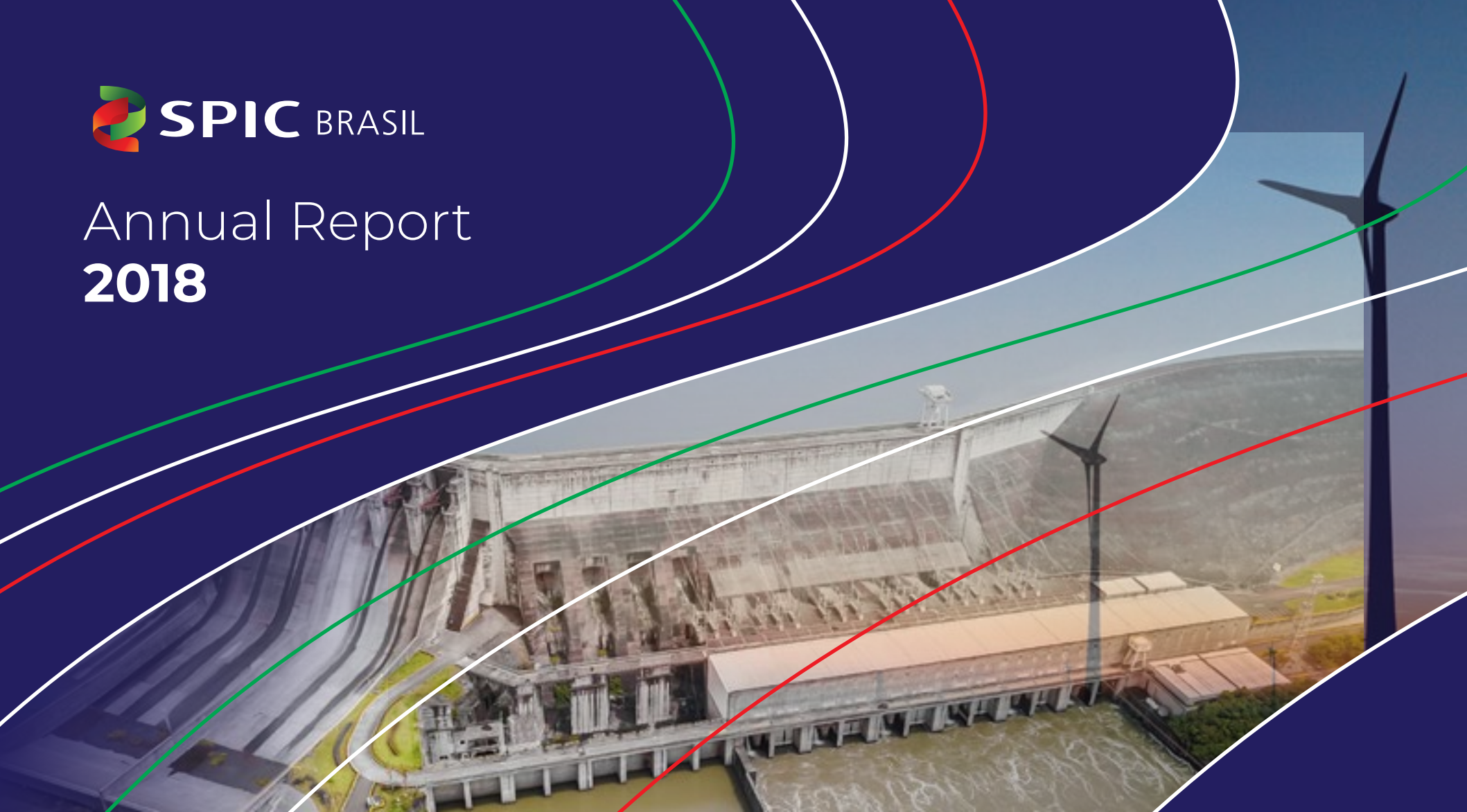




Annual Report **2018**



CONTENTS

3

ABOUT THIS REPORT

4

MESSAGE FROM THE CEO

6

SPIC GLOBAL

6 About SPIC Group

8

SPIC BRAZIL

8 Who we are

12 Governance and management

14 Communication and marketing

18

OPERATIONS AND PROJECTS

20 Wind power

22 Hydropower

26

ECONOMIC & FINANCIAL PERFORMANCE

28

SOCIAL & ENVIRONMENTAL PERFORMANCE

30 People

32 Safety

33 Environment

35 Health & Quality of Life

36 Communities & Partners

39 Research & Development

ABOUT THIS REPORT

SPIC Brazil, a subsidiary of one of the largest power-sector players globally, is pleased to present to stakeholders a review of our year in 2018.

