

W0. Introduction

W0.1

(W0.1) Give a general description of and introduction to your organization.

Our company, with more than 100 years of experience, has a history of leadership in the Brazilian power sector, contributing to the country's economic progress and to the well-being of millions of citizens. Our business is diversified, covering all segments: generation, transmission, distribution, and solutions for customers.

We rank among the 20 largest companies in Brazil in terms of net revenue. Our ability to execute and manage energy assets was further strengthened by State Grid Corporation of China's (SGCC) arrival in Brazil. The Chinese group, the world's largest electric energy company, is our majority shareholder and is the driver behind the integration of the most advanced technologies in the electric sector, which boosts the operational efficiency of all businesses.

Our companies are:

i) Generation: In 2019, the generation segment were strengthened through the integration of CPFL Renováveis, the country's largest renewable energy generator, into our asset portfolio. Thanks to this operation, our installed capacity totals 4.3 GW in assets spread out across four of the country's five regions, making us the third-largest privately held company in terms of generation and the Brazilian leader in renewable energy. In 2019, we generated 13.1 TWh, which represents an increase of 19.5% from the previous year. Of this total, 98.3% came from renewable sources. Our companies are:

- CPFL Geração: owns three Small Hydroelectric Power Plants (SHPPs), two thermoelectric plants – Termoparaíba and Termonordeste (EPASA) – and a generator complex with eight hydroelectric power plants (HPPs).

- CPFL Centrais Geradoras: owns six hydroelectric generating plants (HGPs)

- CPFL Renováveis: generates energy from renewable sources, such as Small Hydroelectric Power Plants (SHPPs), wind farms, thermal biomass plants (TBPs) and solar power plants. Comprises 94 plants in operation and 5 under construction.

ii) Transmission: Our activities in the transmission sector seek to take advantage of synergies between generation and distribution assets, with a focus on diversifying our portfolio through opportunities in niche businesses. In the state of São Paulo, two business units already operate power transmission systems: CPFL Transmissão Piracicaba and CPFL Transmissão Morro Agudo. In 2019, we began the process of implementing three projects that were auctioned off by the National Electricity Regulatory Agency (ANEEL) at the end of the previous year:

- Construction of the Maracanaú II substation in the state of Ceará;

- CPFL Transmissão Sul I (Lot 5), which includes improvements in the Itá substation and 320 kilometers of transmission lines;

- CPFL Transmissão Sul II (Lot 11), with the construction of two new substations and 85 kilometers of transmission lines, working in the states of Santa Catarina and Rio Grande do Sul.

iii) Distribution: we are the second largest company in the electricity distribution segment in terms of the amount of energy sold, with a 14% share of the national market. Our four companies covers 687 municipalities and serves 9.8 million customers. In 2019, we distributed 68.1 TWh of energy, up 1.3% from the previous year. During the same period, our customer base increased by 1.8%. Our companies are:

- CPFL Paulista: operates 234 municipalities in the countryside of São Paulo State, serving 4.58 million customers.

- CPFL Piratininga: distributes energy to 27 municipalities in the countryside and coast of São Paulo State, serving 1.79 million customers.

- CPFL Santa Cruz: serves 45 municipalities, 39 of them located in São Paulo state, three in Paraná and three in Minas Gerais. It has 466,000 customers.

- RGE: serves 381 municipalities and 2.92 million clients in Rio Grande do Sul state.

iv) Solutions: in line with the evolution of the energy sector and customer needs, in 2018 we launched CPFL Soluções, our newest brand. With operations throughout the country, it has a portfolio of integrated solutions in energy management and trading, energy efficiency, distributed generation, energy infrastructure and consulting services.

Sustainability is a central element for our business model and, therefore, it is part of our corporate strategy and incorporated into our decision-making process. In 2019, we developed our Sustainability Plan, which systematizes actions and objectives for the next five years under the scope of sustainability management. Thus, we consolidated the work we have carried out since 2014 with the creation of the Sustainability Platform, which monitors the company's performance through indicators and strategic themes and reinforces our alignment with the United Nations' Sustainable Development Goals (SDGs) and its 2030 Agenda.

As a result of this work, in 2019, CPFL Energia was named the best company in the power sector in Exame magazine's Sustainability Guide, with special mention of our community relations programs.

W-EU0.1a

(W-EU0.1a) Which activities in the electric utilities sector does your organization engage in?

Electricity generation

Transmission

Distribution

W-EU0.1b

(W-EU0.1b) For your electricity generation activities, provide details of your nameplate capacity and the generation for each technology.

	Nameplate capacity (MW)	% of total nameplate capacity	Gross electricity generation (GWh)
Coal – hard	0	0	0
Lignite	0	0	0
Oil	182.3	4	237.64
Gas	0	0	0
Biomass	369.8	9	1085.94
Waste (non-biomass)	0	0	0
Nuclear	0	0	0
Fossil-fuel plants fitted with carbon capture and storage	0	0	0
Geothermal	0	0	0
Hydropower	2443.1	56	7957.84
Wind	1307.8	30	4097.2
Solar	1.1	1	1.58
Marine	0	0	0
Other renewable	0	0	0
Other non-renewable	0	0	0
Total	4304.1	100	13380.24

W0.2

(W0.2) State the start and end date of the year for which you are reporting data.

	Start date	End date
Reporting year	January 1 2019	December 31 2019

W0.3

(W0.3) Select the countries/areas for which you will be supplying data.

Brazil

W0.4

(W0.4) Select the currency used for all financial information disclosed throughout your response.

BRL

W0.5

(W0.5) Select the option that best describes the reporting boundary for companies, entities, or groups for which water impacts on your business are being reported.

Companies, entities or groups in which an equity share is held

W0.6

(W0.6) Within this boundary, are there any geographies, facilities, water aspects, or other exclusions from your disclosure?

No

W1. Current state

W1.1

(W1.1) Rate the importance (current and future) of water quality and water quantity to the success of your business.

	Direct use importance rating	Indirect use importance rating	Please explain
Sufficient amounts of good quality freshwater available for use	Vital	Not very important	Direct use: CPFL's installed electricity generation capacity comprises 57% of hydroelectric plants (46% HPP, 11% SHPP and HGP). Water is fundamental to our process, although we make non-consumptive use it. In this way, the availability and quality of water are very important in generation energy process. Although climate change influences water availability, our strategy include a diversified portfolio, in terms of sources and geographical locations. At CPFL Geração, the main source of water consumption is for human use ((bathrooms, pantries, and sinks). The water used for this purpose is either collected directly from artesian wells or purchased from suppliers using tanker trucks. At CPFL Renováveis, water is also used for industrial purposes at biomass plants and in some SHPPs, with the objective of cooling of the system and/or feeding the boiler. On occasion, water consumption may also take place during construction on new projects. In 2019, no water was consumed in the construction of the Gameleiras Wind Complex, which started in November. Work on the Cherobim SHPP, meanwhile, had not started. At our DiSCos, service companies and corporate offices, 100% of water consumption comes from public or private water supply systems at each location. In 2019, we also have established a goal of reducing administrative water consumption from the water supply. Indirect use: we observed that our facilities are not on stress areas and our suppliers have distributed production throughout the country, minimizing the risk of not having a water supply local. Therefore, the impact is not very important.
Sufficient amounts of recycled, brackish and/or produced water available for use	Not very important	Not very important	Direct Use: CPFL's installed electricity generation capacity comprises 57% of hydroelectric plants (46% HPP, 11% SHPP and HGP). Water is fundamental to our process, although we make non-consumptive use it. There is a low consumption in its operations and in administrative activities. This is also applied to the distribution and solutions segments. Indirect use: we observed that our facilities are not on stress areas and our suppliers have distributed production throughout the country, minimizing the risk of not having a water supply local. Therefore, the impact is not very important.

W1.2

(W1.2) Across all your operations, what proportion of the following water aspects are regularly measured and monitored?

	% of sites/facilities/operations	Please explain
Water withdrawals – total volumes	100%	The level of the water upstream and downstream and the discharged water from the dams are monitored frequently, among other parameters. The withdrawal volume is monthly monitored by each facility. Data are analyzed by total volume and by source to ensure that the parameters are within the standards required for operating licenses condition, for use in the equipment and the consumption of the administrative areas. We present the results in our Annual Report 2019.
Water withdrawals – volumes by source	100%	CPFL Energia monitors the water captured by source (surface water, groundwater and public or private supply) in all its operations and administrative buildings, on a monthly basis. For the operation, the level of the water upstream and downstream and the discharged water from the dams are monitored frequently, among other parameters. The withdrawal volume is monitored by each facility. Data are analyzed by total volume and by source to ensure that, the parameters are within the standards required for operating licenses condition, for use in the equipment and the consumption of the administrative areas. We present the results in our Annual Report 2019.
Entrained water associated with your metals & mining sector activities - total volumes [only metals and mining sector]	<Not Applicable>	<Not Applicable>
Produced water associated with your oil & gas sector activities - total volumes [only oil and gas sector]	<Not Applicable>	<Not Applicable>
Water withdrawals quality	100%	CPFL's installed electricity generation capacity comprises 57% of hydroelectric plants (46% HPP, 11% SHPP and HGP). We make non-consumptive use and we do not contaminate it. The physical, chemical and biological parameters are frequently monitored in all of our reservoirs to verify the water quality. Data are analyzed to ensure that the parameters are within the standards required for operating licenses condition. Our companies send the monitoring reports to the environmental agencies that verify compliance with the water quality standards established by the current legislation (CONAMA n°357/ 2005; 410/2009 and 430/2011).
Water discharges – total volumes	100%	CPFL Energia monitors water discharge parameters according to Conama Resolution 357, 274,430 and current operating licenses, among other regulations. The only operation that has a high volume of effluents is Epasa, which in 2019 totaled 17,200 cubic meters. This volume is 36% lower than in the previous period, since generation is proportional to operational activity, which was reduced due to the lower need for dispatches from the National System Operator (ONS). In the past year, Epasa generated only 15% of its capacity. CPFL Energia has a 53.34% stake in this unit. For other facilities, effluents are generated only in its administrative processes, discarded in the public network or destined to controlled septic tanks, not directly affecting watercourses.
Water discharges – volumes by destination	100%	CPFL Energia monitors water discharge parameters according to Conama Resolution 357, 274,430 and current operating licenses, among other regulations. The only operation that has a high volume of effluents is Epasa, which in 2019 totaled 17,200 cubic meters. This volume is 36% lower than in the previous period, since generation is proportional to operational activity, which was reduced due to the lower need for dispatches from the National System Operator (ONS). In the past year, Epasa generated only 15% of its capacity. CPFL Energia has a 53.34% stake in this unit. We monitor the total discharges of water by destination of our plants on a regular basis, at an operational level, and this information is consolidated annually. The effluents generated are sent to the sewage treatment plant (ETE) and monthly analysis of various parameters is performed to verify the effectiveness of treatment and compliance with legal requirements.
Water discharges – volumes by treatment method	100%	CPFL Energia monitors water discharge parameters according to Conama Resolution 357, 274,430 and current operating licenses, among other regulations. Since hydro power plants, wind and solar farms represent 87% of our total generation capacity, as recommended in the Question level Guidance, this water aspect is reported as not relevant. The only operation that has a high volume of effluents is Epasa, which in 2019 totaled 17,200 cubic meters. This volume is 36% lower than in the previous period, since generation is proportional to operational activity, which was reduced due to the lower need for dispatches from the National System Operator (ONS). In the past year, Epasa generated only 15% of its capacity. CPFL Energia has a 53.34% stake in this unit. For other facilities, effluents are generated only in its administrative processes, discarded in the public network or destined to controlled septic tanks, not directly affecting watercourses.
Water discharge quality – by standard effluent parameters	100%	CPFL Energia monitors water discharge parameters according to Conama Resolution 357, 274,430 and current operating licenses, among other regulations. Since hydro power plants, wind and solar farms represent 87% of our total generation capacity, as recommended in the Question level Guidance, this water aspect is reported as not relevant. The only operation that has a high volume of effluents is Epasa, which in 2019 totaled 17,200 cubic meters. This volume is 36% lower than in the previous period, since generation is proportional to operational activity, which was reduced due to the lower need for dispatches from the National System Operator (ONS). In the past year, Epasa generated only 15% of its capacity. CPFL Energia has a 53.34% stake in this unit. For other facilities, effluents are generated only in its administrative processes, discarded in the public network or destined to controlled septic tanks, not directly affecting watercourses.
Water discharge quality – temperature	100%	CPFL Energia monitors water discharge parameters according to Conama Resolutions and current operating licenses. Since HPP, wind and solar farms represent 87% of our total generation capacity, as recommended in the Question level Guidance, this water aspect is reported as not relevant. The only operation with a high volume of effluents is Epasa, with a volume 36% lower than in 2018 (proportional to the reduced energy generation). This facility conduct monthly monitoring of the water temperature, upstream and downstream of its operations, so that they can identify if there is any impact being caused to the waterways. This monitoring acts as an evaluation of the quality of the effluent management, comparing the parameters to those defined by the legislation. For other facilities, effluents are generated only in its administrative processes, discarded in the public network or destined to controlled septic tanks. Therefore, the temperature parameter is not relevant for these effluents.
Water consumption – total volume	100%	Water consumption are constantly monitored, mainly to meet operational needs and Conama Resolutions 357 and 274, current operating licenses, among other regulations. Total consumption is accounted for in each unit and monitored by environmental teams. It is important to point that we consider water use in hydro power plants a non-consumptive use. Key Water indicators for us are published in our Annual Report and subject to independent third-party verification.
Water recycled/reused	Not relevant	Since hydro power plants, wind and solar farms represent 87% of our total generation capacity, as recommended in the Question level Guidance, this water aspect is reported as not relevant. The administrative use of water is also not relevant in terms of volume.
The provision of fully-functioning, safely managed WASH services to all workers	100%	CPFL provides access to clean water and suitable sanitation conditions for all employees and subcontracted workers in 100% of our facilities and offices. Water control is carried out for human consumption in accordance with Ministry of Health Ordinance No. 05 of 09/28/2017. The safety of our employees, outsourced parties, and the population is an absolute priority for our company. The Primeiro as Pessoas ("People First") Program covers a series of steps we take to raise employee awareness and ensure that safety procedures are followed in all operations, with the goal of minimizing the risk of accidents and making our work environment healthier and more productive.

W-EU1.2a

(W-EU1.2a) For your hydropower operations, what proportion of the following water aspects are regularly measured and monitored?

	% of sites/facilities/operations measured and monitored	Please explain
Fulfillment of downstream environmental flows	100%	The water resources are constantly monitored, mainly to meet operational needs, Conama Resolution 357 and 274, current operating licenses, among other regulations. The legislation requires the implementation of downstream environmental flows regimes as a mitigation environmental measure to improve water body ecological status and to achieve good ecological potential. We monitor sedimentation rates, temperature and other biophysical and chemical conditions for optimal plant operation. The data collected are sent to the analysis of the environmental organs.
Sediment loading	100%	The water resources are constantly monitored, mainly to meet operational needs, Conama Resolution 357 and 274, current operating licenses, among other regulations. We monitor sedimentation rates, temperature and other biophysical and chemical conditions for optimal plant operation. The data collected are sent to the analysis of the environmental organs.
Other, please specify	Not relevant	Water resources are constantly monitored, mainly to meet operational needs and Conama Resolutions 357 and 274, current operating licenses, among other regulations. Thus, we have not identified any additional monitoring parameters.

W1.2b

(W1.2b) What are the total volumes of water withdrawn, discharged, and consumed across all your operations, and how do these volumes compare to the previous reporting year?

	Volume (megaliters/year)	Comparison with previous reporting year	Please explain
Total withdrawals	5119	Higher	We consider water withdrawal for biomass, oil thermal and large UHEs processes. We account for the total water consumed in our processes and, as of 2019, we include the share of CPFL Renováveis' participation (99.96%). Therefore, the values are slightly above the previous report.
Total discharges	196.2	Lower	We consider for the discharge of the effluent treated by Epasa and the volume consumed in our administrative buildings. The only operation that has a high volume of effluents is Epasa, which in 2019 totalled 17,200 cubic meters. This volume is 36% lower than in the previous period, since generation is proportional to operational activity, which was reduced due to the lower need for dispatches from the National System Operator (ONS). In the past year, Epasa generated only 15% of its capacity. CPFL Energia has a 53.34% stake in this unit. For other facilities, effluents are generated only in its administrative processes, discarded in the public network or destined to controlled septic tanks, not directly affecting watercourses.
Total consumption	4922.8	Higher	The total volume consumed considers the difference between our withdrawals and discharge volumes. This value aggregates all units of the CPFL group with their respective shareholdings. For this reason, we observed a slight increase that corresponds to the integration of CPFL Renováveis in our portfolio.

