

Consolidated	Balance as of December 31, 2018	Operating revenues Constitution	Operating revenues Amortization	Financial results Updating	Rate flags	Balance as of December 31, 2019
Portion A						
Electricity purchased for resale - Itaipu	886,243	533,057	(670,501)	44,528	-	793,327
Electricity purchased for resale - CVA Energ	626,891	358,200	(546,801)	29,909	(202,411)	265,788
Transport of energy using the transmission system - basic grid	(30,514)	22,917	23,688	(3,053)	-	13,038
Transport of energy purchased from Itaipu	23,250	19,531	(19,692)	1,302	-	24,391
ESS	(481,972)	(188,280)	427,177	(21,874)	-	(264,949)
CDE	159,084	110,752	(127,190)	10,282	-	152,928
Proinfa	2,989	17,396	(12,636)	719	-	8,468
Other financial components						
Neutrality	123,028	(1,122)	(74,698)	1,298	-	48,506
Offset of energy surplus/deficit under CCEAR bilateral contracts	5,237	80,385	(45,430)	-	-	40,192
CVA Angra III Adjustment	6,272	-	(6,272)	-	-	-
Hydrological risk	(319,033)	(324,504)	304,197	(7,820)	-	(347,160)
Tariff refunds	(180,963)	(89,327)	83,900	(7,863)	-	(194,253)
Overcontracting	(238,416)	(22,166)	173,087	(5,774)	(74,854)	(168,123)
Others	192	(905)	294	(29)	-	(448)
	582,288	**515,934**	**(490,877)**	**41,625**	**(277,265)**	**371,705**
Current assets	**421,184**					**355,570**
Noncurrent assets	**257,635**					**118,419**
Noncurrent liabilities	**(96,531)**					**(102,284)**

Consolidated	Balance as of December 31, 2017	Operating revenues Constitution	Operating revenues Amortization	Financial results Updating	Rate flags	Balance as of December 31, 2018
Portion A						
Electricity purchased for resale - Itaipu	537,704	661,144	(348,586)	35,981	-	886,243
Electricity purchased for resale - CVA Energ	497,885	710,482	(129,555)	31,053	(482,974)	626,891
Transport of energy using the transmission system - basic grid	47,239	(36,959)	(43,101)	2,307	-	(30,514)
Transport of energy purchased from Itaipu	12,923	21,526	(12,194)	995	-	23,250
ESS	(591,408)	(302,226)	443,817	(32,155)	-	(481,972)
CDE	(141,893)	231,308	69,851	(182)	-	159,084
Proinfa	(5,188)	6,111	2,024	42	-	2,989
Other financial components						
Neutrality	121,247	100,280	(100,661)	2,162	-	123,028
CVA Angra III Adjustment	48,193	8,482	(57,214)	6,811	-	6,272
Hydrological risk	(187,928)	(310,975)	189,289	(9,419)	-	(319,033)
Tariff refunds	(145,774)	(80,493)	52,290	(6,986)	-	(180,963)
Overcontracting	(136,325)	(54,421)	(37,176)	(10,494)	-	(238,416)
Others	3,024	11,193	(8,892)	104	-	5,429
	59,699	**965,452**	**19,892**	**20,219**	**(482,974)**	**582,288**
Current assets	**171,609**					**421,184**
Noncurrent assets	**171,609**					**257,635**
Current liabilities	**(192,819)**					**-**
Noncurrent liabilities	**(90,700)**					**(96,531)**

9.2.1 Electricity purchased for resale - Itaipu

The power output from the Itaipu hydroelectric power plant is sold as quotas to utility companies in the South, Southeast and Midwest Brazilian regions in proportion to their markets, whose value is set in dollars per kilowatt of contracted monthly power (USD/kW). The invoices are paid in Brazilian currency and are used for currency conversion, the average USD sales rate calculated by the Central Bank of Brazil, on the business day immediately prior to the payment of the invoice.

9.2.2 Electricity purchased for resale - CVA Energy

The balance constituted reflects the difference between the average price of payment related to the cost of energy purchased and the average price of tariff coverage, mainly due to the effects of contracting by availability (ECD) - associated with the dispatch of thermal plants and generation of wind farms and the transfer of the hydrological risk associated with the plants committed to Contracts of Quotas of Assured Power - CCGF, as well as the enterprises that signed the renegotiation term.

9.2.3 Energy Development Account - CDE

The balance of the CDE in 2019 is the result of the higher amount of monthly payment quotas, except in this case the CDE discounts resulting from preliminary injunctions, ratified by ANEEL (Note 32.3.1), in relation to the regulatory quota in the electricity tariff.

9.2.4 System Service Charges - ESS

The objective of the ESS is to cover the cost of maintaining the reliability and stability of the electrical system. Its calculation is performed monthly by CCEE and paid by the distributor and by generation agents. The ESS liability balance set up in 2019 is the result of the lower amount paid in relation to the amount included in the tariff, mainly due to the variation of the costs related to the dispatch of thermal plants.

9.2.5 Neutrality

Portion A's neutrality corresponds to the estimate of the recoverable portion of the sector charges, energy, transportation, financial components and unrecoverable revenues, not billed by the current, and should be understood as the guarantee of transfer to consumers of all the components over which the distributor has no managing power.

9.2.6 Hydrological risk

In the tariff adjustment of 2019, there was calculation of the coverage of the hydrological risks associated with plants committed to Contract of Quotas of Assured Power - CCGF, of the Itaipu plant and of the hydroelectric power plants whose energy was contracted within the Regulated Contracting Environment - ACR and that signed the Risk Renegotiation Term in conformity with Law No. 13,203/2015. The estimated hydrological risk defined in the tariff adjustment will be reversed in the subsequent tariff adjustment, adjusted by the Selic rate.

9.2.7 Tariff refunds

ANEEL, by means of Order No. 245 of January 28, 2016, in line with the Tariff Regulation Procedures - Proret, sub-module 2.1 - General Procedures, determined that the amounts resulting from excess demand and surplus of reagents previously recorded as special obligations should be recorded as sector financial liabilities.

9.2.8 Overcontracting

For the calculation of the transfer of energy overcontracting or exposure to the short-term market, it is necessary to calculate the results in the short-term market of the distributor with data made available by CCEE. Even though contracting management mechanisms have contributed to significantly reduce the risk of over-contracting, the indicators associated with supply and demand point to the occurrence of 105.8% for Copel Distribuição.

10 Accounts Receivable - Concessions

Consolidated	**12.31.2019**	**12.31.2018**
Power distribution service concession (10.1)	836,818	783,023
Piped gas distribution service concession (10.2)	324,385	322,259
Bonus from the grant of concession agreements under the quota system (10.3)	647,984	625,772
Remeasurement of RBSE assets (10.4)	739,269	753,826
Generation concession agreements (10.5)	69,182	65,811
	2,617,638	**2,550,691**
Current	**58,842**	**53,177**
Noncurrent	**2,558,796**	**2,497,514**

10.1 Power distribution service concession

Balance as of January 1, 2018	**684,206**
Transfers from contract assets (Note 11.1)	66,380
Transfers to other receivables (assets held for disposal)	(1,334)
Fair value recognition	35,306
Loss on disposal	(1,535)
Balance as of December 31, 2018	**783,023**
Transfers from contract assets (Note 11.1)	28,987
Transfers from investments	348
Transfers to other receivables (assets held for disposal)	(1,578)
Fair value recognition	26,231
Incorporations (a)	(75)
Loss on disposal	(118)
Balance as of December 31, 2019	**836,818**

(a) Incorporation of assets and equipment through transfer free of charge, of which the amounts were classified in concession related receivables and in intangible assets (Note 19.1).

The distribution concession agreement amount is measured at fair value and its collection is assured by the Concession Grantor through an indemnity upon the return of these assets at the end of the concession period.

10.2 Piped gas distribution service concession

Balance as of January 1, 2018	**303,668**
Transfers from contract assets (Note 11.2)	6,399
Fair value recognition	12,193
Loss on disposal	(1)
Balance as of January 1, 2019	**322,259**
Transfers from contract assets (Note 11.2)	16,574
Transfers to intangible assets (Note 19.3)	(24,835)
Fair value recognition	10,415
Loss on disposal	(28)
Balance as of December 31, 2019	**324,385**

10.3 Bonus from the grant of concession agreements under the quota system

Balance as of January 1, 2018	**606,479**
Transfers to electricity grid use charges - customers	(66,693)
Interest (Note 32)	85,986
Balance as of December 31, 2018	**625,772**
Transfers to electricity grid use charges - customers	(69,192)
Interest (Note 32)	91,404
Balance as of December 31, 2019	**647,984**

On January 5, 2016, Copel GeT entered into a 30-year concession agreement of HPP GPS, in accordance with Law No. 12,783/2013, with payment of the Bonus from the Grant - BO to the Concession Grantor, amounting to R$ 574,827, as per ANEEL Invitation to Bid 12/2015.

The electric energy in 2016 was fully sold to the Regulated Contracting Environment - ACR under the Assured Power Quota System - CGF or “quota regime” and, as from 2017 to the end of the concession, in the proportion of 70% of the power in the ACR and 30% in the free environment - ACL.

The amount of the bonus for the grant was recognized as a financial asset due to the Copel GeT’s unconditional right to receive the amount paid with inflation adjustment based on IPCA and interest during the concession period.

10.4 Remeasurement of RBSE financial assets

Balance as of January 1, 2018	**1,418,370**
Transfers to contract assets (Note 11.3)	(635,292)
Gain on the cash flow from the assets	82,640
Transfers to electricity grid use charges - customers	(111,892)
Balance as of December 31, 2018	**753,826**
Gain on the cash flow from the assets	90,345
Transfers to electricity grid use charges - customers	(104,902)
Balance as of December 31, 2019	**739,269**

Refers to the right recognized, emerging of Concession Agreement No. 060/2001 arising from the Annual Permitted Revenue - RAP not received in the period from January 2013 to June 2017. The balance includes monetary restatement and interest.

On June 27, 2017, ANEEL published Resolution 2,258 establishing the Annual Permitted Revenues (RAP) for the 2017-2018 tariff cycle, considering a court decision on the injunction of April 11, 2017 related to a lawsuit filed by business associations, which determines the deduction of the "compensation", provided for in article 15, paragraph 2 of Law 12,783/2013, on a temporary basis. The same decision was applied to the other tariff cycles. The compensation being challenged in court related to the cost of equity calculated for the RBSE assets from January 2013 to June 2017, at the time of filing of the lawsuit, is R$ 201,795.

Based on the opinion of its legal counsel, Copel GeT understands that this is a provisional decision that does not oppose its right to receive the due amounts related to RBSE assets, and that these are guaranteed by law. Therefore, the receivables considered in the receipt flow of this asset are recorded in noncurrent assets.

10.5 Power generation concession contract

Balance as of January 1, 2018	**68,859**
Transfers to other current receivables - disposal of assets	(9,053)
Gain on remeasurement of the cash flow	1,247
Reversal of impairment (Note 33.4)	4,758
Balance as of December 31, 2018	**65,811**
Gain on remeasurement of the cash flow	426
Reversal of impairment (Note 33.4)	2,945
Balance as of December 31, 2019	**69,182**

The balance refers to the electricity generation assets, due to the expiration of the concessions of HPP GPS and HPP Mourão I. Copel GeT depreciated the plants until the expiration date of the concessions and the residual balances of the assets were reclassified to accounts receivable linked to the concession. Although the Granting Authority has not yet disclosed the form of payment of remuneration of the assets and despite uncertainties regarding the approval of the investments made, Management's expectation about indemnification for these assets indicates the recoverability of the recorded balance, based on the remuneration methodology established by ANEEL.

The variation in the remeasurement of the cash flow of these assets was matched against Other Revenues account, within the group of Other operating costs and expenses, net.

Copel GeT timely manifested to ANEEL its interest in receiving the indemnifiable amount. Formalization of proof of realization of the respective investments to ANEEL occurred on December 17, 2015. To prepare the information, the new replacement value methodology was used, as defined by ANEEL Normative Resolution No. 596/2013.

11 Contract assets

Consolidated	12.31.2019	12.31.2018
Power distribution service concession (11.1)	844,284	640,500
Piped gas distribution service concession (11.2)	26,734	25,718
Power transmission concession (11.3)	3,180,366	2,767,012
	4,051,384	**3,433,230**
Current	**107,443**	**85,019**
Noncurrent	**3,943,941**	**3,348,211**

Until December 31, 2017, the balances of the electricity transmission concession contracts were classified as a financial asset under the scope of IAS 39 and IFRIC 12, and the balances of works in progress of energy distribution and piped gas were classified as intangible assets under the scope of IFRIC 12.

On January 1, 2018, with the entry into force of IFRS 15 and the revision of IFRIC 12, the Company started to classify these balances as contract assets. The adoption of the IFRS was carried out prospectively, according to the changes presented below.

11.1 Power distribution service concession contract

Consolidated	Assets	Special liabilities	Total
Balance as of January 1, 2018	**-**	**-**	**-**
Transfers from intangible assets (Note 19.1)	714,446	(26,100)	688,346
Acquisitions	797,832	-	797,832
Customers contributions	-	(106,764)	(106,764)
Provision for legal claims added to the cost of the works	4,320	-	4,320
Transfers to intangible assets (Note 19.1)	(775,701)	107,679	(668,022)
Transfers from/to accounts receivable - concessions (Note 10.1)	(67,310)	930	(66,380)
Loss on disposal	(8,832)	-	(8,832)
Balance as of December 31, 2018	**664,755**	**(24,255)**	**640,500**
Acquisitions	1,021,644	-	1,021,644
Customers contributions	-	(104,067)	(104,067)
Provision for legal claims added to the cost of the works	1,823	-	1,823
Transfers from/to intangible assets (Note 19.1)	(771,844)	93,164	(678,680)
Transfers from/to accounts receivable - concessions (Note 10.1)	(33,075)	4,088	(28,987)
Loss on disposal	(7,949)	-	(7,949)
Balance as of December 31, 2019	**875,354**	**(31,070)**	**844,284**

The costs of borrowings, financing and debentures capitalized in 2019 totaled R$ 6,838, at average rate of 0.28% p.a. (R$ 5,435, at average rate of 0.26% p.a. in 2018).

11.2 Piped gas distribution service concession contract

Balance as of January 1, 2018	**-**
Transfers from intangible assets (Note 19.3)	19,471
Acquisitions	15,618
Transfers to intangible assets (Note 19.3)	(2,042)
Transfers from/to accounts receivable - concessions (Note 10.1)	(6,399)
Loss on disposal	(930)
Balance as of December 31, 2018	**25,718**
Acquisitions	17,590
Transfers to accounts receivable - concessions (Note 10.2)	(16,574)
Balance as of December 31, 2019	**26,734**

11.3 Transmission service concession contract

Balance as of January 1, 2018	**-**
Transfers from/to accounts receivable - concessions	1,497,399
Transfers from accounts receivable linked to the concession - RBSE (Note 10.4)	635,292
Effect of the acquisition of control of the West Coast and Marumbi	258,908
Transfers to electricity grid use charges - customers	(243,247)
Transfers to property, plant and equipment	(501)
Transfers from litigations	8,277
Remuneration	268,904
Construction revenue	297,018
Construction income	44,962
Balance as of December 31, 2018	**2,767,012**
Business combinations effects (Note 1.2)	117,942
Realização de mais/menos valia em combinações de negócios	282
Transfers to electricity grid use charges - customers	(286,158)
Transfers to property, plant and equipment	(3,353)
Transfers from litigations	(313)
Remuneration	368,514
Construction revenue	173,733
Construction income	42,707
Balance as of December 31, 2019	**3,180,366**

12 Other Receivables

	Parent Company		Consolidated	
	12.31.2019	12.31.2018	12.31.2019	12.31.2018
Fair value in the purchase and sale of power in the active market (Note 36.2.12)	-	-	460,635	14,793
Services in progress (a)	7,444	7,444	228,593	165,973
Credits on purchases of gas (12.1)	-	-	142,941	112,003
CDE Transfer (12.2)	-	-	61,898	107,472
Advance payments to employees	282	319	24,073	22,096
Decommissioning in progress	-	-	21,238	19,457
Advance payments to suppliers (b)	463	453	20,427	21,201
Tariff flag - CCRTB	-	-	19,545	28,725
Advance for severance estate	-	-	15,597	19,591
Other receivables	323	6,255	93,677	80,833
	8,512	**14,471**	**1,088,624**	**592,144**
Current	**1,068**	**7,027**	**426,865**	**363,250**
Noncurrent	**7,444**	**7,444**	**661,759**	**228,894**

CCRTB - Centralizing account of Tariff Flag Resources.
(a) This item refers to services currently in progress within the Company, most of which are related to the Research and Development and Energy Efficiency programs, which upon conclusion are offset against the respective liability recorded for this purpose.
(b) Advances to suppliers provided on contractual clauses.

12.1 Credits on purchases of gas - Compagás

This balance refers to the gas acquisition of contracted and guaranteed volumes, higher than those actually withdrawn and used, and contains a future compensation clause. Compagás has the right to use the gas in subsequent months and can compensate the volume contracted and not consumed until 2022. According to the contractual provisions and consumption perspectives, derived from the review of the projects and scenarios for the next years, Compagás estimates to fully offset the contracted volumes in the course of its operation. The contracts with Petrobras provide for the right to dispose of this asset. The expiration date of the concession is in discussion with the Concession Grantor, as described in Note 2.1.1.

12.2 CDE Transfer

The balance on December 31, 2019 refers to CDE amounts to be transferred to the Company to cover the tariff discounts applicable to the tariff, in accordance with Law 10,438/2002 and Decree 7,891/2013. The amount transferred to Copel DIS for the period from June 2018 to May 2019, in accordance with Resolution 2,402/2018, was R$ 62,699 per month. As from June 2019, this amount was changed to R$ 51,200 per month, by Resolution 2,559, dated June 18, 2019, which approved the result of the last Annual Tariff Adjustment

13 Taxes

13.1 Deferred income tax and social contribution

13.1.1 Income Tax and Social Contribution

The taxation on profit comprises income tax and social contribution calculated based on the taxable profits (adjusted profit) of each taxable entity at the applicable tax rates according to prevailing legislation, namely, at 15%, plus 10% surtax on the amount exceeding R$ 240 per year, for income tax and at 9% for social contribution.

Income tax and social contribution losses can be offset against future taxable profits, considering the limit of 30% of the taxable profit for the period, and can be carried forward indefinitely.

13.1.2 Deferred income tax and social contribution

The Company, based on its profitability history and the expectation of generating future taxable profits, based on its internal projections prepared for reasonable periods for its business, sets up a deferred tax asset on temporary differences between the tax bases and on tax losses and negative tax basis.

The deferred income tax and social contribution are recognized on temporary differences between the carrying amounts of assets and liabilities in the financial statements and the corresponding tax bases used for tax calculation purposes, to the extent that it is probable that there will be sufficient taxable profits against which the temporary differences can be utilized and the tax losses can be offset.

Deferred tax assets and liabilities may be offset if there is a legal right to offset the current tax assets and liabilities and they relate to the same taxing authority.

Parent Company	Balance as of January 01, 2018	Recognized in income	Recognized comprehensive income	Balance as of December 31, 2018	Recognized in income	Recognized comprehensive income	Balance as of December 31, 2019
Noncurrent assets							
Provisions for legal claims	86,732	13,391	-	100,123	4,315	-	104,438
Expected credit losses	12,719	36,724	-	49,443	-	-	49,443
Amortization - concession	19,680	383	-	20,063	381	-	20,444
Provision for financing	3,457	(2)	-	3,455	-	-	3,455
Post-employment benefits	1,374	169	139	1,682	167	1,146	2,995
Others	2,500	35,955	-	1,731	1,043	-	2,774
	126,462	**86,620**	**139**	**176,497**	**5,906**	**1,146**	**183,549**
(-) Noncurrent liabilities							
Escrow deposits monetary variation	18,349	3,910	-	22,259	(1,398)	-	20,861
Transaction cost on borrowings and debentures	3,615	726	-	4,341	(1,341)	-	3,000
Financial instruments	2,262	267	-	2,529	2,795	-	5,324
	24,226	**4,903**	**-**	**29,129**	**56**	**-**	**29,185**
Net	**102,236**	**81,717**	**139**	**147,368**	**5,850**	**1,146**	**154,364**

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Consolidated	Balance as of January 01, 2018	Recognized in income	Effects of applying new IFRS	Business combination effect	Recognized comprehensive income	Balance as of December 31, 2018	Recognized in income	Business combination (Note 1.2)	Recognized comprehensive income	Balance as of December 31, 2019
Noncurrent assets										
Provisions for legal claims	514,358	55,123	-	3,696	-	573,177	(62,044)	6,237	-	517,370
Post-employment benefits	293,611	15,080	-	-	19,994	328,685	13,285	-	63,444	405,414
Impairment of assets	310,561	17,450	-	-	-	328,011	57,456	-	-	385,467
Research and development and energy efficiency programs	156,325	(1,834)	-	-	-	154,491	10,840	-	-	165,331
Expected credit losses	113,380	(6,838)	7,468	-	-	114,010	17,811	-	-	131,821
Tax losses and negative tax basis	110,658	(39,518)	-	-	-	71,140	27,102	-	-	98,242
Social security contributions - injunction on judicial deposit	60,856	6,154	-	-	-	67,010	4,190	-	-	71,200
Amortization - concession	48,722	4,617	-	-	-	53,339	5,005	-	-	58,344
Provision for profit sharing	22,270	8,278	-	-	-	30,548	21,567	-	-	52,115
Concession contracts	24,906	(1,300)	-	-	-	23,606	(1,253)	-	-	22,353
Provision for energy purchases	129,877	25,693	-	-	-	155,570	(137,531)	-	-	18,039
Others	97,092	49,673	1,006	-	-	147,771	(4,512)	-	-	143,259
	1,882,616	**132,578**	**8,474**	**3,696**	**19,994**	**2,047,358**	**(48,084)**	**6,237**	**63,444**	**2,068,955**
(-) Noncurrent liabilities										
Concession contracts	535,726	68,475	-	9,457	-	613,658	99,817	(1,026)	-	712,449
Deemed cost	449,884	(34,559)	-	-	-	415,325	(34,116)	-	-	381,209
Derivative financial instruments	-	5,030	-	-	-	5,030	65,915	-	-	70,945
Escrow deposits monetary variation	55,328	8,839	-	-	-	64,167	(3,022)	-	-	61,145
Accelerated depreciation	26,401	6,281	-	-	-	32,682	17,640	-	-	50,322
Transaction cost on borrowings and debentures	21,538	9,589	-	-	-	31,127	981	-	-	32,108
Others	34,877	851	-	-	-	35,728	6,849	-	-	42,577
	1,123,754	**64,506**	**-**	**9,457**	**-**	**1,197,717**	**154,064**	**(1,026)**	**-**	**1,350,755**
Net	**758,862**	**68,072**	**8,474**	**(5,761)**	**19,994**	**849,641**	**(202,148)**	**7,263**	**63,444**	**718,200**
Assets presented in the Statement of Financial Position	915,492					1,007,061				1,011,866
(-) Liabilities presented in the Statement of Financial Position	(156,630)					(157,420)				(293,666)

13.1.3 Realization of deferred taxes

The projection of deferred tax credits realization recorded in noncurrent assets and liabilities is based on the average realization period of each item of deferred assets and liabilities and tax losses, also based on projections of future results. These projections were evaluated by the Supervisory Board on March 17, 2020 and approved by the Board of Directors on March 25, 2020. The items that were the basis for the constitution of the main credits, as well as their form of realization are as follows:

- Amounts recorded on provisions for post-employment benefits will be realized as the payments are made to the Copel Foundation or reversed according to new actuarial estimates;

- Amounts set up on the provisions for legal claims will be realized according to court decisions or by the reversal when the possible risk of the shares is reviewed;

- Amounts set up on the provision for impairment of assets will be realized through the amortization and/or depreciation of the impaired asset;

- Amounts set up on the provision for purchase of energy and charges of the main distribution and transmission grid will be realized upon the effective obligation of the amounts provisioned or by the reversal of the provision;

- Amounts set up on the provisions for R&D and PEE will be realized through the expenses incurred in the projects carried out;

- Amounts recorded on the deemed cost will be realized through the amortization and/or depreciation of the valued asset;

- Amounts related to the concession agreement will be realized over the term of the agreement;

- Amounts related to tax losses and negative tax basiswill be recovered by offsetting against future taxable income;

- Other amounts: realized when they meet the deductibility criteria provided for in tax legislation, or upon reversal of the recorded amounts.

The projected realization of the deferred taxes is shown below:

	Parent Company		Consolidated	
	Assets	**Liabilities**	**Assets**	**Liabilities**
2020	2,114	(1,594)	329,177	(96,763)
2021	299	(1,033)	258,853	(98,388)
2022	299	(372)	143,599	(91,131)
2023	299	-	136,665	(102,510)
2024	299	-	84,208	(80,290)
2025 to 2027	897	-	158,702	(209,525)
2028 to 2029	179,342	(26,186)	957,751	(672,148)
	183,549	**(29,185)**	**2,068,955**	**(1,350,755)**

13.1.4 Unrecognized tax credits

As of December 31, 2019, UEG Araucária did not recognize income tax and social contribution credits on income tax and social contribution tax losses in the amount of R$ 83,273 for not having, at that moment, reasonable assurance of generation of future taxable profits sufficient to allow the utilization of these tax credits.

13.2 Other taxes recoverable and other tax obligations

	Parent Company		Consolidated	
	12.31.2019	12.31.2018	12.31.2019	12.31.2018
Current assets				
Recoverable ICMS (VAT)	-	-	103,977	96,072
Recoverable PIS/Pasep and Cofins taxes	-	321	98,942	64,200
Other recoverable taxes	-	-	2,141	570
	-	**321**	**205,060**	**160,842**
Noncurrent assets				
Recoverable ICMS (VAT)	-	-	74,568	50,306
PIS/Pasep and Cofins taxes	87,583	86,097	213,667	147,380
Other recoverable taxes	14	13	33,776	33,714
	87,597	**86,110**	**322,011**	**231,400**
Current liabilities				
ICMS (VAT) payable	-	-	179,662	185,634
PIS/Pasep and Cofins payable	-	-	125,197	115,345
IRRF on JSCP	-	-	117,807	23,687
Special Tax Regularization Program - Pert	-	-	49,310	46,777
Ordinary financing of taxes with the federal tax authorities	-	-	18,063	64,974
Other taxes	120	152	11,029	15,016
	120	**152**	**501,068**	**451,433**
Noncurrent liabilities				
Social security contributions - injunction on judicial deposit	2,817	2,602	209,747	197,413
Special Tax Regularization Program - Pert	-	-	447,897	471,665
Ordinary financing of taxes with the federal tax authorities	-	-	-	21,658
TCFRH (a)	-	-	-	101,821
Other taxes	-	-	4,470	4,175
	2,817	**2,602**	**662,114**	**796,732**

(a) Control, Monitoring and Inspection Fee for Exploration Activities and the Use of Water Resources - as a result of the repeal of the law that instituted the referred fee, the Company, based on the opinion of its legal advisors, concluded that the conditions to maintain the provision were not satisfied and reversed the balance, so that R $ 97,664 was recorded in the operating result (Note 33.6) and R $ 4,157 in the financial result.

Sales and services revenues are subject to value-added tax (Imposto sobre Circulação de Mercadorias e Serviços or ICMS) and service tax (Imposto sobre Serviços or ISS), at the applicable rates, and to the PIS (Social Integration Program) and COFINS (Contribution for Social Security Funding).

Credits resulting from non-cumulative PIS and COFINS charges are accounted for as reductions to operating costs in the statement of income.

Credits arising from non-cumulative ICMS, PIS and COFINS related to the purchase of assets are presented as reductions to the acquisition cost of these assets.

Prepayments or amounts that can be offset are presented in current and non-current assets, according to their expected realization.

13.2.1 Pis/Pasep and Cofins credit on ICMS

The final and unappealable ruling has been rendered in connection with the lawsuit through which Compagás was claiming exclusion of ICMS from the PIS/Pasep and Cofins tax bases. Due to this favorable ruling, the Company recorded the credit right of R$ 143,618 under Other Taxes Recoverable with corresponding entry of R$ 105,184 in operating revenue (Note 32.1) and R$ 38,434 in financial income (Note 34.1).

In addition, Copel DIS filed a writ of mandamus requesting the exclusion of the ICMS amount in the basis for calculating contributions to Pis and Cofins. The referred process is in the final stage of appeals at the Supreme Court of Justice and the Company has been obtaining favorable decisions in all previous stages of the process. The Company awaits the final and unappealable decision of the lawsuit, the modulation of the effects by the Supreme Federal Court of Extraordinary Appeal nº 574,706, as well as the final result of the Taking of Subsidies nº 005/2020 by ANEEL.

13.2.2 Special Regime for Tax Regularization (PERT)

Copel DIS joined PERT in 2017, considering the benefits offered by the program in the face of the change in the CVA tax regime, from a billing regime to an accrual basis. The payment of 20% of the debt occurred in 2017 and as of January 2018 the payment of the balance began in 145 monthly installments of R$ 3,572, adjusted by the Selic rate. In December 2018, the Federal Revenue Service of Brazil consolidated the debts presented by the Company, which has been paying its installments on time

13.3 Reconciliation of provision for income tax (IRPJ) and social contribution (CSLL)

	Parent Company		Consolidated	
	12.31.2019	12.31.2018	12.31.2019	12.31.2018
Income before IRPJ and CSLL	**2,005,291**	**1,364,153**	**2,702,195**	**1,955,997**
IRPJ and CSLL (34%)	**(681,799)**	**(463,812)**	**(918,746)**	**(665,039)**
Tax effects on:				
Equity in income	447,564	411,195	36,297	46,203
Interest on own capital	218,620	95,200	222,848	98,917
Dividends	192	280	192	280
Non deductible expenses	(107)	(30)	(16,571)	(9,322)
Tax incentives	161	68	17,804	16,465
Unrecognized income and social contribution tax loss carry-forwards	-	-	(48,892)	(15,383)
Setting up and/or offset of income tax and social contribution losses of prior years	-	-	-	5,037
Difference between the calculation bases of deemed profit and taxable profit	-	-	72,175	11,076
Others	24	9	(4,433)	(227)
Current IRPJ and CSLL	**(21,195)**	**(2,083)**	**(433,555)**	**(580,065)**
Deferred IRPJ and CSLL	**5,850**	**44,993**	**(205,771)**	**68,072**
Effective rate - %	0.8%	-3.1%	23.7%	26.2%

14 Prepaid Expenses

Consolidated		12.31.2019	12.31.2018
Risk premium - GSF renegotiation (14.1)		3,180	12,574
Others		30,515	31,535
		33,695	**44,109**
	Current	**33,563**	**40,819**
	Noncurrent	**132**	**3,290**

14.1 Hydrological risk renegotiation (Generation Scaling Factor - GSF)

In accordance with Hydrological Risk Renegotiation Term and previously mentioned regulations, the companies acquired the right to partially recover the cost with MRE (GSF) in 2015, in the amount of R$ 33.55 per average MW of electricity for SP100 product class, based on the risk premium contracted by them (Note 4.9.2).

The amounts originally recognized on the renegotiation of the hydrological risk were as follows

Power Plant	Physical guarantee (Average MW)	Eligible amount of energy (Average MW)	Amortization period of prepaid expenses	Grant extension period (intangible asset)	Asset value to recover as renegotiation of GSF	Value of prepaid expenses to amortize with future risk premium	Value of intangible assets amortization over the concession period
Mauá	100.827	97.391	01.01.2016 to 06.30.2020	not applicable	28,623	28,623	-
Foz do Areia	576,000	226.705	01.01.2016 to 12.31.2016	05.24.2023 to 09.17.2023	66,628	17,222	49,406
Santa Clara and Fundão	135,400	134.323	01.01.2016 to 04.22.2019	10.25.2036 to 05.28.2037	39,369	30,326	9,043
		458.419			**134,620**	**76,171**	**58,449**

The composition of the records on 12.31.2019 is shown below:

Consolidated	Balance as of January 01, 2018	Amortization	Transfers	Balance as of December 31, 2018	Amortization	Transfers	Balance as of December 31, 2019
Risk premium - current asset	15,459	(15,459)	9,394	9,394	(9,394)	3,180	3,180
Risk premium - noncurrent asset	12,574	-	(9,394)	3,180	-	(3,180)	-
Intangible	45,745	(7,038)	-	38,707	(7,040)	-	31,667
	73,778	**(22,497)**	**-**	**51,281**	**(16,434)**	**-**	**34,847**
Risk premium to be amortized - prepaid expenses	**28,033**			**12,574**			**3,180**
Grant extension period - intangible	**45,745**			**38,707**			**31,667**

15 Receivables from Related Parties

		Parent Company
	12.31.2019	12.31.2018
Current assets		
Subsidiaries		
Structure sharing	6,039	8,134
Nocurrent assets		
Subsidiaries		
Copel DIS (15.1)	108,983	104,751
Current liabilities		
Subsidiaries		
Structure sharing	696	755
Current liabilities		
Subsidiaries		
Advance- Elejor	145	-

15.1 Copel DIS - Financing transferred - STN

The Company transferred loans and financing to its wholly-owned subsidiaries at the time of its establishment in 2001. However, since the contracts for the transfers to the subsidiaries were not subject to formalization with the financial institutions, these commitments are also recorded in the Parent company.

The balance with Copel DIS refers to the National Treasury Department - STN financing, transferred with the same levy of charges assumed by the Company (Note 22) and shown as obligations for loans and financing at Copel DIS.