This report provides an overview of our organizational structure as a company—which was formally established in 2017 following the acquisition of operating rights to the São Simão Hydro Plant under a concession agree-

ment—and communicates our results of operations and market position.

It also describes our Brazil and global operations, our approach to managing operations, our business vision—with a special focus on people—and our approach to occupational safety and environmental management. This report covers the following Brazil operations: our São Simão Hydro Plant, our wind farms in Paraíba, our head office in São Paulo (SP) and our regional office in Natal (RN).

This, our first annual report for Brazil, has been developed in accordance with the standards applicable to our industry and global headquarters, and

parts of the Global Reporting Initiative (GRI) guidelines, a framework adopted globally by organizations of different sizes, in different geographies and in different industries to report on performance. We plan to further develop our reporting model so that we are in a position to formally adopt these guidelines within the following reporting periods.

For any questions or feedback about the contents of this report, please contact us by telephone at +55 11 3149-4646 or by email at comunicacao@spicbrasil.com.br.

We hope you find our report useful and informative.

MESSAGE FROM THE CEO

Behind SPIC Brazil's nascent presence in the local power sector is the experience and financial strength of SPIC Group—a global corporation with more than 131 GW of installed capacity in 43 countries, and a workforce of more than 140,000 employees.

The year 2018 was a milestone in the consolidation of our operations in Brazil. With the acquisition of the São Simão Hydro Plant concession, combined with our wind farm operations in Paraíba, we are now the 9th largest privately owned generation group in Brazil, with an aggregate installed capacity of 1.758 GW as well as a country-wide trading business serving more than 100 active customers.

In a year of continued development of our operational processes, SPIC Brazil implemented efficient and transparent governance policies and frameworks, we completed another 12

months with no lost-time injuries, we implemented the SAP S/4HANA ERP platform to automate our corporate management systems, and we initiated a major upgrade of our São Simão Hydro Plant, achieving important milestones in optimizing our current operations.

Building on our now-solid operations, we are committed to pursuing continued growth in renewable energy in support of Brazil's competitiveness and new and expanded opportunities for our employees, while protecting the environment and the health and safety of our employees, and serving as a partner to the communities in which we operate.

We recognize that we have not only the potential, but also a duty to help develop the communities surrounding our operations through the SPIC Brazil Community Fund, which



Adriana Waltrick
CEO



provides support to local educational, cultural, art, sporting, recreational, tourism, social and environmental programs.

We envision our company as an important bridge from China to Brazil, through which we will access technology from the vigorous Chinese innovation ecosystem to support the diversification and expansion of Brazil's energy mix. Some of the priorities

on our agenda include: hybrid generation facilities combining solar, wind and hydropower, storage systems, and grid-wide automation. We are also among the world's leading producers of solar power, with approximately 14 GW of installed capacity.

We recognize the value of the transformational expertise that is now available to Brazil. This provides an opportunity to learn and borrow from what has worked in China to implement innovative projects locally. We are committed to developing a better and more competitive power sector in our country.

Our journey is just beginning!

ADRIANA WALTRICK
CEO, SPIC Brazil

SPIC GLOBAL

WITH MORE THAN 131 GW OF INSTALLED CAPACITY GLOBALLY, SPIC PROVIDES ENERGY SOLUTIONS IN MORE THAN 40 COUNTRIES

ABOUT THE GROUP

SPIC Corporation is a global company based in China, with a presence in 31 Chinese provinces and more than 40 other countries in Europe, Asia, Oceania and South America. The group is focused on developing solutions for the global power sector, and currently has more than 131 GW of installed capacity and employs more than 140,000 people worldwide. SPIC is the world's largest solar power producer by capacity.