W1.2d

(W1.2d) Indicate whether water is withdrawn from areas with water stress and provide the proportion.

	Withdrawals are from areas with water stress	% withdrawn from areas with water stress	Comparison with previous reporting year	Identification tool	Please explain
Row 1	Yes	1-10	About the same	WRI Aqueduct	For 2019 data, we carried out a fine geolocation analysis to more accurately identify the water risk situation of our plants, based on data provided by the WRI Aqueduct tool. From this, we identified that we have 6% of the plants located in high water risk areas. The plants identified in locations with high water risk are 3 SHPP, 1 biomass facility and 1 oil plant. Despite being classified in this way, the consumption of water for the generation of these plants does not pose a risk to the company. The other assets are subdivided into: 55% of our plants are in regions with low water risk, with a large predominance of our SHPs and 21% of the plants are located in a medium risk region, with emphasis on our biomass plants. Other 18% are wind farms, that are located in the Northeast region of the country, in geomorphoclimatic conditions in an arid environment. We are monitoring all plants to remove water by volume, quality and processes. It is important to point that we consider water use in hydro power plants, wind and solar complex a non-consumptive use. Key Water indicators for us are published in our Annual Report and subject to independent third-party verification.

W1.2h

(W1.2h) Provide total water withdrawal data by source.

	Relevance	Volume (megaliters/year)	Comparison with previous reporting year	Please explain
Fresh surface water, including rainwater, water from wetlands, rivers, and lakes	Relevant	4017.9	Higher	At CPFL Geração, the main source of water consumption is for human use - that is, use in bathrooms, pantries, and sinks. The water used for this purpose is either collected directly from artesian wells or purchased from suppliers using tanker trucks. At CPFL Renováveis, water is also used for industrial purposes at biomass plants and in some SHPPs, with the objective of cooling of the system and/or feeding the boiler. In this case, CPFL Renováveis captures the water itself, by means of a groundwater abstraction grant, or it is captured by the ethanol or ethanol/sugar plant to which the biomass plant is linked. On occasion, water consumption may also take place during construction on new projects. In 2019, no water was consumed in the construction. We account for the total water consumed in our processes and, as of 2019, we include the share of CPFL Renováveis' participation (99.96%). Therefore, the values are slightly above the previous report.
Brackish surface water/Seawater	Not relevant	<Not Applicable>	<Not Applicable>	We do not use seawater in our generation electricity processes
Groundwater – renewable	Relevant	919	Higher	We account for the total water consumed in our processes and, as of 2019, we include the share of CPFL Renováveis' participation. (99.96%). Therefore, the values are slightly above the previous report.
Groundwater – non-renewable	Not relevant	<Not Applicable>	<Not Applicable>	We do not use groundwater non-renewable in our generation electricity processes.
Produced/Entrained water	Not relevant	<Not Applicable>	<Not Applicable>	We do not produce, recycle or reuse water in our generation electricity processes.
Third party sources	Relevant	182.1	Higher	We account for the total water consumed in our administrative and processes. As of 2019, we include the share of CPFL Renováveis' participation. (99.96%). Therefore, the values are slightly above the previous report.

W1.2i

(W1.2i) Provide total water discharge data by destination.

	Relevance	Volume (megaliters/year)	Comparison with previous reporting year	Please explain
Fresh surface water	Relevant	17.2	Lower	The only operation that has a high volume of effluents is Epasa, which in 2019 totaled 17,200 cubic meters. This volume is 36% lower than in the previous period, since generation is proportional to operational activity, which was reduced due to the lower need for dispatches from the National System Operator (ONS). In the past year, Epasa generated only 15% of its capacity. CPFL Energia has a 53.34% stake in this unit.
Brackish surface water/seawater	Not relevant	<Not Applicable>	<Not Applicable>	We do not have discharge on fresh surface water.
Groundwater	Not relevant	<Not Applicable>	<Not Applicable>	We do not have discharge on fresh surface water.
Third-party destinations	Relevant	179	Higher	We account for the total water consumed in our administrative buildings and, as of 2019, we include the share of CPFL Renováveis' participation. (99.96%). Therefore, the values are slightly above the previous report.

W-EU1.3

(W-EU1.3) Do you calculate water intensity for your electricity generation activities?

Yes

W-EU1.3a

(W-EU1.3a) Provide the following intensity information associated with your electricity generation activities.

Water intensity value (m3)	Numerator: water aspect	Denominator	Comparison with previous reporting year	Please explain
0.01	Total water consumption	MWh	About the same	CPFL Energia operates in the generation, transmission, distribution and solution businesses. Only power generation uses water in its process. It is important to point that we consider water use in hydro power plants, wind and solar complex a non-consumptive use. Due to the characteristics of each power generation technology, we have separated the indicators by type of source. For hydroelectric generation we are considering HPP, SHPP and HGP which account for 59.5% of CPFL's net generation in 2019. This intensity indicator is related of hydroelectric generation and and is expressed in m3 / MWh. The numerator refers to the total abstraction of groundwater and the denominator refers to the total net generation of electricity.
3.78	Total water consumption	MWh	About the same	CPFL Energia operates in the generation, transmission, distribution and solution businesses. Only power generation uses water in its process. It is important to point that we consider water use in hydro power plants, wind and solar complex a non-consumptive use. Due to the characteristics of each power generation technology, we have separated the indicators by type of source. This intensity indicator is related of biomass generation and is expressed in m3 / MWh. The numerator refers to the total abstraction of groundwater and the denominator refers to the total net generation of electricity.
0.17	Total water withdrawals	MWh	About the same	CPFL Energia operates in the generation, transmission, distribution and solution businesses. Only power generation uses water in its process. It is important to point that we consider water use in hydro power plants, wind and solar complex a non-consumptive use. Due to the characteristics of each power generation technology, we have separated the indicators by type of source. This intensity indicator is related of oil thermal generation and is expressed in m3 / MWh. The numerator refers to the total abstraction of groundwater and the denominator refers to the total gross generation of electricity.

W2. Business impacts

W2.1

(W2.1) Has your organization experienced any detrimental water-related impacts?

Yes

W2.1a

(W2.1a) Describe the water-related detrimental impacts experienced by your organization, your response, and the total financial impact.

Country/Area & River basin

Brazil	Other, please specify (Atibaia River)
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Type of impact driver & Primary impact driver

Physical	Other, please specify (Macrophytes)
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Primary impact

Increased operating costs

Description of impact

The SHPP Americana (30 MW of installed capacity) is located on the Atibaia River and is part of the Tietê River Basin. In the reservoir of the PCH Americana, the eutrophication process occurs accentuated due to the high concentration of organic nutrients in the water. This phenomenon is caused by the large volume of waste and sanitary effluents from municipalities without adequate collection or treatment of sewage, industrial waste and diffuse pollution from agricultural activities. The region is highly urbanized, with intense agricultural and industrial activity. The lentic environment and water rich in nutrients provided the accentuated growth of aquatic macrophytes, which promoted a series of negative interferences in the environment, in human and animal health and in the multiple uses of water and the reservoir itself. These interferences have promoted a series of losses to the concessionaires: (i) in the generation of electric energy, (ii) in the maintenance of the reservoir, (iii) in the use of the reservoir as a leisure area for the population, (iv) in the use of the reservoir as a source of income for the riverside population (tourism and professional fishing), (v) in public health programs, especially in the control of vectors of tropical diseases; (vi) in the public perception of the concessionaire, generating demands from entities representing society; (vii) security of buildings on the banks of the reservoir and commercial navigation, among others.

Primary response

Support river basin restoration

Total financial impact

3620254.77

Description of response

CPFL Renováveis hired a scientific study, a consultancy recognized as one of the leading experts on the topic in Brazil, to develop an Aquatic Plant Management Plan. The objective was to indicate the best viable management techniques for application in the enterprise, evaluating as alternatives and techniques through physical / mechanical, chemical and biological processes, control control and management of aquatic macrophytes in the reservoir. While there is no public solution that promotes improvements in the water quality condition of the Atibaia River, PCH Americana performs management and control actions through mechanized management, through the operation of dump trucks, grade boats and hydraulic excavators. During the mechanical (physical) removal, 10,000 m2 of macrophytes per day were removed. It is noteworthy, however, that the definitive solution of the reservoir situation will only be possible with the implementation of public policies that promote the correction of sanitation deficiencies in the Atibaia river basin. The occurrence of macrophytes is just one of the symptoms of eutrophication of the reservoir waters, whose main causative agent is the high index of the deriving urbanization of the hydrographic basin. We emphasize that there was no impact on the power generation of the plant, but the other uses of water as recreation and tourist spot had losses.

W2.2

(W2.2) In the reporting year, was your organization subject to any fines, enforcement orders, and/or other penalties for water-related regulatory violations?

No

W3. Procedures

W-EU3.1

(W-EU3.1) How does your organization identify and classify potential water pollutants associated with your business activities in the electric utilities sector that could have a detrimental impact on water ecosystems or human health?

Our business model requires that the company have a far-reaching capacity to manage and monitor environmental impacts. Our generation, transmission, and distribution assets have the potential to interfere in different ways with their surrounding ecosystems and therefore our approach seeks to improve the environmental performance of each segment's operations.

The guidelines and processes we have adopted are unified in the Environmental Management System (EMS), and calibrated according to all the legal requirements applicable to generation, transmission, and distribution projects. Through this platform, we ensure compliance with environmental licenses across all operations and direct our investments towards projects that add value to the entire production chain.

Environmental licensing processes are supported by preliminary studies that identify the potential effects of our projects, and we apply the precautionary principle to minimize these impacts and mitigate risks. The same procedure occurs during the other phases of projects, using constructive techniques in the installation stage and efficient control systems in the operation stage to avoid environmental damage.

The installation of generating plants and transmission and distribution lines constitute the business areas with the greatest potential to affect biodiversity. In line with prevailing legislation and our EMS, we carry out environmental impact studies that identify changes in ecosystems and support the creation of mitigation and compensation action plans. Part of our operations involves working with regulatory bodies to secure environmental licenses for the execution of projects.

- The main effects caused by our assets during the construction phase are related to: reduction of vegetation, temporary changes in water, air, and soil quality, and changes in rivers' water regimes. All these impacts are evaluated when obtaining the preliminary license, by way of environmental impact studies, and classified according to their nature, duration, extent and reversibility. Effects considered irreversible are adequately compensated in accordance with requisites established by the competent agencies.

- During the operation phase, the impact on biodiversity is positive due to the maintenance of preservation areas and, in the case of hydroelectric plants, to the conservation of vegetation along the edges of the reservoirs. Considering all the plants owned by CPFL Geração, CPFL Renováveis, and in which we hold a stake, the total protected area last year was 17,784 hectares, including the Permanent Protection Areas and Legal Reserves.

- The impacts on the local fauna are evaluated in accordance with the characteristics of each generating source. At hydroelectric plants, the main impacts are related to fish being trapped in the turbines, and possible interference in their reproductive cycles. These aspects are managed by monitoring the fauna, chasing them away, or through rescue programs, where applicable.

- In the transmission and distribution segments, the main effects are associated with line construction, which often requires plant suppression and can alter the local landscape, flora, and fauna. In these situations, we carefully conduct all the legal requirements involved in environmental licensing, minimizing impacts and compensating them accordingly. The network layout, for example, is defined after considering the least possible impact on isolated forests and trees. In stretches where it is not possible to change the location of the towers and wires, we increase the height of the structures to avoid interacting with the local vegetation.

We do not generate water pollutants in generation process on thermal plants. Together with the municipalities in the area of influence of the Complex, our UHEs have prepared the Environmental Plan for Conservation and Use of Surroundings and Reservoir Waters that includes: Monitoring of Climatic Conditions; Groundwater Monitoring; Characterization and Stability Monitoring of Marginal Slopes; Limnological and Water Quality Monitoring; Recovery of Degraded Areas; Mining Research; Seismographic Monitoring; Hydro sedimentological monitoring; Control of water pollution of River basin; Water potability. All water resources are monitored for quality especially in compliance with Conama Resolution 357 and 274.

In the energy-distribution segment, the generation and proper disposal of waste materials are critical in guaranteeing our businesses' sustainable performance. To reduce our environmental footprint, we have addressed these issues in our Sustainability Plan commitments. Our goal is to refurbish and reuse at least 40,000 pieces of equipment in the distribution networks by 2024 and to direct 100% of the main components removed from the network to recycling or reverse chain systems.

W-EU3.1a

(W-EU3.1a) Describe how your organization minimizes the adverse impacts of potential water pollutants associated with your activities in the electric utilities sector on water ecosystems or human health.

Potential water pollutant	Description of water pollutant and potential impacts	Management procedures	Please explain
Other, please specify (Persistent Organic Pollutants)	The Stockholm Convention requires countries parties to adopt control measures related to all stages of the life cycle - production, importation, exportation, use and disposal - of POPs. This aims to eliminate substances, their stocks and waste, and reduce the release of their unintended emissions into the environment, and identify and manage areas contaminated by these substances.	Compliance with effluent quality standards Measures to prevent spillage, leaching, and leakages Community/stakeholder engagement Emergency preparedness	CPFL Energia has a waste management program that identifies and classifies disposable materials in our operations. For hazardous waste (class I), we have storage and transportation standards, in addition to appropriate forms of disposal that comply with current legislation. The company also has a management plan to deal with Persistent Organic Pollutants. The quality of the water (both upstream and downstream the dam) is systematically monitored. On our thermal power plant, the quality of the effluent is monitored frequently by measuring the concentrations of several parameters, such as flow, pH, suspended solids, sediments, oils, etc. It is important to highlight that operations are constantly monitored to ensure compliance with standards established by environmental legislation and do not affect aquatic fauna and local communities that live around our plants. Monitoring is reported and sent to the environmental agency.
Hydrocarbons	There are equipment that contain insulating oil inside in transmission and distribution substations. Any leakage of this oil may contaminate water bodies.	Compliance with effluent quality standards Measures to prevent spillage, leaching, and leakages	CPFL Energia has a waste and wastewater management program that identifies and classifies disposable materials in our operations. For hazardous waste (class I), we have storage and transportation standards, in addition to appropriate forms of disposal that comply with current legislation. One of the main risks of negative impact due to the emission of effluents from CPFL is the presence of oil in the waters of the HPPs. Any type of incident relating to contamination or leakage is recorded and consolidated in our Environmental Management System (EMS). In 2019, no significant leaks were recorded at any CPFL Energia or CPFL Renováveis units. Taking as a reference the definition of environmental emergencies established in Environmental Management System (EMS) procedures, GED 12672, GED 2292 and in the corporate environmental risk rule specific to the topic, we had environmental occurrences involving brief spills, normally associated to theft of equipment, which were properly addressed. No body of water was affected by discards or water drainage resulting from CPFL operations.
Other, please specify (Effluents)	We have some effluents treatment stations in our facilities. These operations are involved in the treatment of all the wastewater before water returns to the river basin, according by regulation of CONAMA Resolution number 357 and 274 among others.	Compliance with effluent quality standards Measures to prevent spillage, leaching, and leakages Community/stakeholder engagement	The treatment of wastewater guarantee that the water will return to the river basin with the same or better biological, physical and chemical conditions that when was withdraw.

W3.3

(W3.3) Does your organization undertake a water-related risk assessment?

Yes, water-related risks are assessed

W3.3a

(W3.3a) Select the options that best describe your procedures for identifying and assessing water-related risks.

Direct operations

Coverage

Full

Risk assessment procedure

Water risks are assessed as part of an enterprise risk management framework

Frequency of assessment

More than once a year

How far into the future are risks considered?

More than 6 years

Type of tools and methods used

Tools on the market

Enterprise Risk Management

International methodologies

Databases

Other

Tools and methods used

ISO 31000 Risk Management Standard

Regional government databases

Other, please specify (FGVces Tool for Corporate water management)

Comment

The corporate risk map consolidates the main trends affecting our business and the main strategic risks to which CPFL Energia companies are exposed, organized into the following categories: Financial, Operational, Legal, Energy Market, Sector Regulation, Environmental, and Reputational. The Corporate Risk Management Policy, approved by the Board of Directors, provides models, indicators, and limits for risk exposure as well as laying out in detail the treatment and reports required should these thresholds be surpassed. The water resources of our direct operations are constantly monitored according to specific regulations, with quality and availability assessments to go along the control of water pollution in hotspots River basin. Besides that, as our business model can be positively or negatively impacted by climate change intensification, we compiled a Map of Climate Risks and Opportunities, a tool that classifies these events into three categories: changes in regulation, changes in physical parameters, and changes in other parameters. We also monitor the relation between climate and water issues.