16 Judicial Deposits

		Parent Company		Consolidated
	12.31.2019	12.31.2018	12.31.2019	12.31.2018
Taxes claims	**122,422**	**131,791**	**351,402**	**369,423**
Labor claims	**175**	**49**	**85,187**	**84,908**
Civil				
Civil	-	-	53,260	63,484
Easements	-	-	5,076	3,280
Customers	-	-	1,897	1,861
	-	**-**	**60,233**	**68,625**
Others	**1,622**	**-**	**7,368**	**5,334**
	124,219	**131,840**	**504,190**	**528,290**

17 Investments

17.1 Changes in investments

Parent Company	Balance as of December 31, 2018	Equity	Equity valuation adjustments	Investment/ Advance for future capital increase	Capital decrease	Amorti-zation	Dividends and JSCP	Balance as of December 31, 2019
Subsidiaries								
Copel GeT	8,911,964	1,310,280	(25,539)	-	-	-	(447,000)	9,749,705
Copel DIS	5,908,755	701,393	(86,837)	-	-	-	(511,065)	6,012,246
Copel TEL	638,873	(151,040)	(9,905)	232,200	-	-	-	710,128
Copel REN	28,749	586	(160)	-	-	-	-	29,175
Copel Energia	83,468	135,306	(948)	25,385	-	-	(88)	243,123
UEG Araucária (17.2)	74,132	(20,166)	(1,192)	11,320	-	-	-	64,094
Compagás (17.2)	221,654	88,216	(651)	-	-	-	(24,472)	284,747
Elejor (17.2)	37,785	18,288	-	-	-	-	(26,071)	30,002
Elejor - concession rights	13,008	-	-	-	-	(754)	-	12,254
	15,918,388	**2,082,863**	**(125,232)**	**268,905**	**-**	**(754)**	**(1,008,696)**	**17,135,474**
Joint Ventures								
Voltalia São Miguel do Gostoso I (17.3)	110,568	(3,409)	-	2,940	-	-	-	110,099
Voltalia São Miguel do Gostoso - authorization rights	10,405	-	-	-	-	(367)	-	10,038
	120,973	**(3,409)**	**-**	**2,940**	**-**	**(367)**	**-**	**120,137**
Associates								
Dona Francisca Energética (17.4)	29,144	9,853	-	-	-	-	(10,574)	28,423
Other	2,062	1	-	123	-	-	-	2,186
	31,206	**9,854**	**-**	**123**	**-**	**-**	**(10,574)**	**30,609**
	16,070,567	**2,089,308**	**(125,232)**	**271,968**	**-**	**(1,121)**	**(1,019,270)**	**17,286,220**

JSCP - Interest on capital

Parent Company	Balance as of January 1, 2018	Equity	Equity valuation adjustments	Investment/ Advance for future capital increase	Capital decrease	Amorti-zation	Proposed dividends and JCP	Effects of applying new CPC/IFRS	Other	Balance as of December 31, 2018
Subsidiaries										
Copel GeT	8,409,370	884,568	(17,608)	237,000	-	-	(466,950)	(148,215)	13,799	8,911,964
Copel DIS	5,452,703	376,783	(21,897)	221,390	-	-	(104,381)	(15,843)	-	5,908,755
Copel TEL	483,195	24,449	1,270	147,125	-	-	(16,300)	(866)	-	638,873
Copel REN	28,579	33	137	-	-	-	-	-	-	28,749
Copel Energia	133,511	(4,838)	(305)	100	(45,000)	-	-	-	-	83,468
UEG Araucária (17.2)	89,240	(15,171)	63	-	-	-	-	-	-	74,132
Compagás (17.2)	202,857	30,405	95	-	-	-	(11,703)	-	-	221,654
Elejor (17.2)	43,208	53,432	-	-	-	-	(58,855)	-	-	37,785
Elejor - concession rights	13,762	-	-	-	-	(754)	-	-	-	13,008
	14,856,425	**1,349,661**	**(38,245)**	**605,615**	**(45,000)**	**(754)**	**(658,189)**	**(164,924)**	**13,799**	**15,918,388**
Joint Ventures						-				
Voltalia São Miguel do Gostoso I (17.3)	74,998	(3,964)	-	39,534	-	-	-	-	-	110,568
Voltalia São Miguel do Gostoso - authorization rights	10,773	-	-	-	-	(368)	-	-	-	10,405
Paraná Gás	3	(3)	-	-	-	-	-	-	-	-
	85,774	**(3,967)**	**-**	**39,534**	**-**	**(368)**	**-**	**-**	**-**	**120,973**
Associates										
Dona Francisca Energética (17.4)	29,821	9,989	-	-	-	-	(10,666)	-	-	29,144
Foz do Chopim Energética (17.4)	13,084	715	-	-	-	-	-	-	(13,799)	-
Other (a)	2,503	(23)	-	9	-	-	-	-	(427)	2,062
	45,408	**10,681**	**-**	**9**	**-**	**-**	**(10,666)**	**-**	**(14,226)**	**31,206**
	14,987,607	**1,356,375**	**(38,245)**	**645,158**	**(45,000)**	**(1,122)**	**(668,855)**	**(164,924)**	**(427)**	**16,070,567**

(a) R$ 427 from the sale of the associated company, Dois Saltos Empreendimentos de Geração de Energia Elétrica Ltda, in December 2018.

Consolidated	Balance as of December 31, 2018	Equity	Investment/ Advance for future capital increase	Capital decrease	Amorti-zation	Dividends and JSCP	Transfers	Balance as of December 31, 2019
Joint Ventures (17.3)								
Voltalia São Miguel do Gostoso I	110,568	(3,409)	2,940	-	-	-	-	110,099
Voltalia São Miguel do Gostoso - direito de autorização	10,405	-	-	-	(367)	-	-	10,038
Caiuá	74,639	4,800	-	-	-	(1,127)	-	78,312
Integração Maranhense	129,684	11,316	-	-	-	(2,284)	-	138,716
Matrinchã	673,216	48,634	-	-	-	(10,323)	-	711,527
Guaraciaba	356,941	18,312	-	(34,300)	-	(3,876)	-	337,077
Paranaíba	160,584	16,375	-	-	-	(2,986)	-	173,973
Mata de Santa Genebra	484,262	(41,716)	130,811	-	-	-	-	573,357
Cantareira	317,523	28,031	-	-	-	(7,286)	-	338,268
	2,317,822	**82,343**	**133,751**	**(34,300)**	**(367)**	**(27,882)**	**-**	**2,471,367**
Associates								
Dona Francisca Energética (17.4)	29,144	9,853	-	-	-	(10,574)	-	28,423
Foz do Chopim Energética (17.4)	8,227	13,924	-	-	-	(9,976)	-	12,175
Dominó Holdings	2,442	(280)	-	(735)	-	(1,181)	-	246
Other	9,115	917	123	-	-	-	-	10,155
	48,928	**24,414**	**123**	**(735)**	**-**	**(21,731)**	**-**	**50,999**
Investment property	**1,342**	**-**	**-**	**-**	**(5)**	**-**	**(524)**	**813**
Advance for future capital future capital increase	**142**	**-**	**133,597**	**-**	**-**	**-**	**(133,739)**	**-**
	2,368,234	**106,757**	**267,471**	**(35,035)**	**(372)**	**(49,613)**	**(134,263)**	**2,523,179**

Consolidated	Balance as of January 1, 2018	Equity	Investment/ Advance for future capital increase	Capital decrease	Amorti-zation	Proposed dividends and JCP	Effects of applying new CPC/IFRS (Note 17.1.1)	Other (a)	Balance as of December 31, 2018
Joint Ventures (17.3)									
Voltalia São Miguel do Gostoso I	74,998	(3,964)	39,534	-	-	-	-	-	110,568
Voltalia São Miguel do Gostoso - authorization rights	10,773	-	-	-	(368)	-	-	-	10,405
Paraná Gás	3	(3)	-	-	-	-	-	-	-
Costa Oeste (Note 1.2)	33,646	3,041	-	-	-	-	-	(36,687)	-
Marumbi (Note 1.2)	85,341	6,971	-	-	-	-	-	(92,312)	-
Transmissora Sul Brasileira (Note 1.2)	64,360	1,161	-	-	-	-	-	(65,521)	-
Caiuá	56,037	5,034	-	-	-	(1,324)	14,892	-	74,639
Integração Maranhense	113,401	9,238	-	-	-	(2,022)	9,067	-	129,684
Matrinchã	835,819	50,411	-	-	-	(9,131)	(203,883)	-	673,216
Guaraciaba	418,320	35,321	-	-	-	(4,328)	(92,372)	-	356,941
Paranaíba	162,273	(16,510)	-	-	-	(2,976)	17,797	-	160,584
Mata de Santa Genebra	459,374	(2,541)	48,096	-	-	3,264	(23,931)	-	484,262
Cantareira	200,018	24,564	-	(35,280)	-	(1,461)	129,682	-	317,523
	2,514,363	**112,723**	**87,630**	**(35,280)**	**(368)**	**(17,978)**	**(148,748)**	**(194,520)**	**2,317,822**
Associates									
Dona Francisca Energética (17.4)	29,821	9,989	-	-	-	(10,666)	-	-	29,144
Foz do Chopim Energética (17.4)	13,084	13,214	-	-	-	(18,071)	-	-	8,227
Dominó Holdings	2,457	(15)	-	-	-	-	-	-	2,442
Other	9,556	(23)	9	-	-	-	-	(427)	9,115
	54,918	**23,165**	**9**	**-**	**-**	**(28,737)**	**-**	**(427)**	**48,928**
Investment property	**1,362**	**-**	**-**	**-**	**(5)**	**-**	**-**	**(15)**	**1,342**
Other investments	**-**	**-**	**142**	**-**	**-**	**-**	**-**	**-**	**142**
	2,570,643	**135,888**	**87,781**	**(35,280)**	**(373)**	**(46,715)**	**(148,748)**	**(194,962)**	**2,368,234**

(a) Of the total, the amounts of R$ 36,687 and R$ 92,312 refers to investments that are now subsidiaries; R$ 65,521 refers to investment written off; R$ 427 from the sale of the associated company Dois Saltos Empreendimentos de Geração de Energia Elétrica Ltda ; and R$ 15 refers to the transfer to Other receivables.

17.1.1 Initial adoption of CPC 47 / IFRS 15

Until December 31, 2017, Copel's joint ventures classified the transmission infrastructure as a financial asset under the scope of ICPC 01(R1) / IFRIC 12, measured at amortized cost. The Companies recognized a remuneration rate during the construction period, which was remeasured after the start of commercial operation, according to the investments made, and was fixed until the end of the concession.

As of the initial adoption of CPC 47 / IFRS 15, with the definition of fixed remuneration at the beginning of the project, all changes that occurred in the construction period started to be immediately recognized in the result and no longer diluted over the remaining term of the contract.

The adjustment in Copel's shareholders' equity on January 1, 2018, resulting from the remeasurement of the contract assets of its investees, was R$ 148,748, recognized through equity method. In the transition, Copel and its investees opted to adopt the standard on the date of initial application as an adjustment to the opening balance, in a shareholders' equity account, considering only open contracts prior to the application date, as provided for in CPC 47 / IFRS 15.

17.2 Subsidiaries with non-controlling interests

17.2.1 Summarized financial information

	Compagás		Elejor		UEG Araucária	
	12.31.2019	**12.31.2018**	**12.31.2019**	**12.31.2018**	**12.31.2019**	**12.31.2018**
ASSETS	**904,993**	**675,286**	**625,154**	**652,175**	**421,533**	**436,137**
Current assets	313,896	204,725	80,079	80,990	80,788	33,573
Noncurrent assets	591,097	470,561	545,075	571,185	340,745	402,564
LIABILITIES	**904,993**	**675,286**	**625,154**	**652,175**	**421,533**	**436,137**
Current liabilities	236,190	133,769	85,647	124,880	91,066	42,185
Noncurrent liabilities	110,475	106,900	496,648	473,318	14,727	23,290
Equity	558,328	434,617	42,859	53,977	315,740	370,662
STATEMENT OF INCOME						
Operating revenues	866,884	588,532	218,421	293,942	52,216	524
Operating costs and expenses	(662,306)	(515,594)	(86,237)	(89,931)	(131,596)	(94,970)
Financial results	43,186	(2,411)	(92,728)	(89,301)	832	2,275
Equity in earnings of investees	-	-	-	-	916	-
Income tax and social contribution	(74,791)	(10,909)	(13,331)	(38,379)	(22,703)	16,316
Net income (loss)	**172,973**	**59,618**	**26,125**	**76,331**	**(100,335)**	**(75,855)**
Other comprehensive income	(1,277)	187	-	-	132	-
Total comprehensive income	**171,696**	**59,805**	**26,125**	**76,331**	**(100,203)**	**(75,855)**
STATEMENTS OF CASH FLOWS						
Cash flows from operational activities	54,760	66,017	51,839	127,108	(57,585)	(26,980)
Cash flows from investment activities	(17,531)	(15,961)	(314)	(2,659)	(1,945)	(2,768)
Cash flows from financing activities	14,312	(43,980)	(56,533)	(119,468)	45,133	-
TOTAL EFFECTS ON CASH AND CASH EQUIVALENTS	**51,541**	**6,076**	**(5,008)**	**4,981**	**(14,397)**	**(29,748)**
Cash and cash equivalents at the beginning of the year	90,155	84,079	42,886	37,905	21,516	51,264
Cash and cash equivalents at the end of the year	141,696	90,155	37,878	42,886	7,119	21,516
CHANGE IN CASH AND CASH EQUIVALENTS	**51,541**	**6,076**	**(5,008)**	**4,981**	**(14,397)**	**(29,748)**

17.2.2 Changes in equity attributable to non-controlling shareholders

Participation in capital stock	Compagás: 49%	Elejor: 30%	UEG Araucária: 18,8%	Consolidated
Balance as of January 1, 2018	**194,901**	**18,518**	**89,242**	**302,661**
Net income (loss)	29,213	22,899	(15,171)	36,941
Other comprehensive income	91	-	63	154
Dividends	(11,243)	(25,224)	-	(36,467)
Balance as of December 31, 2018	**212,962**	**16,193**	**74,134**	**303,289**
Net income (loss)	84,758	7,838	(19,673)	72,923
Other comprehensive income	(626)	-	25	(601)
Deliberation of additional dividends proposed	-	(3,335)	-	(3,335)
Dividends	(23,514)	(7,838)	-	(31,352)
Gain with interest variation in Subsidiary	-	-	4,874	4,874
Balance as of December 31, 2019	**273,580**	**12,858**	**59,360**	**345,798**

17.3 Total balances of the groups of assets, liabilities, profit or loss and equity interest in commitments and contingent liabilities of the main joint ventures

Balance as of December 31, 2019	Voltalia	Caiuá	Integração Maranhense	Matrinchã	Guaraciaba	Paranaíba	Mata de Santa Genebra	Cantareira
ASSETS	**226,898**	**271,409**	**486,305**	**2,295,925**	**1,318,517**	**1,625,008**	**2,482,326**	**1,496,577**
Current assets	**3,664**	**30,472**	**59,466**	**301,722**	**150,875**	**178,558**	**268,381**	**182,971**
Cash and cash equivalents	1,494	3,968	6,570	85,293	44,805	20,338	48,395	60,252
Other current assets	2,170	26,504	52,896	216,429	106,070	158,220	219,986	122,719
Noncurrent assets	**223,234**	**240,937**	**426,839**	**1,994,203**	**1,167,642**	**1,446,450**	**2,213,945**	**1,313,606**
LIABILITIES	**226,898**	**271,409**	**486,305**	**2,295,925**	**1,318,517**	**1,625,008**	**2,482,326**	**1,496,577**
Current liabilities	**2,206**	**28,892**	**77,116**	**166,430**	**84,863**	**104,065**	**129,810**	**72,907**
Financial liabilities	-	7,584	13,468	82,665	33,102	60,399	93,643	48,619
Other current liabilities	2,206	21,308	63,648	83,765	51,761	43,666	36,167	24,288
Noncurrent liabilities	**-**	**82,699**	**126,095**	**677,398**	**545,742**	**810,847**	**1,208,089**	**733,326**
Financial liabilities	-	49,958	78,350	624,779	461,353	580,451	1,208,089	507,775
Other noncurrent liabilities	-	32,741	47,745	52,619	84,389	230,396	-	225,551
Equity	**224,692**	**159,818**	**283,094**	**1,452,097**	**687,912**	**710,096**	**1,144,427**	**690,344**
STATEMENT OF INCOME								
Net operating income	-	25,180	44,264	250,188	111,912	198,573	357,522	138,259
Operating costs and expenses	(111)	(5,481)	(5,672)	(70,886)	(29,067)	(30,560)	(384,228)	(5,360)
Financial results	146	(4,557)	(6,594)	(59,794)	(42,548)	(54,154)	(99,186)	(46,190)
Equity in income of subsidiaries	(7,080)	-	-	-	-	-	-	-
Income tax and social contribution	(5)	(5,348)	(8,904)	(33,103)	(2,926)	(47,024)	42,627	(29,498)
Net income (loss)	**(7,050)**	**9,794**	**23,094**	**86,405**	**37,371**	**66,835**	**(83,265)**	**57,211**
Other comprehensive income	-	-	-	-	-	-	-	-
Total comprehensive income	**(7,050)**	**9,794**	**23,094**	**86,405**	**37,371**	**66,835**	**(83,265)**	**57,211**
Investment interest - %	49.0	49.0	49.0	49.0	49.0	24.5	50.1	49.0
Investment book value	110,099	78,312	138,716	711,527	337,077	173,973	573,357	338,268

12.31.2018	Voltalia	Caiuá	Integração Maranhense	Matrinchã	Guaraciaba	Paranaíba	Mata de Santa Genebra	Cantareira
ASSETS	**227,867**	**261,951**	**465,801**	**2,199,434**	**1,295,670**	**1,574,846**	**2,365,160**	**1,443,693**
Current assets	**2,344**	**26,471**	**47,347**	**326,557**	**229,693**	**165,072**	**202,253**	**161,328**
Cash and cash equivalents	205	1,128	1	116,634	136,191	13,931	19,568	301
Other current assets	2,139	25,343	47,346	209,923	93,502	151,141	182,685	161,027
Noncurrent assets	**225,523**	**235,480**	**418,454**	**1,872,877**	**1,065,977**	**1,409,774**	**2,162,907**	**1,282,365**
LIABILITIES	**227,867**	**261,951**	**465,801**	**2,199,434**	**1,295,670**	**1,574,846**	**2,365,160**	**1,443,693**
Current liabilities	**2,216**	**24,955**	**73,856**	**137,627**	**79,701**	**104,599**	**124,606**	**60,964**
Financial liabilities	-	7,615	13,228	70,192	27,950	55,968	33,964	46,329
Other current liabilities	2,216	17,340	60,628	67,435	51,751	48,631	90,642	14,635
Noncurrent liabilities	**-**	**84,672**	**127,284**	**687,897**	**487,520**	**814,798**	**1,273,962**	**734,724**
Financial liabilities	-	57,028	91,342	683,316	482,125	612,854	934,650	532,179
Other noncurrent liabilities	-	27,644	35,942	4,581	5,395	201,944	339,312	202,545
Equity	**225,651**	**152,324**	**264,661**	**1,373,910**	**728,449**	**655,449**	**966,592**	**648,005**
STATEMENT OF INCOME								
Net operating income	-	25,129	42,379	272,103	181,665	(14,331)	514,591	195,441
Operating costs and expenses	(103)	(4,785)	(7,732)	(47,771)	(27,273)	(23,244)	(462,839)	(60,529)
Financial results	(170)	(5,017)	(7,817)	(61,910)	(35,036)	(57,977)	(59,507)	(58,402)
Equity in income of subsidiaries	(7,815)	-	-	-	-	-	-	-
Income tax and social contribution	-	(5,053)	(7,974)	(59,544)	(47,273)	28,163	2,685	(26,379)
Net income (loss)	**(8,088)**	**10,274**	**18,856**	**102,878**	**72,083**	**(67,389)**	**(5,070)**	**50,131**
Other comprehensive income	-	-	-	-	-	-	-	-
Total comprehensive income	**(8,088)**	**10,274**	**18,856**	**102,878**	**72,083**	**(67,389)**	**(5,070)**	**50,131**
Investment interest - %	49.0	49.0	49.0	49.0	49.0	24.5	50.1	49.0
Investment book value	110,568	74,639	129,684	673,216	356,941	160,584	484,262	317,523

As of December 31, 2019, Copel's share of commitments assumed relating to its joint ventures is equivalent to R$ 5,936 (R$ 81,263 as of December 31, 2018) and of contingent liabilities is equivalent to R$ 89,688 (R$ 40,324 as of December 31, 2018).

17.4 Total balances of the groups of assets, liabilities, profit or loss and equity interest in contingent liabilities of the main associates

Balance as of December 31, 2019	Dona Francisca		Foz do Chopim	
	12.31.2019	**12.31.2018**	**12.31.2019**	**12.31.2018**
ASSETS	**130,883**	**134,141**	**61,635**	**106,736**
Current assets	13,406	12,493	31,054	73,786
Noncurrent assets	117,477	121,648	30,581	32,950
LIABILITIES	**130,883**	**134,141**	**61,635**	**106,736**
Current liabilities	4,344	4,231	2,354	57,603
Noncurrent liabilities	3,118	3,361	25,243	26,133
Equity	123,421	126,549	34,038	23,000
STATEMENT OF INCOME				
Net operating income	70,717	70,716	56,929	46,479
Operating costs and expenses	(25,957)	(25,268)	(16,278)	(2,020)
Financial income (expense)	475	366	621	(638)
Income tax and social contribution	(2,454)	(2,446)	(2,346)	(6,880)
Net income	**42,781**	**43,368**	**38,926**	**36,941**
Other comprehensive income	-	-	-	-
Total comprehensive income	**42,781**	**43,368**	**38,926**	**36,941**
Investment interest - %	23.0303	23.0303	35.77	35.77
Investment book value	28,423	29,144	12,175	8,227

As of December 31, 2019, Copel's interest in the contingent liabilities of its associates is equivalent to R$ 78,793 (R$ 61,341 as of December 31, 2018).

18 Property, Plant and Equipment

The Company records assets used in administrative and commercial facilities for generation of electric power and telecommunication services in property, plant and equipment account. Investments in electric power transmission and distribution and in piped gas distribution are recorded in financial assets and/or intangible assets accounts as per CPC 04/IAS 38, CPC 47/IFRS 15 and ICPC 01/IFRIC 12. (Notes 4.4, 4.5 and 4.9).

Upon initial adoption of IFRS, property, plant and equipment were measured at fair value with recognition of their deemed cost.

Under the regulation relating to the concession of public electric energy services, the assets and facilities used mostly in the generation of power are attached to these services and cannot be withdrawn, sold, assigned, or mortgaged without the prior written consent of the regulatory agency. ANEEL Resolution No. 691/2015, however, regulates the release of assets from the concessions of the Public Electric Power Service, granting prior authorization to release the property and other fixed assets not usable by the concession when they are destined for sale, and also determining that the sales proceeds less respective charges be deposited in a restricted bank account to be invested in the concession.

18.1 Property, plant and equipment by asset class

Consolidated	Cost	Accumulated depreciation	12.31.2019	Cost	Accumulated depreciation	12.31.2018
In service						
Reservoirs, dams and aqueducts	8,082,238	(4,405,546)	3,676,692	6,643,087	(4,216,613)	2,426,474
Machinery and equipment	8,875,458	(2,871,568)	6,003,890	5,648,292	(2,674,150)	2,974,142
Buildings	1,962,033	(1,054,009)	908,024	1,500,990	(1,021,783)	479,207
Land	490,071	(27,651)	462,420	375,286	(18,184)	357,102
Vehicles and aircraft	47,960	(44,876)	3,084	47,744	(41,978)	5,766
Furniture and tools	22,415	(14,466)	7,949	22,057	(12,642)	9,415
(-) Impairment (18.7 and 18.8)	(1,042,499)	-	(1,042,499)	(3,489)	-	(3,489)
(-) Special Obligations	(78)	35	(43)	(68)	27	(41)
	18,437,598	**(8,418,081)**	**10,019,517**	**14,233,899**	**(7,985,323)**	**6,248,576**
In progress						
Cost	700,172	-	700,172	5,789,780	-	5,789,780
(-) Impairment (18.7 and 18.8)	(127,586)	-	(127,586)	(1,197,693)	-	(1,197,693)
	572,586	**-**	**572,586**	**4,592,087**	**-**	**4,592,087**
	19,010,184	**(8,418,081)**	**10,592,103**	**18,825,986**	**(7,985,323)**	**10,840,663**

18.2 Changes in property, plant and equipment

Consolidated	Balance as of December 31, 2018	Additions / Impairment	Depreciation	Loss on disposal	Transfers	Balance as of December 31, 2019
In service						
Reservoirs, dams and aqueducts	2,426,474	-	(188,334)	(42)	1,438,594	3,676,692
Machinery and equipment	2,974,142	-	(409,571)	(141,902)	3,581,221	6,003,890
Buildings	479,207	-	(52,330)	-	481,147	908,024
Land	357,102	-	(9,466)	(463)	115,247	462,420
Vehicles and aircraft	5,766	-	(3,482)	(128)	928	3,084
Furniture and tools	9,415	-	(2,007)	(9)	550	7,949
(-) Impairment (18.7 and 18.8)	(3,489)	61,112	-	-	(1,100,122)	(1,042,499)
(-) Special Obligations	(41)	-	8	-	(10)	(43)
	6,248,576	**61,112**	**(665,182)**	**(142,544)**	**4,517,555**	**10,019,517**
In progress						
Cost	5,789,780	551,162	-	(15,540)	(5,625,230)	700,172
(-) Impairment (18.7 and 18.8)	(1,197,693)	(30,015)	-	-	1,100,122	(127,586)
	4,592,087	**521,147**	**-**	**(15,540)**	**(4,525,108)**	**572,586**
	10,840,663	**582,259**	**(665,182)**	**(158,084)**	**(7,553)**	**10,592,103**

Consolidated	Balance as of January 1, 2018	Additions/ *Impairment*	Depreciation	Loss on disposal	Transfers	Balance as of December 31, 2018
In service						
Reservoirs, dams and aqueducts	2,566,727	-	(144,991)	(1)	4,739	2,426,474
Machinery and equipment	2,665,935	-	(199,846)	(61,959)	570,012	2,974,142
Buildings	510,923	-	(35,932)	(500)	4,716	479,207
Land	262,378	-	(2,897)	(83)	97,704	357,102
Vehicles and aircraft	10,342	-	(4,484)	(392)	300	5,766
Furniture and tools	5,514	-	(1,171)	(24)	5,096	9,415
(-) Impairment	(4,986)	1,497	-	-	-	(3,489)
(-) Special Obligations	(38)	-	9	-	(12)	(41)
	6,016,795	**1,497**	**(389,312)**	**(62,959)**	**682,555**	**6,248,576**
In progress						
Cost	5,023,013	1,455,318	-	(5,491)	(683,060)	5,789,780
(-) Impairment	(1,210,358)	12,665	-	-	-	(1,197,693)
	3,812,655	**1,467,983**	**-**	**(5,491)**	**(683,060)**	**4,592,087**
	9,829,450	**1,469,480**	**(389,312)**	**(68,450)**	**(505)**	**10,840,663**

18.3 Costs of loans and financing and debentures capitalized

The costs of loans and financing and debentures capitalized during 2019 of R$ 4,295, at an average rate of 0.11% p.a. (R$ 4,229, at an average rate of 0.11% p.a. in 2018).

18.4 HPP Colíder

On March 9, 2019, May 7, 2019 and December 21, 2019, two generation units of the power plant started their commercial power generation operations, respectively, according to ANEEL Ordinances 673/2019, 1,273/2019 and 3,648/2019 both with installed power capacity of 100 MW.

As a result of unforeseeable circumstances and force majeure, the power plant had its commercial start-up delayed, which was initially scheduled for January 2015. Copel GeT submitted an application to ANEEL to exclude its responsibility, so that the obligation to supply energy could be postponed, which was not accepted by the Agency. Copel GeT filed a common lawsuit with the Court on December 18, 2017 applying for a preliminary injunction and requesting the reversal of the decision of the Agency. On April 6, 2018, the Federal Court of the 1st Region fully granted the preliminary injunction required by Copel Get in the Interlocutory Appeal to exempt it from any burden, charges or restrictions to the right arising from the delay in the implementation schedule of the Colíder HPP.

The contracted energy of the plant is 125 MW mean, and in the period from January 1, 2019 to December 31, 2019, the physical guarantee calculated represents 109.22 MW mean, due to the partial start of commercial operation, which took place in March 2019. For prior periods, the contract was fulfilled as follows:

- From January 2015 to May 2016, with suspension of energy delivery by operation because of the injunction obtained by Management;
- In June 2016, with partial reduction through a bilateral agreement;

- From July 2016 to December 2018, with reduction of all supply contracts of the CCEARs - Energy Trading Agreement in the Regulated Environment, through a bilateral agreement and participation in the New Energy and Decrease Clearing Facility ("Mecanismo de Compensação de Sobras e Déficits de Energia Nova - MCSD-EN"); and
- From January to March 2019, the firmed contracts in the regulated environment became effective again, however, energy supply continued suspended, in light of the injunction obtained by Management.

Since the trial on merits of the case is still outstanding, the contractual effects of both revenues and energy costs were recognized during the period until December 31, 2019, in profit or loss for the period for purposes of backing the outcome.

18.5 Joint operations - consortiums

The amounts recorded under property, plant and equipment referring to the share of interest of Copel GeT in consortiums are shown below:

Joint operations	Share Copel GeT (%)	Annual average rate (%)	12.31.2019	12.31.2018
HPP Gov. Jayme Canet Júnior (Mauá) - Consórcio Energético Cruzeiro do Sul	**51.0**			
In service			859,917	859,917
(-) Accumulated depreciation		3.43	(206,000)	(176,546)
In progress			16,789	22,738
			670,706	**706,109**
HPP Baixo Iguaçu (18.5.1)	**30.0**			
In service			692,593	-
(-) Accumulated depreciation		3.27	(19,038)	-
In progress			49,240	717,599
			722,795	**717,599**
			1,393,501	**1,423,708**

18.5.1 Consórcio Empreendedor Baixo Iguaçu - Cebi

Copel holds a 30% interest in Consórcio Empreendedor Baixo Iguaçu - Cebi. The purpose of the consortium is to build and operate the project known as Baixo Iguaçu Hydroelectric Plant, with installed capacity of 350.2 MW and physical guarantee of 171.3 MW mean, located on the Iguaçu River between the municipalities of Capanema and Capitão Leônidas Marques, and between the Governador José Richa Hydroelectric Plant and the Iguaçu National Park, in the State of Paraná. The plant is now 100% in commercial operation, the start of commercial operation of units 1 and 2 occurred in February 2019, and unit 3 occurred in April 2019.

18.6 Cutia wind farm project

Cutia wind farm project, located in the State of Rio Grande do Norte, is divided into two large complexes:

- Cutia Complex: composed of seven wind farms (Guajiru, Jangada, Potiguar, Cutia, Maria Helena, Esperança do Nordeste and Paraíso do Ventos do Nordeste), with 180.6 MW of total installed capacity, and 71.4 MW-mean of assured power. The complex has 86 wind turbines, all in commercial operation.
- Bento Miguel Complex: composed of six wind parks (São Bento do Norte I, São Bento do Norte II, São Bento do Norte III, São Miguel I, São Miguel II and São Miguel III) with total installed capacity of 132.3 MW and 54.8 MW-mean of assured power. The complex has 63 wind turbines, all in commercial operation.

18.7 Impairment of generation segment assets

Cash-generating units of the generation segment were tested for impairment based on previous evidence of impairment, assumptions representing the best estimates of the Company's management, the methodology provided for in Technical Pronouncement CPC 01 (R1)/IAS 36 and measurement of value in use.

The calculation of the value in use was based on discounted operating cash flows over the time of concessions, maintaining the Company’s current commercial conditions. The rate used to discount the cash flows was set considering the WACC (Weighted Average Cost of Capital) methodology and CAPM (Capital Asset Pricing Model) methodology for the generation business, considering usual market parameters.

Internal references such as the budget approved by the Company, historical or past data, updating of the timeframe of work and amount of investments for projects in course support the design of key assumptions by Company Management. In the same framework, external references such as level of consumption of electric power, expansion of the economic activity in Brazil and the availability of water resources support the key information about estimated cash flows.

A number of assumptions used by Company Management when determining future cash flows can be affected by uncertain events, which, in turn, may give rise to variation in results. Changes in the political and economic model, for example, may lead to upward trend when projecting country risk-rating, increasing the discount rates used in tests.

The tests considered the following key assumptions:

- Growth compatible with historical data and perspective for the Brazilian economy growth;
- Specific after-tax discount rates for the segment tested, obtained through the methodology usually applied by the market, taking into consideration the weighted average cost of capital;
- Projected revenue in accordance with the agreements in force, without any expectation for renewal of concession/authorization; and
- Expenses broken into cash generating units, projected in view of the budget approved by the Company.

The Company considered all its generation projects as independent cash generating units.

The projects with impairment balances recorded at December 31, 2019 are the following:

Consolidated	Property, Plant and Equipment			
	Cost	Depreciation	Impairment	Value in use
HPP Colíder	2,473,886	(75,917)	(777,294)	1,620,675
Wind power complex Cutia	1,253,371	(59,214)	(54,104)	1,140,053
Consórcio Tapajós (a)	14,464	-	(14,464)	-
Power plants in Paraná	970,923	(53,762)	(237,576)	679,585
	4,712,644	**(188,893)**	**(1,083,438)**	**3,440,313**

(a) Project under development

The Company reviewed the recoverable amount of property, plant and equipment and, as a result of these analyses, the impairment changed as follows

Consolidated	Balance as of January 1, 2018	*Impairment*	Balance as of December 31, 2018	*Impairment*	Transfer	Impairment December 31, 2019
In service						
UHE Colíder	-	-	-	(45,547)	(731,747)	(777,294)
Wind power complex Cutia	-	-	-	114,144	(168,248)	(54,104)
Wind power complex Bento Miguel	-	-	-	87,370	(87,370)	-
Power plants in Paraná	(4,986)	1,497	(3,489)	(13,534)	(112,756)	(129,779)
	(4,986)	**1,497**	**(3,489)**	**142,433**	**(1,100,121)**	**(961,177)**
In progress						
HPP Colíder	(683,021)	(48,244)	(731,265)	(482)	731,747	-
Wind power complex Cutia	(224,510)	56,635	(167,875)	(373)	168,248	-
Wind power complex Bento Miguel	(98,231)	13,610	(84,621)	(2,749)	87,370	-
Consórcio Tapajós	(14,464)	-	(14,464)	-	-	(14,464)
Power plants in Paraná	(190,132)	(9,336)	(199,468)	(21,085)	112,756	(107,797)
	(1,210,358)	**12,665**	**(1,197,693)**	**(24,689)**	**1,100,121**	**(122,261)**
	(1,215,344)	**14,162**	**(1,201,182)**	**117,744**	**-**	**(1,083,438)**

18.7.1 UHE Colíder

In December 2019, the calculation of value in use took into account the Company's assumptions and budgets and the discount rate after taxes in constant currency of 5.45% p.a. (in 2018, 5.36% p.a.), which derives from the WACC methodology for the electricity generation segment. Due to the postponement of the start of operation of the first turbine to March 2019 (in 2018 it considered February 2019), and changes in the plant's operating costs and CAPEX, an additional provision for losses was recognized.

18.7.2 Cutia Complex and Bento Miguel Complex

In December 2019, the calculation of value in use took into account the Company's assumptions and budgets and the discount rate after taxes in constant currency of 7.24% p.a. (in 2018, 7.13% p.a.) which derives from the WACC methodology for the electric power generation segment, adjusted for the specific taxation condition of each project.