SPIC Group was created by a merger of China Power Investment Corporation with the State Nuclear Power Technology Corporation in May 2015. It has been listed as a Fortune Global 500 company for five consecutive years. With share capital of 35 billion yuans (US\$ 5 billion) and total assets of 1,050.5 billion yuans (US\$ 152.7 billion), SPIC has significant operations in Brazil, Japan, Australia, Malta, India, Turkey, South Africa and Pakistan.

SPIC is one of the top five generation companies in China, with an installed capacity of 22.98 GW of hydropower, 14.78 GW of wind power, 13.86 GW of solar power, 4.48 GW of nuclear power and 75.05 GW of thermal power. Approximately 50% of SPIC's portfolio now consists of renewables, as part of our global strategy.

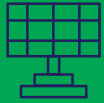
The company's global expansion is orchestrated by SPIC Overseas, a division dedicated to the development, investment in and operation of major overseas projects and assets.

SPIC Overseas has 10.05 GW in assets under construction and 3 GW in early-pipeline developments. SPIC is currently working on EPC projects developing generation plants with a total installed capacity of 13.5 GW.

For further information, visit en.spicoi.com and eng.spic.com.cn.



SEGMENTS



SOLAR

13.86 GW

Global leadership

A VERTICALLY INTEGRATED VALUE CHAIN (R&D, PROJECT DEVELOPMENT AND OPERATION) WITH A PRESENCE IN 31 CHINESE PROVINCES



WIND

14.78 GW

Plans to exceed 20 GW by 2020

FEASIBILITY STUDIES AND PROJECTS FOR 240+ WIND FARMS



HYDRO

22.98 GW

148

HYDRO PLANTS IN OPERATION + 4 UNDER CONSTRUCTION

DEVELOPMENT AND EPC CONSTRUCTION OF HYDRO PROJECTS



NUCLEAR

4.48 GW



THERMAL

75.05 GW

SPIC BRAZIL

SPIC OWNS TWO WIND FARMS IN PARAÍBA AND THE SÃO SIMÃO HYDRO PLANT AT THE BORDER BETWEEN MINAS GERAIS AND GOIÁS

WHO WE ARE

Our presence in Brazil began with the acquisition of Pacific Hydro, an Australian-based renewable energy company that owned two wind farms in Brazil's northeastern state of Paraíba since 2006.

We became a major player in the Brazilian market when we won a public auction organized by Aneel in 2017 for a 30-year concession to operate the São Simão Hydro Plant.

With a total of 147 employees at year-end 2018, across our corporate offices in São Paulo – SP (head office) and Natal – RN, the São Simão Hydro Plant (at the border between Minas Gerais and Goiás) and our wind farms in Paraíba, we rely on the expertise of professionals with experience in Brazil's power sector to produce and market electricity in the Regulated Environment and Free Contracting Environment. We also have a pipeline of projects either in feasibility studies or under development.



POLICIES AND VALUES

With an organizational culture underpinned by the triad of innovation, dedication and cooperation, SPIC Group values diversity, effort and curiosity in all business activities; we see our multicultural workforce as a competitive advantage, and our global growth as a source of pride.

A term associated with traditional Chinese culture has been adopted at SPIC as a value that guides everything we do: **harmony**. With harmonious and balanced interaction between nature and society at the core of our management approach, SPIC sees aspects such as ethics, safety, management and human development as success factors in our business model.

AT SPIC BRAZIL:

MISSION

To be a leading developer and provider of renewable energy in Brazil

VISION

To be the top power company in Brazil by 2021

VALUES

Harmony
Cooperation
Action
Leadership

Innovation
Dedication
Adaptability
Diversity

IN NUMBERS

147

BUSINESS PARTNERS

1,768 MW

IN INSTALLED CAPACITY

6+ mn

HOMES POWERED BY OUR TWO
WIND FARMS + HYDRO PLANT

TIMELINE

1992

Pacific Hydro is founded as a global provider of clean energy solutions

2006

Pacific Hydro establishes a presence in Brazil, and within three years owns two wind farms in Paraíba

2016

SPIC Overseas, a SPIC subsidiary, acquires Pacific Hydro (including its Australian headquarters and subsidiaries in Chile and Brazil)

2018

SPIC Brazil is established to manage hydro, wind and other new projects in Brazil

2002

Pacific Hydro begins operation of four hydro plants in Chile through partners

2015

China Power Investment Corporation merges with the State Nuclear Power Technology Corporation to form the State Power Investment Corporation (SPIC) in China