Supply chain

Coverage

Partial

Risk assessment procedure

Water risks are assessed in an environmental risk assessment

Frequency of assessment

Annually

How far into the future are risks considered?

3 to 6 years

Type of tools and methods used

Tools on the market
Enterprise Risk Management
International methodologies
Databases
Other

Tools and methods used

ISO 31000 Risk Management Standard
Regional government databases
Other, please specify (FGVces Tool for Corporate water management)

Comment

In order to improve the relationship we have established with our suppliers, we have developed and are implementing a strategic supply chain plan, with long-term projects and objectives to improve our supply chain management in the logistics, sales and qualification and supplier development sectors. We also have a formal process for the identification of environmental and social risks in the approval process, through a self-assessment report based on aspects such as environment, social responsibility, health and safety, and quality. For current suppliers, evaluation visits are carried out based on these same aspects, in which the working conditions, respect for the environment, and attention to social responsibility are verified. In addition to the environmental assessment during the supplier approval process, in 2019 we developed a module to promote sustainability practices for our partners. In a broader view of sustainability, this module includes issues of environmental management, including water issues, commitment to the SDGs, social practices and eco-efficiency of its operations.

Other stages of the value chain

Coverage

Partial

Risk assessment procedure

Water risks are assessed in an environmental risk assessment

Frequency of assessment

Annually

How far into the future are risks considered?

3 to 6 years

Type of tools and methods used

Tools on the market
Enterprise Risk Management
International methodologies
Databases
Other

Tools and methods used

ISO 31000 Risk Management Standard
Regional government databases
Other, please specify (FGVces Tool for Corporate water management)

Comment

Water risk management needs to be a dynamic, adaptive and coordinated process with other organizations from different sectors of society operating in the same territory, which requires a complex articulation process. In this way, we build partnerships with municipalities, NGOs, river basin committee, other community entities, etc. CPFL Energia seeks to ensure the multiple uses of water in the water basin. In the same vein, CPFL monitors the tariff and regulatory changes that impact our operations. For example, we participate in Rio Tocantins Agents Working Group, a forum to analyse and promote actions that mitigate the impacts of low water availability for the generation of energy at Tocantins River hydroelectric plants. The group proposes public policies, actions to increase water availability and water quality, integration of generating agents, and identification of synergies between environmental programs to optimize resources and efficiency.

W3.3b

(W3.3b) Which of the following contextual issues are considered in your organization's water-related risk assessments?

	Relevance & inclusion	Please explain
Water availability at a basin/catchment level	Relevant, always included	CPFL's power generation portfolio includes large hydro, SHPP, HGP, solar, wind, biomass and oil thermal. For major processes, water is an essential resource for operation. The water resources are constantly monitored mainly to meet operational requirements, Conama Resolution 357 and 274, current operating licenses, among other regulations. In this way, CPFL monitors the water availability at all basin that we operate. This information is analysed and action plans are implemented, if necessary. Availability data and forecasts are also shared with the National System Operator (ONS) to schedule the power generation dispatch. Water availability is evaluated on our Corporate Map Risks, considering, for example, regulatory aspects, the level of the Company's reservoirs and the Hydrological risks (GSF). We also evaluate it through our Climate Risk Map. Some examples of aspects monitored are: increase in competitive uses due to water scarcity; climate-change induced structural changes in hydro flows; water stress location, and so on. We made a detailed analysis of our assets, crossing our geolocation information from the plants with the data provided by the WRI Aqueduct Water Risk tool. In this way, it was possible to identify the plants that are located in regions of low to medium, medium to high, high and extremely high water risk. This detailed assessment allows the company to prepare in a timely manner adjustment of processes, in order to mitigate potential risks.
Water quality at a basin/catchment level	Relevant, always included	CPFL's installed electricity generation capacity comprises 57% of hydroelectric plants (46% HPP, 11% SHPP). For major processes, water is an essential resource for operation. Considering the relevance of water resources for our business, our companies consider the management and minimization of impacts on water resources in their strategy and a guideline to be followed from planning to the operation of the projects. Thus, the physical, chemical and biological parameters are systematically monitored monthly in all the CPFL's reservoirs companies to verify water quality. We meet the operational requirements, Conama Resolution 357 and 274, current operating licenses, among other regulations. We also monitor the water quality in our Corporate Map Risks, considering, for example, regulatory aspects and through our Climate Risk Map. Some examples of aspects monitored are: increase in competitive uses due to water scarcity and bad quality; climate-change induced structural changes in hydro flows; water stress location, and so on. This detailed assessment allows the company to prepare in a timely manner adjustment of processes, in order to mitigate potential risks.
Stakeholder conflicts concerning water resources at a basin/catchment level	Relevant, always included	CPFL believes that this aspect is very relevant to its operations. One way of monitoring the stakeholders conflicts is through our active participation in several organizations and river committees. CPFL is a member of several Sector Associations: Abdib - Brazilian Association of Infrastructure and Base Industry, Abraceel - Brazilian Association of Energy Traders, ABRAGEL Brazilian Clean Energy Generation Association, Apine - Brazilian Association of Independent Electricity Producers, among others. We also participate in River Basin Committees such as Grupo Rio Tocantins and PCJ. Another important activity is direct with the community, such as the Water Security Project carried out by CPFL Renováveis. Conflicts over the priority of use and impacts caused in river basins are discussed and deliberated in such forums with the participation of water resource management bodies CPFL Energia seeks to ensure the multiple uses of water in the watershed, adopting sustainable use of water resources and implementing actions for prevention and defence against critical hydrological events. We also monitor the Stakeholder conflicts concerning water resources in our Corporate Map Risks, considering, for example, regulatory aspects, and through our Climate Risk Map. Some examples of aspects monitored are increase in competitive uses due to water scarcity and bad quality; climate-change induced structural changes in hydro flows; water stress location, among others. This detailed assessment allows the company to prepare in a timely manner adjustment of processes, in order to mitigate potential risks.
Implications of water on your key commodities/raw materials	Relevant, always included	CPFL's installed electricity generation capacity comprises 57% of hydroelectric plants (46% HPP, 11% SHPP) and 9% of biomass. In this context, water is CPFL's main raw material and essential for the generation segment. The water availability and quality monitoring are performed at each facility to meet operational requirements and Conama Resolution 357 and 274, current operating licenses, among other regulations. Water availability is evaluated in our Corporate Map Risks, considering, for example, regulatory aspects, the level of the Company's reservoirs and the Hydrological risks (GSF). We also evaluate through it in our Climate Risk Map. Some examples of aspects monitored are: increase in competitive uses due to water scarcity; climate-change induced structural changes in hydro flows; water stress location, and so on. We made a detailed analysis of our assets, crossing our geolocation information from the plants with the data provided by the WRI Aqueduct Water Risk tool. In this way, it was possible to identify the plants that are located in regions of low to medium, medium to high, high and extremely high water risk. This detailed assessment allows the company to prepare in a timely manner adjustment of processes, in order to mitigate potential risks.
Water-related regulatory frameworks	Relevant, always included	CPFL's installed electricity generation capacity comprises 57% of hydroelectric plants (46% HPP, 11% SHPP). Thus, regulatory structures on water management are an important context that CPFL follows. Hydro generation taxes, ecological flows legal regimes, water discharges quality requirements, multiple uses of water, water pricing, dam safety, among other, are some examples of regulatory framework that we monitor. We participate in various forums, industry associations and Basin Committees for the collective construction of regulation tools, guidelines and good practices. The results of these partnerships provide us with input for estimating social and financial impacts for the company's activities. Regulatory aspects are also evaluated on our Corporate Map Risks, considering, for instance, the Hydrological risks (GSF) dam safety (National Dam Safety Policy, instituted in 2010 through Law 12,334/10) Specific for this last point, every single plant has a designated team that monitors high-precision instruments installed in the structures and inputs this information into the Dam Safety Management System (SGSB), a digital tool developed by the company to provide real-time management of dam conditions through a database with cloud computing resources. In addition, an engineering team carries out regular inspections so that, in conjunction with the monitored data, we can attest to our assets' good performance. We also evaluate it through our Climate Risk Map (eg. increase in competitive uses due to water scarcity; climate-change induced structural changes in hydro flows; water stress location, and so on).
Status of ecosystems and habitats	Relevant, always included	Environmental licensing processes are supported by preliminary studies that identify the potential effects of our projects, and we apply the precautionary principle to minimize these impacts and mitigate risks. The same procedure occurs during other phases of the projects, using constructive techniques in the installation stage and efficient control systems in the operation stage to avoid environmental damage. Thus, the water resources are constantly monitored, mainly to meet operational needs, Conama Resolution 357 and 274, current operating licenses, among other regulations. Each facility monitors the biophysical and chemical conditions of water resources that feed plant operations, such as macrophytes, molluscs, invasive species, sedimentation, temperature, pH, among others. The monitoring tools adopted are unified into the Environmental Management System (EMS), and calibrated according to all the legal requirements applicable to generation, transmission, and distribution projects. Through this platform, we ensure compliance with environmental licenses across all operations and direct our investments towards projects that add value to the entire production chain.
Access to fully-functioning, safely managed WASH services for all employees	Relevant, always included	CPFL provides access to clean water and suitable sanitation conditions for all employees and subcontracted workers in 100% of our facilities and offices. Water control is carried out for human consumption in accordance with Ministry of Health Ordinance No. 05 of 09/28/2017. The safety of our employees, outsourced parties, and the population is an absolute priority for our company. The Primeiro as Pessoas ("People First") Program covers a series of steps we take to raise employee awareness and ensure that safety procedures are followed in all operations, with the goal of minimizing the risk of accidents and making our work environment healthier and more productive.
Other contextual issues, please specify	Not considered	We did not identify other potential contextual issue.

W3.3c

(W3.3c) Which of the following stakeholders are considered in your organization's water-related risk assessments?

	Relevance & inclusion	Please explain
Customers	Relevant, always included	In the context of an unfavourable hydrological scenario, hydroelectric generation in Brazil has the potential risk of reducing its participation in the matrix. Generation Scaling Factor (GSF) is the ratio between Total generation/ Physical guarantee for all the hydro plants in the MRE. If the ratio is less than "1", all of the companies are obligated to by energy in the spot market to cover their gaps. The MRE is a financial mechanism for sharing the financial risks associated with the operation of the National Interconnected System (SIN). It covers all the hydroelectric power plants subject to centralized orders from the National System Operator (ONS). In operating terms, the MRE ensures that, in the CCEE accounting process, all participating plants receive their levels of physical guarantee, irrespective of how much electricity they actually generate, provided that the total generation in the MRE is not lower than the total physical guarantee of the SIN. The system involves reallocating surpluses from generators that produce more than their physical guarantees to those that produce less. Besides this, CPFL manages this risk also through a diversified generation portfolio in terms of technologies, energy sources (hydro, wind, biomass and solar) and geographies. Geographic diversification significantly reduces the risk, as structural reduction in precipitation is not likely to occur in all geographies and with same magnitude. We also renegotiated our energy contracts, minimizing our risks.
Employees	Relevant, always included	All company employees have access to drinking water and adequate sanitation conditions. For the assets distributed in the most varied regions of Brazil, the water supply of our team is made by public supply or by artesian wells with the grant of use. In the case of plants with an artesian well, the withdrawal volume is established by the grant and the water is constantly monitored in relation to potability aspects, with frequently analysis. We also clean the water tank in administrative buildings every six months. For human consumption, activated carbon filters are available on the floors and the filters are replaced every 2 months to ensure adequate drinking conditions. In the administrative buildings, we maintained the pipes to prevent leaks and installed flow reducers in the taps of all bathrooms. These small measures of infrastructure improvements ensure more conscious consumption of employees and users. These maintenance processes are monitored and conducted by CPFL Infra, a team to take care of the infrastructure of the entire CPFL Group.

	Relevance & inclusion	Please explain
Investors	Relevant, always included	CPFL Energia annually reports its most relevant risks through the 20F Form, Annual Report and the quarterly issued Investors Report. We report information on impacts related to hydrological conditions. It is important to state that the company considers the impacts caused by its activities on its customers, investors, employees, the society and environmental issues is a relevant issue to be treated in its risk assessments. With climate change in place, water risk has been in focus. However, CPFL Energia has a portfolio of renewable power generation technologies (such as solar, wind and biomass) that minimizes the water stress risks on investments to electricity generation. We are committed to our Sustainability Plan to maintain at least 95% renewable sources in our generation portfolio until 2024. Part of this goal is already underway, with the construction of two projects that were successfully bid on in 2018: SHPP Cheroim (+ 28 MW) and the Gameleiras Wind Complex (+ 81.7 MW), comprising four wind farms. Analyses of operational performance and climatic conditions and water risks are a constant part of new business planning.
Local communities	Relevant, always included	CPFL Energia seeks to ensure the multiple uses of water in the water basin. CPFL Group companies work with communities to strengthen ties between communities and our employees. An example is the Water Security Project. Approximately 45,000 people live in the municipalities of João Câmara and São Miguel do Gostoso, both in the state of Rio Grande do Norte. This is a region of stunning natural landscapes and strong winds, typical of the Brazilian Northeast, but with a chronic problem: the local population's lack of access to water. Located in the Brazilian semiarid region, it is common for both cities to declare a state of emergency as a result of droughts. The Water Security Project, part of the Raizes Program for social development carried out by CPFL Renováveis, helped to transform the situation of 807 families in nine rural communities in regions where the company operates wind generation projects. This initiative was conducted between 2016 and 2019, in partnership with the Local Economic Development Agency (Adel) and "Transforma AI", a consultancy specializing in social impact projects. Based on a participatory diagnosis, the project led to the installation and renovation of cisterns to store drinking water and the development of irrigation structures for subsistence agriculture and the sale of surpluses, depending on the needs of each region. Moreover, families were trained to carry out collective and collaborative management of their water supply structures, creating a permanent legacy for the entire population. Our outcomes: - 629 families with access to desalinated water for human consumption - 278 families with access to desalinated water for irrigation - 449 families trained in collaborative and collective management of water supply structures at the community level - R\$ 3.5 million invested in the project This Project was recognized with the Water and Sanitation Award from the Global Compact Network Brazil for its contribution to SDG 6.
NGOs	Relevant, always included	By building solid and lasting relationships based on dialogue, transparency and trust, we engage the different stakeholders that interact with the company to generate and share value with the whole of society. We have Rules for Stakeholder Engagement that guides the management model we have adopted to monitor these value relationships. Working this way, we have developed instruments to monitor the impacts generated by corporate actions, define strategies, identify opportunities, prevent risks, and protect and generate financial and reputational value for the company. Our stakeholders are identified and prioritized based on an assessment of how much they are impacted by the company and the degree of influence they have on the business. Another criteria is the frequency of routine interactions across the various areas of the company and the relevance of relationship processes in decision making. Based on this weighting of factors we composed our Stakeholder Map, formed by the different types of audiences and their different levels of impact and influence. NGO is one of the stakeholders identified in our map. With them, we operate in the various water forums, Basin Committees, Technical Chambers and Water Resources Councils, addressing issues arising from stakeholders related to water resources. Companies also interact with local stakeholders in order to manage potential conflicts of water resources use. We also have another channel to interact with them. To mitigate the potential impacts, provide clear and transparent information, and enhance the positive effects of new project on construction, we installed a Social Communication Center in the communities situated close to the assets. The center provides a place for dialogue between the company and the community, allowing the strengthening of relationships and the peaceful resolution of conflicts and disagreements.
Other water users at a basin/catchment level	Relevant, always included	By building solid and lasting relationships based on dialogue, transparency and trust, we engage the different stakeholders that interact with the company to generate and share value with the whole of society. We have Rules for Stakeholder Engagement that guides the management model we have adopted to monitor these value relationships. Working this way, we have developed instruments to monitor the impacts generated by corporate actions, define strategies, identify opportunities, prevent risks, and protect and generate financial and reputational value for the company. Our stakeholders are identified and prioritized based on an assessment of how much they are impacted by the company and the degree of influence they have on the business. Another criteria is the frequency of routine interactions across the various areas of the company and the relevance of relationship processes in decision making. Based on this weighting of factors we composed our Stakeholder Map, formed by the different types of audiences and their different levels of impact and influence. We operate in the various water forums, Basin Committees, Technical Chambers and Water Resources Councils, addressing issues arising from stakeholders related to water resources. Companies also interact with local stakeholders in order to manage potential conflicts of water resources use. To mitigate the potential impacts, provide clear and transparent information, and enhance the positive effects of new project on construction, we installed a Social Communication Center in the communities situated close to the assets. The center provides a place for dialogue between the company and the community, allowing the strengthening of relationships and the peaceful resolution of conflicts and disagreements.
Regulators	Relevant, always included	CPFL Energia participates in various forums, industry associations, Basin Committees and public hearings for the collective construction of regulation tools, guidelines and good practices. The water regulatory agenda is considered a material issue for the company. The guidelines and processes we have adopted are unified in the Environmental Management System (EMS), and calibrated according to all the legal requirements applicable to generation, transmission, and distribution projects. Through this platform we ensure compliance with environmental licenses across all operations and direct our investments towards projects that add value to the entire production chain. Water regulation issues are closely followed both at corporate and Business Unit level.
River basin management authorities	Relevant, always included	CPFL Energia is involved in a several sectors associations, like the Brazilian Business Commitment to Water Security from Brazilian Business Council for Sustainable Development and in Rio Tocantins Agents Working Group, a forum to analyse and promote actions that mitigate the impacts of low water availability for the generation of energy at Tocantins River hydroelectric plants. The group proposes public policies, actions to increase water availability and water quality, integration of generating agents, and identification of synergies between environmental programs to optimize resources and efficiency. The highlight points discussed are how to contribute to Brazil's economic growth and social development through the expansion of investments in infrastructure and basic industries, how to insert and sustain the production of hydro energy in the national energy matrix. In this way, CPFL Energia supports the sector initiatives for proposals of public and sectorial policy, compromised with environmental goals, to improve the quality of information, management and disclosure about risk and opportunities to more sustainable activities.
Statutory special interest groups at a local level	Relevant, always included	CPFL is a member of several Sector Associations: Abdib - Brazilian Association of Infrastructure and Base Industry, Abraceel - Brazilian Association of Energy Traders, Abragel; Brazilian Clean Energy Generation Association, Apine - Brazilian Association of Independent Electricity Producers, among others. Special interest groups at a local level are integrated into our stakeholder management procedures. We have established a dialogue with these local agents, evaluating the possible impacts that changes in the occupation and use of water resources can cause in the Company's activities. Local regulations (states and municipalities) are also monitored.
Suppliers	Relevant, always included	In order to improve the relationship we have established with our suppliers, we have developed and are implementing a strategic supply chain plan, with long-term projects and objectives to improve our supply chain management in the logistics, sales and qualification and supplier development sectors. In addition to the environmental assessment during the supplier approval process, in 2019 we developed a module to promote sustainability practices for our partners. In a broader view of sustainability, this module includes issues of the environment and environmental management, commitment to the SDGs, social practices and eco-efficiency of its operations. Strategic suppliers are involved in a more sensitive risk and impact analysis and for water risk and after mapping, we observed that CPFL does not have suppliers on water high risk.
Water utilities at a local level	Relevant, always included	The water resources of our operations are constantly monitored mainly to meet operational requirements and Conama Resolution 357 and 274. CPFL Energia seeks to ensure the multiple uses of water in the water basin. The Environment team monitors the validity of water use permits. All legal and procedural procedures for grant revalidation are taken in advance to prevent CPFL's operations from being phased out. To engage with a local level, we operate in the various water forums, addressing issues arising from stakeholders related to water resources. Companies also interact with local stakeholders in order to manage potential conflicts of water resources use. To mitigate the potential impacts, provide clear and transparent information, and enhance the positive effects of new project on construction, we installed a Social Communication Center (CEC) in the communities situated close to the assets. The center provides a place for dialogue between the company and the community, allowing the strengthening of relationships and the peaceful resolution of conflicts and disagreements.
Other stakeholder, please specify	Not considered	We did not identify other potential stakeholders but CPFL Energia seeks to ensure the multiple uses of water in the water basin.