The reversal observed in both wind farms is justified especially by the review of business plans, which generated a reduction in operating costs.

18.7.3 Plants in the Paraná state

In December 2019, the calculation of value in use of generation assets in the State of Paraná considered: (i) the Company's assumptions and budgets; and (ii) discount rate after taxes in constant currency of 5.45% p.a. (in 2018, 5.36% p.a.), which derives from the WACC methodology for the electricity generation segment. An additional provision for losses was recognized due to: (i) postponement of the start-up of the Figueira plant to November 2020 (in 2018 it considered March 2019); (ii) changes in the plants' operating costs and CAPEX.

18.7.4 Cash-generating units that have suffered no impairment

Plants that have suffered no impairment have recoverable amount higher than the carrying amount of property, plant and equipment. The following table shows the percentage by which the recoverable amount ("RA") exceeds the carrying amount ("CA") of fixed assets. In addition, the Company carried out a sensitivity analysis, increasing the discount rate shown below by 5% and 10% to assess the risk of impairment of each plant.

Unidade geradora de caixa	Discount rate	VR/VC-1	VR/VC-1 (5% Variation)	VR/VC-1 (10% Variation)	*Impairment Risck*
Wind power Assets					
Complex Eólico São Bento (a)	7.24%	9.09%	6.77%	4.52%	-
Complex Eólico Brisa I (b)	7.24%	35.66%	31.89%	28.30%	-
Complex Eólico Brisa II (c)	7.24%	36.07%	31.69%	27.54%	-
Thermal Assets					
UEG Araucária	7.76%	0.00%	-2.04%	-4.01%	11,412
Hydric Assets	0	0.00%	0	0	-
Foz do Areia	5.45%	217.22%	215.52%	213.85%	-
Segredo	5.45%	205.09%	200.80%	196.60%	-
Caxias	5.45%	153.49%	149.69%	145.98%	-
Guaricana	5.45%	31.09%	29.82%	28.56%	-
Chaminé	5.45%	80.03%	78.31%	76.62%	-
Apucaraninha	5.45%	38.17%	36.77%	35.39%	-
Chopim I	5.45%	151.57%	146.48%	141.55%	-
São Jorge	5.45%	0.40%	-0.46%	-1.31%	44
Mauá	5.45%	83.84%	79.69%	75.68%	-
Cavernoso II	5.45%	17.10%	14.23%	11.47%	-
Bela Vista	5.45%	66.92%	54.22%	42.31%	-
Elejor	7.00%	48.34%	44.52%	40.85%	-

(a) Contemplates the GE Boa Vista, GE Farol, GE Olho D'Água e GE São Bento do Norte wind farms.
(b) Contemplates the Nova Asa Branca I, Nova Asa Branca II, Nova Asa Branca III e Nova Eurus IV wind farms.
(c) Contemplates the Santa Maria, Santa Helena e Ventos de Santo Uriel wind farms.

18.8 Property, Plant and Equipment of Copel Telecomunicações

The Company's Management continuously monitors the business environment of the telecommunications segment, paying particular attention to factors such as the increased competitiveness of the sector, the high degree of investment required to maintain its customer base and the expected return from this segment.

Considering that some of these factors directly influence the expectations of cash generation and expected return, in addition to Management's decision to evaluate the disposal of the telecommunications segment, including the recent hiring of advisors for this purpose, the Company reassessed the recovery indicators and, consequently, its estimates of the segment's property, plant and equipment ability to continue to generate future economic benefits. Given this new business environment, Management concluded that it is necessary to record estimated losses and to recognize losses due to the decommissioning of equipment and services, specifically for some asset groups, considering new information and also the Company's experience in managing this segment.

On December, 31, 2019, estimated impairment losses of R$ 87,399 were recorded (Note 32.4) together with R$ 124,067 related to write-offs and remeasurement of values due to the decommissioning of assets (Note 32.6). The calculation of value in use considered the Company's premises and budgets and discount rate after taxes in constant currency of 6.57% p.a.

18.9 New plants under construction

18.9.1 SHP Bela Vista

With estimated investment of R$ 200,000, this small hydroelectric power plant (SHP), with installed capacity of 29.4 MW and physical guarantee of 18.4 MW mean, will be built on the Chopim River, in the municipalities of São João and Verê, located in the southwest region of the state of Paraná.

The participation in the A-6 auction held on August 31, 2018 led to sale of 14.7 MW mean in regulated contracts at the original price of R$ 195.70/MWh. The energy sale contracts provide for beginning of energy supply on January 1, 2024, with a 30-year term and annual adjustment by reference to IPCA variation.

The works started in August 2019, and the three-generating units are expected to start operating in February, March and April 2021, respectively.

18.9.2 Jandaíra Wind Complex

With estimated investment of R$ 400,000, this wind farm, with installed capacity of 90.1 MW and physical guarantee of 47.6 MW mean, will be built in the municipalities of Pedra Preta and Jandaíra, in the state of Rio Grande do Norte.

The participation in the new power generation auction A-6, held on October 18, 2019, led to sale of 14.4 MW mean in regulated contracts at the original price of R$ 98.00/MWh. The energy sale contracts provided for beginning of energy supply on January 1, 2025, with a 20-year term and annual adjustment by reference to IPCA variation.

The works are expected to start in May 2020, and the wind farm is expected to start operating between May 2022 and July 2022, on a phased basis, by wind turbine.

18.10 Depreciation rates

Depreciation rates (%)	31.12.2019	31.12.2018
Average generation segment rates (Note 18.10.1)		
General equipment	6.33	6.25
Machinery and equipment	3.67	3.56
Generations	3.38	3.34
Reservoirs, dams and ducts	2.50	2.21
Hydraulic turbines	2.89	2.60
Gas and steam turbines	2.00	2.00
Water cooling and treatment	4.00	4.00
Gas conditioner	4.00	4.00
Wind power plant unit	5.49	3.71
Average rates for central government assets		
Buildings	3.35	3.35
Machinery and office equipment	6.25	6.25
Furniture and fixtures	6.25	6.25
Vehicles	14.29	14.29
Telecommunications segment rates (Note 18.10.2)		
Infrastructure backbone	3% to 5%	3% to 5%
Infrastructure last mile	17% and 25%	17% and 25%
Other infrastructure equipment	7% to 20%	7% to 20%

18.10.1 Assets with depreciation rates limited to the concession term

The assets of the original project of the Mauá, Colíder, Baixo Iguaçu, Cavernoso II and SHP Bela Vista plants, of Copel GeT, and of the Santa Clara and Fundão plants, of Elejor, are considered by the Granting Authority, without full guarantee of indemnification for their residual value at the end of the concession term. This interpretation is based on the Concessions Law No. 8,987/1995 and Decree No. 2,003/1996, which regulate the generation of electricity by independent generators.

Accordingly, from the entry into operation of these assets, depreciation is recognized at the rates determined by ANEEL, over the concession period.

As provided for in the concession contracts, subsequent investments not foreseen in the original project, as long as approved by the Granting Authority and not yet amortized, will be indemnified at the end of the concession period and depreciated at the rates established by ANEEL, as from the date of their entry in operation.

18.10.2 Telecommunications segment assets

In 2019, the Company's Management deemed it necessary to reassess the estimated useful life of assets directly related to customer service (last mile). Considering the new business environment and the movement of the customer portfolio, Management decided to revise the depreciation rates, observing in a more predominant way the commercial obsolescence, resulting from changes in the market in which the telecommunications business is inserted. In this context, the main changes impacted the machinery and equipment asset classes.

The changes were treated prospectively as of October 2019 and added the depreciation share for the year 2019 by approximately R$ 15,688.

19 Intangible assets

Consolidated	12.31.2019	12.31.2018
Concession agreement - distribution of electricity (19.1)	5,703,686	5,390,063
Generation concession agreements/ authorization (19.2)	582,671	593,852
Concession agreement - piped gas distribution (19.3)	-	3,619
Others (19.4)	46,254	41,563
	6,332,611	**6,029,097**

19.1 Power distribution service concession

Consolidated	Intangible asset		Special liabilities		Total
	in service	in progress	in service	in progress	Total
Balance as of January 1, 2018	7,907,965	714,446	(2,845,438)	(26,100)	5,750,873
Transfers to accounts receivable related to concession (Note 11.1)	-	(714,446)	-	26,100	(688,346)
Capitalizations for intangible in service (Note 11.1)	775,701	-	(107,679)	-	668,022
Amortization of quotas - concession (a)	(431,963)	-	130,388	-	(301,575)
Amortization of quotas - PIS/Pasep and Cofins credits	(10,813)	-	-	-	(10,813)
Loss on disposal	(28,098)	-	-	-	(28,098)
Balance as of December 31, 2018	**8,212,792**	**-**	**(2,822,729)**	**-**	**5,390,063**
Incorporations (Note 10.1)	2,625	-	(2,550)	-	75
Transfers from contract assets (Note 11.1)	771,844	-	(93,164)	-	678,680
Transfers to investments	(7)	-	-	-	(7)
Transfers to other receivables	(1,520)	-	-	-	(1,520)
Amortization of quotas - concession (a)	(461,370)	-	134,864	-	(326,506)
Amortization of quotas - PIS/Pasep and Cofins credits	(10,740)	-	-	-	(10,740)
Loss on disposal	(26,359)	-	-	-	(26,359)
Balance as of December 31, 2019	**8,487,265**	**-**	**(2,783,579)**	**-**	**5,703,686**

(a) Amortization during the concession as of the start of commercial operations of the enterprises or based on the useful life of the assets, of the two the shortest.

In accordance with ICPC 01 /IFRIC 12 - Service Concession Arrangements, the portion of infrastructure that will be used during concession was recorded in intangible assets, net of special obligations.

The Special Obligations represent the resources related to the financial participation of consumers, the Federal, State and Municipal Governments, destined to investments in projects related to the concession, and are not onerous liabilities or shareholder credits.

19.2 Generation concession agreements

Consolidated	contract (a)	Concession in progress	Concession and authorization rights	Total
Balance as of January 1, 2018	**236,443**	**6,977**	**375,801**	**619,221**
ANEEL grant - use of public property	-	302	-	302
Business combination	-	-	4,845	
Amortization of quotas - concession and authorization (b)	(17,311)	-	(13,205)	(30,516)
Capitalizations for intangible in service	7,279	(7,279)	-	
Balance as of December 31, 2018	**226,411**	**-**	**367,441**	**593,852**
Business combination effects (Note 1.2)	-	-	20,113	20,113
Amortization of quotas - concession and authorization (b)	(16,944)	-	(14,350)	(31,294)
Balance as of December 31, 2019	**209,467**	**-**	**373,204**	**582,671**

(a) Includes the balances of use of public asset and hydrological risk renegotiation
(b) Amortization during the concession/authorization as of the start of commercial operations of the enterprises.

19.3 Piped gas distribution service concession

Consolidated	in service	in progress	Total
Balance as of January 1, 2018	**24,417**	**19,471**	**43,888**
Transfers to accounts receivable related to concession	-	(19,471)	(19,471)
Capitalizations for intangible in service	2,042	-	2,042
Amortization of quotas - concession (a)	(22,759)	-	(22,759)
Loss on disposal	(81)	-	(81)
Balance as of December 31, 2018	**3,619**	**-**	**3,619**
Transfers from accounts receivable - concessions (Note 10.2)	24,835	-	24,835
Amortization of quotas - concession	(28,454)	-	(28,454)
Balance as of December 31, 2019	**-**	**-**	**-**

19.4 Other intangible assets

Consolidated	in service	in progress	Total
Balance as of January 1, 2018	**22,693**	**16,149**	**38,842**
Effect of acquisition of control of Costa Oeste and Marumbi	-	37	37
Acquisitions	-	7,589	7,589
Transfers from property, plant and equipment	112	1,979	2,091
Capitalizations for intangible in service	9,448	(9,448)	-
Amortization of quotas (b)	(6,410)	-	(6,410)
Amortization of quotas - PIS/Pasep and Cofins credits	(23)	-	(23)
Loss on disposal	(190)	(373)	(563)
Balance as of December 31, 2018	**25,630**	**15,933**	**41,563**
Acquisitions	-	5,032	5,032
Transfers from property, plant and equipment	(1,471)	10,217	8,746
Capitalizations for intangible in service	16,118	(16,118)	-
Amortization of quotas (a)	(8,646)	-	(8,646)
Amortization of quotas - PIS/Pasep and Cofins credits	(11)	-	(11)
Loss on disposal	-	(430)	(430)
Balance as of December 31, 2019	**31,620**	**14,634**	**46,254**

(a) Annual amortization rate: 20%.

20 Payroll, Social Charges and Accruals

	Parent Company		Consolidated	
	12.31.2019	12.31.2018	12.31.2019	12.31.2018
Social security liabilities				
Taxes and social contribution	1,939	1,529	47,022	54,653
Social security charges on paid vacation and 13th salary	607	731	29,182	30,010
	2,546	**2,260**	**76,204**	**84,663**
Labor liabilities				
Payroll, net	1,945	-	3,330	1,308
Vacation and 13th salary	2,149	2,480	98,648	101,327
Provisons for profit sharing	1,430	863	156,040	91,526
Voluntary retirement program	367	1,144	2,820	5,349
Other liabilities	-	-	2	6
	5,891	**4,487**	**260,840**	**199,516**
	8,437	**6,747**	**337,044**	**284,179**

21 Accounts Payable to Suppliers

Consolidated	12.31.2019	12.31.2018
Energy supplies	1,085,777	819,792
Materials and supplies	520,647	384,300
Natural gas for resale	79,174	95,478
Charges for use of grid system	187,595	169,629
	1,873,193	**1,469,199**
Current	**1,685,280**	**1,419,243**
Noncurrent	**187,913**	**49,956**

22 Loans and Financing

Consolidated Contracts	Company	Allocation	Guarantees	Issue Date	Number of installment	Final maturity	Payment of charges	Contractual financial charges p.y.	Effective interest rate p.y.	Contract amount	12.31.2019	12.31.2018
FOREIGN CURRENCY												
National Treasury Department (STN - *Secretaria do Tesouro Nacional*)												
Par Bond	Copel	Debt negotiation	Guarantees deposited (22.1).	05.20.1998	1	04.11.2024	Half-yearly	6.0% + 0.20%	6.0% + 0.20%	17,315	64,325	61,837
Discount Bond	Copel	Debt negotiation	Guarantees deposited (22.1).	05.20.1998	1	04.11.2024	Half-yearly	3.5% + 0.20%	3.5% + 0.20%	12,082	44,658	42,914
Total foreign currency											**108,983**	**104,751**
LOCAL CURRENCY												
Banco do Brasil												
CCB 330.600.773	Copel DIS	Working capital.	Credit assignment.	07.11.2014	3	07.11.2019	Half-yearly	111.8% of DI	111.8% of DI	116,667	-	40,173
CFX 17/35959-7	Copel DIS	Working capital.	Credit assignment.	05.16.2017	2	05.06.2019	Quarterly	12.0%	12.0%	75,000	-	38,262
CCB 21/00851-5	Copel DIS	Working capital.	Credit assignment.	06.30.2017	2	06.13.2019	Quarterly	11.0%	11.0%	38,889	-	19,644
CCB 17/35960-0	Copel DIS	Working capital.	Credit assignment.	07.27.2017	2	07.17.2019	Quarterly	11.0%	11.0%	50,333	-	51,681
CFX 17/35958-9	Copel DIS	Working capital.	Credit assignment.	08.15.2017	2	08.05.2019	Quarterly	11.0%	11.0%	58,333	-	59,366
NCI 330.600.132	Copel HOL	Working capital.	Credit assignment.	02.28.2007	3	02.28.2019	Half-yearly	107.8% of DI	107.8% of DI	231,000	-	78,735
CCB 306.401.381	Copel HOL	Working capital.	Credit assignment.	12.19.2019	5	03.25.2022	Quarterly	120.00% of DI	126.99% of DI	640,005	640,530	648,953
NCI 306.401.445	Copel HOL	Working capital.	Credit assignment.	02.24.2017	2	02.15.2020	Half-yearly	124.5% of DI	136.15% of DI	77,000	39,446	79,225
											679,976	**1,016,039**
Eletrobras												
981/95	Copel DIS	National Program for Watering - Proni.	Own revenue; issue of promissory notes and commercial duplicates.	12.22.1994	80	08.15.2019	Quarterly	8.0%	8.0%	1,169	-	49
982/95	Copel DIS	National Program for Watering - Proni.	Own revenue; issue of promissory notes and commercial duplicates.	12.22.1994	80	11.15.2019	Quarterly	8.0%	8.0%	1,283	-	24
983/95	Copel DIS	National Program for Watering - Proni.	Own revenue; issue of promissory notes and commercial duplicates.	12.22.1994	80	11.15.2020	Quarterly	8.0%	8.0%	11	26	51
984/95	Copel DIS	National Program for Watering - Proni.	Own revenue; issue of promissory notes and commercial duplicates.	12.22.1994	80	11.15.2020	Quarterly	8.0%	8.0%	14	11	22
985/95	Copel DIS	National Program for Watering - Proni.	Own revenue; issue of promissory notes and commercial duplicates.	12.22.1994	80	08.15.2021	Quarterly	8.0%	8.0%	61	11	17
206/07	Copel DIS	Rural Electricity Program - *Luz para Todos*.	Own revenue; issue of promissory notes and commercial duplicates.	03.03.2008	120	08.30.2020	Monthly	5.0%+ 1.0%	5.05%	109,642	5,953	14,882
273/09	Copel DIS	Rural Electricity Program - *Luz para Todos*.	Own revenue; issue of promissory notes and commercial duplicates.	02.18.2010	120	12.30.2022	Monthly	5.0%+ 1.0%	5.0%+ 1.0%	63,944	4,933	6,577
											10,934	**21,622**
Caixa Econômica Federal												
415.855-22/14	Copel DIS	Rural Electricity Program - *Luz para Todos*.	Own revenue; issue of promissory notes and commercial duplicates.	03.31.2015	120	12.08.2026	Monthly	6.0%	6.0%	16,984	13,410	15,298
3153-352	Copel DIS	Acquisition of machinery, equipment and IT and automation equipment.	Assignment of trade notes receivable.	11.01.2016	36	12.15.2021	Monthly	5.5 % above TJLP	5.5 % above TJLP	1,156	331	496
											13,741	**15,794**
Finep												
21120105-00	Copel Tel	BEL project - ultra wide band intranet service (Ultra Wide Band - UWB).	Lock of proceeds received in current account.	07.17.2012	81	10.15.2020	Monthly	4.0%	4.39%	35,095	2,626	5,778
21120105-00	Copel Tel	BEL project - ultra wide band intranet service (Ultra Wide Band - UWB).	Lock of proceeds received in current account.	07.17.2012	81	10.15.2020	Monthly	3.5% + TR	3.88% + TR	17,103	2,219	4,881
											4,845	**10,659**
Promissory notes	Copel GeT	Payment of the first installment of debentures and cash enhancement of Copel Get.	Surety of Copel.	05.12.2017	1	05.12.2019	Single installment	117% of DI	117% of DI	500,000	-	572,419
											-	**572,419**
Banco do Brasil - BNDES Transfer												
21/02000-0	Copel GeT	Implementation of Mauá HPP.	Revenue from energy sales from the plant.	04.16.2009	179	01.15.2028	Monthly	2.13% above TJLP	2.13% above TJLP	169,500	95,807	107,324
											95,807	**107,324**

(continued)

Consolidated

Contracts	Company	Allocation	Guarantees	Issue Date	Number of installment	Final maturity	Payment of charges	Contractual financial charges p.y.	Effective interest rate p.y.	Contract amount	12.31.2019	12.31.2018
BNDES												
820989.1	Copel GeT	Implementation of Mauá HPP.	Revenue from energy sales from the plant.	03.17.2009	179	01.15.2028	Monthly	1.63% above TJLP	1.63% above TJLP	169,500	95,807	107,326
1120952.1	Copel GeT	Implementation of transmission line between Foz do Iguaçu and Cascavel Oeste substations.	Assignment of receivables; revenue from energy transmission services.	12.16.2011	168	04.15.2026	Monthly	1.82% and 1.42% above TJLP	1.82% and 1.42% above TJLP	44,723	21,090	24,344
1220768.1	Copel GeT	Implementation of Cavernoso II SHP.	Revenue from energy sales from the plant.	09.28.2012	192	07.15.2029	Monthly	1.36% above TJLP	1.36% above TJLP	73,122	46,240	50,908
13211061	Copel GeT	Implementation of Colíder HPP.	Assignment of receivables	12.04.2013	192	10.15.2031	Monthly	0% and 1.49% above TJLP	6.43% and 7.68%	1,041,155	817,329	844,940
13210331	Copel GeT	Implementation of Cerquilho III substation.	Assignment of receivables	12.03.2013	168	08.15.2028	Monthly	1.49% and 1.89% above TJLP	1.49% and 1.89% above TJLP	17,644	11,385	12,659
15206041	Copel GeT	Implementation of transmission line Assis - Paraguaçu Paulista II.	Assignment of receivables	12.28.2015	168	06.15.2030	Monthly	2.42% above TJLP	9.04%	34,265	22,419	24,477
15205921	Copel GeT	Implementation of transmission lines Londrina - Figueira and Salto Osório - Foz do Chopim.	Assignment of receivables	12.28.2015	168	12.15.2029	Monthly	2.32% above TJLP	8.93%	21,584	13,526	14,832
18205101	Copel GeT	Implementation of Baixo Iguaçu HPP.	Assignment of receivables	11.22.2018	192	06.15.2035	Monthly	1.94% above TJLP	8.50%	194,000	196,827	162,229
14205611-A	Copel DIS	Preservation of business, improvements, operating support and general investments in the expansion and consolidation of projects and social investment programs of companies (ISE).	Surety of Copel; assignment of revenues and indemnity rights under the concession.	12.15.2014	72	01.15.2021	Monthly	2.09% above TJLP	8.37%	41,583	7,611	14,591
14205611-B	Copel DIS			12.15.2014	6	02.15.2021	Annual	2.09 above TR BNDES	2.09 above TR BNDES	17,821	8,288	11,992
14205611-C	Copel DIS			12.15.2014	113	06.15.2024	Monthly	6.0%	6.0%	78,921	35,267	43,097
14205611-D	Copel DIS			12.15.2014	57	02.15.2021	Monthly	TJLP	TJLP	750	11	20
14.2.1271.1	Santa Maria	Construction and implementation of wind generating plants.	Surety of Copel; pledge of shares; assignment of receivables and revenues.	06.01.2015	192	08.15.2031	Monthly	1.66% above TJLP	8.26%	71,676	45,582	49,336
14.2.1272.1	Santa Helena	Construction and implementation of wind generating plants.	Surety of Copel; pledge of shares; assignment of receivables and revenues.	06.01.2015	192	08.15.2031	Monthly	1.66% above TJLP	8.26%	82,973	49,458	53,531
11211521	GE Farol	Construction and implementation of wind generating plants.	Pledge of shares; assignment of receivables from energy sales from the project; assignment of machinery and equipment.	03.19.2012	192	06.15.2030	Monthly	2.34% above TJLP	2.34% above TJLP	54,100	41,388	45,158
11211531	GE Boa Vista	Construction and implementation of wind generating plants.	Pledge of shares; assignment of receivables from energy sales from the project; assignment of machinery and equipment.	03.19.2012	192	06.15.2030	Monthly	2.34% above TJLP	2.34% above TJLP	40,050	30,598	33,385
11211541	GE S.B. do Norte	Construction and implementation of wind generating plants.	Pledge of shares; assignment of receivables from energy sales from the project; assignment of machinery and equipment.	03.19.2012	192	06.15.2030	Monthly	2.34% above TJLP	2.34% above TJLP	90,900	69,394	75,715
11211551	GE Olho D'Água	Construction and implementation of wind generating plants.	Pledge of shares; assignment of receivables from energy sales from the project; assignment of machinery and equipment.	03.19.2012	192	06.15.2030	Monthly	2.34% above TJLP	2.34% above TJLP	97,000	74,112	80,862
18204611	Cutia	Construction and implementation of wind generating plants.	Pledge of shares; assignment of receivables.	10.25.2018	192	07.15.2035	Monthly	2.04% above TJLP	8.37%	619,405	611,457	517,083
13212221 - A	Costa Oeste	Implementation of transmission line between Cascavel Oeste and Umuarama Sul substations and implementation of Umuarama Sul substation.	Assignment of receivables; 100% of pledged shares.	12.03.2013	168	11.30.2028	Monthly	1.95% + TJLP	1.95% + TJLP	27,634	19,203	21,291
13212221 - B	Costa Oeste			12.03.2013	106	09.30.2023	Monthly	3.5%	3.5%	9,086	2,992	3,789
14205851 - A	Marumbi	Implementation of transmission line between Curitiba and Curitiba Leste and implementation of Curitiba Leste substation.	Assignment of receivables; 100% of pledged shares.	07.08.2014	168	06.30.2029	Monthly	2.00% + TJLP	2.00% + TJLP	33,460	24,627	27,134
14205851 - B	Marumbi			07.08.2014	106	04.30.2024	Monthly	6.0%	6.0%	21,577	9,813	12,076
											2,254,424	**2,230,775**
Total local currency											**3,059,727**	**3,974,632**
										Gross debt	**3,168,710**	**4,079,383**
										(-) Transaction cost	**(26,327)**	**(32,076)**
										Net debt	**3,142,383**	**4,047,307**
										Current	**255,521**	**1,113,047**
										Noncurrent	**2,886,862**	**2,934,260**

DI - Interbank Deposit Rate
IPCA - Inflation Index (*Índice Nacional de Preços ao Consumidor Amplo, in Portuguese)*
TJLP - Long-term interest rate
TR - Referential Rate

22.1 Collateral and escrow deposits - STN

Constitution of guarantees, in the form of a cash guarantee, Par Bond, in the amount of R$ 57,968 (R$ 52,717 at December 31, 2018), and Discount Bond, in the amount of R$ 40,465 (R$ 36,838 at December 31, 2018) intended to the repayment of the amount of principal related to the STN contracts, upon maturity on April 11, 2024. The amounts are adjusted by applying the weighted average of the percentage changes of the Zero Coupon Bond prices of the United States of America Treasury, by the percentage share of each series of the instrument in the portfolio of collateral for repayment of principal, constituted pursuant to the Brazilian Financing Plan of 1992.

22.2 Breakdown of loans and financing by currency and index

Consolidated		12.31.2019	%	12.31.2018	%
Foreign currency - change in currencies in the period (%)					
U.S. Dollar	4.02	108,983	3.47	104,751	2.59
		108,983	**3.47**	**104,751**	**2.59**
Local currency - indexes at period end (%)					
TJLP	5.57	2,271,187	72.30	2,245,786	55.49
CDI	4.40	676,720	21.54	1,410,479	34.85
TR	0.00	2,202	0.07	4,842	0.12
IPCA	4.31	8,288	0.26	11,992	0.30
Without indexer (annual fixed rate)	-	75,003	2.36	269,457	6.65
		3,033,400	**96.53**	**3,942,556**	**97.41**
		3,142,383	**100.00**	**4,047,307**	**100.00**

22.3 Maturity of noncurrent installments

			Parent Company			Consolidated
12.31.2019	**Gross debt**	**(-) Transaction cost**	**Net debt**	**Gross debt**	**(-) Transaction cost**	**Net debt**
2021	512,004	(1,301)	510,703	706,500	(2,781)	703,719
2022	128,001	(445)	127,556	319,580	(2,061)	317,519
2023	-	-	-	191,584	(1,618)	189,966
2024	107,816	-	107,816	295,366	(1,625)	293,741
2025	-	-	-	185,009	(1,622)	183,387
After 2025	-	-	-	1,211,911	(13,381)	1,198,530
	747,821	**(1,746)**	**746,075**	**2,909,950**	**(23,088)**	**2,886,862**

22.4 Changes in loans and financing

Parent Company	Foreign currency	Local currency	Total
Balance as of January 1, 2018	**89,270**	**896,842**	**986,112**
Charges	5,038	64,406	69,444
Monetary and exchange variations	15,161	-	15,161
Amortization - principal	-	(77,000)	(77,000)
Payment - charges	(4,718)	(85,614)	(90,332)
Balance as of December 31, 2018	**104,751**	**798,634**	**903,385**
Charges	5,599	57,250	62,849
Monetary and exchange variations	4,170	-	4,170
Amortization - principal	-	(115,500)	(115,500)
Payment - charges	(5,537)	(63,664)	(69,201)
Balance as of December 31, 2019	**108,983**	**676,720**	**785,703**

Consolidated	Foreign currency	Local currency	Total
Balance as of January 1, 2018	**89.270**	**3.670.235**	**3.759.505**
Effect of acquisition of control of Costa Oeste and Marumbi	**-**	**66.775**	**66.775**
Funding	-	1.314.766	1.314.766
Charges	5.038	289.365	294.403
Monetary and exchange variations	15.161	11.936	27.097
Amortization - principal	-	(1.126.144)	(1.126.144)
Payment - charges	(4.718)	(284.377)	(289.095)
Balance as of December 31, 2018	**104.751**	**3.942.556**	**4.047.307**
Funding	-	796.296	796.296
Charges	5.599	268.950	274.549
Monetary and exchange variations	4.170	6.907	11.077
Amortization - principal	-	(1.660.869)	(1.660.869)
Payment - charges	(5.537)	(320.440)	(325.977)
Balance as of December 31, 2019	**108.983**	**3.033.400**	**3.142.383**

22.5 Covenants

The Company signed loans and financing agreements containing covenants that require economic and financial ratios to be maintained within pre-determined parameters, requiring annual fulfillment and other conditions to be complied with, such as not changing the Company's interest in the capital stock of subsidiaries that would represent change of control without prior consent. Failing to fulfill these conditions may lead to accelerated debt repayment and/or fines.

As of December 31, 2019, the Company is in compliance with all covenants.

The financial covenants contained in the agreements are presented below:

Company	Contract	Annual financial index	Limit
Copel GeT	BNDES Finem No. 820989.1 - Mauá Banco do Brasil No. 21/02000-0 - Mauá	EBITDA / Net financial results	≥ 1,3
Copel DIS	BNDES Finem No. 14205611	Financial indebtedness / adjusted EBITIDA	≤ 4,0
Santa Maria	BNDES Finem No. 14212711	Debt service coverage ratio	≥ 1,3
Santa Helena	BNDES Finem No. 14212721		
São Bento Energia, Investimento e Participações	BNDES Assignment Agreement	Debt service coverage ratio	≥ 1,3
GE Boa Vista S.A.	BNDES Finem No. 11211531		
GE Farol S.A.	BNDES Finem No. 11211521		
GE Olho D´Água S.A.	BNDES Finem No. 11211551		
GE São Bento do Norte S.A.	BNDES Finem No. 11211541		
Cutia	BNDES Finem No. 18204611	Debt service coverage ratio (a)	≥ 1,2
Costa Oeste	BNDES Finem No. 13212221	Debt service coverage ratio	≥ 1,3
Marumbi	BNDES Finem No. 14205851	Debt service coverage ratio	≥ 1,3

Financing for businesses - Finem

(a) financial ratio calculated based on the amounts of the consolidated financial statements of Cutia Empreendimentos Eólicos S.A.

23 Debentures

Company	Issue	Characteristics	Allocation	Guarantees	Issue Date	Number of installment	Final maturity	Payment of charges	Contractual financial charges p.y.	Effective interest rate p.y.	Contract amount	12.31.2019	12.31.2018
Copel	5th	(a)	Working capital or used to make investments in the issuer.	Personal guarantee	05.13.2014	3	05.13.2019	Half-yearly	111.5% of DI	111.5% of DI	1,000,000	-	336,341
	6th				06.28.2017	1	06.28.2019	Single installment	117.0% of DI	117.0% of DI	520,000	-	586,230
	7th				01.19.2018	2	01.19.2021	Half-yearly	119.0% of DI	125.18% of DI	600,000	617,378	619,998
	8th		Payment of the 6th issue of debentures and working capital increase		06.14.2019	1	06.14.2022	Half-yearly	106.0% of DI	110.93% of DI	500,000	500,906	-
Copel GeT	1st	(a)	Working capital or used to make investments in the issuer.	Personal guarantee	05.15.2015	3	05.15.2020	Annual	113.0% of DI	114.29% of DI	1,000,000	346,906	696,593
	2nd				07.13.2016	2	07.13.2019	Annual	121.0% of DI	121.0% of DI	1,000,000	-	517,565
	3rd				10.20.2017	3	10.20.2022	Half-yearly	126.0% of DI	131.21% of DI	1,000,000	1,011,691	1,014,685
	4th		Full early redemption of the 4th issue of the Company's trade promissory notes and partial payment of the 1st amortization installment of the 2nd issue of debentures.		07.23.2018	3	07.23.2023	Half-yearly	126.0% of DI	133.77% of DI	1,000,000	1,030,054	1,032,762
	5th	(b)	Reimbursement of expenses related to the construction of the Transmission Lines Araraquara II - Taubaté, Assis - Londrina and Foz do Chopim.		09.25.2018	5	09.15.2025	Half-yearly	IPCA + 7.6475%	IPCA+ 8.3295%	290,000	308,464	295,448
	6th (1st serie)	(c)	Full early redemption of the 5th issue of the Company's trade promissory notes and partial payment of the 2nd amortization installment of the 2nd issue of debentures.		07.15.2019	2	07.15.2024	Half-yearly	109.0% of DI	111.25% of DI	800,000	818,406	-
	6th (2nd serie)		Reimbursement of expenses related to the Colíder HPP and Baixo Iguaçu HPP projects		07.15.2019	1	07.15.2025	Half-yearly	IPCA + 3.90%	IPCA+ 4.46%	200,000	205,677	-
Copel DIS	2nd	(a)	Working capital or used to make investments in the issuer.	Personal guarantee	10.27.2016	2	10.27.2019	Annual	124.0% of DI	130.37% of DI	500,000	-	253,226
	3rd				10.20.2017	2	10.20.2022	Half-yearly	126.0% of DI	130.85% of DI	500,000	505,846	507,342
	4th		Working capital and payment of the 1st installment of amortization of the 2nd issue of debentures.		09.27.2018	3	09.27.2023	Half-yearly	DI + spread 2.70%	CDI + 3.96%	1,000,000	1,019,626	1,020,260
	5th (1st serie)	(c)	Investment for expansion, renovation or improvement and reimbursement of expenses of the Issuer's electricity distribution network linked to concession contract No. 46/1999 of ANEEL.		11.15.2019	3	11.15.2027	Half-yearly	IPCA + 4.20% p.a	IPCA+ 4.61% p.a.	500,000	506,180	-
	5th (2nd serie)		Reinforcement of working capital and recomposition of cash by the final amortization of the 2nd issue of debentures.		11.15.2019	2	11.15.2027	Half-yearly	DI + spread 1.45%	CDI + 1.65%	350,000	351,914	-
Copel CTE	1st	(a)	Deployment, expansion and modernization of the telecommunication network.	Personal guarantee	10.15.2015	5	10.15.2024	Half-yearly	IPCA + 7.9633%	IPCA+ 8.1073%	160,000	195,429	188,278
	2nd				07.15.2017	1	07.15.2022	Half-yearly	IPCA + 5.4329%	IPCA+ 6.1036%	220,000	246,355	237,214
	3rd		Investments in the issuer.		05.15.2019	3	05.15.2024	Half-yearly	117.0% of DI	119.58% of DI	210,000	211,348	-
Brisa Potiguar	2nd (1st serie)	(d)	Implementation of wind generating plants.	Real and personal guarantee and pledge of Copel GeT shares.	03.24.2016	192	07.15.2032	Monthly	TJLP + 2.02%	TJLP + 2.02%	147,575	119,171	128,242
	2nd (2nd serie)				03.24.2016	192	07.15.2032	Monthly	IPCA + 9.87%	IPCA+ 10.92%	153,258	135,657	141,069
Cutia	1st	(b)	Construction and implementation of wind generating plants.	Personal guarantee	03.20.2019	26	12.15.2031	Half-yearly	IPCA + 5.8813%	IPCA+ 6.83%	360,000	352,829	-
Compagás	2nd	(e)	Fund investment plan of the issuer.	Floating	04.15.2016	54	12.15.2021	Quarterly	TJLP + 2.17%	TJLP + 2.17%	33,620	6,001	8,973
						0			SELIC + 2.17%	SELIC + 2.17%	-	5,782	8,678
	3rd	(f)	Issuer's investment plan fund.	Real	12.17.2019	18	06.28.2021	Monthly	DI + Spread 0.88% p.a.	5.68% p.a.	43,000	44,746	-
											Gross debt	**8,540,366**	**7,592,904**
											(-) Transaction cost	**(110,656)**	**(74,773)**
											Net debt	**8,429,710**	**7,518,131**
											Current	**1,164,301**	**2,184,881**
											Noncurrent	**7,265,409**	**5,333,250**

(a) Simple debentures, single series, not convertible into shares, unsecured, for public distribution with restricted placement efforts, according to CVM No. 476. Guarantor: Copel. Trustee: Pentágono S.A. DTVM.