2017

In September, SPIC and Zhejiang Energy International Ltd., ZLCFB Hong Kong International Investment Cooperation Limited and CPD Energy Investment Co. are successful in an ANEEL auction for the São Simão Hydro Plant concession

UNITS

Installed capacity:
1,710 MW
Homes powered:
**APPROXIMATELY 6
MILLION**

ON THE
BORDER
BETWEEN
GOIÁS AND
MINAS GERAIS
SÃO SIMÃO
HYDRO
PLANT

NATAL (RN)
WIND
OPERATIONS
OFFICE

MATARACA (PB)
VALE DOS
VENTOS AND
MILLENNIUM
WIND FARMS

SÃO PAULO
(SP)
HEAD OFFICE

Installed capacity:
58.2 MW,
INCLUDING
48MW AT VALE
DOS VENTOS
AND **10.2MW** AT
MILLENNIUM
Homes powered:
**APPROXIMATELY
140,000**

GOVERNANCE AND MANAGEMENT

In line with guidelines laid down by our global headquarters, SPIC Brazil has a lean governance model that supports agile and collaborative decision-making, drawing on our executives' experience in the Brazilian power sector and the intellectual capital developed by SPIC Group across our global operations.

In 2018 we completed a leadership structuring process at the company and began developing strategic policies and processes in an initiative that is expected to be completed in 2019.

These documents and decision-making processes are being formulated in collaboration between our Brazilian and global leadership to ensure that SPIC Group guidelines are adhered to but adapted to the Brazilian market.

A corporate compliance department will be set up in 2019, with dedicated staff and an independent whistleblowing channel.

Adriana Waltrick
CEO

Waldo Perez
CFO

Miguel Saad
Technical and O&M Director – São Simão Hydro Plant

Daniela Afonso
Legal Director

Leandro Alves
Wind Operations Director

Roberto Monteiro
Communications Director

Sueli Hudson
Human Resources Director

Wanderley Fernandes
Legal & Regulatory Director

NEW MANAGEMENT TOOLS

SPIC Brazil implemented the SAP S/4HANA ERP platform in 2018 to support business management activities and continued growth over the coming years. The ERP implementation project has been dubbed “*integra+*”, a name chosen by our employees through a contest. The planning and development of *integra+* was based on three pillars: Technical, managed by our IT department; Functional, led by our Controllershship department; and Change Management, led by our Communications and HR departments, which reinforced and drew attention to each person’s role in the success of the project.

The *integra+* project team brought together staff from different func-

tions to work collaboratively from implementation to go-live in January 2019. Throughout the six months of the project, all employees attended a series of workshops on how to deal with the changes and professional challenges that ERP implementation would involve, and on how to use the new system. Throughout the process, employees were also continually informed about project progress and next steps through our internal communications channels.

SPIC Brazil is the first power generation company in Brazil to deploy the latest version of SAP HANA. In addition to supporting future growth, ERP implementation has delivered process improvements, more reliable, real-time information for decision-making, increased integration, control and information integrity, infrastructure cost savings, and continual innovation.

SUPPLIERS

When we took over the wind and hydro operations in Brazil, we developed a procurement policy for managing our supply chain, contracts and suppliers using a governance model designed to ensure equal treatment and the development of our strategic commercial partners. We encourage local suppliers to bid for operational procurement contracts, and screen suppliers for aspects such as quality, capabilities, environmental performance and financial performance prior to concluding contracts. In 2018 alone, SPIC Brazil onboarded a total of 650 vendors. In 2019, all our suppliers, large and small, will be assessed and classified as leverageable, strategic, critical and noncritical, supporting value creation for the company and helping to reduce business risks.

COMMUNICATION AND MARKETING

An important tool in strengthening and building awareness about our company, our Communications and Marketing department focused its efforts in 2018 on two primary fronts: creating a culture and structured process of internal communication, and building our brand reputation, as part of an effort initiated in 2017, following our successful bid in the São Simão Hydro Plant auction, and intensified in 2018, especially following handover of the plant operations in May.