(W3.3d) Describe your organization's process for identifying, assessing, and responding to water-related risks within your direct operations and other stages of your value chain.

The corporate risk map consolidates the main trends affecting our business and the main strategic risks to which CPFL Energia companies are exposed, organized into the following categories: Financial, Operational, Legal, Energy Market, Sector Regulation, Environmental, and Reputational. The Corporate Risk Management Policy, approved by the Board of Directors, provides models, indicators, and limits for risk exposure as well as laying out in detail the treatment and reports required should these thresholds be surpassed.

The Policy also lays out the roles and responsibilities of each level of the corporate risk management structure. The approach when developing this management is based on four pillars - planning, execution, verification, and action. The indicators and limits are continuously evaluated and consolidating the main trends and strategic risks in the power generation and distribution sector that affect the business.

We also identify and assess climate and water risks through the process of reviewing and updating the Sustainability Plan and Platform. We follow the same process established by the Corporate Risk Management Policy and during the planning phase, we study the main trends, risks and opportunities in Sustainability (among them the Climate Change and Water theme) and for the Energy Sector. Based on this, we establish indicators, limits and targets to be monitored periodically, as well as we establish Action Plans.

Climate change generates significant impacts for the entire energy sector and concern over the effects of climate change is reshaping the water issues, with an emphasis on extreme weather events, changes in the pattern of precipitation, drought and floods that can affect the availability and quality of water for the community and company activities.

To measure this effect on our value chain, we compiled a Map of Climate Risks and Opportunities, a tool that classifies these events into three categories: changes in regulation, changes in physical parameters, and changes in other parameters.

We are monitoring closely:

- Identifying and prioritizing basins, processes and critical relationships
- Changes in rainfall patterns and other atmospheric conditions can negatively affect both hydroelectric generation capacity and energy distribution as the result of greater risks to the network's integrity from more severe storms
- A reduction in precipitation may affect our plants' availability for generating electricity, in addition to causing conflicts over the use of water for other purposes
- Extreme weather events, because storms pose risks to the plants' physical structures due to the dramatic increase in water volume in reservoirs. In contrast, heat waves can increase water evaporation and compromise water availability for generation
- Changes in precipitation and temperature patterns could also affect the distribution of land suitable for agricultural cultivation and crop productivity, which may reduce the availability of biomass for generation

Two elements are fundamental on the management of water-related risks: the communication of relevant information assertively and accurately to the different publics, which implies transparency; and the opening of effective channels of communication also in the other sense, of information, questions and suggestions by other actors regarding business performance.

Water risk management needs to be a dynamic, adaptive, coordinated and coordinated process with other organizations from different sectors of society operating in the same territory which requires greater articulation process. In a partnership with the municipalities in the area of influence of the Complex, our UHEs have prepared the Environmental Plan for Conservation and Use of Surroundings and Reservoir Waters (eg Ceran in Rio das Antas, where the plan is a technical subsidy for the preparation of the Director Plans of the municipalities involved).

Water use plan actions includes:

- Monitoring of Climatic Conditions
- Groundwater Monitoring
- Characterization and Stability Monitoring of Marginal Slopes
- Limnological and Water Quality Monitoring
- Recovery of Degraded Areas
- Mining Research
- Seismographic Monitoring
- Hydrosedimentological monitoring
- Control of water pollution of River basin

We are using a tool for corporate water management (from FGVces) and we are better mapping the points of improvement in our water resource information management.

W4. Risks and opportunities

W4.1

(W4.1) Have you identified any inherent water-related risks with the potential to have a substantive financial or strategic impact on your business?

Yes, only within our direct operations

W4.1a

(W4.1a) How does your organization define substantive financial or strategic impact on your business?

One common metric established by CPFL is evaluate each risks according to its potential impacts for the business unit in terms of % of EBITDA.

So, for example, if the impact is smaller than 1% of EBITDA, low risk. If the impact is between 1 and 2% of EBITDA, medium risk and, above this range, high.

It is important to mention that for each business unit, CPFL has different levels of acceptable risks, according to the participation of this segment in the group's portfolio.

Considering the generation portfolio, one example of risk analysed is the impact of the decrease in hydro generation, considering climate-change structural decrease in precipitation.

W4.1b

(W4.1b) What is the total number of facilities exposed to water risks with the potential to have a substantive financial or strategic impact on your business, and what proportion of your company-wide facilities does this represent?

	Total number of facilities exposed to water risk	% company-wide facilities this represents	Comment
Row 1	5	1-25	In the past year, our activities in the generation segment were strengthened through the integration of CPFL Renováveis, the country's largest renewable energy generator, into our asset portfolio. Our installed capacity totals 4.3 GW in assets spread out across four of the country's five regions. In 2019, we generated 13.1 TWh, which represents an increase of 19.5% from the previous year. Of this total, approximately 98.3% came from renewable sources. Our portfolio includes 8 hydroelectric power plants (HPPs), 43 Small Hydroelectric Power Plants (SHPPs), 3 Small Hydroelectric Power Plants (SHPPs), 45 Wind Farms, 1 photovoltaic solar plant, 8 biomass power plants and two thermoelectric plants – Termoparaíba and Termonordeste (EPASA). We made a detailed analysis of our assets, crossing our geolocation information from the plants with the data provided by the WRI Aqueduct Water Risk tool. In this way, it was possible to identify the plants that are located in regions of low to medium, medium to high, high and extremely high water risk. Of the total, we have 5 factories exposed to water risk. Of this total, 1 is a biomass plant, 1 is a thermal oil and the other 3 are SHPs. The wind farm does not use water in its electricity generation process, which is why we do not consider that these operations are exposed to water risk.

W4.1c

(W4.1c) By river basin, what is the number and proportion of facilities exposed to water risks that could have a substantive financial or strategic impact on your business, and what is the potential business impact associated with those facilities?

Country/Area & River basin

Brazil	Other, please specify (Mumbaba River)
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Number of facilities exposed to water risk

1

% company-wide facilities this represents

Less than 1%

Production value for the metals & mining activities associated with these facilities

<Not Applicable>

% company's annual electricity generation that could be affected by these facilities

1-25

% company's global oil & gas production volume that could be affected by these facilities

<Not Applicable>

% company's total global revenue that could be affected

Less than 1%

Comment

Based on the WRI Aqueduct tool, we developed a water risk map for CPFL's power generation plants. As a result of this analysis, we identified that our oil thermal plant is located in a region with high water risk. As it is a source of energy security generation with dispatch only in unfavorable conditions for renewable generation and as it has low water consumption (water is used only for cooling systems, with closed cycle and without losses in the process) in its operations, we do not consider that this plant is exposed to a high financial risk.

Country/Area & River basin

Brazil	Other, please specify (Pardo River)
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Number of facilities exposed to water risk

1

% company-wide facilities this represents

Less than 1%

Production value for the metals & mining activities associated with these facilities

<Not Applicable>

% company's annual electricity generation that could be affected by these facilities

1-25

% company's global oil & gas production volume that could be affected by these facilities

<Not Applicable>

% company's total global revenue that could be affected

Less than 1%

Comment

Based on the WRI Aqueduct tool, we have developed a water risk map for CPFL's power generation plants. As a result of this analysis, we identified that one biomass plant is located in a region of high water risk. However, this is not representative in terms of financial impact. Last year, we had an increase in biomass revenue, mainly due to the higher generation at some plants, partially offset by the strategy of seasonal contracts. We will continue monitoring our biomass plants, since climate change can cause change in precipitation and temperature patterns and these conditions also affect the distribution of land suitable for agricultural cultivation and crop productivity, which may reduce the availability of biomass for generation.

Country/Area & River basin

Brazil	Other, please specify (Pardo River)
--------	-------------------------------------

Number of facilities exposed to water risk

3

% company-wide facilities this represents

1-25

Production value for the metals & mining activities associated with these facilities

<Not Applicable>

% company's annual electricity generation that could be affected by these facilities

Less than 1%

% company's global oil & gas production volume that could be affected by these facilities

<Not Applicable>

% company's total global revenue that could be affected

Less than 1%

Comment

Based on the WRI Aqueduct tool, we developed a water risk map for CPFL's power generation plants. As a result of this analysis, we identified that three SHPP are located in a region of high water risk. In the recent years, the total energy generated by plants in the MRE has been lower than their total physical guarantee, causing a deficit (GSF) which, depending on the volume contracted, results in an exposure in the spot market for such plants. Despite this, we observed an increase in revenue from SHPPs, chiefly due to the different strategy of seasonal adjustment of physical guarantee in the agreements between the periods, the GSF exposure and the adjustments in agreements. Thus, the financial risk of these plants for the company is very low. We will continue monitoring our hydro plants, since climate change can induce structural decrease in precipitation and revision of ecological flows regime, changing this scenario.

W4.2

(W4.2) Provide details of identified risks in your direct operations with the potential to have a substantive financial or strategic impact on your business, and your response to those risks.

Country/Area & River basin

Brazil	Other, please specify (All HPP)
--------	---------------------------------

Type of risk & Primary risk driver

Physical	Increased water scarcity
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Primary potential impact

Reduced revenues from lower sales/output

Company-specific description

GENERATION SCALING FACTOR (GSF) is the ratio between Total generation/ Physical guarantee for all the hydro plants in the MRE. If the ratio is less than "1", all of the companies are obligated to buy energy in the spot market to cover their gaps. The MRE is a financial mechanism for sharing the financial risks associated with the operation of the National Interconnected System (SIN). It covers all the hydroelectric power plants subject to centralized orders from the National System Operator (ONS). In operating terms, the MRE ensures that, in the CCEE accounting process, all participating plants receive their levels of physical guarantee, irrespective of how much electricity they actually generate, provided that the total generation in the MRE is not lower than the total physical guarantee of the SIN. The system involves reallocating surpluses from generators that produce more than their physical guarantees to those that produce less.

Timeframe

1-3 years

Magnitude of potential impact

Medium-low

Likelihood

Likely

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

<Not Applicable>

Potential financial impact figure - minimum (currency)

50000000

Potential financial impact figure - maximum (currency)

Explanation of financial impact

GENERATION SCALING FACTOR (GSF) is the ratio between Total generation/ Physical guarantee for all the hydro plants in the MRE. If the ratio is less than "1", all of the companies are obligated to buy energy in the spot market to cover their gaps. The MRE is a financial mechanism for sharing the financial risks associated with the operation of the National Interconnected System (SIN). It covers all the hydroelectric power plants subject to centralized orders from the National System Operator (ONS). In operating terms, the MRE ensures that, in the CCEE accounting process, all participating plants receive their levels of physical guarantee, irrespective of how much electricity they actually generate, provided that the total generation in the MRE is not lower than the total physical guarantee of the SIN. The system involves reallocating surpluses from generators that produce more than their physical guarantees to those that produce less. We renegotiated this risk for most of our plants.

Primary response to risk

Increase geographic diversity of facilities

Description of response

The MRE is a financial mechanism for sharing financial risks of hydroelectric power plants associated with the operation of the National Interconnected System (SIN). Provisional Measure No. 688/2015 took into account the low level of rainfall in the country since the end of 2012, allowed the renegotiation of hydrological risk in electricity generation and its transfer to the consumer through the payment of a risk premium. For CPFL companies, the risk assumed (paid) totaled R\$ 3.9 MM in 2019. Besides this, CPFL manages this risk also through a diversified generation portfolio in terms of technologies, energy sources (hydro, wind, biomass and solar) and geographies. Geographic diversification significantly reduces the risk, as structural reduction in precipitation is not likely to occur in all geographies and with same magnitude.

Cost of response

3900000

Explanation of cost of response

Major risk mitigation process is CPFL's diversification strategy for renewable generation portfolio growth and continued search for efficiency gains. The company, leader in its segment in Brazil, mapped out a pipeline of new businesses capable of adding 2.9 GW to installed capacity, amid a highly pulverized sector with opportunities for acquisitions and development of Greenfield projects. For the period of 2020-2024 CPFL will invest R\$ 1.158 million dedicated to the generation segment.

W4.2c

(W4.2c) Why does your organization not consider itself exposed to water risks in its value chain (beyond direct operations) with the potential to have a substantive financial or strategic impact?