(b) Simple debentures, single series, not convertible into shares, with security interest and additional personal guarantee, for public distribution with restricted efforts, pursuant to CVM Instruction No. 476.
Guarantor: Copel. Trustee: Pentágono S.A. DTVM.

(c) Simple debentures, two series, not convertible into shares, unsecured, for public distribution with restricted placement efforts, according to CVM No. 476. Guarantor: Copel. Trustee: Pentágono S.A. DTVM.

(d) Simple debentures, two series, not convertible into shares, issued privately. Companies: Nova Asa Branca I, Nova Asa Branca II, Nova Asa Branca III, Nova Eurus e Ventos de Santo Uriel. Guarantor: Copel. They have no trustee.

(e) Simple registered debentures, single series, with private issue and exclusive placement by BNDESPAR. Guarantor: Compagás. Trustee: BNDES Participações S.A. BNDESPAR.

(f) Simple and registered debentures, with a single series, in private issue, with public distribution of restricted efforts. Guarantor: Compagás. Trustee: Simplific Pavarini DTVM Ltda.

23.1 Maturity of noncurrent installments

	Parent Company			Consolidated		
12.31.2019	Gross debt	(-) Transaction cost	Net debt	Gross debt	(-) Transaction cost	Net debt
2021	300,000	(1,475)	298,525	1,851,659	(20,991)	1,830,668
2022	500,000	(812)	499,188	2,393,255	(20,900)	2,372,355
2023	-	-	-	1,290,978	(13,143)	1,277,835
2024	-	-	-	640,764	(7,438)	633,326
2025	-	-	-	478,666	(5,505)	473,161
After 2025	-	-	-	694,561	(16,497)	678,064
	800,000	**(2,287)**	**797,713**	**7,349,883**	**(84,474)**	**7,265,409**

23.2 Changes in debentures

	Parent Company	Consolidated
Balance as of January 1, 2018	**1,215,481**	**6,070,978**
Funding	600,000	2,890,283
Charges and monetary variations	120,422	549,539
Amortization - principal	(333,300)	(1,491,667)
Payment - charges	(64,523)	(501,002)
Balance as of December 31, 2018	**1,538,080**	**7,518,131**
Funding	500,000	2,965,028
Charges and monetary variations	91,339	623,795
Amortization - principal	(853,400)	(1,977,125)
Payment - charges	(163,298)	(700,119)
Balance as of December 31, 2019	**1,112,721**	**8,429,710**

23.3 Covenants

Copel issued debentures containing covenants that require the maintenance of certain economic and financial ratios within pre-determined parameters, requiring annual fulfillment and other conditions to be complied with, such as not changing the Company's interest in the capital stock that would represent change of control without prior consent from the debenture holders; not paying out dividends or interest on capital if it is in arrears in relation to honoring any of its financial obligations or not maintaining the financial ratios as determined without prior written consent of the debenture holders. Failing to fulfill these conditions may lead to accelerated redemption of debentures and regulatory penalties.

As of December 31, 2019, all the other ratios and covenants have been fulfilled

The financial covenants contained in the agreements are presented as follows:

Company	Contract	Annual financial index	Limit
Copel	7th issue of Debentures 8th issue of Debentures	Consolidated net debt / Consolidated EBITDA Debt service coverage ratio	≤ 3,5 ≥ 1,5
Copel GeT	1st issue of Debentures 3rd issue of Debentures 4th issue of Debentures 5th issue of Debentures 6th issue of Debentures		
Copel DIS	3rd issue of Debentures 4th issue of Debentures 5th issue of Debentures		
Copel TEL	1st issue of Debentures 2nd issue of Debentures 3rd issue of Debentures		
Compagás	2nd issue of Debentures	Net debt / EBTIDA	≤ 3,5
		General Indebtedness	≤ 0,7
	3rd issue of Debentures	Net debt / EBTIDA	≤ 3,5
Nova Asa Branca I Nova Asa Branca II Nova Asa Branca III Nova Eurus IV Ventos de Santo Uriel	2nd issue of Debentures	Debt service coverage ratio	≥ 1,3
Cutia	1st issue of Debentures	Debt service coverage ratio (a)	≥ 1,2

(a) financial ratio calculated based on the amounts of the consolidated financial statements of Cutia Empreendimentos Eólicos S.A.

24 Post-employment Benefits

The Company sponsors private retirement and pension plans (Unified Plan and Plan III) and Healthcare Plan for medical and dental care ("ProSaúde II" and "ProSaúde III" Plans) for their active employees and their legal dependents. The lifetime sponsorship of the Healthcare Plan for retirees, pensioners and legal dependents is only applied to "Prosaúde II" plan participants.

The amounts of these actuarial obligations (contributions, costs, liabilities, and/or assets) are calculated annually by an independent actuary at year end.

The benefits plan assets are measured at market values (mark-to-market).

The amount of the net assistance liability is recognized at the present value of the actuarial liability, less the fair value of the plan assets.

Under the projected credit unit method adopted, each year of service triggers an additional benefit unit, which are added up to determine the final liability.

Other actuarial assumptions are used, which take into account biometric and economic tables in addition to historical data from the benefits plans, obtained from the manager of these plans, Fundação Copel de Previdência e Assistência Social.

Actuarial gains or losses caused by changes in assumptions and/or actuarial adjustments are recognized in other comprehensive income.

24.1 Pension plan

The Unified Plan is a Defined Benefit plan - BD in which the income is predetermined, according to each individual's salary. This plan is closed for new participants since 1998.

The Plan III is a Variable Contribution plan - CV, being the only plan available for new participants.

The costs assumed by the sponsors for these plans are recognized according to the actuarial evaluation prepared annually by independent actuaries in accordance with CPC 33 (R1) Employees and Benefits, correlated to IAS 19 and IFRIC 14. The economic and financial assumptions for purposes of the actuarial valuation are discussed with the independent actuaries and approved by the Company's Management.

24.2 Helathcare Plan

The Company allocate resources for the coverage of healthcare expenses incurred by their employees and their dependents, within rules, limits and conditions set in "ProSaúde II" and "ProSaúde III" Plans' regulations. Coverage includes periodic medical exams in both plans and is extended to all retirees and pensioners for life only in the "ProSaúde II" plan.

24.3 Balance sheet and statement of income

Amounts recognized in liabilities, under Post-employment benefits, are summarized below:

	Parent Company		Consolidated	
	12.31.2019	**12.31.2018**	**12.31.2019**	**12.31.2018**
Pension plans	228	7	1,537	1,149
Healthcare plans	8,808	4,947	1,193,399	967,614
	9,036	**4,954**	**1,194,936**	**968,763**
Current	**378**	**87**	**66,004**	**58,478**
Noncurrent	**8,658**	**4,867**	**1,128,932**	**910,285**

Amounts recognized in the statement of income are shown below:

	Parent Company		Consolidated	
	12.31.2019	12.31.2018	12.31.2019	12.31.2018
Employees				
Pension plans	526	523	72,067	78,209
Healthcare plan - post employment	608	563	99,578	97,866
Healthcare plan - active employees	789	816	87,515	86,580
(-) Transfers to construction in progress	-	-	(22,394)	(20,630)
	1,923	**1,902**	**236,766**	**242,025**
Management				
Pension plans	554	344	1,450	1,598
Healthcare plan	34	40	110	127
	588	**384**	**1,560**	**1,725**
	2,511	**2,286**	**238,326**	**243,750**

24.4 Changes in post-employment benefits

	Parent Company	Consolidated
Balance as of January 1, 2018	**4,052**	**866,103**
Appropriation of actuarial calculation	563	97,900
Appropriation of pension and healthcare contributions	5,860	151,215
Adjustment related to actuarial gains (loss)	408	58,354
Amortizations	(5,929)	(204,809)
Balance as of December 31, 2018	**4,954**	**968,763**
Appropriation of actuarial calculation	608	99,578
Appropriation of pension and healthcare contributions	4,797	138,974
Adjustment related to actuarial gains	3,371	186,628
Amortizations	(4,694)	(199,007)
Balance as of December 31, 2019	**9,036**	**1,194,936**

24.5 Actuarial valuation in accordance with CPC 33 (R1) /IAS 19

24.5.1 Actuarial assumptions

The actuarial assumptions used to determine the amounts of liabilities and costs for 2019 and 2018 are shown below:

Consolidated	2019		2018	
	Real	Nominal	Real	Nominal
Economic				
Inflation p.y.	-	2.90%	-	4.00%
Expected rate of discount/return p.y.				
Unified Plan - Defined Benefit	3.05%	6.04%	4.60%	8.78%
Unified Plan - Balance	3.20%	6.19%	4.60%	8.78%
Plan III	3.20%	6.19%	4.60%	8.78%
Assistance Plan	3.30%	6.30%	4.60%	8.78%
Salary growth				
Unified Plan p.y.	1.00%	3.93%	2.00%	6.08%
Plan III p.y.	1.50%	4.44%	1.50%	5.56%
Demographic				
Mortality Table		AT - 2000		AT - 2000
Mortality table of individuals with permanent disability		WINKLEVOSS		WINKLEVOSS
Table of new disability benef it vested		TASA 1927		TASA 1927

24.5.2 Number of participants and beneficiaries

Consolidated	Social Security Plans					
	Unified Plan		Plan III		Assistance Plan	
	12.31.2019	12.31.2018	12.31.2019	12.31.2018	12.31.2019	12.31.2018
Number of active participants	27	33	7,647	8,180	6,963	7,427
Number of Inactive participants	4,337	4,368	4,324	3,843	8,433	8,174
Number of dependent people	-	-	-	-	22,183	22,472
Total	**4,364**	**4,401**	**11,971**	**12,023**	**37,579**	**38,073**

24.5.3 Life expectancy after the average age of participants - Annuity Table AT-2000 (in years)

Consolidated	Unified Plan	Plan III
As of 12.31.2019		
Retired participants	13.13	25.84
Pensioner participants	8.40	25.84
As of 12.31.2018		
Retired participants	14.37	22.74
Pensioner participants	15.68	27.21

The average age of inactive participants of the healthcare and pension plans of the Company is 66.6 and 65.9 years, respectively.

24.5.4 Actuarial evaluation

Based on the revision of the assumptions, the amounts of the Unified Plan and Plan III as of December 31, 2019 totaled surplus of R$ 908,294 and R$ 91,218, respectively and surplus of R$ 376,077 and R$ 32,732, respectively as of December 31, 2018. Applicable ruling legislation does not allow any significant reduction in contributions or refunds to the Company based on the current surplus of these plans. For this reason, the Company did not record assets in its balance sheet as of December 31, 2019, reflecting any right to reduce contributions, refund of surplus or other amounts.

Consolidated	Unified Plan	Plan III	Assistance Plan	12.31.2019	12.31.2018
Total liabilities or partially covered	6,638,462	3,046,536	1,389,610	11,074,608	9,201,030
Fair value of the plan assets	(7,546,756)	(3,137,754)	(196,211)	(10,880,721)	(8,642,068)
Plan coverage status	**(908,294)**	**(91,218)**	**1,193,399**	**193,887**	**558,962**
Unrecognized asset	908,294	91,218	-	999,512	408,652
	-	**-**	**1,193,399**	**1,193,399**	**967,614**

The Company adjusted their assistance liabilities through the actuarial report issued on December 31, 2019, when an actuarial gain of R$ 186,628 was recorded in other comprehensive income, corresponding to an increase ascertained on that base date.

24.5.5 Changes in actuarial liabilities

Consolidated	Unified Plan	Plan III	Assistance Plan
Present value of net actuarial obligations as of January 1, 2018	**5,352,894**	**1,734,568**	**1,035,957**
Cost of services	589	9,604	11,633
Cost of interest	533,201	195,991	102,916
Benefits paid	(414,256)	(133,281)	(7)
Actuarial (gain) losses	442,336	338,779	(9,894)
Present value of net actuarial obligations as of December 31, 2018	**5,914,764**	**2,145,661**	**1,140,605**
Cost of services	560	4,098	14,306
Cost of interest	477,732	128,075	106,004
Benefits paid	(435,454)	(174,427)	(30)
Actuarial (gain) losses	680,860	943,129	128,725
Present value of net actuarial obligations as of December 31, 2019	**6,638,462**	**3,046,536**	**1,389,610**

24.5.6 Changes in actuarial assets

Consolidated	Unified Plan	Plan III	Assistance Plan
Fair value of the Plan's assets as of January 1, 2018	**5,834,572**	**1,821,055**	**170,923**
Return estimated for assets	593,572	230,703	16,579
Contributions and distributions	24,011	9,184	-
Benefits paid	(414,256)	(133,281)	-
Actuarial gain (losses)	252,942	250,575	(14,511)
Fair value of the Plan's assets as of December 31, 2018	**6,290,841**	**2,178,236**	**172,991**
Return estimated for assets	685,685	337,476	51,541
Contributions and distributions	23,851	4,185	-
Benefits paid	(435,454)	(174,427)	-
Actuarial gain (losses)	981,833	792,284	(28,321)
Fair value of the Plan's assets as of December 31, 2019	**7,546,756**	**3,137,754**	**196,211**

24.5.7 Estimated costs

The estimated net periodic plan costs (income) for 2020 for each plan are shown below:

Consolidated	Unified Plan	Plan III	Assistance Plan
Cost of current service	765	4,037	20,854
Estimated cost of interest	405,370	183,865	85,561
Expected return on plan assets	(449,905)	(183,026)	(12,066)
Expected employee contributions	(187)	(2,018)	-
Costs (income)	**(43,957)**	**2,858**	**94,349**

24.5.8 Sensitivity Analysis

The following tables set out a sensitivity analysis, which shows the effect of a one percent increase or decrease in the assumed care costs, in the aggregate of the cost of service and cost of interest components and the accumulated post-employment benefit obligation.

Consolidated	Projected scenarios	
	Increase by 1%	Decrease in 1%
Sensitivity of long-term interest rate		
Impacts on the obligations of the pension	(249,719)	253,420
Impacts on the obligations of healthcare program	(120,756)	122,130
Sensitivity of growth rate of the medical costs		
Impacts on the obligations of healthcare program	96,823	(90,471)
Impact on cost of service for the following financial year of healthcare program	1,439	(1,344)
Sensitivity of the service cost		
Impacts on the obligations of the pension	39	(40)
Impacts on the obligations of healthcare program	1,788	(1,808)

24.5.9 Benefits payable

The estimated benefits to be paid by the Company in the next five years and the total benefits for the following fiscal years are shown below:

Consolidated	Unified Plan	Plan III	Assistance Plan	Total
2020	429,228	158,427	82,813	670,468
2021	418,133	154,433	86,125	658,691
2022	406,885	149,999	85,451	642,335
2023	395,134	145,567	83,826	624,527
2024	383,511	141,302	81,965	606,778
2025 to 2049	4,016,371	2,011,843	1,091,223	7,119,437

24.5.10 Asset allocation and investment strategy

The asset allocation for the Company pension and healthcare plans at the end of 2019 and the allocation goal for 2020, by asset category, are shown below:

Consolidated	Goal for 2020	2019
Fixed income	70.4%	82.2%
Variable income	9.1%	7.8%
Loans	1.6%	1.6%
Real estate	7.2%	1.4%
Investment structuring	8.9%	7.1%
Investments abroad	2.8%	0.0%
	100.0%	**100.0%**

In addition, information on the allocation of assets of pension plans sponsored by the Company:

Consolidated	Unified Plan		Plan III	
	target (%)(*)	minimum (%)	target (%)	minimum (%)
Fixed income	86.5%	55.0%	51.0%	23.0%
Variable income	5.0%	1.0%	14.0%	8.0%
Loans	0.5%	0.0%	3.0%	1.0%
Real estate	5.0%	1.0%	10.0%	0.0%
Investment structuring	3.0%	0.0%	16.0%	0.0%
Investments abroad	0.0%	0.0%	6.0%	0.0%

(*) Target based on the total investment of each plan.
Management of Fundação Copel decided to keep a more conservative approach investing in variable income in relation to the allowed legal limit, which is 70%.

As of December 31, 2019, and 2018, the pension plan assets included the following securities issued by Copel:

Consolidated	Unified Plan		Plan III	
	12.31.2019	12.31.2018	12.31.2019	12.31.2018
Debentures	-	-	-	4,166
Shares	-	5	-	13
	-	**5**	**-**	**4,179**

24.5.11 Additional information

The Company made contributions to Plan III (variable contribution plan) for all active employees at December 31, 2019 and 2018, in the amounts of R$ 70,564 and R$ 77,797, respectively.

25 Sectorial Charges Due

Consolidated	12.31.2019	12.31.2018
Energy Development Account - CDE	4,104	73,549
Global Reversal Reserve - RGR	12,068	6,323
Tariff flags	12,336	-
	28,508	**79,872**

26 Research and Development and Energy Efficiency

In accordance with Law No. 9,991/2000 and supplementary regulations, concession operators and licensees of electric power generation and transmission are required to allocate annually the percentage of 1% of their net operating regulatory revenue to research and development of the electricity sector activities, and the electric power distribution concession operators must segregate this same percentage into the research and development and energy efficiency programs of the electricity sector.

26.1 Balances recognized for investment in Research and Development (R&D) activities and the Energy Efficiency Program (EEP)

Consolidated	Amounts payable, before any related prepayments	Amounts payable to regulatory agencies	Other amounts payable	Balance as of 12.31.2019	Balance as of 12.31.2018
Research and Development - R&D					
FNDCT	-	4,046	-	4,046	4,725
MME	-	2,023	-	2,023	2,361
R&D	174,032	-	167,626	341,658	327,626
	174,032	**6,069**	**167,626**	**347,727**	**334,712**
Energy efficiency program - EEP					
Procel	-	16,410	-	16,410	15,792
EEP	48,518	-	245,516	294,034	242,231
	48,518	**16,410**	**245,516**	**310,444**	**258,023**
	222,550	**22,479**	**413,142**	**658,171**	**592,735**
			Circulante	**375,395**	**270,429**
			Não circulante	**282,776**	**322,306**

National Fund for Scientific and Technological Development - FNDCT
National Program of Electricity Conservation - Procel

26.2 Changes in R&D and EEP balances

Consolidated	FNDCT	MME	R&D	Procel	EEP	Total
Balance as of January 1, 2018	**5,232**	**2,616**	**316,121**	**6,041**	**202,465**	**532,475**
Effect of acquisition of control of Costa Oeste and Marumbi	23	9	467	-	-	
Additions	31,186	15,595	31,188	9,067	36,270	123,306
Performance agreement	-	-	-	-	2,063	2,063
Interest rate (Note 34)	-	-	12,627	684	12,096	25,407
Payments	(31,716)	(15,859)	-	-	-	(47,575)
Concluded projects	-	-	(32,777)	-	(10,663)	(43,440)
Balance as of December 31, 2018	**4,725**	**2,361**	**327,626**	**15,792**	**242,231**	**592,735**
Business combination effects	20	10	1,464	-	-	1,494
Additions	32,311	16,155	32,312	9,333	37,321	127,432
Performance agreement	-	-	-	-	3,246	3,246
Interest rate (Note 34)	-	-	10,627	51	13,892	24,570
Transfers	-	-	-	(3,123)	3,123	-
Payments	(33,010)	(16,503)	-	(5,643)	990	(54,166)
Concluded projects	-	-	(30,371)	-	(6,769)	(37,140)
Balance as of December 31, 2019	**4,046**	**2,023**	**341,658**	**16,410**	**294,034**	**658,171**

27 Accounts Payable Related to Concessions

Consolidated	Company	Grant	Signature	Closing	Discount Rate	Annual Adjustment	12.31.2019	12.31.2018
HPP Mauá	Copel GeT	06.29.2007	07.03.2007	07.2042	5.65% p.y.	IPCA	16,890	16,709
HPP Colider	Copel GeT	12.29.2010	01.17.2011	01.2046	7.74% p.y.	IPCA	24,353	23,864
HPP Baixo Iguaçu	Copel GeT	07.19.2012	08.20.2012	01.2047	7.74% p.y.	IPCA	7,588	7,412
HPP Derivação Rio Jordão	Copel GeT	07.11.2013	02.24.2014	02.2019	7.74% p.y.	IPCA	-	47
HPP Fundão e HPP Santa Clara	Elejor	10.23.2001	10.25.2001	10.2036	11.00% p.y.	IGPM	563,756	536,131
							612,587	**584,163**
						Current	**73,032**	**67,858**
						Noncurrent	**539,555**	**516,305**

Discount rate applied to calculate present value
Real and net discount rate, compatible with the estimated long-term rate, not being linked to the expectation of return from the project.
Payment to the federal government
Monthly installments equivalent to 1/12 of the annual payment restated, as defined in the concession agreement.

27.1 Changes in accounts payable related to concessions

Balance as of January 1, 2018	**554,954**
Additions	302
Adjust to present value	(114)
Monetary variations	93,386
Payments	(64,365)
Balance as of December 31, 2018	**584,163**
Adjust to present value	(668)
Monetary variations	99,661
Payments	(70,569)
Balance as of December 31, 2019	**612,587**

27.2 Nominal value and present value of accounts payable related to concession

Consolidated	Nominal value	Present value
2020	71,471	73,032
2021	71,471	64,387
2022	71,471	58,128
2023	71,471	52,482
After 2023	1,024,054	364,558
	1,309,938	**612,587**

28 Right-of-use asset and lease liability

With the adoption of CPC 06 (R2)/IFRS 16, the Company recognized right-of-use asset and lease liability as follows:

28.1 Right-of-use asset

Consolidated	Initial adoption on January 1, 2019	Additions	Remeasurement Adjustment	Amortization	Loss on disposal	Balance as of 12.31.2019
Real estate	57,461	2,484	914	(17,705)	(2,999)	40,155
Vehicles	57,564	2,295	2,970	(15,205)	(1,224)	46,400
Equipment	2,997	4,574	-	(1,295)	-	6,276
	118,022	**9,353**	**3,884**	**(34,205)**	**(4,223)**	**92,831**

28.2 Lease liability

28.2.1 Changes in lease liability

	Parent Company	Consolidated
Initial adoption on January 1, 2019	**385**	**118,022**
Additions	17	9,353
Remeasurement Adjustment	23	3,884
Charges	31	9,675
Amortization - principal	(141)	(30,946)
Payment - charges	(32)	(9,130)
Disposals	-	(4,254)
Balance as of December 31, 2019	**283**	**96,604**

The Company defines the discount rate based on the interest rate applied to the last debentures fundraising, disregarding subsidized or incentivized funding. The last discount rate considered as of December 31, 2019 is 5.85% p.a., applied to contracts effective December 2019 or thereafter. The discount rate on initial adoption was 9.10% p.a.

28.2.2 Maturity of noncurrent installments

2021	22,734
2022	23,251
2023	8,285
2024	9,814
2025	1,252
After 2025	130
Undiscounted amounts	**65,466**
Embedded interest	(2,435)
Lease liabilities balance on December 31, 2019	**63,031**

28.2.3 Potential right to Pis/Cofins recoverable

The table below shows the potential right to Pis/Cofins recoverable for Pis/Cofins computed in lease consideration payable in the foreseen periods.

Cash Flows	Nominal value	Present value
Lease consideration	114,341	96,604
Potencial Pis/Cofins	**8,320**	**7,296**

28.3 Impact of forecast inflation on discounted cash flows

In accordance with CPC 06 (R2) / IFRS 16, in measuring and remeasuring lease liabilities and right-of-use assets, the Company used the discounted cash flow method without considering forecast future inflation, according to the prohibition imposed by the standard.

However, given the current reality of long-term interest rates in the Brazilian economic environment, the table below shows the comparative balances between the information recorded in accordance with IFRS 16 and the amount that would be recorded considering forecast inflation:

Consolidated	Balance in accordance with IFRS 16	Inflation projected balance	%
Lease liabilities	96,604	106,148	9.88%
Right to use assets	92,831	100,061	7.79%
Financial expense	9,675	10,341	6.88%
Amortization expense	34,205	35,398	3.49%

28.4 Commitments from leases and rentals

For leases of low value assets, such as computers, printers and furniture, short-term leases, as well as for leases of land for development of wind power generation projects, whose payment is made based on variable remuneration, the amounts are recognized in the statement of income as operating costs and/or expenses (Note 33.6). The balance of commitments from leases and rentals is shown below:

Consolidated	Less than 1 year	1 to 5 years	Over 5 years	12.31.2019
Commitments from leases and rents	6,347	29,645	158,826	194,818

29 Other Accounts Payable

Consolidated	12.31.2019	12.31.2018
Fair value in the purchase and sale of power in the active market (Note 36.2.12)	251,973	11,007
Customers (a)	43,024	70,713
Obligations to customers in gas sales operations (b)	39,665	55,048
Public lighting rate collected	38,805	28,337
Aneel Order No. 084/2017 provision	26,008	24,314
Investment acquisition	13,294	32,200
Financial offset for the use of water resources	12,535	20,820
Pledges in guarantee	9,257	10,026
Reimbursements to customer contributions	4,887	5,036
Derivatives fair value - forward contract (Note 36.2.3 - b)	1,203	-
Other liabilities	58,218	51,523
	498,869	**309,024**
Current	**149,407**	**192,070**
Noncurrent	**349,462**	**116,954**

(a) Of the balance at December 31, 2018, R$32,639 refers to amounts transferred from the Federal Government to Copel DIS, in accordance with ANEEL Directive Release No. 565/2018, for the reimbursement of consumers due to the exceeding amount collected from the Net Operating Revenue in the period from January 2010 to December 2012. There is no outstanding balance of this liability on December 31, 2019.
(b) Refers to amounts paid for the purchase of contracted gas volumes not yet taken by customers.

30 Provisions for Legal Claims and Contingent Liabilities

The Company are responsible for several legal and administrative proceedings before different courts. Based on assessments made by the Company's legal counsel, Management makes provisions for legal claims in which the losses are rated probable, when the criteria for recognition of provisioning described in Note 4.11 are met.

The Company's management believes it is impracticable to provide information regarding the timing of any cash outflows related to the lawsuits for which the Company are responsible on the date of preparation of the financial statements, in view of the unpredictability and dynamics of the Brazilian judicial, tax and regulatory systems, and that the final resolution depends on the conclusions of the lawsuits. For this reason, this information is not provided.

30.1 Provision for legal claims

30.1.1 Changes in provision for legal claims rated as involving probable losses

Consolidated		Income						
		Provision for litigations		Construction cost	Additions			
	Balances as of December 31, 2018	Additions	Reversals	Additions/(Rev.)	(Reversals) to assets	Discharges	Transfers/ Others	Balances as of December 31, 2019
Tax								
Cofins (a)	102,603	4,307	(2,626)	-	-	-	-	104,284
Others (b)	54,494	4,841	(14,258)	-	-	(1,258)	27,687	71,506
	157,097	**9,148**	**(16,884)**	**-**	**-**	**(1,258)**	**27,687**	**175,790**
Labors (c)	**612,782**	**194,550**	**(23)**	**-**	**-**	**(134,247)**	**-**	**673,062**
Employee benefits (d)	**85,199**	**27,426**	**(18,747)**	**-**	**-**	**(7,581)**	**-**	**86,297**
Civil								
Civil and administrative claims (e)	492,934	101,438	(36,271)	-	-	(221,139)	-	336,962
Easements (f)	118,147	711	(3,470)	12,456	1,012	(1,891)	45	127,010
Expropriations and property (g)	116,401	2,844	(4,501)	(2,935)	7,109	(161)	-	118,757
Customers (h)	5,209	390	(643)	-	-	-	-	4,956
Environmental (i)	3,531	1,332	(566)	-	-	(226)	-	4,071
	736,222	**106,715**	**(45,451)**	**9,521**	**8,121**	**(223,417)**	**45**	**591,756**
Regulatory (j)	**73,473**	**7,926**	**(546)**	**-**	**-**	**(1,045)**	**-**	**79,808**
	1,664,773	**345,765**	**(81,651)**	**9,521**	**8,121**	**(367,548)**	**27,732**	**1,606,713**

Consolidated		Income							
		Provision for litigations		Construction cost					
	Balances as of January 1, 2018	Additions	Reversals	Additions/(Rev.)	Additions to assets	Discharges	Transfers/ Others		Balances as of December 31, 2018
Tax									
Cofins (a)	79,748	22,855	-	-	-	-	-		102,603
Others (b)	58,793	7,722	(26,695)	-	-	(6,325)	20,999		54,494
	138,541	**30,577**	**(26,695)**	**-**	**-**	**(6,325)**	**20,999**		**157,097**
Labors (c)	**475,631**	**232,195**	**(2,400)**	**-**	**-**	**(92,644)**	**-**		**612,782**
Employee benefits (d)	**89,439**	**11,089**	**(10,062)**	**-**	**-**	**(5,267)**	**-**		**85,199**
Civil									
Civil and administrative claims (e)	527,613	119,633	(118,652)	-	-	(36,005)	345		492,934
Easements (f)	110,936	2,179	(305)	(4,600)	8,477	(1,474)	2,934		118,147
Expropriations and property (g)	95,627	156	(1,350)	4,032	18,168	(232)	-		116,401
Customers (h)	8,377	464	(1,469)	-	-	(2,163)	-		5,209
Environmental (i)	1,584	2,570	(562)	-	-	(61)	-		3,531
	744,137	**125,002**	**(122,338)**	**(568)**	**26,645**	**(39,935)**	**3,279**		**736,222**
Regulatory (j)	**64,316**	**9,296**	**(139)**	**-**	**-**	**-**	**-**		**73,473**
	1,512,064	**408,159**	**(161,634)**	**(568)**	**26,645**	**(144,171)**	**24,278**		**1,664,773**
Current	**112,000**						**Current**		**-**
Noncurrent	**1,400,064**						**Noncurrent**		**1,664,773**

Parent company	Balance as of	Income			Balance as of
	December 31, 2018	Additions	Reversals	Discharges	December 31, 2019
Tax					
Cofins (a)	102,603	4,307	(2,626)	-	104,284
Others (b)	30,040	704	-	-	30,744
	132,643	**5,011**	**(2,626)**	**-**	**135,028**
Labor (c)	**588**	**1,557**	**(1)**	**(187)**	**1,957**
Civil (e)	**142,773**	**7,756**	**-**	**-**	**150,529**
Regulatory (j)	**16,176**	**1,181**	**-**	**-**	**17,357**
	292,180	**15,505**	**(2,627)**	**(187)**	**304,871**

Parent company	Balance as of January 1, 2018	Additions	Income Reversals	Discharges	Balance as of December 31, 2018
Tax					
Cofins (a)	79,748	22,855	-	-	102,603
Others (b)	24,365	5,768	-	(93)	30,040
	104,113	**28,623**	**-**	**(93)**	**132,643**
Labor (c)	**518**	**141**	**(70)**	**(1)**	**588**
Civil (e)	**135,422**	**30,768**	**(23,409)**	**(8)**	**142,773**
Regulatory (j)	**15,042**	**1,134**	**-**	**-**	**16,176**
	255,095	**60,666**	**(23,479)**	**(102)**	**292,180**
Current	**112,000**			**Current**	**-**
Noncurrent	**143,095**			**Noncurrent**	**292,180**

30.1.2 Description of nature and/or details of the principal lawsuits

a) Contribution for Social Security Funding (COFINS)

Plaintiff: Federal Revenue of Brazil

Cofins payables and respective interest and fines from August 1995 to December 1996, due to the termination of a judicial decision that had recognized the Company's exemption from Cofins.

Current status: pending judgment of appeal.

b) Other tax provisions

Claims related to federal, state and municipal taxes, fees and other charges on which the Company discusses the incidence or not, as well as their bases and amounts for payment.

c) Labor

Labor claims comprise claims filed by employees and former employees of Copel in connection with the payment of overtime differences, hazardous working conditions, transfer bonuses, salary equality/reclassification and other matters, and also claims by former employees of contractors and third-parties (secondary responsibility) involving indemnity and other matters.

d) Employee benefits

Labor claims comprise claims filed by retired former employees of Copel and its wholly-owned subsidiaries against the Copel Foundation, which will have consequential impact on the Company and its wholly-owned subsidiaries, since additional contributions will be required.

e) Civil and admininstrative claims

Lawsuits involving billing, supposed irregular procedures, administrative contracts and contractual fines, indemnity for accidents with the electric power network or vehicles.

The balance also contains amounts being discussed by arbitration under secrecy and confidentiality, in the discovery phase, with no decision having been handed down to date.

The main lawsuit is described below:

Plaintiff: Tradener Ltda.