	Primary reason	Please explain
Row 1	Risks exist, but no substantive impact anticipated	Considering our suppliers, they have a distributed production throughout the country, minimizing the risk of not having a water supply local. Besides that, we have developed a structured model to assess and monitor our suppliers' performance and in 2019 we evaluated a total of 256 partners on SBM. These companies, responsible for providing essential materials and services for different businesses' value chains, are classified as critical or strategic. Within this universe, we monitor the performance of 161 suppliers (63% of the total) based on social and environmental criteria, with different assessment requirements and methodologies to deal with the risks identified in each type of market. Monitoring mechanisms include annual visits to the facilities to check up on certain aspects of working conditions, respect for the environment, and social responsibility. Due to the robustness of our supplier assessment and qualification processes, we are monitoring environmental and regulatory aspects regarding the use of water resources, ensuring that our exposure is minimal.

W4.3

(W4.3) Have you identified any water-related opportunities with the potential to have a substantive financial or strategic impact on your business?

Yes, we have identified opportunities, and some/all are being realized

W4.3a

(W4.3a) Provide details of opportunities currently being realized that could have a substantive financial or strategic impact on your business.

Type of opportunity

Resilience

Primary water-related opportunity

Increased resilience to impacts of climate change

Company-specific description & strategy to realize opportunity

Business opportunity in a scenario of a low carbon economy transition and with changes in consumption patterns and customers habits. Electricity will be crucial to decarbonise the world economy and the sector is set to undergo a major transformation towards renewables, decentralized generation and smart consumption. This structural change in energy production and consumption patterns brings about new growth opportunities for CPFL, especially in energy services, renewable distributed generation and electric mobility. To meet these new consumers' different energy demands, we have launched a new brand – CPFL Soluções, a unique platform that offers integrated solutions that generate value and increase customer competitiveness, taking advantage of all opportunities offered in the new energy market and considering all the experience we have in the sector. In our Strategic Plan 2020-24, there is also directive for this segment: "Growth through the implementation of new market business models".

Estimated timeframe for realization

1 to 3 years

Magnitude of potential financial impact

Medium-high

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

237900000

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact

CPFL Soluções, our new brand, is a unique platform that offers integrated solutions that generate value and increase customer competitiveness, taking advantage of all opportunities offered in the new energy market. The portfolio includes: - Energy Management: Complete consultancy so that customers can better manage their energy, with greater savings and predictability in their bills - Free Energy Market: Freedom to choose the energy supplier and negotiate prices, quantities, energy sources and commercial conditions - Distributed Generation: Self-production of energy from renewable sources - Energy Efficiency: Solutions to improve energy productivity and reduce costs and environmental impacts - Energy Services and Infrastructure: Diagnose, provide solutions, and execute electrical installation projects: construction, operation, maintenance, and retrofit In 2019, the unit achieved positive results with the delivery of projects serving customers across the country in segments including data centres, pulp and paper, automobiles, and wind power generation. The cost to response to the opportunity is R\$ 233 million for the period of 2020-2024, and it is associate to the investments that we are going to do to expand and improve our energy solutions. In 2019, CPFL approved a Sustainability Plan 2020-2024, which establishes guidelines so that the company can "provide sustainable, affordable and reliable energy at all times, making people's lives safer, healthier, and more prosperous in the regions where we operate." The corporate objective is to power the transition to a more sustainable and smart way of providing and using energy, maximizing their positive impacts in the community and value chain. To this end, we have identified three pillars that sustain the way we conduct our business and execute our strategy: Sustainable Energy, Smart Solutions and Society Shared Value. Based on these pillars we made 15 commitments and one of them is related to this opportunity: Offer to our clients low carbon solutions for their energy transition (as energy trade, carbon credits, energy efficient solutions, distributed energy solutions, etc.).

W5. Facility-level water accounting

W5.1

(W5.1) For each facility referenced in W4.1c, provide coordinates, water accounting data, and a comparison with the previous reporting year.

Facility reference number

Facility 1

Facility name (optional)

Oil plant

Country/Area & River basin

Brazil	Other, please specify (Mumbaba River)
--------	---------------------------------------

Latitude

7

Longitude

34

Located in area with water stress

Yes

Primary power generation source for your electricity generation at this facility

Oil

Oil & gas sector business division

<Not Applicable>

Total water withdrawals at this facility (megaliters/year)

40.32

Comparison of total withdrawals with previous reporting year

Lower

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes

0

Withdrawals from brackish surface water/seawater

0

Withdrawals from groundwater - renewable

40.32

Withdrawals from groundwater - non-renewable

0

Withdrawals from produced/entrained water

0

Withdrawals from third party sources

0

Total water discharges at this facility (megaliters/year)

17.2

Comparison of total discharges with previous reporting year

Lower

Discharges to fresh surface water

17.2

Discharges to brackish surface water/seawater

0

Discharges to groundwater

0

Discharges to third party destinations

0

Total water consumption at this facility (megaliters/year)

23.12

Comparison of total consumption with previous reporting year

Lower

Please explain

Our thermoelectric plant is located in the northeast of Brazil, in a region with arid morphogeoclimatic conditions. Therefore, in our water risk map, it is possible to observe that the plant is in a place of high water stress. This volume is 36% lower than in the previous period, since generation is proportional to operational activity, which was reduced due to the lower need for dispatches from the National System Operator (ONS). In the past year, Epasa generated only 15% of its capacity. CPFL Energia has a 53.34% stake in this unit.

Facility reference number

Facility 2

Facility name (optional)

Biomass plants

Country/Area & River basin

Brazil	Other, please specify (Atibaia River)
--------	---------------------------------------

Latitude

21

Longitude

47

Located in area with water stress

No

Primary power generation source for your electricity generation at this facility

Biomass

Oil & gas sector business division

<Not Applicable>

Total water withdrawals at this facility (megaliters/year)

4030.39

Comparison of total withdrawals with previous reporting year

Higher

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes

3998.52

Withdrawals from brackish surface water/seawater

0

Withdrawals from groundwater - renewable

31.86

Withdrawals from groundwater - non-renewable

0

Withdrawals from produced/entrained water

0

Withdrawals from third party sources

0

Total water discharges at this facility (megaliters/year)

0

Comparison of total discharges with previous reporting year

Higher

Discharges to fresh surface water

0

Discharges to brackish surface water/seawater

0

Discharges to groundwater

0

Discharges to third party destinations

0

Total water consumption at this facility (megaliters/year)

0

Comparison of total consumption with previous reporting year

About the same

Please explain

At biomass plants, we use water for industrial purposes at biomass plants with the objective of cooling of the system and/or feeding the boiler. In this case, CPFL Renováveis can capture the water itself, by means of a groundwater abstraction grant, or it can be captured by the ethanol or ethanol/sugar plant to which the biomass plant is linked. Through the water risk map (WRI Aqueduct) we identified that only one plant is in a medium risk region. The others are located in a low to medium risk region. As of 2019, we are counting the use of water resources with the new equity share in CPFL Renováveis(99.96%), and the values are higher than the previous report.

Facility reference number

Facility 3

Facility name (optional)

Solar plant

Country/Area & River basin

Brazil	Other, please specify (Atibaia River)
--------	---------------------------------------

Latitude

22

Longitude

47

Located in area with water stress

No

Primary power generation source for your electricity generation at this facility

Solar

Oil & gas sector business division

<Not Applicable>

Total water withdrawals at this facility (megaliters/year)

0

Comparison of total withdrawals with previous reporting year

About the same

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes

0

Withdrawals from brackish surface water/seawater

0

Withdrawals from groundwater - renewable

0

Withdrawals from groundwater - non-renewable

0

Withdrawals from produced/entrained water

0

Withdrawals from third party sources

0

Total water discharges at this facility (megaliters/year)

0

Comparison of total discharges with previous reporting year

About the same

Discharges to fresh surface water

0

Discharges to brackish surface water/seawater

0

Discharges to groundwater

0

Discharges to third party destinations

0

Total water consumption at this facility (megaliters/year)

0

Comparison of total consumption with previous reporting year

About the same

Please explain

Our solar plant is located in the southeast of the country (Campinas, São Paulo State). Through our water risk map (Aqueduct WRI), we have identified that the plant is located in regions of low to medium water risk. In 2019, there was no accounting for water use in the unit.

Facility reference number

Facility 4

Facility name (optional)

All HPP

Country/Area & River basin

Brazil	Other, please specify (All HPP are considered, observing the equity share)
--------	--

Latitude

28

Longitude

53

Located in area with water stress

No

Primary power generation source for your electricity generation at this facility

Hydropower

Oil & gas sector business division

<Not Applicable>

Total water withdrawals at this facility (megaliters/year)

22.64

Comparison of total withdrawals with previous reporting year

About the same

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes

19.09

Withdrawals from brackish surface water/seawater

0

Withdrawals from groundwater - renewable

6.21

Withdrawals from groundwater - non-renewable

0

Withdrawals from produced/entrained water

0

Withdrawals from third party sources

2.92

Total water discharges at this facility (megaliters/year)

0

Comparison of total discharges with previous reporting year

About the same

Discharges to fresh surface water

0

Discharges to brackish surface water/seawater

0

Discharges to groundwater

0

Discharges to third party destinations

0

Total water consumption at this facility (megaliters/year)

0

Comparison of total consumption with previous reporting year

About the same

Please explain

Our HPPs are distributed throughout the territory, predominantly in the southern region of the country. By the water risk map, we can identify that they are in low to medium risk regions. The amounts recorded for the use of water resources take into account our shareholding in which asset.

Facility reference number

Facility 5

Facility name (optional)

SHPP

Country/Area & River basin

Brazil	Other, please specify (All CPFL SHPP are considered, Facility predominance in Brazil southeast)
--------	---

Latitude

22

Longitude

47

Located in area with water stress

No

Primary power generation source for your electricity generation at this facility

Hydropower

Oil & gas sector business division

<Not Applicable>

Total water withdrawals at this facility (megaliters/year)

71.93

Comparison of total withdrawals with previous reporting year

Higher

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes

0.28

Withdrawals from brackish surface water/seawater

0

Withdrawals from groundwater - renewable

71.65

Withdrawals from groundwater - non-renewable

0

Withdrawals from produced/entrained water

0

Withdrawals from third party sources

0

Total water discharges at this facility (megaliters/year)

0

Comparison of total discharges with previous reporting year

Higher

Discharges to fresh surface water

0

Discharges to brackish surface water/seawater

0

Discharges to groundwater

0

Discharges to third party destinations

0

Total water consumption at this facility (megaliters/year)

0

Comparison of total consumption with previous reporting year

Higher

Please explain

Our SHPs are distributed across the national territory, with predominance in the Southeast of Brazil. Thus, through our water risk map (WRI Aqueduct), we have identified that our plants are located in regions of low to medium water risk. As of 2019, we are counting the use of water resources with the new equity share in CPFL Renováveis(99.96%), and the values are slightly above the previous report.

Facility reference number

Facility 6

Facility name (optional)

Wind

Country/Area & River basin

Brazil	Other, please specify (All wind farms are considered - Predominance of facilities in northeastern Brazil)
--------	---

Latitude

4

Longitude

38

Located in area with water stress

Yes

Primary power generation source for your electricity generation at this facility

Wind

Oil & gas sector business division

<Not Applicable>

Total water withdrawals at this facility (megaliters/year)

774.84

Comparison of total withdrawals with previous reporting year

Higher

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes

0

Withdrawals from brackish surface water/seawater

0

Withdrawals from groundwater - renewable

774.61

Withdrawals from groundwater - non-renewable

0

Withdrawals from produced/entrained water

0

Withdrawals from third party sources

0.23

Total water discharges at this facility (megaliters/year)

0

Comparison of total discharges with previous reporting year

About the same

Discharges to fresh surface water

0

Discharges to brackish surface water/seawater

0

Discharges to groundwater

0

Discharges to third party destinations

0

Total water consumption at this facility (megaliters/year)

0

Comparison of total consumption with previous reporting year

Higher

Please explain

Our wind farms are located in northeastern Brazil, a region with geomorpho-climatic conditions in an arid environment. This situation is directly reflected in the water risk map (WRI Aqueduct), in which we identified that wind farms are located in regions of water stress. It is important to note that the plants located in that particular region do not depend on water resources for electricity generation. As of 2019, we are counting the use of water resources with the new equity share in CPFL Renováveis(99.96%), and the values are slightly above the previous report.

Facility reference number

Facility 7

Facility name (optional)

Headquarter and DisCos

Country/Area & River basin

Brazil	Other, please specify (Headquarter and DisCos)
--------	--

Latitude

22

Longitude

47

Located in area with water stress

No

Primary power generation source for your electricity generation at this facility

Not applicable

Oil & gas sector business division

<Not Applicable>

Total water withdrawals at this facility (megaliters/year)

179

Comparison of total withdrawals with previous reporting year

About the same

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes

0

Withdrawals from brackish surface water/seawater

0

Withdrawals from groundwater - renewable

0

Withdrawals from groundwater - non-renewable

0

Withdrawals from produced/entrained water

0

Withdrawals from third party sources

179

Total water discharges at this facility (megaliters/year)

179

Comparison of total discharges with previous reporting year

About the same

Discharges to fresh surface water

0

Discharges to brackish surface water/seawater

0

Discharges to groundwater

0

Discharges to third party destinations

179

Total water consumption at this facility (megaliters/year)

0

Comparison of total consumption with previous reporting year

About the same

Please explain

Water volumes at headquarters and DisCos.

(W5.1a) For the facilities referenced in W5.1, what proportion of water accounting data has been externally verified?**Water withdrawals – total volumes****% verified**

76-100

What standard and methodology was used?

Verification under third party independent assurance of CPFL Annual Report 2019. The assurance scope, based on assurance methodology of sustainability reports of RINA, comprises the disclosure verification under GRI standards in 2019. RINA has developed a set of assurance protocols for Sustainability Communication based on the best practices provided in GRI Sustainability Reporting Standards. The water resources are constantly monitored mainly to meet operational requirements and Conama Resolution 357 and 274, operating licenses, among other regulations. We monitoring of relevant water aspects by source and volumetric data by facility and operational activities.

Water withdrawals – volume by source**% verified**

76-100

What standard and methodology was used?

Verification under third party independent assurance of CPFL Annual Report 2019. The assurance scope, based on assurance methodology of sustainability reports of RINA, comprises the disclosure verification under GRI standards in 2019. RINA has developed a set of assurance protocols for Sustainability Communication based on the best practices provided in GRI Sustainability Reporting Standards. The water resources are constantly monitored mainly to meet operational requirements and Conama Resolution 357 and 274, operating licenses, among other regulations. We monitoring of relevant water aspects by source and volumetric data by facility and operational activities.

Water withdrawals – quality**% verified**

Not verified

What standard and methodology was used?

<Not Applicable>

Water discharges – total volumes**% verified**

76-100

What standard and methodology was used?

Verification under third party independent assurance of CPFL Annual Report 2019. The assurance scope, based on assurance methodology of sustainability reports of RINA, comprises the disclosure verification under GRI standards in 2019. RINA has developed a set of assurance protocols for Sustainability Communication based on the best practices provided in GRI Sustainability Reporting Standards. The water resources are constantly monitored mainly to meet operational requirements and Conama Resolution 357 and 274, operating licenses, among other regulations. We monitoring of relevant water aspects by source and volumetric data by facility and operational activities.

Water discharges – volume by destination**% verified**

76-100

What standard and methodology was used?

Verification under third party independent assurance of CPFL Annual Report 2019. The assurance scope, based on assurance methodology of sustainability reports of RINA, comprises the disclosure verification under GRI standards in 2019. RINA has developed a set of assurance protocols for Sustainability Communication based on the best practices provided in GRI Sustainability Reporting Standards. The water resources are constantly monitored mainly to meet operational requirements and Conama Resolution 357 and 274, operating licenses, among other regulations. We monitoring of relevant water aspects by source and volumetric data by facility and operational activities.

Water discharges – volume by treatment method**% verified**

76-100

What standard and methodology was used?

Verification under third party independent assurance of CPFL Annual Report 2019. The assurance scope, based on assurance methodology of sustainability reports of RINA, comprises the disclosure verification under GRI standards in 2019. RINA has developed a set of assurance protocols for Sustainability Communication based on the best practices provided in GRI Sustainability Reporting Standards. The water resources are constantly monitored mainly to meet operational requirements and Conama Resolution 357 and 274, operating licenses, among other regulations. We monitoring of relevant water aspects by source and volumetric data and treatment method by facility and operational activities.

Water discharge quality – quality by standard effluent parameters**% verified**

76-100

What standard and methodology was used?

This category was verified by RINA on our GRI Standard Annual Report 2019. The disposal of effluents is only significant in energy generation activities, specifically at Epasa, which operates a thermoelectric plant. The treatment of effluents comply with all applicable legal requirements and totaled 17,200 cubic meters in 2019, a reduction of 36% in relation to 2018. This volume is 36% lower than in the previous period, since generation is proportional to operational activity, which was reduced due to the lower need for dispatches from the National System Operator (ONS). In the past year, Epasa generated only 15% of its capacity. CPFL Energia has a 53.34% stake in this unit. The activities of distribution and transmission of energy do not generate significant water disposal, since this corresponds only to administrative activities. The water resources are constantly monitored mainly to meet operational requirements and Conama Resolution 357 and 274, operating licenses, among other regulations.

Water discharge quality – temperature

% verified
Not verified

What standard and methodology was used?
<Not Applicable>

Water consumption – total volume

% verified
76-100

What standard and methodology was used?

Verification under third party independent assurance of CPFL Annual Report 2019. The assurance scope, based on assurance methodology of sustainability reports of RINA, comprises the disclosure verification under GRI standards in 2019. RINA has developed a set of assurance protocols for Sustainability Communication based on the best practices provided in GRI Sustainability Reporting Standards. The water resources are constantly monitored mainly to meet operational requirements and Conama Resolution 357 and 274, operating licenses, among other regulations. We monitoring of relevant water aspects by source and volumetric data by facility and operational activities.

Water recycled/reused

% verified
Not verified

What standard and methodology was used?
<Not Applicable>

W6. Governance

W6.1

(W6.1) Does your organization have a water policy?

Yes, we have a documented water policy, but it is not publicly available

W6.1a

(W6.1a) Select the options that best describe the scope and content of your water policy.

	Scope	Content	Please explain
Row 1	Select facilities, businesses, or geographies only	Description of business dependency on water Description of business impact on water Description of water-related performance standards for direct operations Company water targets and goals Commitment to align with public policy initiatives, such as the SDGs Commitments beyond regulatory compliance Commitment to water-related innovation Commitment to stakeholder awareness and education Acknowledgement of the human right to water and sanitation Recognition of environmental linkages, for example, due to climate change	Our business model requires that the company has a far-reaching capacity to manage and monitor environmental impacts. Our generation, transmission and distribution assets have the potential to interfere different ways with their surrounding ecosystems, so therefore our approach seeks to improve the environmental performance of each segment's operations. The guidelines and processes we have adopted are unified in the Environmental Management System (EMS), and calibrated according to legal requirements applicable to generation, transmission, and distribution projects. Through this platform we ensure compliance with environmental licenses across all operations and direct our investments towards projects that add value to the entire production chain. CPFL Energia also has an Environmental Policy that unfolds for all our businesses. This policy aims to improve environmental performance by encompassing environmental protection, pollution prevention and sustainable use of resources through continuous environmental improvement of our activities. Among the established guidelines, we highlight: - Understand the value and effects of each activity in the public. - Use resources rationally, prevent pollution and dispose waste according to CPFL procedures. - Minimize the negative social and environmental operation impacts. - Seek continuous improvement of indicators. In 2019 we approved the Sustainability Plan 2020-2024. The Plan establishes guidelines so that we can "provide sustainable, affordable and reliable energy at all times, making people's lives safer, healthier, and more prosperous in the regions where we operate." Our corporate objective is to power the transition to a more sustainable and smart way of providing and using energy, maximizing our positive impacts in the community and value chain. To this end, we have identified three pillars that sustain the way we conduct our business and execute our strategy: Sustainable Energy, Smart Solutions and Society Shared Value. Based on these pillars we made 15 public commitments to contribute to economic, social, and environmental growth across the value chain. The first pillar is Sustainable Energy, whose commitments are taking us in search of the smallest possible environmental footprint, including the water aspects of our operations.

W6.2

(W6.2) Is there board level oversight of water-related issues within your organization?

Yes

W6.2a

(W6.2a) Identify the position(s) (do not include any names) of the individual(s) on the board with responsibility for water-related issues.

Position of individual	Please explain
Director on board	The Board of Directors (BD) is responsible for the strategic business direction, including Sustainability, and for the decisions that have the greatest impact on our stakeholders. The business directions includes: -Innovate and use new technologies to increase operational efficiency, digitize and customize customer service and relationships -Implement a smarter network, automating and modernizing assets to increase reliability and quality of service -Act quickly and carefully in all interventions in the electrical system to reduce SAIDI and SAIFI -Enable growth in renewable energy, also looking for acquisition opportunities -Develop new services and business models in line with market demands -Continue to invest in technologies to add value to the business and allow technological advances in our search for greater operational efficiency, such as the modernization of our power plants and the implementation of digital systems to monitor dams and other assets - Accelerate the process of innovation and development of new low carbon technologies -Efficiency and quality to increase the competitiveness of our integrated solutions -Growth through the implementation of new market business models -Incorporate sustainability, in all its dimensions, into strategy and decision-making Our BD constituted five committees with officially designated responsibilities to advise it on matters related to management of the business: Strategy and Processes Management Committee, Human Resources Management Committee, Related Parties Committee, Risks Management Committee and Budget and Corporate Finance Committee. The Strategy and Processes Management Committee advises the BD with subjects related to: > Strategic plan development and updates > Follow-up of projects included in the Strategic Plan > New Businesses > Operational strategy of electric energy commercialization by the traders > Supervision of the Sustainability and Ethics system > Improvement of management of business processes
Chief Executive Officer (CEO)	The Chief Executive Officer is also responsible for the definition and the implementation of the business strategy and directions, as described above. Directs and leads sustainability issues, and also defines and ensures compliance with principles and legal norms related to the topic.
Chief Operating Officer (COO)	COO - Market Operations This Vice-presidency is responsible for the generation (CPFL Geração and CPFL Renováveis) and energy solutions (CPFL Soluções) segments. In the generation sector, the area have moved forward with CPFL low-carbon strategy, with growth in generation from clean sources and seeks to leverage the growth capacity through the acquisition of new greenfield projects, ensuring the commitment to decarbonizing the energy matrix. With CPFL Soluções, the area supports strategies around trading (mainly incentivized energy sales in the free market), distributed generation, improving efficiency, infrastructure services, and various other solutions to take advantage of opportunities that have arisen as a result of the energy sector's development.
Chief Sustainability Officer (CSO)	CPFL has a Vice Presidency of Legal and Institutional Relations that is responsible for the Institutional Relations and Sustainability Department and who analyses and advises on sustainability matters, including Climate Change Strategy at the Board of Executive Officers or Board of Directors level, as well as defining and ensuring compliance with the legal principles and standards. The VP is responsible for the implementation and monitoring the Sustainability Plan and Platform 2020-2024, which includes indicators and commitments related to water related issues.
Board-level committee	CPFL has a Strategy and Processes Management Committee, who advises the Board of Directors with subjects related to: > Strategic plan development and updates; > Follow-up of projects included in the Strategic Plan; > New Businesses; > Operational strategy of electric energy commercialization by the traders; > Supervision of the Sustainability and Ethics system; > Improvement of management of business processes. Regarding sustainability issues, the main responsibilities are the monitoring of the Sustainability Plan and Platform 2020-2024, and the Climate Change Strategy and actions fronts, addressing the matters to the Board of Directors quarterly.
Other, please specify (Sustainability Committee)	The Sustainability Committee monitors de Sustainability Plan and the Sustainability Platform on a quarterly basis, evaluates and recommends the inclusion of social environmental criteria and guidelines in decision-making processes, proposes the development of new projects, and monitors trends and critical themes, evaluating external scenarios and how they can generate opportunities for the company.

W6.2b

(W6.2b) Provide further details on the board’s oversight of water-related issues.

	Frequency that water-related issues are a scheduled agenda item	Governance mechanisms into which water-related issues are integrated	Please explain
Row 1	Scheduled - all meetings	Monitoring implementation and performance Overseeing acquisitions and divestiture Overseeing major capital expenditures Providing employee incentives Reviewing and guiding annual budgets Reviewing and guiding business plans Reviewing and guiding major plans of action Reviewing and guiding risk management policies Reviewing and guiding strategy Reviewing and guiding corporate responsibility strategy Reviewing innovation/R&D priorities Setting performance objectives	Our corporate governance structure includes the Board of Directors, which is responsible for establishing the general guidelines for the business, and the Executive Board, responsible for executing the strategy outlined by shareholders. In order to support the decision-making process and the evaluation of risks and opportunities that impact company business, the Board of Directors is supported by five advisory committees, including the Strategy and Processes Management Committee and the Risks Management Committee. These Committees supervise the following responsibilities: > Strategic plan development and updates > Follow-up of projects included in the Strategic Plan > Supervision of the Sustainability and Ethics system > Improvement of management of business processes > Supervision of activities of risk management and compliance Through these Committees, the Board of Directors is briefed on sustainability and corporate risks and opportunities, including water issues. Some topics are: a) Monitoring the Sustainability Plan and Platform 2020-24. The indicators are monthly evaluated by the Institutional Relations and Sustainability Board. Changes in performance are monitored by the Sustainability Committee and communicated to the Board of Executive Officers; the Strategy and Processes Management Committee; and to the Board of Directors. When there are deviations from these established goals, we draw up action plans to be executed by the administrative and operational areas. b) Level of the Company’s reservoirs and potential impact on electricity generation, including GSF (Generation Scaling Factor); c) Renewable assets availability which calculation methodology follows the rules and regulations of ONS and ANEEL. The consolidation by source contributes to risk analysis and water dependence. d) Data for the analysis of acquisition, divestment or participation in new auctions for power generation (e.g. water dependency vs exposure to water stress locations).

W6.3

(W6.3) Provide the highest management-level position(s) or committee(s) with responsibility for water-related issues (do not include the names of individuals).

Name of the position(s) and/or committee(s)

Chief Operating Officer (COO)

Responsibility

Both assessing and managing water-related risks and opportunities

Frequency of reporting to the board on water-related issues

More frequently than quarterly

Please explain

The person who is at the highest level of direct responsibility for the water theme at CPFL Energia is the Chief Market Operations Officer, that reports directly to the CEO. Since water is the main source for our power generation, some monitored issues are: - Level of the Company's reservoirs - Dam safety - Hydrological risks (GSF) - Regulatory aspects - Operational efficiency The most relevant information on the subject is presented weekly at Board meetings and every two months at meetings of the Board of Directors.

Name of the position(s) and/or committee(s)

Other, please specify (Strategy and Processes Management Committee)

Responsibility

Both assessing and managing water-related risks and opportunities

Frequency of reporting to the board on water-related issues

More frequently than quarterly

Please explain

This committee is responsible for advising the Board of Executive Board on the fulfilment of responsibilities related to Strategic plan development and updates, follow-up of projects included in the Strategic Plan; new Businesses, improvement of business processes and supervision of the Sustainability Plan and Platform 2020-24. Water related issues are into the Sustainability Plan and Platform, which indicators and targets are monthly evaluated by the Institutional Relations and Sustainability Vice Presidency. Changes in performance are monitored by the Sustainability Committee and communicated to the Board of Executive Officers; the Strategy and Processes Management Committee; and to the Board of Directors. When there are deviations from these established goals, we draw up action plans to be executed by the administrative and operational areas.

Name of the position(s) and/or committee(s)

Other, please specify (Risks Management Committee)

Responsibility

Both assessing and managing water-related risks and opportunities

Frequency of reporting to the board on water-related issues

More frequently than quarterly

Please explain

Our Risks Management Committee advises the Board of Directors with subjects related to the supervision of internal audit work and activities of risk management and compliance. The corporate risk map consolidates the main trends affecting our business and the main strategic risks to which CPFL Energia are exposed, on the following categories: Financial, Operational, Legal, Energy Market, Sector Regulation, Environmental, and Reputational. The Corporate Risk Management Policy provides models, indicators, and limits for risk exposure. The Policy also lays out the responsibilities of each level of the corporate risk management structure. The approach is based on four pillars: planning, execution, verification, and action. Some risks mapped include indicators related to water issues, as the level of the Company's reservoirs and potential impact on electricity generation, including GSF (Generation Scaling Factor); and the renewable assets availability, following the ONS and ANEEL regulations

Name of the position(s) and/or committee(s)

Sustainability committee

Responsibility

Both assessing and managing water-related risks and opportunities

Frequency of reporting to the board on water-related issues

More frequently than quarterly

Please explain

Monitors the Sustainability Plan and the Sustainability Platform, evaluates and recommends the inclusion of socio-environmental criteria and guidelines in decision-making processes, proposes the development of new projects, and monitors trends and critical themes, evaluating external scenarios and how they can generate opportunities for the company. Water related issues are into the Sustainability Plan and Platform, which indicators and targets are monthly evaluated by the Institutional Relations and Sustainability Vice Presidency. Changes in performance are monitored by the Sustainability Committee and communicated to the Board of Executive Officers; the Strategy and Processes Management Committee; and to the Board of Directors. When there are deviations from these established goals, we draw up action plans to be executed by the administrative and operational areas.

Name of the position(s) and/or committee(s)

Chief Sustainability Officer (CSO)

Responsibility

Both assessing and managing water-related risks and opportunities

Frequency of reporting to the board on water-related issues

More frequently than quarterly

Please explain

The person who is at the highest level of direct responsibility for the Sustainability at CPFL Energia is the Chief Sustainability Officer, that reports directly to the CEO. The CSO proposes strategies and ensures the implementation of the Sustainability Plan and Platform in our business, delivering results in the short, medium and long-term. Water related issues are into the Sustainability Plan and Platform, which indicators and targets are monthly evaluated by this Vice-presidency. With great potential for business impact, climate change and water issues has a direct relationship with our strategy and high priority in the agenda of our leaders. The most relevant information on the subject is presented weekly at Board meetings and monthly at meetings of the Board of Directors.

W6.4

(W6.4) Do you provide incentives to C-suite employees or board members for the management of water-related issues?

	Provide incentives for management of water-related issues	Comment
Row 1	Yes	The operation and development of our businesses follow the Strategic and Sustainability Plan created by the Board of Executive Officers, based on the analysis of macroeconomic and market trends over a 5 year horizon. These management tools are updated and approved by the Board of Directors annually, allowing the establishment of goals and prioritization of investments to promote the company's solid and long-term growth. The Sustainability Plan is being monitored through our Sustainability Platform, a management tool created in 2014 and updated annually, which establishes indicators and targets, taking into account economic, social, and environmental impacts and risks. The Sustainability Platform consists in 13 levers for sustainable value, which are divided into more than 60 indicators that protect, optimize and create value through short and medium term goals. Success in achieving established objectives for the indicators is reflected in the variable remuneration paid to executives.

W6.4a

(W6.4a) What incentives are provided to C-suite employees or board members for the management of water-related issues (do not include the names of individuals)?

	Role(s) entitled to incentive	Performance indicator	Please explain
Monetary reward	Chief Executive Officer (CEO) Chief Operating Officer (COO) Chief Sustainability Officer (CSO)	Reduction of water withdrawals Reduction in consumption volumes Improvements in efficiency - direct operations Improvements in waste water quality - direct operations	Water related issues are into the Strategic and Sustainability Plan, since hydro is our mayor source in our generation portfolio. These Plans are monitored through the Sustainability Platform, which indicators and targets are monthly evaluated by the CSO. Changes in performance are monitored and communicated to the Board of Executive Officers; the Strategy and Processes Management Committee, CEO and to the Board of Directors. When there are deviations, we draw up action plans to be executed by the operational areas. Success in achieving established objectives for the indicators is reflected in the variable remuneration paid to company executives. Examples of targets: a) Seek opportunities to grow in renewable energy, keeping at least 95% from renewable sources in our generation portfolio until 2024 b) Monitor the level of the Company's reservoirs and the Hydrological risks c) Implement action to ensure dam safety d) Increase operational efficiency, increasing assets' availability
Non-monetary reward	No one is entitled to these incentives	<Not Applicable>	Not Applicable

W6.5

(W6.5) Do you engage in activities that could either directly or indirectly influence public policy on water through any of the following?

- Yes, direct engagement with policy makers
- Yes, trade associations
- Yes, funding research organizations

W6.5a

(W6.5a) What processes do you have in place to ensure that all of your direct and indirect activities seeking to influence policy are consistent with your water policy/water commitments?