Class lawsuit No. 588/2006 has already been rendered final and unappeasable, and the ruling recognized as valid the contractual commissions payable by the Company to Tradener. In the civil public lawsuit No. 0000219.78.2003.8.16.0004, filed by the Prosecution Office, a decision has also been rendered ruling on the absence of irregularities in the electric power purchase agreement. Therefore, Tradener brought recovery lawsuits, seeking to receive its commissions.

Current status: On August 22, 2019, the Company paid R$ 130,440 for the judgment against it plus 1% attorney's fees, and awaits approval of the payment agreement.

Plaintiff: Tobacco growers **Estimated amount:** R$ 48,977

Lawsuits filed by tobacco growers whose main cause is power failures leading to loss of production.

f) Easements

Lawsuits are filed challenging expropriation when there is a difference between the amount determined by Copel for payment and the amount claimed by the property owner and/or when the owner's documentation supporting title to the property may not be registered (when probate proceedings are still in progress, properties have no registry number with the land registry, etc.).

Cases may also arise from intervention in third-party adverse possession, either as a confronter, or in case of a property where there are areas of easement of passage, in order to preserve the limits and boundaries of expropriated areas.

g) Expropriations and property

Expropriation and property lawsuits are filled when there is a difference between the amount determined by Copel for payment and the amount claimed by the property owner and/or when the owner's documentation supporting title to the property may not be registered (in case probate proceedings are still in progress, properties have no registry number with the land registry, etc.).

Possessory lawsuits include those for repossession of property owned by the concession operator. Litigation arises when there is a need to repossess properties invaded or occupied by third parties in areas owned by the Company. Cases may also arise from intervention in third-party adverse possession, or owners or occupants of contiguous properties or even in cases of properties to preserve limits and boundaries of expropriated areas.

The main lawsuits are as follows:

Plaintiff: Property owner **Estimated value**: R$ 28,211

Expropriation lawsuit for construction of electric substation that contests the indemnity amount.

Current status: lawsuit awaiting judgment at higher court.

Plaintiff: Property owner **Estimated value:** R$ 10,467

Lawsuit for the expropriation of the area used for the reservoir of the Mauá Plant filed by Consórcio Energético Cruzeiro do Sul, of which Copel GeT participates with 51%, in which discusses the indemnity amount of the property that is in a submerged part.

Current status: Higher court decision, motions to clarify were filed, which have not yet been judged. After judgment of the motions to clarify, a special appeal will be filed seeking to reverse the decision.

h) Consumers

Lawsuits seeking compensation for damages caused in household appliances, industrial and commercial machines, lawsuits claiming damages for pain and suffering caused by service interruption and lawsuits filed by industrial consumers, challenging the lawfulness of the increase in electricity prices while Plano Cruzado (anti-inflation economic plan) was in effect and claiming reimbursement for the amounts paid by the Company.

i) Environmental

Public civil and class actions whose purpose is to obstruct the progress of environmental licensing for new projects or to recover permanent preservation areas located around the hydroelectric power plant dams unlawfully used by private individuals. If the outcome of the lawsuits is unfavorable to the Company, Management estimates only the cost to prepare new environmental studies and to recover the areas owned by Copel GeT. They also include the Commitment Agreements (Termos de Ajuste de Conduta - TAC), which refer to the commitments agreed-upon and approved between the Company and the relevant bodies, for noncompliance with any condition provided for by the Installation and Operating Licenses.

j) Regulatory

The Company has been challenging, both at the administrative and judicial levels, notifications issued by the Regulatory Agency of alleged violations against regulations. The main action is described below:

Plaintiffs: Companhia Estadual de Energia Elétrica - CEEE and Dona Francisca Energética S.A.

Estimated amount: R$ 57,000

Copel, Copel GeT and Copel DIS are challenging lawsuits filed against ANEEL's Decision 288/2002 involving these companies.

Current status: awaiting judgment.

30.2 Contingent liabilities

30.2.1 Classification of lawsuits rated as possible losses

Contingent liabilities are present obligations arising from past events for which no provisions are recognized because it is not probable that an outflow of resources embodying economic benefits will be required to settle the obligation. The following information concerns the nature of contingent liabilities of the Company and potential losses arising therefrom:

	Parent company		Consolidated	
	12.31.2019	12.31.2018	12.31.2019	12.31.2018
Tax (a)	175,632	160,139	628,546	568,512
Labor (30.1.2 - c)	1,655	561	419,917	311,777
Employee benefits (30.1.2 - d)	-	-	21,338	19,099
Civil (d)	489,612	473,430	1,273,928	1,286,466
Regulatory (e)	-	-	1,141,420	866,836
	666,899	**634,130**	**3,485,149**	**3,052,690**

30.2.2 Description of nature and/or details of the principal lawsuits

a) Tax

Claims related to federal, state and municipal taxes, fees and other charges on which the Company discusses the incidence or not, as well as their bases and amounts for payment . The main lawsuits are as follows:

Plaintiff: National Institute of Social Security (INSS) **Estimated amount:** R$ 117,018

Tax requirements related to the social security contribution.

Current status: awaiting judgment in the Administrative Council of Tax Appeals - CARF or at the judicial level.

Plaintiff: State Tax Authority **Estimated amount:** R$ 87,657

Copel Distribution received tax deficiency notice 6.587.156-4 from the State of Paraná for allegedly failing to pay ICMS (VAT) tax on the 'metered demand' highlighted in the electricity bills issued to a major consumer between May 2011 and December 2013.

The Company maintains its illegitimacy to appear in the taxable position of this tax assessment, since it was not included in the judicial proceeding, thus it cannot suffer the effects of the ruling rendered thereon, which would entail its illegitimacy to appear as liable taxpayer in tax deficiency notice.

The Company filed a writ of mandamus on July 16, 2019, having obtained an injunction suspending ICMS levy.

Plaintiff: City halls **Estimated amount:** R$ 87,006

Tax Requirement on Urban Territorial Property on properties affected by the public electricity service. The case is pending judgment at lower court.

Plaintiff: City halls **Estimated amount:** R$ 65,443

City halls tax requirement as ISS on construction services provided by third parties.

Current status: pending judgment of answers filed at the administrative or judicial levels.

Plaintiff: Brazilian Federal Revenue Office **Estimated amount:** R$ 105,800

Requirement and administrative questioning related to federal taxes.

Current status: awaiting judgment in the Administrative Council of Tax Appeals - CARF or at the judicial level.

b) Civil

Lawsuits involving billing, supposed irregular procedures, administrative contracts and contractual fines, indemnity for accidents with the electric power network or vehicles, easements of passage, expropriations, patrimonial and environmental.

The balance also contains amounts being discussed by arbitration under secrecy and confidentiality, in the discovery phase, with no decision having been handed down to date.

The main lawsuits are as follows:

Plaintiff: Mineradora Tibagiana Ltda.

Lawsuit claiming compensation for alleged losses when this mining company was involved in the construction of the Mauá plant by the Energético Cruzeiro do Sul Consortium in which Copel GeT has a 51% stake. A final and unappealable ruling was rendered on September 4, 2019 on the lawsuit about validity of the mining permit granted to Mineradora Tibagiana, and the revocation of the Ordinance granting mining permit to Mineradora Tibagiana by the National Department of Mineral Production (Departamento Nacional de Produção Mineral - DNPM) remained valid. Due to this, the possibility of outflow of resources has become remote.

Plaintiffs: franchises of Agency/Copel store **Estimated amount:** R$ 49,689

Lawsuit filed by a former franchisee, without a current contract, with the objective of seeing the object then auctioned as a sub-concession, and not as a franchise, and, consequently, to see the contract extended and to be remunerated through fees charged to users, or, successively, be compensated for lost profits, in addition to royalties, advertising fund, among other funds.

Current status: awaiting judgment in appellate level.

Plaintiff: Department of Roads and Roadworks **Estimated amount:** R$ 85,277

The Department of Roads and Roadworks (Departamento de Estradas e Rodagens - DER) issued a tax assessment notice to Copel Distribuição which, in turn, filed a lawsuit challenging DER's Charge for Use or Occupancy of Highway Domain Range, since the Company understands that this charge is unconstitutional because it has a confiscatory nature. Currently the process is concluded for rendering of the ruling.

Plaintiff: Tobacco growers **Estimated amount:** R$ 34,792

Lawsuits filed by tobacco growers whose main cause is power failures leading to loss of production.

Current status: awaiting judgment.

c) Regulatory

The Company is challenging, both at the administrative and judicial levels, notifications issued by the Regulatory Agency of alleged violations against regulations. The principal action is described below:

Plaintiff: Energia Sustentável do Brasil S.A. - ESBR **Estimated amount:** R$ 1,034,593

ESBR filed Ordinary Lawsuit No. 10426-71.2013.4.01.4100 against ANEEL in the Federal Court of Rondônia, whose ruling: (i) acknowledged the exclusion of liability for the 535-day schedule overrun in the construction of the Jirau Hydropower Station; (ii) declares any obligations, penalties and costs imposed on ESBR as a result of the schedule overrun to be unenforceable, and (iii) annuls ANEEL Resolution 1,732/2013, which had recognized a schedule overrun of only 52 days. An appeal has been brought by ANEEL, pending judgment by the Federal Court of the 1st Region.

The practical consequence of the ruling was, at the time it exempted ESBR, to expose the distributors with whom it entered into power trading contracts (CCEARs) to the Short-Term Market and to the high value of the Settlement Price of the Differences (Preço de Liquidação das Diferenças - PLD) in the period, including Copel DIS. This occurred because the rules for the sale of electricity require that all energy consumed should have a corresponding contractual coverage.

If the lawsuits are judged unfavorably against Copel, the amount will be classified as Sectorial Financial Asset to be recovered through tariff rates.

Current status: awaiting judgment.

31 Equity

31.1 Capital

Capital consists of common and preferred shares. Each common share entitles its holder to one vote in the general shareholders' meetings. Preferred shares do not have voting rights and have two classes "A" and "B".

According to Article 17 and following paragraphs of Federal Law No. 6,404/76, dividends paid to preferred shares must be at least 10% higher than those paid to common shares.

Class "A" preferred shares have priority in the reimbursement of capital and in the distribution of minimum dividends of 10% p.a. (non-cumulative), calculated based on the capital represented by this class of shares.

Class "B" preferred shares have priority in the reimbursement of capital and the right to the distribution of dividends, calculated as 25% of adjusted profit or loss for the year, pursuant to the corporate legislation and to the Company's by-laws, calculated proportionately to the capital represented by the shares of this class. Dividends for Class "B" have priority only over the common shares and are only paid out of the remaining profits payment of priority dividends of class "A" shares.

On December 31, 2019, paid-in capital is R$ 10,800,000 (R$ 7,910,000 as at December 31, 2018). The capital increase of R$ 2,890,000 was approved at the Extraordinary General Meeting held on April 29, 2019. Shareholding interests (comprising no par value shares) and main shareholders are shown below:

								Number of shares in units
Shareholders	Common		Class "A" Preferred		Class "B" preferred		Total	
	in share	%	in share	%	in share	%	in share	%
State of Paraná	85,028,598	58.63	-	-	-	-	85,028,598	31.07
BNDES	38,298,775	26.41	-	-	27,282,006	21.26	65,580,781	23.96
Eletrobras	1,530,774	1.06	-	-	-	-	1,530,774	0.56
Free float:								
B3	19,727,829	13.60	76,783	23.47	73,612,755	57.38	93,417,367	34.15
NYSE	108,545	0.07	-	-	27,181,283	21.19	27,289,828	9.97
Latibex	-	-	-	-	170,911	0.13	170,911	0.06
City Halls	178,393	0.12	9,326	2.85	3,471	-	191,190	0.07
Other shareholders	158,166	0.11	241,033	73.68	46,727	0.04	445,926	0.16
	145,031,080	**100.00**	**327,142**	**100.00**	**128,297,153**	**100.00**	**273,655,375**	**100.00**

31.2 Equity valuation adjustments

Fair values of fixed assets – deemed costs – were recognized on the first-time adoption of IFRS. The line item “Equity value adjustments” was the balancing item of this adjustment, net of deferred income tax and social contribution. The realization of such adjustments is recorded in the retained earnings line item, to the extent of the depreciation or possible disposal of the measured fixed assets.

Adjustments arising from the changes in fair value involving financial assets, as well as actuarial gains and losses, are also recorded in this line item.

	Parent company	Consolidated
Balance as of January 1, 2018	**895,601**	**895,601**
Actuarial liabilities		
Post employment benefits	(408)	(58,354)
Taxes on adjustments	139	19,994
Post employment benefits - equity in the parent company, net of taxes.	(38,245)	-
Realization of equity evaluation adjustment		
Deemed cost of fixed assets	-	(101,645)
Taxes on adjustments	-	34,559
Deemed cost of fixed assets - equity in the parent company, net of taxes.	(67,086)	-
Reclassification by adoption of CPC 48/IFRS 9		
Equity interest investments	(4,391)	(4,391)
Attributed to non-controlling interest	**-**	**(154)**
Balance as of December 31, 2018	**785,610**	**785,610**
Adjusts to actuarial liabilities		
Post employment benefits	(3,371)	(186,628)
Taxes on adjustments	1,146	63,444
Post employment benefits - equity in the parent company, net of taxes.	(120,358)	-
Realization of equity evaluation adjustment		
Deemed cost of fixed assets	-	(100,342)
Taxes on adjustments	-	34,116
Deemed cost of fixed assets - equity in the parent company, net of taxes	(66,226)	-
Change in equity interest in Subsidiary		
Losses with interest variation in Subsidiary	(4,874)	-
Attributed to non-controlling interest	**-**	**(4,273)**
Balance as of December 31, 2019	**591,927**	**591,927**

31.3 Legal reserve and profit retention reserve

The amount of 5% of profit for the year is allocated to the legal reserve, before any other allocation, limited to 20% of capital.

The profit retention reserve is earmarked for covering the Company's investment program, according to Article 196 of Law No. 6,404/1976. It is funded by retaining the remaining profit or loss after setting up the legal reserve, interest on capital and dividends proposed.

31.4 Proposed dividend distribution

Parent Company	12.31.2019	12.31.2018
(1) Calculation of minimum mandatory dividend (25%)		
Net income for the year	1,989,946	1,407,063
Legal Reserve (5%)	(99,497)	(70,353)
Realization of equity evaluation adjustment	66,226	67,086
Calculation basis for minimum mandatory dividends	1,956,675	1,403,796
	489,169	**350,949**
(2) Total proposed distribution - (3 + 5)	**643,000**	**378,542**
(3) Interest on own capital - gross value	643,000	280,000
Tax on interest on own capital	(56,584)	(27,593)
(4) Interest on own capital, net	**586,416**	**252,407**
(5) Dividends proposed	**-**	**98,542**
(6) Total proposed distribution, net - (4 + 5)	**586,416**	**350,949**
(7) Proposed additional dividend - (6-1)	**97,247**	**-**
(8) Interest on own capital, deliberated higher than the minimum mandatory dividend (4-1)	**97,247**	**-**
Gross value of dividends per share:		
Ordinary shares	2.24235	1.31950
Class “A” preferred shares	3.94657	2.89050
Class “B” preferred shares	2.46692	1.45151
Gross value of dividends per class of shares:		
Ordinary shares	325,210	191,369
Class “A” preferred shares	1,291	950
Class “B” preferred shares	316,499	186,223

In accordance with the legal and statutory provisions in effect, the basis for calculating mandatory dividends is obtained from net income, less the quota allocated to the legal reserve. However, Management decided to add to the calculation basis the realization of the equity valuation adjustments, which is dealt with in item 28 of ICPC 10 - Interpretation on the Initial Application to Property, Plant and Equipment and CPC 27, 28, 37 e 43, in order to void the effect of the increase in depreciation expense arising from the adoption accounting standards, as well as CPC 27/IAS 16 - Property, Plant and Equipment. This procedure reflects the Company's shareholder remuneration policy, which will be practiced during the realization of the entire reserve for equity valuation adjustments.

The distribution of the minimum mandatory dividend is included in Dividend payable in Copel and its subsidiaries financial statements at year-end.

The tax benefit of interest on capital is recorded in the statement of income upon its recognition in accounts payable

31.5 Earnings per share - basic and diluted

Parent company	12.31.2019	Restated 12.31.2018
Basic and diluted numerator		
Basic and diluted earnings allocated by classes of shares, allocated to controlling shareholders:		
Common shares	1,007,014	712,234
Class “A” preferred shares	2,984	1,775
Class “B” preferred shares	979,948	693,054
	1,989,946	**1,407,063**
Basic and diluted denominator		
Weighted average of shares (in thousands):		
Common shares	145,031,080	145,031,080
Class “A” preferred shares	327,368	328,627
Class “B” preferred shares	128,296,927	128,295,668
	273,655,375	**273,655,375**
Basic and diluted earnings per share attributable to controlling shareholders		
Common shares	6.94344	4.91091
Class “A” preferred shares	9.11525	5.40201
Class “B” preferred shares	7.63812	5.40201

32 Net Operating Revenue

Consolidated	Gross revenues	PIS/Pasep and Cofins	ICMS (VAT)	Sectorial charges	Service tax (ISSQN)	Net revenues 12.31.2019	Net revenues 12.31.2018
Electricity sales to final customers	10,481,794	(965,651)	(2,336,583)	(753,544)	-	**6,426,016**	**5,548,584**
Electricity sales to distributors	3,301,336	(368,101)	(10,727)	(56,642)	-	**2,865,866**	**2,765,916**
Use of the main distribution and transmission grid	8,270,996	(781,017)	(1,999,583)	(1,351,625)	-	**4,138,771**	**3,469,060**
Construction income	1,132,884	-	-	-	-	**1,132,884**	**1,097,313**
Fair value of assets from the indemnity for the concession	36,646	-	-	-	-	**36,646**	**47,499**
Telecommunications	532,926	(21,035)	(137,896)	-	(558)	**373,437**	**366,179**
Distribution of piped gas	1,003,790	11,313	(171,897)	-	(23)	**843,183**	**557,186**
Sectorial financial assets and liabilities result	25,057	(6,426)	-	-	-	**18,631**	**893,688**
Other operating revenue	442,353	(30,203)	-	-	(3,310)	**408,840**	**189,355**
	25,227,782	**(2,161,120)**	**(4,656,686)**	**(2,161,811)**	**(3,891)**	**16,244,274**	**14,934,780**

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32.1 Revenue by type and / or class of consumers

Consolidated	12.31.2019	12.31.2018
Electricity sales to final customers	**10,481,794**	**10,104,045**
Residential	3,336,432	3,175,290
Industrial	1,276,105	1,419,240
Trade, services and other activities	2,179,510	2,136,087
Rural	631,527	572,361
Public entities	279,495	262,705
Public lighting	274,250	278,645
Public service	332,414	316,307
Free consumers	1,431,274	1,179,314
Donations and grants	740,787	764,096
Electricity sales to distributors	**3,301,336**	**3,136,244**
Bilateral contracts	1,998,617	2,002,077
Regulated contracts	854,239	385,157
Electric Energy Trade Chamber - CCEE	357,076	663,024
Interest (Note 10.3)	91,404	85,986
Use of the main distribution and transmission grid	**8,270,996**	**6,867,274**
Residential	2,585,892	2,222,621
Industrial	1,280,168	1,110,089
Trade, services and other activities	1,713,632	1,407,156
Rural	467,044	362,778
Public entities	217,027	185,383
Public lighting	206,492	184,530
Public service	174,414	141,556
Free consumers	1,052,535	795,105
Concessionaires and generators	62,414	80,329
Operating and maintenance income - O&M	98,207	58,578
Interest income	413,171	319,149
Construction income	**1,132,884**	**1,097,313**
Fair value of assets from the indemnity for the concession	**36,646**	**47,499**
Telecommunications	**532,926**	**512,540**
Distribution of piped gas	**1,003,790**	**753,222**
Sectorial financial assets and liabilities result	**25,057**	**985,344**
Other operating revenue	**442,353**	**222,329**
Leasing and rent (32.2)	144,744	132,682
Fair value in the purchase and sale of power in the active market	204,876	-
Income from rendering of services	51,780	59,280
Charged service	18,807	18,475
Other income	22,146	11,892
GROSS OPERATING REVENUE	**25,227,782**	**23,725,810**
(-) Pis/Pasep and Cofins	(2,266,304)	(2,117,800)
Recovery of Pis/Pasep and Cofins on ICMS (Note 13.2.1)	105,184	-
(-) ICMS (VAT)	(4,656,686)	(4,210,382)
(-) Service tax (ISSQN)	(3,891)	(5,286)
(-) Sectorial charges (32.3)	(2,161,811)	(2,457,562)
NET OPERATING REVENUE	**16,244,274**	**14,934,780**

32.2 Leases and rentals

32.2.1 Revenue from leases and rentals

Consolidated	12.31.2019	12.31.2018
Equipment and framework	143,482	131,409
Facilities sharing	1,046	1,003
Real estate	216	270
	144,744	**132,682**

32.2.2 Receivable from leases

Consolidated	Less than 1 year	1 to 5 years	Over 5 years	Total 12.31.2019
Facilities sharing	2,207	8,829	35,920	46,956

32.3 Regulatory charges

Consolidated	12.31.2019	12.31.2018
Energy Development Account - "CDE " - Power distribution service concession (32.3.1)	1,654,157	1,840,283
Other charges - rate flags	280,286	423,098
Research and development and energy efficiency - R&D and EEP	127,432	123,306
Global Reversion Reserve - RGR quota	63,918	48,512
Energy Development Account - "CDE " - Power transmission concession	25,271	12,211
Inspection fee	10,747	10,152
	2,161,811	**2,457,562**

32.3.1 Energy Development Account - CDE - power distribution concession

The CDE was created by Law 10,438/2002, amended by Law 12,783/2013 and, in order to meet its objectives, it has among its sources of funds, quotas paid by agents that negotiate energy with end consumers, at a charge included in the tariffs.

Currently, the Company makes payments for the “CDE USO” charge, intended to cover the CDE's objectives set forth by law, and the annual quota of “CDE ENERGIA”, composed of:

a) Regulated Contracting Environment “CONTA – ACR”. The purpose of this account is to cover costs incurred by the distribution concession operators relating to involuntary spot market exposure and the costs of thermal power dispatching in 2014, linked to CCEAR in the modality due to the availability of electric energy. In October 2019, the remaining balance was returned to the concessionaires, according to the percentage defined by ANEEL, by Order No. 2,755 / 2019.

b) “CDE-ENERGIA” destined to the return of the resources received by the distribution concession operators, from January 2013 to February 2014, to cover costs relating to involuntary spot market exposure and the hydrological risk of the plants contracted on a regime of quotas and the costs of thermal power dispatching for reasons of energy security, in compliance with Decree 7,895/2013 and Decree 8,203/2014.

The annual quotas for each distributor are defined by ANEEL through resolutions enacted by it. The balance at December 31, 2019 is as follows:

Resolutions	Period	12.31.2019
CDE USO		
Resolution No. 2,510/2018	January to June	1,269,498
(-) Preliminary injunctions	January to June	(3,346)
		1,266,152
CONTA ACR		
Resolution No. 2,231/2017	January to February	98,725
Resolution No. 2,521/2019	March to August	296,174
Devolução - Despacho nº 2.755/2019		(46,722)
		348,177
CDE ENERGIA		
Resolution No. 2,510/2018	January to March	41,431
(-) Preliminary injunctions	January to March	(1,603)
		39,828
		1,654,157

Injunctions

As a result of preliminary decisions in favor of the Brazilian Association of Large Industrial Energy Consumers and Free Consumers - Abrace, the National Association of Energy Consumers - Anace and other associates, which are challenging in court the tariff components of CDE Uso and CDE Energia quotas, ANEEL by Homologatory Resolutions 1,967/2015, 1,986/2015 and 2,083/2016, ratified the tariff calculation, deducting these charges to the associates of those entities, while the injunctions granted remained effective.

32.4 Copel DIS annual tariff adjustment

ANEEL approved the result of Copel DIS's Annual Tariff Adjustment through Homologatory Resolution No. 2,559, dated June 18, 2019, authorizing average adjustment of 3.41% (15.99% in 2018) applied to consumers and whose application occurred in full to tariffs as from June 24, 2019, and for high voltage consumers the adjustment was 4.32%, while for low voltage consumers it was 2.92%.

The tariff recomposition includes: 10.54% related to inclusion of financial components; 1.12% resulting from the update of Parcel B (operating costs, depreciation and remuneration); -3.08% related to the updating of Parcel A (energy, transmission and charges); and -5.17% that reflect the withdrawal of financial components from the previous tariff process.

33 Operating Costs and Expenses

Consolidated	Operational costs	Selling expenses	General and administrative expenses	Other operating expenses, net	12.31.2019
Electricity purchased for resale (33.1)	(6,105,274)	-	-	-	(6,105,274)
Charge of the main distribution and transmission grid	(1,249,275)	-	-	-	(1,249,275)
Personnel and management (33.2)	(945,312)	(13,937)	(366,133)	-	(1,325,382)
Pension and healthcare plans (Note 24.3)	(169,476)	(1,914)	(66,936)	-	(238,326)
Materials and supplies	(75,417)	(289)	(6,446)	-	(82,152)
Materials and supplies for power electricity	(49,352)	-	-	-	(49,352)
Natural gas and supplies for gas business	(585,233)	-	-	-	(585,233)
Third-party services (33.3)	(433,429)	(23,002)	(156,690)	-	(613,121)
Depreciation and amortization	(1,031,880)	(8)	(47,228)	(14,720)	(1,093,836)
Credit losses, provisions and reversals (33.4)	33,290	(153,640)	-	(254,465)	(374,815)
Construction cost (33.5)	(1,091,396)	-	-	-	(1,091,396)
Other operating costs and expenses, net (33.6)	(57,422)	(14,269)	(90,867)	(189,630)	(352,188)
	(11,760,176)	**(207,059)**	**(734,300)**	**(458,815)**	**(13,160,350)**

Consolidated	Operational costs	Selling expenses	General and administrative expenses	Other operating expenses, net	12.31.2018
Electricity purchased for resale (33.1)	(6,361,178)	-	-	-	(6,361,178)
Charge of the main distribution and transmission grid	(1,176,780)	-	-	-	(1,176,780)
Personnel and management (33.2)	(978,878)	(18,460)	(360,447)	-	(1,357,785)
Pension and healthcare plans (Note 24.3)	(176,102)	(2,447)	(65,201)	-	(243,750)
Materials and supplies	(68,920)	(655)	(12,182)	-	(81,757)
Materials and supplies for power electricity	(19,729)	-	-	-	(19,729)
Natural gas and supplies for gas business	(412,618)	-	-	-	(412,618)
Third-party services (33.3)	(392,869)	(23,266)	(156,092)	-	(572,227)
Depreciation and amortization	(709,575)	(15)	(26,015)	(13,574)	(749,179)
Credit losses, provisions and reversals (33.4)	18,920	(81,936)	-	(243,681)	(306,697)
Construction cost (33.5)	(1,052,208)	-	-	-	(1,052,208)
Other operating costs and expenses, net (33.6)	(171,751)	(21,930)	(103,597)	(45,435)	(342,713)
	(11,501,688)	**(148,709)**	**(723,534)**	**(302,690)**	**(12,676,621)**

Parent company	General and administrative expenses	Other operacional income (expenses), net	12.31.2019
Personnel and management (33.2)	(20,414)	-	(20,414)
Pension and healthcare plans (Note 24.3)	(2,511)	-	(2,511)
Materials and supplies	(786)	-	(786)
Third party services	(15,698)	-	(15,698)
Depreciation and amortization	(832)	(1,121)	(1,953)
Credit losses, provisions and reversals (33.4)	-	(8,730)	(8,730)
Other operating income (expenses)	(19,666)	11,095	(8,571)
	(59,907)	**1,244**	**(58,663)**

Parent company	General and administrative expenses	Other operacional income (expenses), net	12.31.2018
Personnel and management (33.2)	(15,144)	-	(15,144)
Pension and healthcare plans (Note 24.3)	(2,286)	-	(2,286)
Materials and supplies	(706)	-	(706)
Third party services	(31,465)	-	(31,465)
Depreciation and amortization	(101)	(1,122)	(1,223)
Credit losses, provisions and reversals (33.4)	-	(24,902)	(24,902)
Other operating income (expenses) (a)	(17,590)	37,720	20,130
	(67,292)	**11,696**	**(55,596)**

(a) From the balance of R$25,142 in the column of Other operacional income (expenses), net, R$25,129 refers to recognition of tax credit, according to note 34.1.

33.1 Electricity purchased for resale

Consolidated	12.31.2019	12.31.2018
Purchase of Energy in the Regulated Environment - CCEAR	2,880,115	2,599,345
Electric Energy Trade Chamber - CCEE	1,405,497	1,850,021
Itaipu Binacional	1,316,524	1,272,177
Bilateral contracts	754,070	928,741
Program for incentive to alternative energy sources - Proinfa	268,063	228,295
Micro and mini generators and repurchase of customers	52,871	12,373
(-) PIS/Pasep/Cofins taxes on electricity purchased for resale	(571,866)	(529,774)
	6,105,274	**6,361,178**

33.2 Personnel and management

	Parent company		Consolidated	
	12.31.2019	12.31.2018	12.31.2019	12.31.2018
Personnel				
Salaries and management fees	5,128	5,122	746,415	794,966
Social charges on payroll	1,692	1,757	241,025	261,459
Meal and education allowance	1,091	1,108	113,021	113,177
Provisions for profit sharing (a)	1,430	863	155,544	91,526
Voluntary retirement program	1,585	1,656	43,517	69,289
	10,926	**10,506**	**1,299,522**	**1,330,417**
Management				
Salaries and management fees	7,505	3,553	19,867	21,422
Social charges on payroll	1,900	999	5,745	5,695
Other expenses	83	86	248	251
	9,488	**4,638**	**25,860**	**27,368**
	20,414	**15,144**	**1,325,382**	**1,357,785**

(a) According to Federal Law No. 10,101/2000, State Decree No. 1,978/2007 and State Law No. 16,560/2010.

33.3 Credit losses, provisions and reversals

	Parent company		Consolidated	
	12.31.2019	12.31.2018	12.31.2019	12.31.2018
Provision for litigations	8,730	10,636	257,921	219,636
Impairment of assets				
Power generation concession contract (Note 10.5)	-	-	(2,945)	(4,758)
Property, plant and equipment - generation segment (Note 18.7)	-	-	(117,744)	(14,162)
Property, plant and equipment - telecommunications segment (Note 18.8)	-	-	87,399	-
Expected credit losses (Trade accounts and Other receivables)	-	14,266	153,640	96,202
Tax credits estimated losses	-	-	(3,456)	9,779
	8,730	**24,902**	**374,815**	**306,697**

33.4 Third party services

Consolidated	12.31.2019	12.31.2018
Maintenance of electrical system	164,572	144,211
Communication, processing and transmission of data	115,037	115,397
Maintenance of facilities	105,586	91,872
Consumer service	55,632	34,502
Meter reading and bill delivery	45,515	43,968
Consulting and audit	21,016	41,615
Other services	105,763	100,662
	613,121	**572,227**

33.5 Construction costs

Consolidated	12.31.2019	12.31.2018
Materials and supplies	548,336	507,899
Third party services	395,607	400,680
Personnel	125,777	124,469
Others	21,676	19,160
	1,091,396	**1,052,208**

33.6 Other operating costs and expenses, net

Consolidated	12.31.2019	12.31.2018
Net losses in the decommissioning and disposal of assets (a)	154,628	106,675
Financial offset for the use of water resources	103,737	105,310
Taxes	35,319	84,492
Compensation	66,550	30,949
Collection charge	51,156	44,682
Advertising and publicity	29,132	22,135
Leasing and rent	9,215	40,016
Other net income, costs and expenses (b)	(97,549)	(91,546)
	352,188	**342,713**

(a) Of the total recorded in 2019, R$ 124,067 refer to write-offs of Copel Telecomunicações' fixed assets (Note 18.8).

(b) The 2018 balance includes revenue of R$ 72,068 related to reimbursement from suppliers of goods from the wind farms of the Brisa Complex. The 2019 balance includes R$ 97,664 of water rate reversal (TCFRH)

34 Financial Results

	Parent company		Consolidated	
	12.31.2019	12.31.2018	12.31.2019	12.31.2018
Financial income				
Arrears charges on bills	85	-	225,956	226,050
Interest and monetary variation of CRC transfer (Note 8.1)	192,724	214,627	192,724	214,627
Return on financial investments	10,931	13,589	126,510	98,841
Remuneration of net sectorial assets and liabilities (Note 9.2)	-	-	47,378	43,966
Monetary variation over the Itaipu power purchase	-	-	26,332	24,658
Recognition of tax credit (34.1)	-	55,096	38,434	55,096
Monetary variation and adjust to present value of accounts	-	-	-	-
payable related to the concession (Note 27.1)	-	-	1,462	1,047
Other financial income	5,939	18,417	91,445	149,630
	209,679	**301,729**	**750,241**	**813,915**
(-) Financial expenses				
Monetary and exchange variation and debt charges	149,287	184,979	906,952	871,397
Monetary variation and adjust to present value of accounts	-	-	-	-
payable related to the concession (Note 27.1)	-	-	100,455	94,319
Monetary variation over the Itaipu power purchase	-	-	29,547	50,203
Interest on R&D and EEP (Note 26.2)	-	-	24,570	25,407
Interest and monetary variation of CRC transfer (Note 8.1)	8,495	25,830	8,495	25,830
Remuneration of net sectorial assets and liabilities (Note 9.2)	-	-	5,753	23,747
PIS/Pasep/Cofins taxes on interest on capital	71,549	13,636	71,549	13,636
Other financial expenses	5,702	13,910	91,406	147,426
	235,033	**238,355**	**1,238,727**	**1,251,965**
Net	**(25,354)**	**63,374**	**(488,486)**	**(438,050)**

34.1 Recognition of tax credit

The balance of 2019 refers to the PIS/Pasep and Cofins credit on the ICMS recognized by Compagás, according to Note 13.2.1. The balance recorded in 2018 arises from the tax credit recognized by the Brazilian Federal Revenue Service in favor of the Company in the updated amount of R$ 80,226, regarding the disputed tax levy on Pasep from July 1988 to July 1995, in connection with the effects of Federal Senate Resolution 49, of October 9, 1995, which suspended the effects of Decree-Laws 2,445/1988 and 2,449/1988, deemed to be unconstitutional by the Federal Supreme Court. From the total amount recognized, R$ 55,096 were recorded in financial income and R$ 25,129 in other operating income.

35 Operating Segments

Operating segments are business activities that generate revenues and incur expenses, whose operating results are regularly reviewed by the executive boards of the Company and subsidiaries and by key strategic decision-makers responsible for allocating funds and assessing performance.