CPFL Energia is involved in a several sectors associations, like the Brazilian Business Commitment to Water Security from Brazilian Business Council for Sustainable Development and in Rio Tocantins Agents Working Group, a forum to analyse and promote actions that mitigate the impacts of low water availability for the generation of energy at Tocantins River hydroelectric plants. The group proposes public policies, actions to increase water availability and water quality, integration of generating agents, and identification of synergies between environmental programs to optimize resources and efficiency.

The highlight points discussed are how to contribute to Brazil's economic growth and social development through the expansion of investments in infrastructure and basic industries, how to insert and sustain the production of hydro energy in the national energy matrix. In this way, CPFL Energia supports the sector initiatives for proposals of public and sectorial policy, compromised with environmental goals, to improve the quality of information, management and disclosure about risk and opportunities to more sustainable activities.

CPFL has dedicated structures that manage the relation with supervisory bodies and other public policy makers who integrated the Legal and Institutional Relations Vice-President, responsible for Environmental and Sustainability issues. These ensure the overall alignment of policy engagement activities with the corporate water strategy.

W6.6

(W6.6) Did your organization include information about its response to water-related risks in its most recent mainstream financial report?

Yes (you may attach the report - this is optional)

CPFL_Annual Report 2019_EN-compactado.pdf

W7. Business strategy

W7.1

(W7.1) Are water-related issues integrated into any aspects of your long-term strategic business plan, and if so how?

	Are water-related issues integrated?	Long-term time horizon (years)	Please explain
Long-term business objectives	Yes, water-related issues are integrated	16-20	Water-related issues are integrated into several of CPFL's long-term business and the guidelines presented in our Strategic Plan, Sustainability Plan and Risk Management. The Strategic and Sustainability Plans are created by the Board of Executive Officers, based on the analysis and evaluation of macroeconomic, market and sustainability trends over a five-year horizon (through 2024). These management tools are updated and approved by the Board of Directors annually, allowing the establishment of goals and prioritization of investments to promote the company's solid and long-term growth. The corporate risk map consolidates the main trends affecting our business and the main strategic risks to which CPFL Energia companies are exposed, organized into the following categories: Financial, Operational, Legal, Energy Market, Sector Regulation, Environmental, and Reputational. Two examples of how water are integrated into these processes are: i) Our strategy seeks to expand the portfolio of renewable energy generation from renewable sources. Hydro is an important source in our portfolio (installed capacity totals 4.3 GW and in 2019, we generated 13.1 TWh - 9% HPP, 31% Wind, 11% SHPP, 8% biomass and 2% oil thermal). ii) Low risk profile: at a strategic level, water related risks (e.g. physical risks like exposure to water stress locations or regulatory aspects like GSF) are subject to periodic assessment, contributing to the company's low risk profile.
Strategy for achieving long-term objectives	Yes, water-related issues are integrated	16-20	Strategy to achieve the long-term objectives (expand the portfolio of energy generation from renewable sources) includes: i) long-term investments and participations in the auctions. Following our strategy to grow in renewable generation, in 2019, we integrated CPFL Renováveis into our business structure. Thanks to this operation, our installed capacity now totals 4.3 gigawatts (GW) in assets spread out across four of the country's five regions, making us the third-largest privately held company in terms of generation and the Brazilian leader in renewable energy. The company is leader in renewable generation in Brazil, and mapped out a pipeline of new businesses capable of adding 2.9 GW to installed capacity, amid a highly pulverized sector with opportunities for acquisitions and development of greenfield projects. We also are investing in the construction of two renewable generation projects: Gameleira wind farm (81.7 MW) and the Cherobim SHPP (28 MW), with approximately R\$ 600 million in investment for the period of 2020-2024. ii) To minimize the water related risks, like water stress locations, we always strive to diversify our portfolio, both in terms of energy sources and geographical locations.
Financial planning	Yes, water-related issues are integrated	16-20	Water-related issues are integrated into aspects of our financial planning. Some examples: a) Changes in revenues and expenditure, because of the risks of lower power generation due to unfavourable hydrological scenarios. Due to the droughts and water stress scenarios, CPFL joined the hydro risk renegotiation deal (Provisional Measure No. 688/2015) proposed by the Brazilian regulator, which took into account the low level of rainfall in the country since the end of 2012, and allowed the renegotiation of hydrological risk in electricity generation. b) Capital allocation: our Strategic and Sustainability Plans are driven by growth in renewable generation projects, namely hydro, wind, solar and biomass, through acquisitions or greenfield projects. We analyse opportunities to participate in auctions and asset acquisitions. Because of this identified opportunity for expanding the portfolio in renewable generation, in 2019, we carried out a new follow-on, boosting the percentage of the company's free-floating shares in the market to 16.29%. The operation also raised R\$ 3.7 billion, used to integrate 100% of CPFL Renováveis into our portfolio. Thanks to this operation, our installed capacity now 4.3 gigawatts (GW) making us the third-largest privately held company in terms of generation and the Brazilian leader in renewable energy.

W7.2

(W7.2) What is the trend in your organization's water-related capital expenditure (CAPEX) and operating expenditure (OPEX) for the reporting year, and the anticipated trend for the next reporting year?

Row 1

Water-related CAPEX (+/- % change)

-3.5

Anticipated forward trend for CAPEX (+/- % change)

81.6

Water-related OPEX (+/- % change)

-29.4

Anticipated forward trend for OPEX (+/- % change)

81.5

Please explain

The values used to calculate these changes refer only to the assets under CPFL Geração. All CPFL Renováveis assets are not considered due to the integration process that is under conclusion. Furthermore, in the anticipated forward trend we have considered 2020 and 2021, because part of the investments will have to be postponed from 2020 to 2021 due to COVID impacts. It is also important to point out that CPFL Renováveis has a SHPP Cherobim under construction, with total investments estimated in more than R\$ 350MM until 2024, and this SHPP, due to the integration process, is not considered in the presented numbers.

W7.3

(W7.3) Does your organization use climate-related scenario analysis to inform its business strategy?

	Use of climate-related scenario analysis	Comment
Row 1	Yes	Climate change is increasingly gaining relevance on the agenda of companies across all sectors of the economy. For the power sector, the potential impacts are clearly measurable along the chain, from the segment that generates energy all the way to the supply of our final customers. Recognizing these impacts, CPFL's Mapping of Risk and Climate Opportunities identifies the main drivers and impacts associated with our business on this dimension, classifying them into changes in regulation, changes in physical parameters, and changes in other parameters. In this way, we are monitoring aspects like reduction in total and seasonal water availability, increase in drought periods, increased evaporation at reservoirs, potential conflicts over water use, quantity and quality of cooling water (thermal plants) and potential changes in crop productivity (biomass generation). We considered IPCC's, INPE, Brazilian NDC, IEA, IRENA and IPCC Special Report 1.5 °C (RCPs 2.6, 4.5; 6.0; 8.5).

W7.3a

(W7.3a) Has your organization identified any water-related outcomes from your climate-related scenario analysis?

Yes

W7.3b

(W7.3b) What water-related outcomes were identified from the use of climate-related scenario analysis, and what was your organization's response?

	Climate-related scenarios and models applied	Description of possible water-related outcomes	Company response to possible water-related outcomes
Row 1	IRENA RCP 2.6 IEA Sustainable Development Scenario Nationally determined contributions (NDCs) Other, please specify (INPE and IPCC Special Report 1.5°C)	We consider the IPCC AR4 scenarios; IPCC Special Report 1.5 °C; IEA Sustainable development scenarios; IRENA's Long-Term Energy Scenarios (LTES), Brazilian NDC and The National Institute of Space Research (INPE) projections. The set of all scenarios studied indicates that the path to a low carbon economy involves an expansion in the renewable energy matrix and that is the basis for CPFL's strategic growth plan. In 2019, we approved the 2020-2024 Sustainability Plan, whose guideline is to provide sustainable, affordable and reliable energy for all walks of life, and to improve a safer, healthier and more prosperous life for people in the regions where we operate. One of our commitments is Keep at least 95% from renewable sources in our generation portfolio until 2024. The portfolio and investment growth analysis consider the climate scenarios and risk map to minimize exposure to the effects of climate change. Thus, the generation units that are installed (or in installation planning) in regions with potential water risk are carefully evaluated and monitored. The main points evaluated involve the availability of the plants for energy generation, the water quality and availability that can affect the processes, the management of the water basin and the multiple uses of water.	We manage water risks through a diversified portfolio in terms of geographies, sources and technologies. Geographic and sources diversification reduces the risk, as structural reduction in precipitation will not occur in all geographies and sources. In terms of installed capacity, our portfolio includes 46% of HPP, 11% of SHPP, 30% of Wind, 9% of biomass and 4% oil thermal. We seek to grow and part of this is already underway, with SHPP Cherobim and Gameleiras Wind Complex construction. Our mapped pipeline is diversified too, comprising wind, hydro and solar sources. CPFL Renováveis developed an asset maintenance and operation plan that maximizes operational efficiency, ensuring that assets add as much renewable energy as possible to the energy matrix. The company has executed its "Avançar Plan", which includes initiatives to improve plant operations, standardize processes, train employees and implement new technological tools. Management of these assets is carried out at the Integrated Operation Center (COI). This structure was reinforced with the creation of the Asset Monitoring Center, an advanced engineering unit that monitors the main pieces of equipment through sensors installed at the generation units, which communicate remotely with the operating systems. This solution allows CPFL Renováveis to take proactive steps to ensure the plants' availability and reliability, enabling us to identify possible failures and create more assertive preventive maintenance plans.

W7.4

(W7.4) Does your company use an internal price on water?

Row 1

Does your company use an internal price on water?

Yes

Please explain

In Brazil, the power sector pays a tax for the use of water resources compensation (Law 7,990/ 1989): Financial Compensation for the Hydroelectric Generation. It corresponds to indemnity to the States, the Federal District and the Municipalities, as well as to the organs of direct administration of the Federal Government, as a result of the exploitation of water resources for the purposes of electricity generation. The power sector has a readjust every year of the amounts collected, through the readjustment and revision of the Updated Reference Rate (TAR) in 2019 was BRL 77.83 per MWh generated. All values charged could be consulted at: www2.aneel.gov.br/aplicacoes/cmpff/gerencial/ These costs composes the internal pricing on water and the analysis supports CPFL growth strategic plan to expand renewable sources, to measure our exposure to risks or opportunities from water-related issues, and to prepare projects to improve our efficiency rate and engagement in River Basin Committees.

W8. Targets

W8.1

(W8.1) Describe your approach to setting and monitoring water-related targets and/or goals.

	Levels for targets and/or goals	Monitoring at corporate level	Approach to setting and monitoring targets and/or goals
Row 1	Company-wide targets and goals Site/facility specific targets and/or goals Basin specific targets and/or goals	Targets are monitored at the corporate level Goals are monitored at the corporate level	Our goals regarding water-related issues are aligned to the Strategic and Sustainability Plan 2020-2024, Policy of Water Resources and the Environmental Management System (EMS), particularly in using water resource sustainably and respecting the environment. In 2019, we approved the Sustainability Plan, which establishes guidelines so that we can "provide sustainable, affordable and reliable energy at all times, making people's lives safer, healthier, and more prosperous in the regions where we operate." Our corporate objective is to power the transition to a more sustainable and smart way of providing and using energy, maximizing our positive impacts in the community and value chain To this end, we have identified three pillars that sustain the way we conduct our business and execute our strategy: Sustainable Energy, Smart Solutions and Society Shared Value. Based on these pillars we made 15 public commitments to contribute to economic, social, and environmental growth across the value chain. To construct the plan, we evaluated the connection of our businesses to the SDGs. Water related issues are under Sustainable Energy Pillar, whose objective is to operate with the smallest possible environmental footprint. We have defined many actions, with goals, to be accomplished until 2024. • In 2019, we established a water target to be monitored and started an investigation about the key points of consumption, indenting leaks and improvements in infrastructure. We also reformed the bathrooms and installed more modern equipment, with better performance and reduced water consumption. • For energy generation and distribution activities, we continue the previous monitoring of water consumption. Last year we unified the controls to also cover CPFL Renováveis. • The Environment team is structured to disseminate these results to all areas of the company, so that the indicator is also monitored and managed by the users of each unit. The indicators and goals of which action are periodically evaluated by the Environmental and Sustainability Board. Changes in performance are monitored by the Sustainability Committee and communicated to the Board of Executive Officers; the Strategy and Management Processes Committee; and to the Board of Directors. When there are deviations from these established goals, we draw up action plans to be executed by the administrative and operational areas. Success in achieving established objectives for the indicators is reflected in the variable remuneration paid to company executives.

W8.1a

(W8.1a) Provide details of your water targets that are monitored at the corporate level, and the progress made.

Target reference number

Target 1

Category of target

Water consumption

Level

Site/facility

Primary motivation

Risk mitigation

Description of target

Reduce water consumption in administrative buildings

Quantitative metric

Other, please specify (Volume of water consumed / number of employees)

Baseline year

2019

Start year

2019

Target year

2024

% of target achieved

100

Please explain

On track. 100% for 2019 expected tasks. We established the target to be monitored and started an investigation about the key points of consumption, indenting leaks and improvements in infrastructure. We also reformed the bathrooms and installed more modern equipment, with better performance and reduced water consumption.

W8.1b

(W8.1b) Provide details of your water goal(s) that are monitored at the corporate level and the progress made.

Goal

Promotion of water data transparency

Level

Company-wide

Motivation

Corporate social responsibility

Description of goal

Clarify and make publicly available the water-related definitions and assumptions, as well as our consumption and the risks for our operation. This goal is under our Sustainability Plan 2020-2024 - Sustainable Energy Pillar whose objective is to operate with the smallest possible environmental footprint. The Plan also has three enablers, that helps make its execution feasible: Ethics, Transparency and Employee development. This goal is also in line with the transparency one, regarding communication in a transparent manner, ensuring understanding and accessibility by the interested parties. Considering this context, we are structuring a centralized monitoring of water management aspects. From an integrated view of the data, it will be possible to give more visibility and transparency to the company's water management.

Baseline year

2019

Start year

2019

End year

2024

Progress

On track. 100% for 2019 expected tasks. The Sustainability Plan is being monitored through our Sustainability Platform, a management tool created in 2014 and updated annually, which establishes indicators and targets for the protection, optimization and creation of value in our businesses, taking into account economic, social, and environmental impacts and risks. The Platform uses a centralized data collection system and analysis of the performance of each indicator are carried out on a monthly basis. In the first moment, looking to improve our water governance, the Sustainability Platform is monitoring monthly water issues from three indicators: Water consumption in Headquarter, Water consumption in DisCos and hydropower plant availability.

Goal

Engaging with local community

Level

Company-wide

Motivation

Commitment to the UN Sustainable Development Goals

Description of goal

Approximately 45,000 people live in the municipalities of João Câmara and São Miguel do Gostoso, both in Rio Grande do Norte state. This is a region of strong winds, but located in the semiarid region and it is common for both cities to declare a state of emergency as a result of droughts. The Water Security Project, part of the Raízes Program for social development carried out by CPFL Renováveis, helped transform the situation of families in nine rural communities in regions where the company operates wind projects. This initiative was conducted between 2016 and 2019. Based on a participatory diagnosis, the project led to the installation and renovation of cisterns to store drinking water and the development of irrigation structures for subsistence agriculture and the sale of surpluses, depending on the needs of each region. Moreover, families were trained to carry out collective and collaborative management of their water supply structures, creating a permanent legacy for the entire population. This project is aligned to the SDGs, a powerful tool to guide our sustainability performance. We believe that their development is capable of reflecting humanity's desire for actions that promote economic growth, human rights respect, women's empowerment, children and youth protection, biodiversity preservation, climate change preventions. Therefore, in order to develop the 15 commitments in our Sustainability Plan, we evaluated the connection of our businesses to the SDGs.

Baseline year

2016

Start year

2016

End year

2019

Progress

On track. 100% for the expected tasks. Project completed with 3.5 million invested. The stages of the project were: i. Preliminary participatory diagnosis of the water situation in the communities involved ii. Conducting community work to reform local families' plate cisterns iii. Implementation of simplified water-supply systems for homes iv. Implementation of irrigation systems v. Technical and organizational training with communities for efficient management and operation of solutions, technologies and systems implemented for water security The mainly outcomes are: - 629 families with access to desalinated water for human consumption - 278 families with access to desalinated water for irrigation - 449 families trained in collaborative and collective management of water supply structures at the community level In 2019, this project was recognized with the Water and Sanitation Award from the Global Compact Network Brazil for its contribution to Sustainable Development Goal 6.