35.1 Products and services from which the reportable segments have their revenues generated

The Company operates in reportable segments identified by Management, through the chief officers of each business area, taking into consideration the regulatory environments, the strategic business units and the different products and services. These segments are managed separately, since each business and each company require different technologies and strategies.

In the period ended December 31, 2019, all sales have been to customers within the Brazilian territory, in addition, all noncurrent assets are also located in the national territory.

The Company did not identify any customer who individually accounts for more than 10% of their total net revenue until December 31, 2019.

The Company evaluates the performance of each segment, based on information derived from the accounting records.

The accounting policies of the operating segments are the same as those described in Note 4.

35.2 Company's reportable segments

The reportable segments of the Company, in accordance with IFRS 8, are:

Power generation and transmission (GET) - its attribution is to produce electricity from hydraulic, wind, and thermal projects **(GER)** and to provide services of transmission and transformation of electric power, being responsible for the construction, operation and maintenance of substations, as well for the energy transmission lines **(TRA)**; for managers, the assets and liabilities of the generation and transmission segments are shown on an aggregate basis while their result is presented separately;

Power distribution (DIS) - its attribution is to provide public electricity distribution services, being responsible for the operation and maintenance of the distribution infrastructure, as well as providing related services;

Telecommunications (TEL) - its attribution is to provide telecommunications and general communication services;

GAS - its attribution is to provide public service of piped natural gas distribution;

Power sale (COM) - its attribution is to trade energy and related services; and

Holding Company (HOL) - its **attribution** is to participate in other companies.

35.3 Assets by reportable segment

ASSETS	Electric Energy			TEL	GAS	HOL	Intersegment operations	Consolidated
12.31.2019	GET	DIS	COM					
TOTAL ASSETS	**19,457,551**	**13,434,522**	**690,372**	**1,527,098**	**904,993**	**3,183,677**	**(885,662)**	**38,312,550**
CURRENT ASSETS	**2,039,443**	**4,631,991**	**229,630**	**528,754**	**313,896**	**1,127,469**	**(961,987)**	**7,909,196**
NON-CURRENT ASSETS	**17,418,108**	**8,802,531**	**460,742**	**998,344**	**591,097**	**2,056,208**	**76,325**	**30,403,354**
Long term assets	5,054,560	3,051,058	460,312	137,770	576,190	1,879,619	(296,879)	10,862,630
Investments	2,371,374	813	247	-	-	150,746	-	2,523,179
Property, plant and equipment	9,735,093	-	53	833,974	-	22,983	-	10,592,103
Intangible assets	233,973	5,703,686	123	19,844	-	1,781	373,204	6,332,611
Right-of-use asset	23,108	46,974	7	6,756	14,907	1,079	-	92,831

ASSETS	Electric Energy			TEL	GAS	HOL	Intersegment operations	Consolidated
12.31.2018	GET	DIS	COM					
TOTAL ASSETS	**18,573,953**	**12,331,603**	**227,287**	**1,264,748**	**675,286**	**3,359,407**	**(502,184)**	**35,930,100**
CURRENT ASSETS	**1,722,519**	**3,971,915**	**181,077**	**88,239**	**204,725**	**1,214,523**	**(705,152)**	**6,677,846**
NON-CURRENT ASSETS	**16,851,434**	**8,359,688**	**46,210**	**1,176,509**	**470,561**	**2,144,884**	**202,968**	**29,252,254**
Long term assets	4,660,867	2,968,282	43,564	88,798	466,942	1,950,280	(164,473)	10,014,260
Investments	2,212,271	1,343	2,442	-	-	152,178	-	2,368,234
Property, plant and equipment	9,728,872	-	51	1,071,489	-	40,251	-	10,840,663
Intangible assets	249,424	5,390,063	153	16,222	3,619	2,175	367,441	6,029,097

35.4 Statement of income by reportable segment

STATEMENT OF INCOME	Electric Energy				TEL	GAS	HOL	Intersegment operations	Consolidated
	GET								
12.31.2019	GER	TRA	DIS	COM					
NET OPERATING REVENUES	**3,368,375**	**871,510**	**10,401,301**	**1,810,901**	**418,030**	**866,884**	**-**	**(1,492,727)**	**16,244,274**
Net operating revenues - third-parties	2,233,367	643,596	10,352,690	1,773,765	375,030	865,826	-	-	16,244,274
Net operating revenues - between segments	1,135,008	227,914	48,611	37,136	43,000	1,058	-	(1,492,727)	-
OPERATING COSTS AND EXPENSES	**(1,659,225)**	**(479,538)**	**(9,579,915)**	**(1,608,245)**	**(604,616)**	**(662,306)**	**(59,232)**	**1,492,727**	**(13,160,350)**
Energy purchased for resale	(262,288)	-	(5,424,207)	(1,590,272)	-	-	-	1,171,493	(6,105,274)
Charges for use of the main transmission grid	(451,107)	-	(1,044,135)	-	-	-	-	245,967	(1,249,275)
Personnel and management	(217,792)	(139,662)	(822,772)	(13,041)	(73,890)	(36,932)	(21,293)	-	(1,325,382)
Pension and healthcare plans	(37,955)	(25,027)	(155,784)	(1,481)	(11,384)	(4,122)	(2,573)	-	(238,326)
Materials and supplies	(10,987)	(3,766)	(64,419)	(15)	(1,955)	(217)	(793)	-	(82,152)
Raw materials and supplies for generation	(50,388)	-	-	-	-	-	-	1,036	(49,352)
Natural gas and supplies for gas business	-	-	-	-	-	(585,233)	-	-	(585,233)
Third party services	(108,309)	(38,092)	(397,390)	(1,718)	(87,113)	(12,971)	(16,734)	49,206	(613,121)
Depreciation and amortization	(551,576)	(12,987)	(343,597)	(44)	(152,863)	(30,480)	(2,289)	-	(1,093,836)
Provision (reversal) for litigations	(45,212)	(24,398)	(164,705)	(156)	(14,072)	(292)	(9,086)	-	(257,921)
Impairment of assets	117,648	-	-	-	-	-	3,041	-	120,689
Other estimated losses, provisions and reversals	43,207	(41,350)	(137,680)	(4)	(100,691)	(1,063)	(2)	-	(237,583)
Construction cost	-	(175,220)	(904,023)	-	-	(12,153)	-	-	(1,091,396)
Other operating costs and expenses, net	(84,466)	(19,036)	(121,203)	(1,514)	(162,648)	21,157	(9,503)	25,025	(352,188)
EQUITY IN EARNINGS OF INVESTEES	**14,840**	**85,752**	**-**	**(280)**	**-**	**-**	**6,445**	**-**	**106,757**
PROFIT (LOSS) BEFORE FINANCIAL INCOME AND TAX	**1,723,990**	**477,724**	**821,386**	**202,376**	**(186,586)**	**204,578**	**(52,787)**	**-**	**3,190,681**
Financial income	80,632	20,637	355,152	3,004	20,760	53,625	217,057	(626)	750,241
Financial expenses	(457,528)	(138,947)	(273,909)	(220)	(53,857)	(10,439)	(304,453)	626	(1,238,727)
OPERATING PROFIT (LOSS)	**1,347,094**	**359,414**	**902,629**	**205,160**	**(219,683)**	**247,764**	**(140,183)**	**-**	**2,702,195**
Income tax and social contribution	(289,831)	(54,695)	(201,236)	(69,854)	68,644	(74,791)	(17,563)	-	(639,326)
NET INCOME (LOSS)	**1,057,263**	**304,719**	**701,393**	**135,306**	**(151,039)**	**172,973**	**(157,746)**	**-**	**2,062,869**

STATEMENT OF INCOME	Electric Energy				TEL	GAS	HOL	Intersegment operations	Consolidated
	GET								
12.31.2018	GER	TRA	DIS	COM					
NET OPERATING REVENUES	**3,007,565**	**904,826**	**9,972,442**	**1,341,162**	**421,408**	**588,532**	**-**	**(1,301,155)**	**14,934,780**
Net operating revenues - third-parties	2,116,875	680,567	9,932,267	1,341,162	364,741	582,895	-	(83,727)	14,934,780
Net operating revenues - between segments	890,690	224,259	40,175	-	56,667	5,637	-	(1,217,428)	-
OPERATING COSTS AND EXPENSES	**(1,619,431)**	**(561,850)**	**(9,474,473)**	**(1,354,578)**	**(369,201)**	**(515,594)**	**(57,993)**	**1,276,499**	**(12,676,621)**
Energy purchased for resale	(417,918)	-	(5,577,719)	(1,338,473)	-	-	-	972,932	(6,361,178)
Charges for use of the main transmission grid	(408,347)	-	(1,012,062)	-	-	-	-	243,629	(1,176,780)
Personnel and management	(214,855)	(147,139)	(837,728)	(13,734)	(92,472)	(34,896)	(16,961)	-	(1,357,785)
Pension and healthcare plans	(36,379)	(25,884)	(159,842)	(1,507)	(13,892)	(3,881)	(2,365)	-	(243,750)
Materials and supplies	(11,637)	(5,054)	(60,379)	(65)	(1,763)	(2,110)	(749)	-	(81,757)
Raw materials and supplies for generation	(25,367)	-	-	-	-	-	-	5,638	(19,729)
Natural gas and supplies for gas business	-	-	-	-	-	(412,618)	-	-	(412,618)
Third party services	(119,668)	(33,489)	(339,399)	(1,700)	(91,127)	(17,034)	(32,311)	62,501	(572,227)
Depreciation and amortization	(353,916)	(11,386)	(301,581)	(16)	(58,209)	(22,759)	(1,312)	-	(749,179)
Provision (reversal) for litigations	18,059	7,879	(222,057)	9	(12,844)	(154)	(10,528)	-	(219,636)
Impairment of assets	22,312	-	-	-	-	-	1,648	(5,040)	18,920
Other estimated losses, provisions and reversals	55,457	(49,486)	(77,985)	(935)	(12,749)	(6,017)	(14,266)	-	(105,981)
Construction cost	-	(277,259)	(741,855)	-	-	(13,478)	-	(19,616)	(1,052,208)
Other operating costs and expenses, net	(127,172)	(20,032)	(143,866)	1,843	(86,145)	(2,647)	18,851	16,455	(342,713)
EQUITY IN EARNINGS OF INVESTEES	**5,514**	**123,676**	**-**	**(15)**	**-**	**-**	**6,713**	**-**	**135,888**
PROFIT (LOSS) BEFORE FINANCIAL INCOME AND TAX	**1,393,648**	**466,652**	**497,969**	**(13,431)**	**52,207**	**72,938**	**(51,280)**	**(24,656)**	**2,394,047**
Financial income	119,196	29,163	335,377	6,065	16,808	29,454	305,344	(27,492)	813,915
Financial expenses	(517,832)	(136,455)	(308,319)	(104)	(41,713)	(31,865)	(243,169)	27,492	(1,251,965)
OPERATING PROFIT (LOSS)	**995,012**	**359,360**	**525,027**	**(7,470)**	**27,302**	**70,527**	**10,895**	**(24,656)**	**1,955,997**
Income tax and social contribution	(327,598)	(75,361)	(148,244)	2,632	(2,853)	(10,909)	41,957	8,383	(511,993)
NET INCOME (LOSS)	**667,414**	**283,999**	**376,783**	**(4,838)**	**24,449**	**59,618**	**52,852**	**(16,273)**	**1,444,004**

35.5 Additions to noncurrent assets by reportable segment

	Electric Energy			TEL	GAS	HOL	Consolidated
12.31.2019	GET	DIS	COM				
Contract assets	**-**	**917,577**	**-**	**-**	**17,590**	**-**	**935,167**
Property, plant and equipment	**522,744**	**-**	**14**	**59,216**	**-**	**285**	**582,259**
Intangible assets	**4,272**	**-**	**3**	**486**	**-**	**271**	**5,032**
Right-of-use asset	**33,461**	**66,621**	**8**	**9,950**	**16,933**	**402**	**127,375**
IFRS 16 Initial adoption (Note 28.1)	32,919	60,494	-	9,868	14,356	385	118,022
Additions for the period	542	6,127	8	82	2,577	17	9,353

	Electric Energy			TEL	GAS	HOL	Consolidated
12.31.2018	GET	DIS	COM				
Contract assets	-	797,832	-	-	15,618	-	813,450
Property, plant and equipment	1,160,967	-	4	308,242	-	267	1,469,480
Intangible assets	6,351	-	-	1,235	-	3	7,589

36 Financial Instruments

36.1 Categories and determination of fair value of financial instruments

Consolidated			12.31.2019		12.31.2018	
	Note	Level	Book value	Fair value	Book value	Fair value
Financial assets						
Fair value through profit or loss						
Cash and cash equivalents (a)	5	1	2,941,727	2,941,727	1,948,409	1,948,409
Bonds and securities (b)	6	1	2,429	2,429	696	696
Bonds and securities (b)	6	2	279,652	279,652	343,600	343,600
Accounts receivable - distribution concession (c)	10.1 and 10.2	3	1,161,203	1,161,203	1,105,282	1,105,282
Accounts receivable - generation concession (d)	10.5	3	69,182	69,182	65,811	65,811
Fair value in the purchase and sale of power in the active market (e)	12	3	460,635	460,635	14,793	14,793
Other temporary investments (f)		1	15,566	15,566	11,557	11,557
Other temporary investments (f)		2	12,168	12,168	7,954	7,954
			4,942,562	**4,942,562**	**3,498,102**	**3,498,102**
Amortized cost						
Collaterals and escrow accounts (a)			147	147	203	203
Collateral and escrow deposits - STN (g)	22.1		98,433	94,671	89,555	76,524
Trade accounts receivable (a)	7		3,182,567	3,182,567	3,107,006	3,107,006
CRC Transferred to the Paraná State Government (h)	8		1,350,685	1,488,456	1,445,042	1,546,469
Sectorial financial assets (a)	9		473,989	473,989	678,819	678,819
Accounts receivable - concessions - RBSE (c)	10.4		739,269	739,269	753,826	753,826
Accounts receivable - concessions - bonus from the grant (i)	10.3		647,984	738,483	625,772	714,880
			6,493,074	**6,717,582**	**6,700,223**	**6,877,727**
Total financial assets			**11,435,636**	**11,660,144**	**10,198,325**	**10,375,829**
Financial liabilities						
Fair value through profit or loss						
Fair value in the purchase and sale of power (e)	29	3	251,973	251,973	11,007	11,007
Derivatives fair value - forward contracts (e)	29	3	1,203	1,203	-	-
			253,176	**253,176**	**11,007**	**11,007**
Amortized cost						
Sectorial financial liabilities (a)	9		102,284	102,284	96,531	96,531
Ordinary financing of taxes with the federal tax authorities (g)	13.2		18,063	18,001	86,632	84,383
Special Tax Regularization Program - Pert (g)	13.2		497,207	439,519	518,442	469,304
Accounts payable to suppliers (a)	21		1,873,193	1,873,193	1,469,199	1,469,199
Loans and financing (g)	22		3,168,710	3,110,104	4,047,307	4,012,621
Debentures (i)	23		8,540,366	8,540,366	7,518,131	7,518,133
Accounts payable related to concession (k)	27		612,587	690,326	584,163	687,869
			14,812,410	**14,773,793**	**14,320,405**	**14,338,040**
Total financial liabilities			**15,065,586**	**15,026,969**	**14,331,412**	**14,349,047**

Different levels are defined as follows:
Level 1: Obtained from quoted prices (not adjusted) in active markets for identical assets and liabilities;
Level 2: obtained through other variables in addition to quoted prices included in Level 1, which are observable for the assets or liabilities;
Level 3: obtained through assessment techniques which include variables for the assets or liabilities, which however are not based on observable market data.

Determining fair values

a) Equivalent to their respective carrying values due to their nature and terms of realization.

b) Fair value is calculated based on information made available by the financial agents and the market values of the bonds issued by the Brazilian government

c) The criteria are disclosed in Note 4.4 to the financial statements.

d) The fair values of generation assets approximate their carrying amounts, according to Note 4.4 of these Financial Statements.

e) The fair values of assets and liabilities are equivalent to their carrying amounts according to Note 4.15 of these Financial Statements.

f) Investments in other companies, stated at fair value, which is calculated according to the price quotations published in an active market, for assets classified as level 1 and determined in view of the comparative assessment model for assets classified as level 2.

g) The cost of the last borrowing taken out by the Company is used as a basic assumption, 120.0% of CDI, for discount of the expected payment flows.

h) The Company based its calculation on the comparison with a long-term and post-fixed National Treasury Bond (NTN-B) maturing on August 15, 2026, which yields approximately 2.74% p.a. plus the IPCA inflation index.

i) Receivables related to the concession agreement for providing electricity generation services under quota arrangements, having their fair value calculated by expected cash inflows, discounted at the rate established by ANEEL auction notice 12/2015 (9.04%).

j) Calculated from the Unit Price quotation (PU) for December 31, 2019, obtained from the Brazilian Association of Financial and Capital Markets (ANBIMA), net of unamortized financial cost.

k) Actual net discount rate of 8.26% p.a., in line with the Company's estimated rate for long-term projects.

36.2 Financial risk management

The Company's business activities are exposed to the following risks arising from financial instruments:

36.2.1 Credit risk

Credit risk is the risk of the Company incurring losses due to a customer or counterparty in a financial instrument, resulting from failure in complying with their contractual obligations.

Consolidated **Exposure to credit risk**	**12.31.2019**	**12.31.2018**
Cash and cash equivalents (a)	2,941,727	1,948,409
Bonds and securities (a)	282,081	344,296
Pledges and restricted deposits linked (a)	98,580	89,758
Trade accounts receivable (b)	3,182,567	3,107,006
CRC Transferred to the Paraná State Government (c)	1,350,685	1,445,042
Sectorial financial assets (d)	473,989	678,819
Accounts receivable - distribution concession (e)	1,161,203	1,105,282
Accounts receivable - concessions - RBSE (f)	739,269	753,826
Accounts receivable - concessions - Bonus from the grant (g)	647,984	625,772
Accounts receivable - generation concessions (h)	69,182	65,811
Other temporary investments (i)	27,734	19,511
	10,975,001	**10,183,532**

a) The Company manages the credit risk of its assets in accordance with the Management’s policy of investing virtually all of its funds in federal banking institutions. As a result of legal and/or regulatory requirements, in exceptional circumstances the Company may invest funds in prime private banks.

b) The risk arises from the possibility that the Company might incur losses resulting from difficulties to receive its billings to customers. This risk is directly related to internal and external factors to Copel. To mitigate this type of risk, the Company manages its accounts receivable, detecting defaulting consumers, implementing specific collection policies and suspending the supply and/or recording of energy and the provision of service, as established in contract and regulatory standards.

c) Management believes this credit risk is low because repayments are secured by resources from dividends.

d) Management considers the risk of this credit to be reduced, since the agreements signed guarantee the unconditional right to receive cash at the end of the concession to be paid by the Concession Grantor, corresponding to the costs not recovered through the tariff.

e) Management considers the risk of this credit to be reduced, since the agreements signed guarantee the unconditional right to receive cash at the end of the concession to be paid by the Concession Grantor, referring to investments in infrastructure not recovered through the tariff.

f) Management considers the credit risk reduced to the balance of RBSE assets, even in light of the injunctions that temporarily reduced the RAP to be received, as described in Note 10.4.

g) Management considers the risk of such credit to be low, as the contract for the sale of energy by quotas guarantees the receipt of an Annual Generation Revenue - RAG, which includes the annual amortization of this amount during the concession term.

h) For the generation concession assets, ANEEL published Normative Resolution 596/2013, which deals with the definition of criteria for calculating the New replacement value (Valor novo de reposição - VNR,), for the purposes of indemnification. Management's expectation of indemnification for these assets supports recoverability of the balances recorded, as described in Note 10.5.

i) This risk arises from the possibility that the Company might incur losses resulting from the volatility on the stock market. This type of risk involves external factors and has been managed through periodic assessment of the variations occurred in the market.

36.2.2 Liquidity risk

The Company's liquidity risk consists of the possibility of having insufficient funds, cash or other financial assets, to settle obligations on their scheduled maturity dates.

The Company manages liquidity risk relying on a set of methodologies, procedures and instruments applied to secure ongoing control over financial processes to ensure proper management of risks.

Investments are financed by incurring medium and long-term debt with financial institutions and capital markets.

Short, medium and long-term business projections are made and submitted to Management bodies for evaluation. The budget for the next fiscal year is annually approved.

Medium and long-term business projections cover monthly periods over the next five years. Short-term projections consider daily periods covering only the next 90 days.

The Company permanently monitors the volume of funds to be settled by controlling cash flows to reduce funding costs, the risk involved in the renewal of loan agreements and compliance with the financial investment policy, while concurrently keeping minimum cash levels.

The following table shows the expected undiscounted settlement amounts in each time range. Projections were based on financial indicators linked to the related financial instruments and forecast according to average market expectations as disclosed in the Central Bank of Brazil's Focus Report, which provides the average expectations of market analysts for these indicators for the current year and for the next 3 years. As from 2024, 2023 indicators are repeated on an unaltered basis throughout the forecast period.

Consolidated	Interest (a)	Less than 1 month	1 to 3 months	3 months to 1 year	1 to 5 years	Over 5 years	Total
12.31.2019							
Loans and financing	Note 22	31,783	116,507	308,780	2,060,587	1,666,506	4,184,163
Debentures	Note 23	391,329	62,012	1,069,177	7,370,707	1,669,273	10,562,498
Accounts payable related to concession	Rate of return + IGP-M and IPCA	6,099	12,198	56,083	333,624	1,380,502	1,788,506
Accounts payable to suppliers	-	1,313,913	291,700	127,030	140,550	-	1,873,193
Ordinary financing of taxes with the federal tax authorities	Selic	6,037	12,119	-	-	-	18,156
Special Tax Regularization Program - Pert	Selic	4,122	8,284	37,893	223,375	345,424	619,098
Sectorial financial liabilities	Selic	-	-	-	109,416	-	109,416
Lease liabilities	Note 28	3,485	6,980	31,793	73,515	11,226	126,999
		1,756,768	**509,800**	**1,630,756**	**10,311,774**	**5,072,931**	**19,282,029**

(a) Effective interest rate - weighted average.

As disclosed in Notes 22.5 and 22.3, the Company have loans and financing agreements and debentures with covenants that if breached may have their payment accelerated.

36.2.3 Market risk

Market risk is the risk that the fair value or the future cash flows of a financial instrument shall oscillate due to changes in market prices, such as currency rates, interest rates and stock price. The purpose of managing this risk is to control exposures within acceptable limits, while optimizing return.

a) Foreign currency risk (US Dollar)

This risk comprises the possibility of losses due to fluctuations in foreign exchange rates, which may reduce assets or increase liabilities denominated in foreign currencies.

The Company's foreign currency indebtedness is not significant, and it is not exposed to foreign exchange derivatives. The Company monitors all relevant foreign exchange rates.

The effect of the exchange rate variation resulting from the power purchase agreement with Eletrobras (Itaipu) is transferred to customers in Copel DIS's next tariff adjustment.

The exchange rate risk posed by the purchase of gas arises from the possibility of Compagás reporting losses on the fluctuations in foreign exchange rates, increasing the amount in Reais of the accounts payable related to the gas acquired from Petrobras. This risk is mitigated by the monitoring and transfer of the price fluctuation through tariff, when possible. The Company monitors these fluctuations on an ongoing basis.

Sensitivity analysis of foreign currency risk

The Company has developed a sensitivity analysis in order to measure the impact of the devaluation of the US dollar on its loans and financing subject to currency risk.

The baseline scenario takes into account the existing balances in each account as of December 31, 2019 and the probable scenario assumes a variation in the foreign exchange rate - prevailing at the end of the period (R$/US$ 4.20) based on the median market expectation for 2020 reported in the Central Bank's Focus report of March 6, 2020. For the scenarios 1 and 2, deteriorations of 25% and 50%, respectively, were considered for the main risk factor for the financial instrument compared to the rate used in the probable scenario.

		Baseline	Projected scenarios - Dec.2020		
Foreign exchange risk	**Risk**	**12.31.2019**	**Probable**	**Scenario 1**	**Scenario 2**
Financial assets					
Collaterals and escrow accounts - STN	USD depreciation	98,433	4,134	(21,507)	(47,149)
		98,433	**4,134**	**(21,507)**	**(47,149)**
Financial liabilities					
Loans and financing - STN	USD appreciation	(108,983)	(4,578)	(32,968)	(61,358)
Suppliers					
Eletrobras (Itaipu)	USD appreciation	(222,431)	(9,343)	(67,286)	(125,230)
Acquisition of gas	USD appreciation	(79,174)	(3,326)	(23,950)	(44,575)
		(410,588)	**(17,247)**	**(124,204)**	**(231,163)**

In addition to the sensitivity analysis required by CVM Resolution 475/2008, the Company evaluates its financial instruments considering the possible effects on profit and loss and equity of the risks evaluated by the Company's Management on the date of the financial statements, as recommended by IFRS 7 - Financial Instruments: Disclosure. Based on the equity position and the notional value of the financial instruments held as of December 31, 2019, it is estimated that these effects will approximate the amounts stated in the above table in the column for the forecast probable scenario, since the assumptions used by the Company are similar to those previously described.

b) Foreign exchange risk - euro

This risk arises from the possibility of loss due to fluctuations in exchange rates affecting fair value of Non-Deliverable Forward (NDF) transactions, whose gains and losses are recognized in the Company's statement of income.

Based on the notional amount of 22 million euros outstanding as of December 31, 2019, the fair value was estimated by the difference between the amounts contracted under the respective terms and the forward currency quotations (B3 reference rates), discounted to present value at the fixed rate as of the same date. The liability balance, recorded as of December 31, 2019, is shown in Note 29.

Sensitivity analysis of operations with derivative financial instruments

The Company developed a sensitivity analysis in order to measure the impact from exposure to fluctuation in exchange rate to Euro (€).

The sensitivity analyses were prepared in accordance with CVM Instruction 475/08, considering, for scenarios 1 and 2, 25% and 50% increase or decrease in exchange rates, applied to the forward rate as of December 31, 2019. The results obtained are shown below:

Consolidated	Exchange rate variation	Baseline 12.31.2019	Projected scenarios	
			Scenario 1	Scenario 2
Gains (losses) on operations with derivative financial instruments	Increase	(1,203)	23,777	48,757
	Decrease	(1,203)	(26,183)	(51,163)

c) Interest rate and monetary variation risk

This risk comprises the possibility of losses due to fluctuations in interest rates or other indicators, which may reduce financial income or financial expenses or increase the financial expenses related to the assets and liabilities raised in the market.

The Company has not entered into derivative contracts to cover this risk, but has been continuously monitoring interest rates and market indexes in order to observe any need for contracting.

Sensitivity analysis of interest rate and monetary variation risk

The Company has developed a sensitivity analysis in order to measure the impact of variable interest rates and monetary variations on its financial assets and liabilities subject to these risks.

The baseline scenario takes into account the existing balances in each account as of December 31, 2019 while the probable scenario assumes balances reflecting varying indicators (CDI/Selic: 4.25%, IPCA: 3.20%, IGP-DI: 3.59%, IGP-M: 3.98% and TJLP: 4.80%) estimated as market average projections for 2020 according to the Focus Report issued by the Central Bank of Brazil as of March 6, 2020, except TJLP that considers the Company's internal projection.

For the scenarios 1 and 2, deteriorations of 25% and 50%, respectively, were considered for the main risk factor for the financial instrument compared to the rate used in the probable scenario.

Interest rate risk and monetary variation	Risk	Baseline 12.31.2019	Projected scenarios - Dec.2020 Probable	Scenario 1	Scenario 2
Financial assets					
Bonds and securities	Low CDI/SELIC	282,081	11,988	8,997	6,009
Collaterals and escrow accounts	Low CDI/SELIC	147	6	5	3
CRC Transferred to the Paraná State Government	Low IGP-DI	1,350,685	48,490	36,367	24,245
Sectorial financial assets	Low Selic	473,989	20,145	15,108	10,072
Accounts receivable - concessions	Low IPCA	2,548,456	81,551	61,163	40,775
Accounts receivable - generation concessions	Undefined (a)	69,182	-	-	-
		4,724,540	**162,180**	**121,640**	**81,104**
Financial liabilities					
Loans and financing					
Banco do Brasil	High CDI	(679,976)	(28,899)	(36,124)	(43,348)
BNDES	High TJLP	(2,198,064)	(105,507)	(131,884)	(158,261)
BNDES	High IPCA	(8,288)	(265)	(332)	(398)
Banco do Brasil - BNDES Transfer	High TJLP	(95,807)	(4,599)	(5,748)	(6,898)
Caixa Econômica Federal	High TJLP	(331)	(16)	(20)	(24)
Other	No risk	(77,261)	-	-	-
Debentures	High CDI/SELIC	(6,464,603)	(274,746)	(343,432)	(412,118)
Debentures	High IPCA	(1,950,591)	(62,419)	(78,024)	(93,628)
Debentures	High TJLP	(125,172)	(6,008)	(7,510)	(9,012)
Sectorial financial liabilities	High Selic	(102,284)	(4,347)	(5,434)	(6,521)
Ordinary financing of taxes with the federal tax authorities	High Selic	(18,063)	(768)	(960)	(1,152)
Special Tax Regularization Program - Pert	High Selic	(497,207)	(21,131)	(26,414)	(31,697)
Accounts payable related to concession	High IGP-M	(563,756)	(22,437)	(28,047)	(33,656)
Accounts payable related to concession	High IPCA	(48,831)	(1,563)	(1,953)	(2,344)
		(12,830,234)	**(532,705)**	**(665,882)**	**(799,057)**

(a) Risk assessment still requires ruling by the Granting Authority.

In addition to the sensitivity analysis required by CVM Resolution 475/2008, the Company evaluates its financial instruments considering the possible effects on profit and loss and equity of the risks evaluated by the Company's Management on the date of the financial statements, as recommended by CPC 40 (R1)/IFRS 7 Based on the equity position and the notional value of the financial instruments held as of December 31, 2019, it is estimated that these effects will approximate the amounts stated in the above table in the column for the forecast probable scenario, since the assumptions used by the Company are similar to those previously described.

36.2.4 Electricity shortage risk

Approximately 64% of installed capacity in Brazil currently comes from hydroelectric generation, as informed by the Generation Information Bank of ANEEL, which makes Brazil and the geographic region in which we operate subject to unpredictable hydrological conditions, due to non-cyclical deviations of mean precipitation. Unsatisfactory hydrological conditions may cause, among other things, the implementation of comprehensive programs of electricity savings, such as rationalization or even a mandatory reduction of consumption, which is the case of rationing.

Since 2014, the reservoirs of the Southeast/Midwest, North and Northeast Brazilian regions have been subject to adverse climate situations, leading agencies responsible for this industry to adopt water resources optimization measures to guarantee fully meeting electricity demand.

The Electric Sector Monitoring Committee (CMSE) has maintained the energy deficit risk indicators within the safety margin in short-term projections. The same position is adopted by ONS regarding the risk of deficit in the medium term, as stated in the 2019-2023 Energy Operation Plan - PEN 2019.

Although dam storage levels are not ideal, from the standpoint of regulatory agencies, when combined with other variables, such as a slower consumption growth, they are sufficient to keep the risk of deficit within the safety margin established by the National Energy Policy Council (Conselho Nacional de Política Energética - CNPE) (maximum risk of 5%) in all subsystems.

36.2.5 Risk of GSF impacts

The Energy Reallocation Mechanism (Mecanismo de Realocação de Energia - MRE) is a system of redistribution of electric power generated, characteristic of the Brazilian electric sector, which has its existence by the understanding, at the time, that there is a need for a centralized operation associated with a centrally calculated optimal price known as PLD. Since generators have no control over their production, each plant receives a certain amount of virtual energy which can be compromised through contracts. This value, which enables the registration of bilateral contracts, is known as Physical Guarantee (Garantia Física - GF) and is also calculated centrally. Unlike PLD, which is calculated on a weekly basis, GF, as required by Law, is recalculated every five years, with a limit of increase or decrease, restricted to 5% by revision or 10% in the concession period.

The contracts need to have an energy physical guarantee basis. This is done, especially, through the allocation of power generated received from the MRE or purchase. The GSF is the ratio of the entire hydroelectric generation of the MRE participants to the GF sum of all the MRE plants. Basically, the GSF is used to calculate how much each plant will receive from generation to back up its GF. Thus, knowing the GSF of a given month the company will be able to know if it will need to back up its contracts through purchases.

Whenever GSF multiplied by GF is less than the sum of contracts, the company will need to buy the difference in the spot market. However, whenever GSF multiplied by GF is greater than the total contracts, the company will receive the difference to the PLD.

The low inflows that have been recorded since 2014, as well as problems with delays in the expansion of the transmission system have resulted in low GSF values, resulting in heavy losses for the companies holding MRE participating hydroelectric projects.

For plants with contracts in the Free Contracting Environment - ACL, the main way to manage the low GSF risk is not to compromise the entire GF with contracts, approach currently adopted by the Company.

For the contracts in the ACR, Law 13,203/2015 allowed the generators to contract insurance for electricity demand (load), by means of payment of a risk premium. Copel adopted this approach to protect contracts related to energy generated by the Mauá, Santa Clara, Fundão, Baixo Iguaçu and Colíder Thermoelectric Plants and Cavernoso II Small HPP.

For the distribution segment, the effects of the GSF are perceived in the costs associated with quotas of Itaipu, of Angra and the plants whose concessions were renewed in accordance with Law 12,783/2013, as well as in the costs of the contracts for power availability with thermoelectric plants. This is a financial risk, since there is guarantee of neutrality of expenses with energy purchases through a tariff transfer.

36.2.6 Risk of non-renewal of concessions - generation and transmission

Currently, the extension of energy generation and transmission concessions, achieved by Law No. 9,074/1995, is regulated by Law No. 12,783/2013. Concessions for hydroelectric power generation and electric power transmission may be extended, at the discretion of the granting authority, only once, for a period of up to 30 years. Thermoelectric power generation concessions have an extension term limited to 20 years.

The concession operator should request extension of concession at least 60 months before the final contract date or after granting of concessions to hydroelectric power generation and electric power transmission and distribution plants, and of up to 24 months for thermoelectric plants. The Concession Grantor may advance effects of extension by up to 60 months counted as of contract or grant date and may also define initial tariff or revenue.

However, in 2019, Decree No. 10,135/2019 was published, which regulated the granting of concession contracts in the electricity sector associated with privatization through sale of control by holder of a public service concession for electricity generation, changing the exploration regime to Independent Power Producer (IPP). According to the Decree, the manifestation of sale of the concession must take place within up to 42 months from the date of the related formal agreement, and any sale must take place within up to 18 months from the concession end date. If sale of control of the venture does not occur within the specified period, the plant must be subject to auction by the granting authority and the same concessionaire can participate in the auction, if it meets the qualification conditions.