W9. Verification

W9.1

(W9.1) Do you verify any other water information reported in your CDP disclosure (not already covered by W5.1a)?

Yes

Annual Report_Assurance_RINA.pdf

(W9.1a) Which data points within your CDP disclosure have been verified, and which standards were used?

Disclosure module	Data verified	Verification standard	Please explain
W0 Introduction	CPFL profile was verified in the scope of Annual Report verification	Other, please specify (GRI Sustainability Reporting)	Verification under third party independent assurance of CPFL Annual Report 2019. The assurance scope, based on assurance methodology of sustainability reports of RINA, comprises the disclosure verification under GRI standards in 2019. RINA has developed a set of assurance protocols for Sustainability Communication based on the best practices provided in GRI Sustainability Reporting Standards. We published in our Annual Report our leadership vision, mission, vision and values, segments in which we operate, brands, assets portfolio and strategy.
W1 Current state	Water Consumption for GenCos, DisCos and our administrative buildings	Other, please specify (GRI Sustainability Reporting)	Verification under third party independent assurance of CPFL Annual Report 2019. The assurance scope, based on assurance methodology of sustainability reports of RINA, comprises the disclosure verification under GRI standards in 2019. RINA has developed a set of assurance protocols for Sustainability Communication based on the best practices provided in GRI Sustainability Reporting Standards. We monitoring of relevant water aspects by source and volumetric data by facility and operational activities.
W4 Risks and opportunities	Risks and opportunities that identifies the main drivers and impacts associated with our business was verified in the scope of Annual Report verification.	Other, please specify (GRI Sustainability Reporting)	Verification under third party independent assurance of CPFL Annual Report 2019. The assurance scope, based on assurance methodology of sustainability reports of RINA, comprises the disclosure verification under GRI standards in 2019. RINA has developed a set of assurance protocols for Sustainability Communication based on the best practices provided in GRI Sustainability Reporting Standards. We published in our Annual Report our evaluation of risks and opportunities that identifies the main drivers and impacts associated with our business on this dimension, classifying them into three categories: changes in regulation, changes in physical parameters, and changes in other parameters.
W6 Governance	CPFL Sustainability governance, including the process of delegation and assigning Responsibilities, as well as the Sustainability Plan and Platform, was verified in the scope of Annual Report verification.	Other, please specify (GRI Sustainability Reporting)	Verification under third party independent assurance of CPFL Annual Report 2019. The assurance scope, based on assurance methodology of sustainability reports of RINA, comprises the disclosure verification under GRI standards in 2019. RINA has developed a set of assurance protocols for Sustainability Communication based on the best practices provided in GRI Sustainability Reporting Standards. We report our Strategy, and Sustainability Governance, in our Annual Report.
W7 Strategy	CPFL CPFL Strategy was verified in the scope of Annual Report verification.	Other, please specify (GRI Sustainability Reporting)	Verification under third party independent assurance of CPFL Annual Report 2019. The assurance scope, based on assurance methodology of sustainability reports of RINA, comprises the disclosure verification under GRI standards in 2019. RINA has developed a set of assurance protocols for Sustainability Communication based on the best practices provided in GRI Sustainability Reporting Standards. We published in our Annual Report our leadership vision, mission, vision and values, segments in which we operate, brands, assets portfolio and our strategy.

W10. Sign off

W-FI

(W-FI) Use this field to provide any additional information or context that you feel is relevant to your organization's response. Please note that this field is optional and is not scored.

CPFL Energia is committed to generating value for its stakeholders and to the objective of supporting the resumption of the country's economic growth, taking the lead in discussions about improving the power sector and encouraging sustainable development.

In 2019 we carried out a public offering of shares of the holding company on the São Paulo stock exchange and increased the amount of capital on the market to 16.23%, maintaining a listing on the Novo Mercado segment, which strengthens our commitment to adopting best practices in corporate governance when interacting with all our shareholders.

In the distribution segment, we invested R\$ 2.0 billion in 2019 to update and expand our networks, implementing new technologies, digitalizing several processes, incorporating analytics and big data systems, and further developing telemetry. On this last front, we moved forward with our pilot project to install smart meters at 100% of our customers in the municipality of Jaguariúna, São Paulo. All of this with the aim of creating smarter cities and further improving our service quality indicators.

Another important milestone was the expansion of our generation portfolio, which grew to 4.3 GW with the integration of CPFL Renováveis – turning us into leaders in renewable energy in Brazil, with a significant portion coming from wind power. With the expertise we acquired we are now ready to leverage our growth capacity through the acquisition of Greenfield projects in this segment, ensuring our commitment to decarbonizing the energy matrix.

Through CPFL Soluções we expanded our supply of products and services so that our clients can obtain even more advantages in the energy free market, meeting their power demands in a sustainable way and with greater freedom of choice. We provide support for strategies around trading, distributed generation, improving efficiency, infrastructure services, and various other solutions to take advantage of opportunities that have arisen as a result of the energy sector's development.

As part of our efforts to better align our actions with society's major demands and our shareholders' long-term vision, we approved our 2020-2024 Sustainability Plan, which provides guidelines and commitments for our businesses to grow and generate value for all stakeholders. With the Plan, our objective is "power the transition to a more sustainable and smart way of providing and using energy, maximizing our positive impacts in the community and value chain". To this end, we have identified three pillars that sustain the way we conduct our business and execute our strategy: Sustainable Energy, Smart Solutions and Society Shared Value. Based on these pillars we made 15 public commitments to contribute to economic, social, and environmental growth across the value chain.

The Plan brings together, in a comprehensive and objective way, the vision proposed by the UN's Sustainable Development Goals (SDG) and Global Compact principles with the main trends in our market (transition to a low carbon matrix; changing customer profiles and habits; new technologies and digitalization; regulatory framework modernization).

W10.1

(W10.1) Provide details for the person that has signed off (approved) your CDP water response.

	Job title	Corresponding job category
Row 1	Legal and Institutional Relations Vice-President	Chief Sustainability Officer (CSO)

W10.2

(W10.2) Please indicate whether your organization agrees for CDP to transfer your publicly disclosed data on your impact and risk response strategies to the CEO Water Mandate’s Water Action Hub [applies only to W2.1a (response to impacts), W4.2 and W4.2a (response to risks)].

Yes

SW. Supply chain module

SW0.1

(SW0.1) What is your organization’s annual revenue for the reporting period?

	Annual revenue
Row 1	45000000

SW0.2

(SW0.2) Do you have an ISIN for your organization that you are willing to share with CDP?

Yes

SW0.2a

(SW0.2a) Please share your ISIN in the table below.

	ISIN country code	ISIN numeric identifier (including single check digit)
Row 1	BR	CPFEACNOR0

SW1.1

(SW1.1) Could any of your facilities reported in W5.1 have an impact on a requesting CDP supply chain member?

No, CDP supply chain members do not buy goods or services from facilities listed in W5.1

SW1.2

(SW1.2) Are you able to provide geolocation data for your facilities?

	Are you able to provide geolocation data for your facilities?	Comment
Row 1	Yes, for all facilities	Our installed capacity totals 4.3 gigawatts (GW) in assets spread out across four of the country’s five regions, making us the third-largest privately held company in terms of generation and the Brazilian leader in renewable energy. The mix of installed capacity by source is: 46% of HPP, 30% of Wind, 11% of SHPP, 9% of Biomass and 4% of Oil thermal. In 2019, we generated 13.1 terawatt-hours (TWh), which represents an increase of 19.5% from the previous year. Of this total, approximately 98.3% came from renewable sources: 49% of HPP, 31% of Wind, 11% of SHPP, 8% of Biomass and 2% from Oil thermal. Our facilities are listed below.

SW1.2a

(SW1.2a) Please provide all available geolocation data for your facilities.

Identifier	Latitude	Longitude	Comment
Barra Grande	27	51	Hydroelectric (690 MW), started operation in 2005. CPFL have 25.01% of share on this facility.

Identifíer	Latitude	Longitude	Comment
Campos Novos	27	50	Hydroelectric (880 MW), started operation in 2007. CPFL have 48.72% of share on this facility.
Monte Claro	29	51	Hydroelectric (130 MW), started operation in 2004. CPFL have 65% of share on this facility.
Castro Alves	29	51	Hydroelectric (130 MW), started operation in 2008. CPFL have 65% of share on this facility.
14 de Julho	29	51	Hydroelectric (100 MW), started operation in 2008. CPFL have 65% of share on this facility.
Luis Eduardo Magalhães	9	8	Hydroelectric (902.5 MW), started operation in 2002. CPFL have 59.93% of share on this facility.
Foz do Chapecó	28	53	Hydroelectric (855 MW), started operation in 2010. CPFL have 51% of share on this facility.
Termonordeste	6	26	Oil (170.76 MW), started operation in 2010. CPFL have 53.34% of share on this facility.
Termoparaíba	7	34	Oil (170.76 MW), started operation in 2011. CPFL have 53.34% of share on this facility.
Lavrinha	28	47	SHHP
Macaco Branco	22	46	SHHP (2.3 MW)
Pinheirinho	21	47	SHPP
Rio do Peixe I	21	46	SHHP (18.06 MW)
Santa Alice	21	46	SHHP
São José	24	47	SHHP
São Sebastião	21	46	SHHP
Turvinho	23	47	SHHP
Corrente Grande	18	42	SHPP (14 MW), started operation in 2011
Diamante	14	56	SHPP (4.2 MW), started operation in 2005
Mata Velha	16	47	SHPP (24 MW), started operation in 2016
Baldin	22	47	Biomass - sugar cane (45 MW), started operation in 2010
Bio Alvorada	49	18	Biomass - sugar cane (50 MW), started operation in 2013
Bio Burity	20	47	Biomass - sugar cane (50 MW), started operation in 2011
Bio Coopcana	23	52	Biomass - sugar cane (50 MW), started operation in 2013
Bio Ester	22	47	Biomass - sugar cane (40 MW), started operation in 2010
Bio Formosa	6	35	Biomass - sugar cane (40 MW), started operation in 2011
Bio Ipê	21	51	Biomass - sugar cane (25 MW), started operation in 2012
Bio Pedra	21	47	Biomass - sugar cane (70 MW), started operation in 2012
Alto Irani	27	52	SHPP (21 MW), started operation in 2008
Americana	22	47	SHPP (30 MW), started operation in 1949
Andorinhas	28	53	HGP (0.5 MW), started operation in 1941
Arvoredo	27	52	SHPP (13 MW), started operation in 2010
Barra da Paciência	18	42	SHPP (23 MW), started operation in 2011
Boa Vista II	21	45	SHPP (26.5 MW), started operation in 2020
Buritys	20	47	HGP (0.8 MW), started operation in 1922
Capão Preto	21	47	SHPP (4.3 MW), started operation in 1911
Chibarro	21	48	SHPP (2.6 MW), started operation in 1912
Cocais Grande	19	42	SHPP (10 MW), started operation in 2009
Dourados	20	47	SHPP (10.8 MW), started operation in 1926
Eloy Chaves	22	46	SHPP (19 MW), started operation in 1954
Esmeril	20	47	SHPP (5 MW), started operation in 1912
Figueiropolis	15	58	SHPP (19.5 MW), started operation in 2010
Gavião Peixoto	21	48	SHPP (4.8 MW), started operation in 1913
Guaporé	28	51	HGP (0.7 MW), started operation in 1950
Jaguari	22	46	SHPP (11.8 MW), started operation in 1917
Lençóis	22	48	SHPP (1.7 MW), started operation in 1917
Ludesa	26	52	SHPP (30 MW), started operation in 2007
Monjolinho	22	47	HGP (0.6 MW), started operation in 1909
Ninho da Água	22	45	SHPP (10 MW), started operation in 2011
Novo Horizonte	24	48	SHPP (23 MW), started operation in 2011
Paiol	18	41	SHPP (20 MW), started operation in 2010
Pinhal	22	46	SHPP (6.8 MW), started operation in 1928
Pirapó	28	55	HGP (0.8 MW), started operation in 1952
Plano Alto	26	52	SHPP (16 MW), started operation in 2008
Saltinho	27	53	HGP (0.8 MW), started operation in 1950
Salto Góes	27	51	SHPP (20 MW), started operation in 2012
Salto Grande	22	46	SHPP (4.6 MW), started operation in 1912
Santa Luzia	26	52	SHPP (28.5 MW), started operation in 2011
Santana	22	48	SHPP (4.3 MW), started operation in 1951
São Gonçalo	19	43	SHPP (11 MW), started operation in 2010
São Joaquim	20	47	SHPP (8.1 MW), started operation in 1911
Socorro	22	46	HGP (1 MW), started operation in 1909
Três Saltos	22	48	HGP (0.6 MW), started operation in 1928
Varginha	20	41	SHPP (9 MW), started operation in 2010
Várzea Alegre	19	41	SHPP (7.5 MW), started operation in 2011
Complexo Pedra Cheirosa	3	38	Wind, started operation in 2017
Complexo SIIF	4	38	Wind (210 MW), started operation in 2008
Complexo Rosa dos Ventos	4	37	Wind (13.7 MW), started operation in 2008
Complexo Bons Ventos	4	37	Wind (155 MW), started operation in 2008
Complexo Morro dos Ventos II	5	35	Wind (145.2 MW), started operation in 2014
Complexo Macacos I	5	35	Wind (78.02 MW), started operation in 2014
Complexo Santa Clara	5	35	Wind (188 MW), started operation in 2014

Identifier	Latitude	Longitude	Comment
Complexo dos Ventos II	5	36	Wind (30 MW), started operation in 2014
Complexo Eurus	5	35	Wind (60 MW), started operation in 2014
Complexo Eólico São Benedito	5	35	Wind (58.8 MW), started operation in 2016
Complexo Campo dos Ventos	5	35	Wind (115 MW), started operation in 2016
Complexo São Benedito	5	36	Wind (56.7 MW), started operation in 2016
Compleo Atlântica	30	50	Wind (120 MW), started operation in 2013
Tanquinho	22	47	Solar (1.1 MW) started operation in 2012

SW2.1

(SW2.1) Please propose any mutually beneficial water-related projects you could collaborate on with specific CDP supply chain members.

Requesting member

MRV Engenharia e Participações

Category of project

Communications

Type of project

Joint case studies or marketing campaign

Motivation

Expand knowledge of the importance of a good water management, including eco-efficiency measures, how to deal with impacts, how climate change can interfere in water resources, and so on, expanding the reach of awareness campaigns on the importance of the use of the sustainably water resources.

Estimated timeframe for achieving project

Up to 1 year

Details of project

A project idea is to carry out a campaign to disseminate environmental aspects and impacts, highlighting the water issues of the client's places of work or production. The campaign could involve the development of games or digital platforms with Citizen science method. Citizen science is based on the informed, conscious and voluntary participation of thousands of citizens who generate and analyze large amounts of data, share their knowledge and discuss and present the results. The involvement of the largest number of users in the water basin, guarantees a more comprehensive and inclusive set of solutions.

Projected outcome

Network awareness campaigns can bring some results. We list the three most interesting points for the maturing of governance in water issues a) An improvement in water monitoring systems is expected. b) Engagement of other actors in the basin can provide a diagnosis of water quality and availability. c) The mapping of the information can contribute to the structuring of the calculation of water footprint.

SW2.2

(SW2.2) Have any water projects been implemented due to CDP supply chain member engagement?

No

SW3.1

(SW3.1) Provide any available water intensity values for your organization's products or services.

Product name

Power Generation

Water intensity value

0.37

Numerator: Water aspect

Water withdrawn

Denominator

MWh generated

Comment

The monitoring of generation activities considers the amount of water withdrawn in electricity generation process (m3/ MWh). It is important to note that because we have several sources of energy generation in our portfolio, there is a significant difference in the technologies of each plant that is not captured only with this indicator.

Product name

Electricity distributed

Water intensity value

0.0026

Numerator: Water aspect

Water consumed

Denominator

MWh distributed

Comment

For the distribution activity, the indicator is water consumption on corporate buildings for each unit of distributed energy (m3/ MWh).

[Submit your response](#)

In which language are you submitting your response?

English

Please confirm how your response should be handled by CDP

	I am submitting to	Public or Non-Public Submission	Are you ready to submit the additional Supply Chain Questions?
I am submitting my response	Investors Customers	Public	Yes, submit Supply Chain Questions now

Please confirm below

I have read and accept the applicable Terms