Copel has 2 plants whose concession ends in the next 5 years.

For HPP Governador Bento Munhoz da Rocha Netto (HPP GBM) (1,676 MW), whose concession will end in 2023, the Company has not expressed any interest in extending the concession, as internal studies have shown that the extension through early change of the exploration regime would be economically and financially disadvantageous in relation to exploration of the plant under the current regime until concession end. On March 3, 2020, Copel GeT transferred the concession of HPP GBM to subsidiary F.D.A. Geração de Energia Elétrica S.A. with the purpose of divesting the control of this concessionaire and, thus, allow a new concession grant for 30 years (Note 41.2).

With respect to HPP São Jorge, whose concession ends in 2024, Copel did not express interest in the renewal and intends, at the end of the concession, to request ANEEL to convert the granting of concession into granting of registration.

Regarding the Figueira HPP concession, expired in March 2019, the Company awaits the conclusion of the related ANEEL procedural steps to execute any amendment to the Concession Agreement. The plant is undergoing a modernization process and will have as direct benefits the improvement in energy efficiency and the reduction of pollutant emissions in the atmosphere, in comparison with the old plant.

According to the law, the Company may express its intention to extend the concession of the Apucaraninha HPP in 2020, and the Guaricana and Chaminé HPPs in 2021. If the Company does not express an interest in the extension of the current regime at its final term, be granted to the Company in the condition of registration, and the other concessions, at their final term, must be returned to the Concession Grantor.

Copel GeT does not have any transmission concession ending in the next ten years.

36.2.7 Risk on non-renewal of concessions – distributions of electricity

The fifth amendment to Copel DIS's concession contract No. 46/1999 imposes economic and financial efficiency covenants and indicators that consider the duration and frequency of service interruptions (DECi and FECi). Failure to comply with the conditions will result in termination of the concession (clause eighteen, subclause one), with due regard for the provisions of the contract, particularly the right to full defense and adversary system.

Indicators and penalties

Year	Indicator	Criteria	Penalties
Until 2020	Economic - financial efficiency and quality	2 consecutive years or at the end of the 5-year period (2020)	Concession termination
	Quality Indicators	2 consecutive years or 3 times in 5 years	Limitation of dividend and interest on equity distribution
	Economic - financial efficiency	in the base year	Capital Increase (a)
From the 6th year of (2021)	Economic - financial efficiency	2 consecutive years	Concession termination
	Quality Indicators	3 consecutive years	

(a) Within 180 days from the end of each fiscal year, in the totality of the insufficiency that occurs to reach the Minimum Economic and Financial Sustainability Parameter.

Targets defined for Copel Distribuição in the first five years after extension of the concession agreement

Year	Economic and Financial Management	Realized	Quality - limits [a] DECi [b]	Quality - limits [a] FECi [b]	Quality (Performed) DECi	Quality (Performed) FECi
2016			13.61	9.24	10.80	7.14
2017	EBITDA ≥ 0 [c]	661,391	12.54	8.74	10.41	6.79
2018	EBITDA (-) QRR ≥ 0 [d]	550,675	11.23	8.24	10.29	6.20
2019	{Net Debt / [EBITDA (-) QRR]} ≤ 1 / (0.8 * SELIC) [e]		10.12	7.74	9.10[f]	6.00[f]
2020	{Net Debt / [EBITDA (-) QRR]} ≤ 1 / (1.11 * SELIC) [e]		9.83	7.24	-	-

(a) According to Aneel's Technical Note No. 0335/2015.

(b) DECi - Equivalent Time of Interruption Caused by Internal Source per Consumer Unit; and FECi - Equivalent Frequency of Interruption Caused by Internal Source per Consumer Unit.

(c) Regulatory EBTIDA adjusted for non-recurring events (Voluntary retirement program, post-employment benefit, provisions and reversals) according to sub-clause six, of the Fifth Amendment to the Concession Agreement.

(d) QRR: Regulatory Reintegration Quota or Regulatory Depreciation Expense. This is the value defined in the most recent Periodical Tariff Review (RTP), plus General Market Price Index (IGPM) variation between the month preceding the RTP and the month preceding the twelve-month period of the economic and financial sustainability measurement.

(e) Selic: limited to 12.87% p.y.

(f) DECi / FECi in 2019: preliminary data

36.2.8 Risk of non-extension of the gas distribution concession

As presented in Note 2.1.1, the expiration date of the gas distribution concession of the subsidiary Compagás is under discussion with the concession grantor.

In the event of non-extension of the concession, Compagás will be entitled to compensation for investments made in the last 10 years prior to the end of the concession at their depreciated replacement value, according to the contractual clause.

36.2.9 Risk of overcontracting and undercontracting of electricity

Under the current regulatory model, the agreement for purchase of electric power by distributors is regulated by Law 10,484/2014 and Decree 5,163/2004, which determine that the purchase of energy must be in the volume necessary to serve 100% of the distributor's market.

The difference between the costs remunerated by the tariff and those actually incurred in the power purchases are fully passed on to captive consumers, as long as the distributor presents a contracting level between 100% and 105% of its market. However, if distributors determine contracting levels lower or higher than the regulatory limits, there is the assurance of neutrality if it is identified that such violation derives from extraordinary and unforeseen events that are not manageable by the buyer.

Since 2016, the distribution segment has been exposed to a general overcontracting scenario, as most companies determined contracting levels higher than 105%. Considering that several factors that have contributed to this situation are extraordinary and unavoidable by the distributors, such as the involuntary allocation of physical guarantee quotas and the broad migration of consumers to the free market, ANEEL and MME implemented a series of measures aiming at the mitigation of overcontracting.

In relation to the contracting of 2019, the scenarios of supply and demand indicate the occurrence of over contracting 105.8% by Copel DIS. Nevertheless, considering that this situation arises mainly from the migration of consumers to the free market, it is considered that the distributor maintains the guarantee of neutrality preserved, since this factor is subject to the recognition of involuntary over contracting.

36.2.10 Gas shortage risk

The natural gas market in Paraná is composed of Compagás' consumers (non-thermal market) and the Araucária Thermoelectric Plant (UEG Araucária). This market is supplied by contracts with Petrobras that uses the transportation infrastructure of the Brazil-Bolivia gas pipeline (Gasbol). Compagás has a contract for the supply of natural gas from Bolivia until December 2021, and is making a public bidding for the supply of natural gas as from January 2022. UEG Araucária, on the other hand, negotiates short-term natural gas contracts for not having electricity generated contracted in the regulated environment.

In the current situation of the natural gas sector in Brazil, the New Gas Market program is coordinated by the Ministry of Mines and Energy together with the Civil House of the Presidency of the Republic, the Ministry of Economy, the Administrative Council for Economic Defense, the National Petroleum Agency and the Energy Research Company - EPE, whose purpose is to open the natural gas market in order to make it dynamic, competitive, integrated with the electric and industrial sector, with an improved regulation.

Within the scope of the New Gas Market, the offer of natural gas already demonstrates growth and diversification, having as alternatives the import of gas from Bolivia, import of liquefied natural gas (LNG) that has a large world offer, use of natural gas from onshore basins and greater use of natural gas from the pre-salt which has large volumes to be extracted.

In relation to the transportation network, the changes in regulation to allow access to new agents, the public call of TBG (Gasbol transporter) that establishes a new capacity contracting regime in the gas pipeline and the Gas Pipeline Indicative Plan (PIG) coordinated by EPE, give a vision of better structuring of the sector and adequate planning to meet current and future demands, even though investments are needed for the latter.

A possible shortage in gas supply could result in losses to Copel due to a reduction in revenue from the natural gas distribution service provided by Compagás, as well as any penalty resulting from non-compliance with the obligations contained in the concession contract. In addition, in this scenario, UEG Araucária would probably be kept out of operation. However, this risk is considered low in view of the situation of the New Gas Market.

36.2.11 Risk of non-performance of windfarms

The power generation purchase and sale contracts for wind power are subject to performance clauses, which provide for a minimum annual and four-year generation of the physical guarantee committed in the auction. Ventures are subject to climatic factors associated with wind velocity uncertainties. Non-compliance with what is stated in the agreement may jeopardize future revenues of the Company. At December 31, 2019, the consolidated balance of the provision recorded in liabilities referring to the non-performance is R$ 65,790 (R$ 83,525, at December 31, 2018), which may be offset by higher future production, measured within the annual and/or four-yearly contractual cycle.

36.2.12 Risk related to price of power purchase and sale transactions

The Company operates in the electricity purchase and sale market with the objective of achieving results with variations in the price of electricity, respecting the risk limits pre-established by Management. This activity, therefore, exposes the Company to the risk of future electricity prices.

Future electricity purchase and sale transactions are recognized at fair value through profit or loss, determined by the difference between the contracted price and the future market price estimated by the Company.

On December 31, 2019, based on the notional amounts of R$ 4,448,602 (R$ 222,928 on 12.31.2018) for purchase contracts and R$ 4,089,801 (R$ 95,382 on 12.31.2018) for electricity sales contracts, the fair value was estimated using the prices defined internally by the Company in the last week of December 2019, which represented the best estimate of the future market price. The discount rate used is based on the NTN-B rate of return disclosed by Anbima, on January 2, 2020, adjusted for credit risk and additional project risk.

The balances referring to these outstanding transactions as of December 31, 2019 are shown below. The variation in relation to the net balance of R$ 3,786, on December 31, 2018, results from the increase in the level of contracting in the free energy market.

Consolidated	**Assets**	**Liabilities**	**Net**
Current	12,887	(8,932)	3,955
Noncurrent	118,894	(19,883)	99,011
	131,781	**(28,815)**	**102,966**

Sensitivity analysis on the power purchase and sale transactions

The main risk factor is the exposure to variation of energy market prices. The variation of the discount rate does not have a relevant impact on the fair value determined.

The sensitivity analyzes were prepared in accordance with CVM Instruction 475/08, considering, for scenarios 1 and 2, the 25% and 50% rise or fall in future prices, applied on the market prices of 12.31.2019 . The results obtained are as follows:

Consolidated	Price variation	Baseline 12.31.2019	Projected scenarios	
			Scenario 1	Scenario 2
Gains (losses) on purchase and sale of energy	Increase	208,662	297,525	386,389
	Decrease	208,662	119,798	30,934

36.2.13 Counterparty risk in the energy market

Since free energy market still does not have a counterparty acting as guarantor of all agreements (clearing house), there is a bilateral risk of default. Thus, the Company is exposed to the risk of failure in the supply of energy contracted by the seller. In the event of such failure, the Company must buy energy at the spot market price, being further subject to regulatory penalties and loss of amounts paid.

The Company follows a policy that establishes limits for possible operations with each counterparty, after analyzing its credit worthiness, maturity and history.

In addition, even if our policy is more restrictive, and the counterparties present good financial condition, the Company is exposed to systemic events in which the default of one agent ends up affecting other energy trading companies in a "domino effect" until reaching the Company's counterparties.

36.3 Capital management

The Company seeks to keep a strong capital base to maintain the trust of investors, creditors and market and ensure the future development of the business. Management also strives to maintain a balance between the highest possible returns with more adequate levels of borrowings and the advantages and the assurance afforded by a healthy capital position. Thus, it maximizes the return for all stakeholders in its operations, optimizing the balance of debts and equity.

The Company monitors capital by using an index represented by adjusted consolidated net debt divided by adjusted consolidated EBITDA (Earnings before interest, taxes, depreciation and amortization), for the last twelve months. The corporate limit established in the debt indentures provides for maintenance of ratio below 3.5 while any expectation of failing to meet this target will prompt Management to take steps to correct its course by the end of each reporting period.

As of December 31, 2019, the ratio attained is shown below:

Consolidated	31.12.2019	31.12.2018
Loans and financing	3,142,383	4,047,307
Debentures	8,429,710	7,518,131
(-) Cash and cash equivalents	(2,941,727)	(1,948,409)
(-) Bonds and securities (current)	(3,112)	(124,862)
(-) Bonds and securities (noncurrent)	(121,617)	(112,604)
(-) Collaterals and escrow accounts STN	(98,433)	(89,555)
Adjusted net debt	**8,407,204**	**9,290,008**
Net income	2,062,869	1,444,004
Equity in earnings of investees	(106,757)	(135,888)
Deferred IRPJ and CSLL	205,771	(68,072)
Provision for IRPJ and CSLL	433,555	580,065
Financial expenses (income), net	488,486	438,050
Depreciation and amortization	1,093,836	749,179
Adjusted ebitda	**4,177,760**	**3,007,338**
Adjusted net debt/Adjusted ebitda	**2.01**	**3.09**

36.3.1 The equity to debt ratio is shown below:

	Parent company		Consolidated	
Indebtedness	**12.31.2019**	**12.31.2018**	**12.31.2019**	**12.31.2018**
Loans and financing	788,959	903,385	3,168,710	4,047,307
Debentures	1,118,284	1,538,080	8,540,366	7,518,131
(-) Cash and cash equivalents	25,304	315,003	2,941,727	1,948,409
(-) Bonds and securities	90	123,560	282,081	344,296
Net debt	**1,881,849**	**2,002,902**	**8,485,268**	**9,272,733**
Equity	17,252,414	16,032,925	17,598,212	16,336,214
Equity indebtedness	**0.11**	**0.12**	**0.48**	**0.57**

37 Related Party Transactions

Consolidated	Assets		Liabilities		Revenue		Cost / Expense	
Related parties / Nature of operation	12.31.2019	12.31.2018	12.31.2019	12.31.2018	12.31.2019	12.31.2018	12.31.2019	12.31.2018
Controlling shareholder								
State of Paraná - dividends payable	-	-	190,664	112,196	-	-	-	-
CRC Transfer (Note 8)	1,350,685	1,445,042	-	-	184,229	188,797	-	-
Luz Fraterna Program (a)	7,478	10,353	-	-	-	-	-	-
Tarifa Rural Noturna Program (a)	7,639	-	-	-	-	-	-	-
Remuneration and employ social security charges assigned (b)	33	1,248	-	-	-	-	-	-
Telecommunication services (c)	16,312	15,788	-	-	43,079	41,375	-	-
Meteorological System of Paraná - Simepar (d)	-	-	185	181	-	-	(2,171)	(1,559)
Entities with significant influence								
BNDES and BNDESPAR - dividends payable (e)	-	-	130,204	80,144	-	-	-	-
Financing (Note 22)	-	-	2,231,409	2,208,920	-	-	(175,461)	(131,379)
Debentures - Compagás (Note 23)	-	-	11,783	17,651	-	-	(1,194)	(2,625)
Debentures - wind farms (Note 23) (f)	-	-	253,877	268,286	-	-	(28,240)	(30,316)
State of Paraná investee								
Sanepar (c) (g)	294	-	311	273	4,710	4,200	(5,852)	(5,227)
Use of water withdrawn from plants' reservoirs	-	144	-	-	480	-	-	-
Joint ventures								
Voltalia São Miguel do Gostoso - mutual	-	-	-	-	-	294	-	-
Dividends	1,032	1,032	-	-	-	-	-	-
Caiuá Transmissora de Energia (c) (h) (i) (j)	256	329	1,512	285	2,792	4,250	(14,233)	(14,869)
Dividends	4,443	3,316	-	-	-	-	-	-
Integração Maranhense Transmissora (i) (j)	-	-	161	58	-	-	(1,938)	(1,797)
Dividends	4,306	6,033	-	-	-	-	-	-
Matrinchã Transmissora de Energia (i) (j)	-	-	829	316	-	-	(10,137)	(9,514)
Dividends	31,793	21,470	-	-	-	-	-	-
Guaraciaba Transmissora de Energia (i) (j)	-	-	383	136	-	-	(4,853)	(4,475)
Dividends	14,846	15,869	-	-	-	-	-	-
Paranaíba Transmissora de Energia (i) (j)	-	-	638	212	-	-	(6,514)	(6,595)
Dividends	5,962	8,544	-	-	-	-	-	-
Cantareira Transmissora de Energia (i) (j)	-	-	467	170	-	-	(5,403)	(1,618)
Dividends	7,286	1,461	-	-	-	-	-	-
Mata de Santa Genebra Transmissão (i) (j) (k)	2,035	5,126	10	-	16,449	6,600	(340)	-
Associates								
Dona Francisca Energética S.A. (l)	40	-	1,436	1,436	145	-	(16,905)	(16,903)
Foz do Chopim Energética Ltda. (c) (m)	209	193	-	-	2,538	2,668	-	-
Dividends	-	18,071	-	-	-	-	-	-
Acquisition of power plant projects	-	-	-	19,461	-	-	-	-
Sercomtel S.A. Telecomunicações (c) (n)	4,436	2,226	-	-	8,354	8,051	(21)	(4)
Key management staff								
Fees and social security charges (Note 33.2)	-	-	-	-	-	-	(25,860)	(27,368)
Pension and healthcare plans (Note 24.3)	-	-	-	-	-	-	(1,560)	(1,725)
Other related parties								
Fundação Copel (c)	9	20	-	-	285	299	-	-
Administrative property rental	-	-	14,662	312	-	-	(2,520)	(15,396)
Pension and healthcare plans (Note 24.3)	-	-	1,194,936	968,763	-	-	-	-
Lactec (c) (o)	4	-	1,507	1,601	746	-	(2,787)	(4,026)

a) The *Luz Fraterna* Program created under Law 491/2013 and 17,639/2013 establishes the payment of electricity consumption to benefit low-income families, residing in the State of Paraná, whose properties - consumer units - are used exclusively for residential purposes, whether in urban or rural areas, and fulfill the requirements established in articles 3 and 4 of this law.

In March 2018, the amount of R$ 159,274 was settled. The principal interest, fine and monetary restatement, at December 31, 2019, totaled R$ 158,849. For these charges on electricity bills for the period of September 2010 to June 2015, a lawsuit was filed against the State of Paraná on November 5, 2018, relating to the payment of invoices pursuant to State Law 14,087/2003. We highlight that despite the negotiations maintained by Management, seeking to settle this debt, uncertainties still exist regarding the realization of this asset and therefore, in view of this condition, this asset was not recognized, therefore, in accordance with the current accounting standards. For the tax treatment, as determined by the Federal Revenue of Brazil in the Normative Instruction 1,753/2017, the Company has taxed this revenue.

Management further emphasizes that it is making all necessary efforts and taking all necessary measures to preserve the Company's interests.

The *Tarifa Rural Noturna* Program of the Paraná State Government, regulated by Decree No. 1,288 of April 30, 2019, provides for the granting of special monthly discount on the electricity tariff and the charges resulting from this service, including on the additional tariff flags, regarding night consumption by consumers addressed by this decree. This program provides for the payment by the Paraná State Government to Copel Distribuição of the amount corresponding to 60% of the electricity consumption by the benefitted consumers, considered to be night-period consumption, as specified in Decree 1,288 of April 30, 2019.

b) Reimbursement of wages and social charges for employees transferred to the Paraná State Government. Balances presented are net of expected credit loss.

c) Revenue of Copel TEL from telecommunications services and lease of equipment and infrastructure. The balances presented are net of expected credit losses.

d) The Meteorological System of Paraná - Simepar is a supplementary unit of the Independent Social Service Paraná Technology, linked to the State Department of Science, Technology and Higher Education. Simepar has contracts with Copel for services of weather forecast, meteorological reports, ampacity analysis, mapping and analyses of winds and atmospheric discharges.

e) BNDES is the parent company of BNDES Participações S.A. - BNDESPAR, which owns Copel shares (Note 30.1). On December 22, 2018, the shareholder agreement between the State of Paraná and BNDESPAR, signed on December 22, 1998, was ended.

f) BNDES and BNDESPAR acquired all the debentures issued by the subsidiaries Nova Asa Branca I, Nova Asa Branca II, Nova Asa Branca III, Nova Eurus IV and Ventos de Santo Uriel.

g) Basic sanitation provided by Sanepar.

h) Operation and maintenance services agreement provided by Copel GeT, maturing on May 9, 2021. Transmission System Connection Agreement - CCT executed by Copel DIS, expiring by the end of the concession agreement of the distribution or transmission company, whichever takes place first.

i) Charges for use of the transmission system due by Copel GeT, UEG Araucária and wind farms.

j) Copel DIS maintains a Contract for the Use of Transmission System (Cust) with ONS and power transmission concession operators whose subject matter is the contracting of Transmission System Use Amount (Must). Contracting is permanent and is regulated by ANEEL Normative Resolution 666/2015. Amounts are defined for four subsequent years, with annual reviews.

k) Agreements entered by Copel GeT: for operation and maintenance services, maturing on February 1, 2023, rendering of owner's engineering services, advisory and consulting services, maturing on May 2020, and facility sharing, maturing on January 1, 2043.

l) Connection to the transmission system contracts entered by Copel GeT, Costa Oeste and Marumbi, maturing on August 17, 2031 until July 21, 2048. Power purchase and sale agreement made by Copel GeT, maturing on March 31, 2025.

m) Contracts entered into by Copel GeT: for operation and maintenance, maturing on May 23, 2020, and connection to the transmission system, maturing on January 1, 2043.

n) Light pole sharing agreement, signed between Sercomtel S.A. Telecomunicações and Copel DIS.

o) The Institute of Technology for Development (Lactec) is a Public Interest Civil Society Organization (OSCIP), in which Copel is an associate. Lactec has service and R&D contracts with Copel GeT, UEGA and Copel DIS, which are subject to prior or later control and approval by ANEEL. Copel COM provides services and sells energy to the institute.

The relevant transactions with related parties are shown above. Transactions arising from operations in a regulated environment are billed according to the criteria and definitions established by the regulatory agents and other transactions are recorded according to the market prices practiced by the Company.

37.1 Guarantees awarded to related parties

Sureties and guarantees granted by Copel to its subsidiaries for financing and debentures are informed in Notes 22 and 23.

Copel provided financial guarantees, in the form of corporate guarantee letter, for power purchase agreements made by Copel GeT, in the total amount of R$ 4,005 (R$ 3,246 at December 31, 2018) and made by Copel Energia, in the amount of R$ 21,846 (R$ 79,358 at December 31, 2018).

Sureties and guarantees granted by Copel and Copel GeT for financing, debentures and insurance contracts of joint ventures are shown below:

Company		Operation	Date issued	Final maturity	Amount approved	Balance 12.31.2019	Interest %	Amount guarantees
(1)	Caiuá Transmissora (a)	Financing	12.23.2013	02.15.2029	84,600	57,542	49.0	5,956
(2)	Guaraciaba Transmissora	Financing	09.28.2016	01.15.2031	440,000	374,894	49.0	183,698
(3)	Guaraciaba Transmissora	Debentures	07.15.2018	12.15.2030	118,000	119,561	49.0	58,585
(4)	Mata de Santa Genebra	Financing	11.30.2017	07.15.2033	1,018,500	1,098,965	50.1	550,581
(5)	Mata de Santa Genebra	Debentures	04.15.2019	11.15.2030	210,000	202,767	50.1	101,586
(6)	Cantareira Transmissora de Energia (a)	Financing	12.28.2016	09.15.2032	426,834	453,020	49.0	28,175
(7)	Cantareira Transmissora de Energia	Debentures	01.09.2018	08.15.2032	100,000	103,374	49.0	50,653
								979,234

(a) Guarantee awarded of fixed amount pursuant to the contractual provisions and formal requirements of the financial institution

Financial institution (fund provider): BNDES: (1) (2) (4) (6)

Allocation: Investment program

Guarantees: provided by Copel GeT: (1); provided by Copel: (2) (3) (4) (5) (6) (7).

Operation guarantee: pledge of shares held by Copel Get in the ventures.

Performance bond Company	Final maturity	Amount Insured	% endorsement Copel GeT	Amount endorsement
Matrinchã Transmissora	09.30.2020	90,000	49.0	44,100
Guaraciaba Transmissora	04.30.2020	47,000	49.0	23,030
Mata de Santa Genebra	05.31.2020	78,300	50.1	39,228
				106,358

38 Commitments

Commitments related to long-term contracts not yet incurred, and therefore not recognized in the financial statements, are as follows:

Consolidated	12.31.2019	12.31.2018
Energy purchase and transportation contracts	137,279,155	140,638,024
Additions to property, plant and equipment		
Construction of transmission lines and substations	115,732	214,086
Construction of HPP Colíder power plant	-	36,303
Construction of HPP Baixo Iguaçu	-	202,668
Construction of Cutia wind farm	-	40,392
Construction of SHP Bela Vista	111,481	-
Telecommunications works	90,769	115,710
Acquisition of assets for electricity distribution	428,441	528,109
Gas purchase contracts	859,211	1,339,848

39 Insurance

Details by peril type and effective date of the main insurance policies can be seen below:

Consolidated Policy	End of term	Insured amount
Operational risks - HPP Baixo Iguaçu	05.31.2020	2,233,183
Operational risks - HPP Colíder	11.01.2020	2,166,984
Operational risks - Cutia and Bento Miguel	03.29.2021	2,165,557
Nominated Risks	08.24.2020	2,069,590
Operational risks - UEG Araucária (a)	05.31.2021	684,130
Operational risks - Brisa Potiguar	06.27.2020	890,763
Operational risks - HPP Governador Jayme Canet Junior	11.23.2020	799,290
Fire - owned and rented facilities	08.24.2020	662,791
Operational risks - São Bento	06.27.2020	569,835
Operational risks - Elejor	03.11.2021	302,984

(a) The values of the insured of operating risks - UEG Araucária have been translated from USD into BRL, with the current rate R$4.0307 as of December 31, 2019.

In addition to the insurance policies listed above, the Company take out other insurance policies with lower values, such as: Directors and Officers liability (D&O), general civil liability, court award payment guarantee, sundry perils, national and international transportation, life, aircraft and vehicles. The guarantee insurance taken out by the subsidiaries, joint ventures and associates have Copel and/or Copel GeT as guarantor, within the limits of their share of interest in each project.

40 Additional information to the Statement of Cash Flows

40.1 Transactions not involving cash

Among the transactions carried out in the line item Contract assets, specified in Notes 11.1 and 11.2, the acquisitions totaled R$ 1,039,234 (R$ 813,450 on December 31, 2018). Of this amount, R$ 48,068 (R$ 50,927 on December 31, 2018) represent the amount of purchases made in installments and not settled through the end of the reporting period.

According to information in Note 17.2, Property, plant and equipment acquisitions totaled R$ 551,162 (R$ 1,455,318 on December 31, 2018). Of this amount, R$ 52,446 (R$ 71,454 on December 31, 2018) represent the amount of purchases made in installments and not settled through the end of the reporting period.

In December 2018, there was acquisition in installments of the studies and projects denominated PCH Bela Vista and UHE Salto Grande, for the amount of R$ 19,461, with the company Foz do Chopim Energética Ltda., such liability being recorded in accounts payable to suppliers. In 2019, this acquisition was settled through a matching of accounts with the dividend’s receivable from that supplier, which is part of the Company's consolidated investments as associate.

As described in note 27.1, the additions and remeasurement adjustment occurred in right-of-use assets totaled R$ 13,237, which were recognized matched against lease liabilities.

The mentioned transactions did not involve cash and, for this reason, are not being presented in the statement of cash flows.

41 Subsequent events

41.1 Performance Prize

On February 12, 2020, the Company approved the short-term incentive program, denominated Performance Premium - PPD, of a variable nature, in order to align efforts at different organizational levels with the Company's strategic objectives. This program was developed considering its technical consistency and considering the best market practices, with the support of FIA - Fundação Instituto de Administração, a consulting firm specializing in projects to modernize people management practices in public and private companies. Thus, Copel improves its management by goals and improves its culture of meritocracy, ensuring efficient execution of its strategic plan. Safeguarding the values of the Company, the implementation of this program reflects the commitment assumed by Management with the improvement of operational efficiency of the Copel group and with the highest standards of Corporate Governance, strengthening the cornerstones for continuity and sustainable growth of the business.

41.2 HPP Gov. Bento Munhoz da Rocha Neto

On March 3, 2020, Copel GeT filed its registered manifestation with the Ministry of Mines and Energy - MME for inclusion, under the terms of Federal Decree No. 9,271/2018, of its subsidiary SPE F.D.A. Geração de Energia Elétrica. On the same date, this Special Purpose Entity (SPE) signed with ANEEL the concession contract for exploration of HPP Gov. Bento Munhoz da Rocha Neto (“GBM” or “Foz do Areia”), whereby formalizing plant ownership transfer. The purpose of the registered manifestation is to enable a new concession grant for 30 years for HPP Foz do Areia, subject to a process of disposal of control of the respective SPE, pursuant to the provisions of the aforementioned Federal Decree, within a period of up to 18 months before the date of end of the current concession contract, namely September 17, 2023.

The transfer of plant`s assets from Copel GeT to F.D.A. Geração de Energia Elétrica was carried out in the first quarter of 2020.

41.3 TPP Araucária – Gas Contract

A natural gas supply contract was signed between Petróleo Brasileiro S.A. - Petrobras and GPP Araucária Ltda. - GPPA, for the Araucária Thermoelectric Plant, effective February 21, 2020 to December 31, 2020, with warranty by Copel, which provides for supply of 2,150,000 cubic meters of natural gas per day, without mandatory gas taking. As a result, TPP Araucária will remain available to the National Interconnected System - SIN and may be commissioned at the discretion of the National System Operator (ONS).

41.4 Effect of the coronavirus (COVID-19) on the financial statements

In accordance with Circular Letter No. 02/2020, issued on March 10, 2020 by the CVM, the Company has constantly assessed the potential impacts of the Coronavirus (COVID-19) in the administrative and operations areas and has taken measures to contain the spread of the disease and minimize economic impacts. It should also be noted that, to date, there has been no relevant or material impact on its business that could modify the measurement of its assets and liabilities presented in the individual and consolidated financial statements on December 31,2019. The Company will continue to assess such impacts and risks and will make the necessary disclosures when relevant.

On March 24, 2020, ANELL announced measures in the contingency period of the pandemic, suspending for 90 days, starting on March 25, 2020, the cuts due to default by residential consumer units, in addition to services and activities considered essential, according to the legislation. Expanding these measures, the Paraná State Government increased the subsidy of the electric energy bill exemption range for low-income families, with consumption from 120 kWh to 150 kWh per month.

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INDEPENDENT AUDITOR'S REPORT ON THE INDIVIDUAL AND CONSOLIDATED FINANCIAL STATEMENTS

To the Board of Directors and Shareholders of
Companhia Paranaense de Energia - COPEL

Opinion

We have audited the accompanying individual and consolidated financial statements of Companhia Paranaense de Energia - COPEL ("COPEL" or "Company"), identified as Parent and Consolidated, respectively, which comprise the statements of financial position as at December 31, 2019, and the related statements of income, of comprehensive income, of changes in equity and of cash flows for the year then ended, and notes to the financial statements, including a summary of significant accounting policies.

In our opinion, the financial statements referred to above present fairly, in all material respects, the individual and consolidated financial position of Companhia Paranaense de Energia - COPEL as at December 31, 2019, and its individual and consolidated financial performance and its individual and consolidated cash flows for the year then ended in accordance with accounting practices adopted in Brazil and International Financial Reporting Standards - IFRSs, issued by the International Accounting Standards Board - IASB.

Basis for opinion

We conducted our audit in accordance with Brazilian and International Standards on Auditing. Our responsibilities under those standards are further described in the "Auditor's responsibilities for the audit of the individual and consolidated financial statements" section of our report. We are independent of the Company and its subsidiaries in accordance with the relevant ethical requirements in the Code of Ethics for Professional Accountants and the professional standards issued by the Brazilian Federal Accounting Council ("CFC"), and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Key audit matters

Key audit matters - KAM are those matters that, in our professional judgment, were of most significance in our audit of the financial statements of the current year. These matters were addressed in the context of our audit of the individual and consolidated financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

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Revenue recognition

As described in notes 4.12 and 32 to the individual and consolidated financial statements, the revenue of the Company and its subsidiaries derives mainly from the distribution, generation, transmission, and sale of electricity, as well as the provision of telecommunication and communication services in general. This matter was considered a KAM due to the complexity of capturing, processing, and recognizing the transactions, the dependency on information technology systems, and the related internal control involved in the Company's and its subsidiaries' revenue recognition process.

To address this KAM our audit procedures on revenue recognition included, among others: (a) assessing the design, implementation, and effectiveness of the Company's and its subsidiaries' internal control activities relating to Management's process to measure the amount of revenue to be recognized in the financial statements; (b) involving our information technology specialists to assess the IT systems and environment used for revenue recognition; (c) testing, on a sample basis, the occurrence, completeness, and accuracy of the revenue recognized by COPEL and its subsidiaries, and whether this revenue was recorded in the correct reporting period, based on an estimate prepared by Management, including the assessment of the unbilled revenue estimate; (d) testing, on a sample basis, the accuracy of invoice issuance; (e) testing, on a sample basis, the subsequent collection of invoices; and (f) assessing whether the disclosures made by Management in the individual and consolidated financial statements are appropriate.

As a result of these procedures, deficiencies in internal control related to the transmission contract asset revenue review processes and the recognition of telecommunications revenue were identified, which have changed our assessment regarding the nature, timing and extent of our initially planned substantive procedures.

Based on the audit procedures described above and the audit evidence obtained, we concluded that the capture, processing, recognition, and the related disclosures on the recognition of the Company's and its subsidiaries' revenue are acceptable in the context of the individual and consolidated financial statements taken as whole.

Estimated losses for impairment of property, plant and equipment

As disclosed in notes 4.10 and 18.7 to the individual and consolidated financial statements, the Company and its subsidiaries conduct an annual analysis of impairment indicators and, where necessary, measure their assets' recoverable amount to conclude whether or not there is the need to recognize an allowance for impairment losses on fixed assets. This matter was considered a KAM due to the high degree of Management's judgment required to measure the allowance for impairment, which requires the use of technical knowledge and the history of the Company's and its subsidiaries' operations, and making projections of future earnings, for the purpose of measuring the value in use of said assets.

To address this KAM, our audit procedures included, among others: (a) assessing the design, implementation, and effectiveness of the relevant internal control over the asset impairment test; (b) assessing the criteria used to identify and measure the recoverable amount of the Company's and its subsidiaries' cash-generating units; (c) involving our corporate finance specialists to assist us with the assessment of the appropriateness of the model used by Management to test its assets for impairment (discounted cash flows), notably as regards the discount rate and the appropriateness of the valuation model; (d) assessing the key business assumptions used in the discounted cash flow model, notably the assumptions relating to projected revenue, estimated costs, and costs for the completion of the projects under construction; and (e) assessing whether the disclosures made by Management in the individual and consolidated financial statements are appropriate.

As a result of the performance of these procedures, internal control deficiencies related to the analysis and recognition of impairment in telecommunication assets and the assets of subsidiary UEG Araucária Ltda. were identified. Immaterial impairment adjustments were not recorded, in accordance with applicable standards. Consequently, we have changed our assessment regarding the nature, timing and extent of our initially planned substantive procedures.

Based on the audit procedures described above and the audit evidence obtained, we concluded that the measurement of the allowance for impairment losses on property, plant and equipment performed by Management, as well as the related disclosures, are acceptable in the context of the financial statements taken as a whole.

Property, plant and equipment for the generation and transmission and telecommunications segments

As disclosed in notes 4.8 and 18 to the individual and consolidated financial statements, property, plant and equipment items are depreciated on a straight-line basis based on the estimate useful life, which is annually reviewed and adjusted, if necessary.

This matter was considered a KAM due to volume of investments, impacts on the timely transfer of assets in progress to assets in service and the high level of judgment exercised by Management to measure the useful life of the assets, which requires the use of technical knowledge and the history of the Company's and its subsidiaries' operations.

To address this KAM, our audit procedures included, among others: (1) testing the key controls on property, plant and equipment, including on Management's judgment regarding the accounting estimates of the useful life of property, plant and equipment; (2) assessing Management's estimates on the useful life of property, plant and equipment with regard to: (a) the consistency with the economic benefits embodied in the respective assets and the future operational estimates, including property, plant and equipment acquisition and derecognition plans; and (b) the consideration of the business assumptions used by the Company, based on its understanding of the sector; (3) reviewing the asset base, the procedures and rationale used by the Company to support the changes in estimates; (4) challenging the significant estimates and judgments used by Management, comparing previous and current estimates, taking into consideration the changes in the telecommunication sector and in market conditions; (5) testing the additions to and write-offs of property, plant and equipment, on a sample basis, matching the test results with the entries posted by Management; (6) testing the depreciation calculation, by developing an independent expectation, as well as the estimates used to define the depreciation rates applied; (7) assessing the assumptions used in the recognition of an allowance for impairment losses on assets; (8) assessing the disclosures the disclosures made by Management in the individual and consolidated financial statements.

As a result of the performance of these procedures, internal control deficiencies related to the analysis of the useful life and transfer of assets in progress to assets in service in the telecommunication segment, resulting in the failure to make adjustments as they were considered immaterial, in accordance with applicable standards, were identified. Consequently, we have changed our assessment regarding the nature, timing and extent of our initially planned substantive procedures.

Based on the audit procedures described above and the audit evidence obtained, we concluded that the measurement of property, plant and equipment for the generation and transmission and telecommunication segments, performed by Management, as well as the related disclosures, are acceptable in the context of the individual and consolidated financial statements taken as a whole.

Provision for tax, civil, labor and environmental risks

As disclosed in notes 4.11 and 30 to the individual and consolidated financial statements, the Company and its subsidiaries are defendants in a series of lawsuits involving civil, tax, labor and environmental matters. This matter was considered a KAM due to the high degree of judgment required to determine the likelihood of loss, measure the provision for risks, and prepare the related disclosures in the financial statements, which requires the use of technical and historical knowledge of the Company and its subsidiaries and the review by Management of relevant case law per individual lawsuit.

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To address this KAM, our audit procedures included, among others: (a) assessing the design, implementation and effectiveness of the relevant internal controls over contingencies, specifically in capturing the lawsuits and situations that may give rise to losses related to risks, determining the likelihood of loss and measuring the provision for risks; (b) testing, with the assistance of our information technology specialists, the IT controls and systems used by Management to control and assess the existing risks; (c) testing the completeness and accuracy of the database used by Management to determine the likelihood of loss and measure the provision for risks; (d) obtaining independent confirmation from the outside legal counsel and the attorney in charge of each lawsuit of the classification of the likelihood of loss for the Company and its subsidiaries, including the amount involved; (e) assessing the assumptions and judgments used by Management in the development of these estimates, with the support of our tax and environmental specialists, including the analysis of contradictory evidence; and (f) assessing the disclosures made by Management in the individual and consolidated financial statements.

Based on the audit procedures described above and the audit evidence obtained, we conclude that the provision for risks estimated by Management, as well as the related disclosures, is acceptable in the context of the individual and consolidated financial statements taken as a whole.

Other matters

Statements of added value

The individual and consolidated statements of value added - DVA for the year ended December 31, 2019, prepared under the responsibility of the Company's Management and disclosed as supplemental information for purposes of the IFRS, were subject to audit procedures performed together with the audit of the Company's financial statements. In forming our opinion, we evaluated whether these DVA are reconciled with the individual and consolidated financial statements and accounting records, as applicable, and whether their form and content are in accordance with the criteria set out in technical pronouncement CPC 09 - Statement of Value Added. In our opinion, these DVA were appropriately prepared, in all material respects, in accordance with the criteria set out in such technical pronouncement and are consistent in relation to the individual and consolidated financial statements taken as a whole.

Other information accompanying the individual and consolidated financial statements and the independent auditor's report

Management is responsible for the other information. The other information comprises the Management Report.

Our opinion on the individual and consolidated financial statements does not cover the Management Report and we do not express any form of audit conclusion thereon.

In connection with our audit of the individual and consolidated financial statements, our responsibility is to read the Management Report and, in doing so, consider whether this report is materially inconsistent with the financial statements or our knowledge obtained in the audit or otherwise appears to be materially misstated. If, based on the work we have performed, we conclude that there is a material misstatement in the Management Report, we are required to report that fact. We have nothing to report in this regard.

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Management's responsibilities and those charged with governance for the individual and consolidated financial statements
Management is responsible for the preparation and fair presentation of the individual and consolidated financial statements in accordance with accounting practices adopted in Brazil and the IFRSs, issued by the IASB, and for such internal control as Management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the individual and consolidated financial statements, Management is responsible for assessing the Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless Management either intends to liquidate the Company and its subsidiaries or to cease operations, or has no realistic alternative but to do so.

Those charged with governance are responsible for overseeing the Company's and its subsidiaries' financial reporting process.

Auditor's responsibilities for the audit of the individual and consolidated financial statements
Our objectives are to obtain reasonable assurance about whether the individual and consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Brazilian and International Standards on Auditing will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As part of an audit in accordance with Brazilian and International Standards on Auditing, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the individual and consolidated financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the internal control of the Company and its subsidiaries.

- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by Management.

- Conclude on the appropriateness of Management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Company's and its subsidiaries' ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the individual and consolidated financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Company and its subsidiaries to cease to continue as a going concern.

- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the individual and consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide those charged with governance with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and, where applicable, related safeguards.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the financial statements of the current period and are therefore the KAM. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

The accompanying individual and consolidated financial statements have been translated into English for the convenience of readers outside Brazil.

Curitiba, March 25, 2020

DELOITTE TOUCHE TOHMATSU Auditores Independentes	Fernando de Souza Leite Engagement Partner

COPEL
Companhia Paranaense de Energia

PARANÁ
GOVERNO DO ESTADO

ANNUAL STATUTORY AUDIT COMMITTEE REPORT

1. PRESENTATION AND GENERAL INFORMATION

Copel's Statutory Audit Committee (CAE or Committee) is established in Section I of Chapter V of its Bylaws, and is comprised of five members, Board Members, all of whom independent members, pursuant to applicable legislation. The characteristics, composition, functioning and competences of the Committee are established in specific Internal Regulations. This Committee advises and reports to the Board of Directors, to which it is directly linked.

The main duties of the Statutory Audit Committee are to ensure the quality and integrity of the Company's financial statements; compliance with legal and regulatory requirements; the performance, independence and quality of the work of the Independent Audit firm engaged to issue an opinion on the financial statements; the performance and quality of the work of the Internal Audit; and for the quality and efficiency of internal control and risk management systems.

In 2019 at the request of the CAE, a work plan to support its activities was prepared by the consulting firm PricewaterhouseCoopers - PwC in conjunction with the Copel Internal Audit team considering current legislation, internal regulations and best market practices. To study and develop this plan, PwC used the following work methodology: mapping the responsibilities of the CAE; plan to meet responsibilities; reference benchmarks; training aspects and discussions with the Committee. As a result, the consulting firm presented a work plan listing the requirements and recommendations for CAE operation, as well as a schedule for the performance of these activities over one year. The structure of this schedule includes the matters to be covered; the internal area responsible for support; the activity to be performed; the references in relation to Law 13313/2016, to Sarbanes-Oxley Act - SOx 301/407, to CVM Instruction 509, and to best governance practices; the frequency of presentation of the matters and the estimated duration of discussion and the distribution of these matters throughout the year.

The independent audit, currently Deloitte Touche Tohmatsu Auditores Independentes - Deloitte, are responsible for auditing the financial statements and must ensure that these present fairly the financial position of the Company - Copel Holding and the consolidated financial statements of its wholly-owned subsidiaries (GeT, DIS, CTE, COM and Eólicas) and subsidiaries in accordance with accounting practices adopted in Brazil, Brazilian corporate law, the rules of the Brazilian Securities and Exchange Commission (CVM), already aligned with international accounting standards, and standards issued by the Brazilian Electricity Regulatory Agency - ANEEL and the Brazilian Telecommunications Regulatory Agency - ANATEL. In addition, Deloitte is also responsible for assessing the internal control environment of Copel Holding and its wholly-owned subsidiaries, as these are subject to the Sarbanes-Oxley Act - SOx.

The Statutory Audit Committee shall prepare the Statutory Audit Committee Report on an annual basis, containing the following information: (i) its activities, findings, conclusions and recommendations in the period, including analysis of the effectiveness of such activities; (ii) an evaluation of the effectiveness of internal control and risk management systems, recording any weaknesses; (iii) a description of the recommendations presented to the boards, recording those not complied with and any justification; (iv) an evaluation of the effectiveness of the work of the independent auditing firm and the Internal Audit, verifying compliance with legislation, the Company's regulations and internal standards, recording any weaknesses; and (v) an evaluation of the financial statements, with emphasis on the application of the accounting practices adopted in Brazil and abroad, in addition to compliance with standards issued by regulatory agencies, recording any differences and weaknesses.

2. HISTORY OF COMMITTEE COMPOSITION

Initially created in order for the Company to comply with the requirements of the Sarbanes-Oxley Act - SOx, which regulates the activities of publicly traded companies with shares traded on the NYSE stock exchange in the United States, the Audit Committee, linked to the Board of Directors, has been in operation since May 2005. With the amendment of the Company's Bylaws, approved at the 195th Extraordinary General Meeting of Shareholders held on June 7, 2017, the Committee was renamed the Statutory Audit Committee (CAE).

In 2019, the Committee had the following composition, elected for the 2019/2020 term of office: Members Marco Antônio Barbosa Cândido (as Chairman); Carlos Biedermann (as financial specialist), Leila Abraham Loria, Olga Stankevicius Colpo and Luiz Cláudio Maia Vieira, all independent members, in accordance with Federal Law 13303/2016, and who meet the independence requirements imposed by the Securities and Exchange Commission - SEC and the New York Stock Exchange - NYSE.

Considering the resolution at the 194th Meeting of the Statutory Audit Committee - CAE, as of June 6, 2019, on the need for the availability of an internal professional, with exclusive dedication, to assist the Committe in the performance of its duties, Fabíola da Silva Carvalho Walesko (registry 47936) was appointed adviser to the CAE of Copel, according to Circular-093/2019, as of November 1, 2019

3. SUMMARY OF ACTIVITIES IN 2019

3.1. MEETINGS HELD AND MAIN CHARACTERISTICS

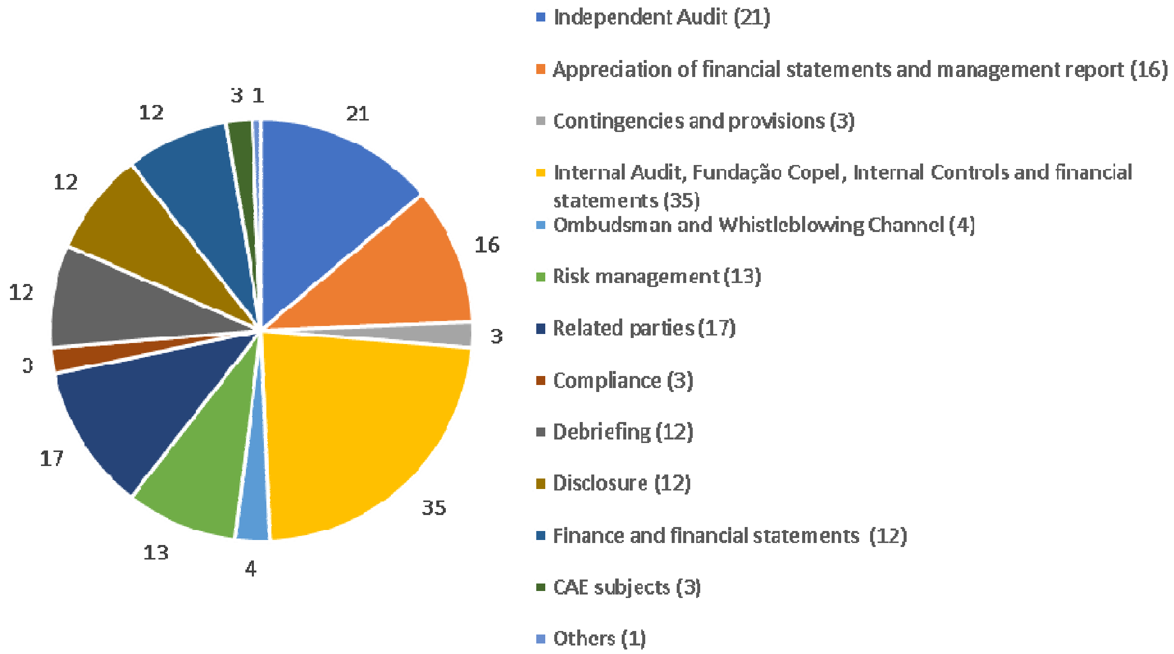
The items of the meetings held in 2019 were based on the work plan prepared for the Statutory Audit Committee, which indicates the following matters for the discussion by the Committee over the year, distributed over at least 12 meetings and 153 items: analysis of accounting information; external audit; whistleblowing channel; training; compliance; hiring/consulting; internal controls, internal audit and financial statements; debriefing; disclosure; finances and financial statements; risk management; budget; other extraordinary matters; related parties; CAE internal rules and Copel's internal regulations related to the CAE.

During the period from January 1 to December 31, 2019, 23 meetings of Copel´s Statutory Audit Committee were held, which included 162 items, involving members of the Executive Board, Managers, Internal Auditors and Independent Auditors.

The decisions taken and the recommendations made by the CAE were duly recorded in the minutes. The main topics discussed during the meetings were reported, on a monthly basis, at the ordinary meetings of the Board of Directors, detailing the activities and recommendations addressed to the different areas of the Company and its subsidiaries and associates as well as the discussions and the findings regarding monitoring of the Internal Auditor and Independent Auditor activities. These reports were summarized in the minutes of the Board of Directors meeting

ITEMS BY SUBJECT:

The summary of the scope of the items carried out is as follows:



3.2. INDEPENDENT AUDIT

During the course of 2019, the meetings of the Statutory Audit Committee contemplated 20 items regarding the participation of the Independent Audit and 1 extraordinary item with comment on initial contacts with the Independent Audit regarding a special subject. These items addressed the progress of the work of the Independent Auditor Deloitte for the Form 20-F, as of 2018; the planning of the Independent Audit work for 2019; an analysis of significant matters addressed by the Independent Auditor; monitoring the status of action plans and/ or projects to mitigate weaknesses identified by the independent audit, over the 2019 period; monthly reports on UEGA and inquiring about knowledge of fraud and the processes adopted for its mitigation.

The Committee assesses the volume and quality of the information provided, which supports its opinion on the adequacy and integrity of internal control systems and financial statements, as satisfactory. No situations were identified that could affect the objectivity and independence of the independent auditors. As a result, the Statutory Audit Committee evaluates the coverage and quality of the work performed by the Independent Audit, regarding the financial statements for the fiscal year ended December 31, 2019, as adequate.

Monthly, the Committee reviews decisions taken on matters related to independent audit.

3.3. FINANCIAL STATEMENTS AND MANAGEMENT REPORT

During the course of 2019, 16 items were carried out, of which 9 of them had the financial statements as their object and 7 of them, the Management Report. These items addressed the engagement of other services that may be provided by the Independent Audit firms auditing the Company's financial statements; a review of accounting policies, practices and principles used by Copel in the preparation of the financial statements, in particular the new accounting pronouncements - CPC 47/IFRS 15 - Revenue from Contracts with Customers and CPC 48/IFRS 9 - Financial Instruments; the analysis and recommendation for approval of the Annual Management Report and Financial Statements for the year 2018; a preliminary review of the Interim Financial Statements - 1st, 2nd and 3rd Quarters of 2019; the restatement of Copel GeT's Financial Statements for the 2018, 2017 and 2016 financial years to attend the CVM regarding the capital opening process, the Annual Management Report and the Financial Statements for 2018, with presentation of

Deloitte´s opinion, without qualifications; the ratification of the Proposal of the Executive Board for Allocation of Profit for 2018 and for Payment of Profit Sharing related to the Integration between Capital and Labor and Incentive to Productivity; the review of the Interim Financial Statements for the 1st, 2nd and 3rd Quarters of 2019.

The Committee discussed the findings of the work with the Independent Auditors, the key audit matters described in its report and its conclusions on the audit of these financial statements, and the opinion of the Independent Auditors does not contain any qualifications. The main points discussed were also related to the accounting practices adopted in Brazil, as well as recommendations, other issues in the reports on internal controls and presentation of the financial statements. The Committee found that the financial statements of the Company - Copel Holding and the consolidated financial statements of the wholly-owned subsidiaries and subsidiaries - are appropriate in relation to accounting practices and Brazilian corporate law, as well as the rules issued by the Brazilian Electricity Regulatory Agency - ANEEL and the Brazilian Telecommunications Regulatory Agency - ANATEL, as well as the rules of the Brazilian Securities and Exchange Commission (CVM) and the International Financial Reporting Standards (IFRS) issued by the International Accounting Standards Board - IASB, and the standards issued by the Securities and Exchange Commission - SEC and the Sarbanes-Oxley Act - SOx

3.4. CONTINGENCIES AND PROVISIONS

In the course of 2019, 03 items regarding contingencies and provisions were addressed in meetings of the Statutory Audit Committee. These items considered the monitoring regarding the Company's provisions and the actions being taken to improve legal proceedings, as well as the criteria for classification of legal contingencies.

It is important to note that the judicial (and administrative) contingent liabilities and their respective provisions were analyzed and discussed in meetings of the Statutory Audit Committee with the Legal and Accounting Departments, and the Compliance and Internal Controls area, in addition to the Independent Auditors. In previous year, the Statutory Audit Committee requested the review of the criteria used to classify the likelihood of success and estimate the amounts of the administrative and judicial proceedings and thus provide guidance on accounting provisioning of the amounts in question, presented through monitoring report of the Risk and Compliance Board.

Monthly, the Committee reviews decisions taken on matters related to contingencies and provisions.

3.5. INTERNAL AUDIT

During the course of 2019, 19 items were discussed with the Internal Audit, in meetings of the Statutory Audit Committee. During this period, the Committee monitored the activities of the Internal Audit and verified its recommendations, approved the Annual Report on the Activities of the Internal Audit (Raint) 2019 and the Annual Internal Audit Plan (Paint) 2019/2020; carried out the evaluation of the procedures for formalizing the debts in favor of the office contracted office by means of Adjustment of Account Agreement - TAC related to an arbitration process; was made aware of the completion of the Internal Audit Certification; accompanied special work of the Internal Audit, obtained information and made approvals under the Quality Management and Continuous Improvement Program - PGQM/International Certification of Internal Audit; approved the adequacy of the Internal Audit Rules and Internal Regulation of the Statutory Audit Committee with the international standards for the Professional Practice of Internal Audit at its 182nd Meeting, on December 12, 2018 and forwarded, at its 183rd Meeting, on January 23, 2019, to the Board of Directors recommending its final approval; and was made aware of the evaluation of the Internal Audit on Risk Management in the Company and on the work related to the Sarbanes-Oxley Act - SOx.

At the 184th Meeting, on February 20, 2019, Fundação Copel de Previdência e Assistência Social presented information about the Pension Plans sponsored by Copel and managed by the Funação Copel, covering the main data and results of the plans: i) institutional reports; ii) population statistics; iii) actuarial opinion; iv) investment policy; v) profitability comparisons; vi) audits and vii) inspection carried out by Previc.

Specifically, in relation to the international certification of the Internal Audit, the CAE received feedback on the actions implemented. It also analyzed the appointment of Superintendent of Internal Audit and, through the Human Resources Coordination, obtained a report on the Coaching Program and the plan implemented.

The Committee assesses the volume and quality of the information provided which supports its opinion on the adequacy and integrity of internal control systems and financial statements as satisfactory. No situations were identified that may affect the objectivity and independence of the Independent Audit. As a result, the Statutory Audit Committee assesses the coverage and quality of the work performed by the Internal Audit, regarding the financial statements for the fiscal year ended December 31, 2019, as adequate.

Monthly, the Committee reviews decisions taken on matters related to internal auditing.

3.6. INTERNAL CONTROL SYSTEMS

During the course of 2019, 16 items regarding internal controls were considered in meetings of the Statutory Audit Committee. During this period, the Committee received a report on the work related to internal controls; carried out the preliminary analysis of the Internal Controls Report with the document already in its final draft; and received an update on audit status from Deloitte regarding these Internal Controls.

The methodology adopted by the Company for the analysis of internal controls is in line with the structure of the Internal Control - Integrated Framework, defined by Committee of Sponsoring Organizations of the Treadway Commission (COSO), and the Sarbanes-Oxley Act - SOx. The Company's management is responsible for the implementation of policies, procedures, processes and practices of internal controls that allow the safeguard of assets, timely recognition of liabilities, adherence to rules as well as the integrity and accuracy of information. The Internal Audit is responsible for assessing the degree of compliance or observance, by all areas of the Company, with internal control procedures and practices and that these are being applied effectively.

The Committee also encouraged and validated the creation of control instruments (Internal Policies, Administrative Rules, among others) to ensure the smooth running of the Company's activities, including those of its subsidiaries and associates.

Although the issue has been dealt with in specific items, it continues to permeate other items of the Committee work agenda, having been discussed at length during the year by the members of the CAE. Monthly, the Committee reviews decisions taken on matters related to internal control systems.

3.7. OMBUDSMAN AND WHISTLEBLOWING

During 2019, 4 items regarding the Ombudsman and Whistleblowing Channel were covered in meetings of the Statutory Audit Committee. These items addressed the follow-up of the Whistleblowing Channel and the update of the Whistleblowing Policy for compliance with the Corporate Governance Report - CVM Instruction 586/2017, as well as the constitution of the Investigation Committee.

The CAE also monitors, during the year, in specific meetings, complaints received by the Channel that, due to their nature, had a more intensive treatment of investigation through the Internal Audit.

The Whistleblowing Channel Monitoring is presented to the CAE on a quarterly basis by the Compliance area and, monthly, the Audit presents the findings related to the complaints received.

Monthly, the Committee reviews decisions taken on matters related to the ombudsman and whistleblowing channel.

3.8. RISK MANAGEMENT AND MONITORING

During 2019, there were 13 Risks Management and Monitoring items discussed in meetings of the Statutory Audit Committee. These items addressed the review of the Company's Integrated Corporate Risk Management Policy and the reporting of work on risk management.

CAE, in order to reinforce the quality of the risk matrix, stated that the need for a quarterly analysis of the risk matrix as well as mitigation plans arising, by the Committee, should be added to the Corporate Risk Management Policy.

Monthly, the Committee reviews decisions taken on matters related to risk management and monitoring.

3.9. RELATED PARTIES TRANSACTIONS

One of the functions of the Statutory Audit Committee is "to evaluate and monitor, in conjunction with management and the Internal Audit area, the adequacy of related parties transactions carried out by the Company."

During the course of 2019, there were 17 items regarding related parties transactions addressed at CAE meetings. These items considered, in addition to the recommendation for approval of the transactions themselves, the review of the Related Parties Transactions and Conflicts of Interest Policy and the monitoring of operations/transactions with Related Parties.

Monthly, the Committee reviews decisions taken on matters concerning related parties transactions.

3.10. OTHER ACTIVITIES

In addition to the aforementioned activities, the Statutory Audit Committee discussed other items in regular meetings related to the matters already indicated in this report and other matters indicated in the CAE work plan which are: compliance; debriefing; disclosure; finances and financial statements; monitoring of decisions; budget; CAE internal regulation; and CAE independence regulations. Furthermore, other matters indicated were also considered, when applicable, together with the other items mentioned earlier in this report.

These items dealt with the Company's Internal Policies, such as: financial investment, investment, engaging independent auditing services, integrity and updating the integrity program.

In relation to subsidiaries and associates, the CAE intensively monitored the investigation process carried out within UEG Araucária Ltda. (UEGA) over the year, having regularly discussed the matter and having made recommendations to Management. The monthly reports on the progress of the issue continue to be made to the Committee on a regular basis, to monitor the proceedings in progress.

CAE also analyzed information on review of the Company's Code of Conduct, as well as the annual calendar of meetings for 2020.

As part of its 2019 scheduling, the Statutory Audit Committee discussed its work plan, prepared by the consultancy PricewaterhouseCoopers - PwC for the Committee and analyzed the results of the Committee performance evaluations.

Considering the resolution of the 194th Meeting of the Statutory Audit Committee - CAE, as of June 6, 2019, on the need for the availability of an internal professional with exclusive dedication to assist the Committee in the performance of its duties, Copel's CAE advisor was appointed, mentioned previously.

4. STATUTORY AUDIT COMMITTEE COMMUNICATION

4.1. BOARD OF DIRECTORS

The Statutory Audit Committee reports its activities monthly at the ordinary meetings of the Board of Directors, presenting the matters discussed, its position and requests made to the various areas of the Company. In specific resolutions, the Statutory Audit Committee issues notice to the Board of Directors, with its position and recommendations.

4.2. SENIOR MANAGEMENT - EXECUTIVE BOARD AND MANAGERS

For all meetings of the Statutory Audit Committee, the Boards involved in the topics to be discussed are invited and recommend participation of the Managers of the areas responsible for the items to be addressed. In addition, it also occurs that the Executive Managements, through their Boards, propose items for presentation to the Statutory Audit Committee, as regards the competences of this Committee, particularly those matters that will be submitted for consideration and decision by the Board of Directors

5. RECOMMENDATIONS TO THE EXECUTIVE BOARD

- Development of Remediation Plan for material weaknesses in the Company's internal controls, as indicated by the Independent Auditors, in connection with the performance of the audit work related to the fiscal year: **a.** Ineffective internal controls in the monitoring and authorization of certain transactions in not wholly-owned subsidiaries; **b.** Inefficient internal controls on financial reporting related to the accounting of securities/investments and taxes on regulatory assets; **c.** Ineffective implementation of general information technology (IT) controls, policies and procedures on user access, segregation of duties, and change management in not-wholly owned subsidiaries; **d.** Ineffective controls over the approval of certain types of manual accounting entries; **e.** Ineffective controls on estimates used in the analysis of impairment; f. Ineffective controls in the identification of processes related to the accounting of provision for risks.

For each of the weaknesses, an action plan was established by the responsible competent board, which were described in Form 20F, that requires the indication of the action plan when there is material weakness identified by the Independent Auditor. Form 20F is required on an annual basis by the Securities and Exchange Commission - SEC for foreign companies with publicly traded securities on the United States stock exchanges. This form includes, for example, reports containing relevant information on the financial statements and aspects of corporate governance. The action plans presented on Form 20F were extensively discussed within the scope of the boards involved, as well as with specialists from the Company's areas. A committee was created to monitor remediation actions for material and significant weaknesses identified by the Independent Auditor, Deloitte, in the presence of the Chief Executive Officer and the Officers responsible for the action plans. Since then, the CAE has been monitoring the status of the action plans and/or projects on a monthly basis to mitigate the weaknesses identified by the Independent Auditor.

- Report of the implementation, by Internal Audit, of the Quality Assessment Certification Project (Internal Audit Certification).

The Internal Audit concluded the implementation of the Internal Audit Certification with the Issuance of the Quality Assessment Certificate carried out by the Brazilian Institute of Internal Auditors.

- Verification of the Company’s compliance with Federal Law 13,303/2016 and pertinent measures to also ensure adherence of the associates and/or subsidiaries to the aforementioned Federal Law and any new legislation in force.

The Company has made the necessary adjustments to its corporate and internal documents to comply with the provisions of the law, including engaging PricewaterhouseCoopers - PwC to prepare a work plan for the CAE that is appropriate to the new legislation in force, including Law 13,303/2016. The work plan is already incorporated into the routines of the Committee, and its performance is monitored by the Corporate Governance Secretariat (SEC).

In addition, the Corporate Governance Secretariat (SEC) performs, to the Committee, the monitoring of past meetings deliberations, making information available to the members of the CAE, in a virtual restricted access environment, monthly, always before the ordinary meetings.

- Development of plan to implement and maintain the provisions set forth in the Copel Code of Conduct to ensure that employees know and follow the guidelines established by the Code.

The Company held training and seminars, with the participation of employees and outsourced workers, on topics such as the Code of Conduct and the Whistleblowing Channel, conducted by the Corporate Integrity Coordination, where it emphasized Copel's position of valuing transparent dialogue and ethical relationship with its various audiences, focused on the Company's suppliers. On those occasions, copies of the Code of Conduct were distributed. Also, internal "Compliance Alerts" were issued to all Company employees, on a wide range of topics, focusing on mandatory matters and sensitive processes in each field of activity

6. CONCLUSIONS AND RECOMMENDATION TO THE BOARD OF DIRECTORS

The members of the Statutory Audit Committee, in the exercise of their duties and legal responsibilities, examined and analyzed the financial statements of the Company - Copel Holding and the consolidated financial statements of the wholly-owned subsidiaries and subsidiaries, accompanied by the Independent Auditor´s Report and the Annual Management Report for the fiscal year ended December 31, 2019. Considering all the analyses, studies and discussions carried out during the meetings as well as the monitoring and supervision work carried out by the CAE - previously described in summarized form – in addition to information provided by the Company's Management and by Deloitte Touche Tohmatsu Auditores Independentes, the members of the Statutory Audit Committee consider that all material facts are adequately disclosed in the audited financial statements at December 31, 2019, in the Annual Report 2019, and recommend their approval by the Board of Directors

Curitiba, March 25, 2020.

MARCO ANTÔNIO BARBOSA CÂNDIDO
Chairman)

CARLOS BIEDERMANN
Financial Specialist

LEILA ABRAHAM LORIA

LUIZ CLÁUDIO MAIA VIEIRA

OLGA STANKEVICIUS COLPO

COPEL
Companhia Paranaense de Energia

PARANÁ
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SUPERVISORY BOARD'S OPINION ON THE ANNUAL MANAGEMENT REPORT AND THE FINANCIAL STATEMENTS FOR THE YEAR 2019 AND ON THE OFFICERS' PROPOSAL FOR ALLOCATION OF THE PROFIT FOR THE YEAR 2019

The undersigned members of the Supervisory Board of Companhia Paranaense de Energia - Copel, within their legal and statutory duties and responsibilities, have examined the Financial Statements for the year 2019, which comprise the statement of financial position as at December 31, 2019 and the statements of income, comprehensive income, changes in equity and cash flows, as well as the related explanatory notes and the Officers' Proposal for Allocation of the Profit for the year 2019. The minutes were received and analyzed individually by the Directors and discussed previously with management. Based on the work performed and discussions held during the year, the analyses and interviews carried out, the accompanying of the discussions and clarifications on internal controls provided by Management and the Independent Auditors, and also considering the Report of the Auditor Deloitte Touche Tohmatsu Auditores Independentes on the Individual and Consolidated Financial Statements, issued with no qualifications, the board members state that they were not aware of any fact or evidence that is not reflected in the referred Financial Statements and that said statements are in a position to be referred to the General Shareholders' Meeting resolution.

Curitiba, March 25, 2020

DEMETRIUS NICHELE MACEI
Chairman

HARRY FRANÇÓIA JÚNIOR

JOSÉ PAULO DA SILVA FILHO

LETÍCIA PEDERCINI ISSA MAIA

ROBERTO LAMB

CAPITAL BUDGET PROPOSAL

In conformity with CVM Instruction 480/2009, in effect since January 1, 2010, below we present the capital budget proposal for 2020, approved at the 196th annual meeting of the Board of Directors of Companhia Paranaense de Energia, held on November 12, 2019, as well as the origin of the funds.

INVESTMENT PROGRAM	R$ Mil
Generation and Transmission (a)	792,342
Distribution	1,073,812
Telecommunications	123,907
Wind Farm Projects (b)	72,897
Others (c)	24,267
TOTAL	**2,087,226**

(a) Includes the developments SPEs Bela Vista (Generation), Marumbi (Transmission), Costa Oeste (Transmission) and Uirapuru (Transmission)

(b) Includes Brisa Potiguar, Cutia Empreendimentos Eólicos, São Bento Energia and Jandaíra Energias Renováveis

(c) Includes Holding, Copel Comercialização, among others

SOURCES OF FUNDS	R$ Mil
Recursos de Terceiros	**400,000**
New funding - BNDES	250,000
New funding -Other Financial Institutions	150,000
Company Funds, from retention of profits and generation of cash from the Company's operations	**1,687,226**
TOTAL	**2,087,226**

COPEL
Companhia Paranaense de Energia

PARANÁ
GOVERNO DO ESTADO

S T A T E M E N T

By this document, the Officers of Companhia Paranaense de Energia - Copel, mixed capital corporation, with registered office at Rua Coronel Dulcídio nº 800, Curitiba - PR, enrolled in the National Registry of Legal Entities (CNPJ/MF No. 76.483.817/0001-20, for the purpose of the provisions in items V and VI, paragraph 1, of article 25 of CVM Instruction 480/2009, state that:

(i) We have reviewed and discussed and agree with the opinions expressed in the audit report of Deloitte Touche Tohmatsu Auditores Independentes related to the financial statements of Copel for the year ended December 31, 2019; and

(ii) We have reviewed and discussed and agree with the financial statements of Copel for the year ended December 31, 2019.

In witness whereof, we sign this document.

Curitiba, March 25, 2020

Daniel Pimentel Slaviero
Chief Executive Officer

Ana Letícia Feller
Chief Enterprise Management Officer

Adriano Rudek de Moura
Chief Financial and Investor Relations Officer

Cassio Santana da Silva
Chief Business Development Officer

Eduardo Vieira de Souza Barbosa
Chief Legal and Institutional Relations Officer

Vicente Loiácono Neto
Chief Governance, Risk and Compliance Officer