Internally, by training our teams throughout the year, we have worked to engage our internal stakeholders around the SPIC Brazil atmosphere. In a communications program that grew in consistency as it developed, we conducted a range of initiatives that included employee surveys, endomarketing and leadership engagement. We also promoted increased communications between the Brazil-

ian team and Chinese expatriates to strengthen cross-cultural integration and camaraderie, fostering a collaborative corporate climate.

We established a set of core channels for communication with employees, including a newsletter, bulletin board (both with weekly editions), and email memorandums on demand. At our business units, communication agents are responsible for assisting our Communications & Marketing department on the ground, helping to ensure our communications efforts are agile and efficient.

Campaigns, initiatives and events were another highlight in the year. Working in collaboration with the relevant functions, we created five campaigns—from strategy to launch and follow-up to ensure engagement—and 13 initiatives and events.

On Day One (the name given to May 10, the day we took over operation of the São Simão Power Plant), we worked to promote integration across our business units as the time approached to turn the proverbial key. Through the company newsletter, and with support from a consulting firm, we kept our employees up to date on developments at each function during this period. At our

OUR FOCUS IN 2018 WAS ON CREATING A CULTURE OF INTERNAL COMMUNICATION AND BUILDING OUR BRAND REPUTATION



WE BEGAN FROM SCRATCH, CREATING OUR VISUAL IDENTITY, INSTITUTIONAL WEBSITE, LINKEDIN PAGE AND INTERNAL COMMUNICATION CHANNELS THROUGHOUT THE YEAR

head office in São Paulo, we set up a dashboard with a countdown to Day One. On our LinkedIn page (www.linkedin.com/company/spicbrasil/?originalSubdomain=pt), created in 2018, employees shared information about the operating status of the facility during the first minutes of Day One, and throughout the day, and our business units had a video-conference link to the plant through which our leadership transmitted regular communications.

We also created an institutional website (www.spicbrasil.com.br) in 2018, and in 2019 we will launch an Internal Communications Portal providing information about key initiatives at the Communications department and important information from other departments. This will further strength-

en internal dialog and provide a one-stop channel for relevant information about the company.

In 2018 we also created a visual identity for the transition from SPIC Pacific Hydro to SPIC Brazil, allowing our internal and external stakeholders to adjust to our new brand. This was done in a two-step process, with both brands first displayed together before switching to the SPIC Brazil-only identity.

In external relations, we were supported by a media relations consultancy in introducing SPIC Brazil to the market through strategic media initiatives (news articles, interviews, advertisements on significant dates, etc.). We initiated an effort to build relations with trade associations and

aim to work more closely with them in the following year, which will include participating in discussions and advocacy around the Brazilian power sector (*read more in Membership*).

In 2019 we will continue to strengthen employee and leadership engagement around our culture. Externally, we will continue our branding initiatives to help build an increasingly strong and positive reputation in our industry. In institutional relations, our goal is to establish closer relations with the communities surrounding our assets. One of the projects we will be developing is Imagination Island, featuring attractions combining culture and audiovisual technology for child and adolescent audiences in São Simão. The project has already secured approval under the Brazilian Culture Incentive Act.

MEDIA PRESENCE	2017	2018
Total organic reach (Public Relations and Digital)	811,427,675 ¹ (NO DIGITAL YET)	154,964,193
# of publications in print	108	561
Total organic reach (media)	2 MEDIA OUTLETS - CHANGE OF ADDRESS 120,000	10 MEDIA OUTLETS - 2,940,300
Main topics	- HYDRO PLANT AUCTIONS AND NEW CONCESSIONS - CHINESE PRESENCE IN BRAZIL	- M&A SPECULATION - CHINESE INVESTMENTS
# of online publications	47	323
External Channels	PACIFIC HYDRO WEBSITE	SPIC BRAZIL INSTITUTIONAL WEBSITE SÃO SIMÃO HYDRO PLANT LINKEDIN PAGE
Internal Channels	N/A	NEWSLETTER, CORPORATE BULLETIN BOARD, EMAIL COMMUNICATIONS

¹ The surge in 2017 is due to the ANEEL auction and our successful bid for the São Simão Hydro Plant.



MEMBERSHIP

In our first year of operation, we actively engaged in advocacy activity that included participating in trade associations in our industry and supporting policymaking through public meetings and consultations organized by ANEEL and Brazilian Congress. We also sought to build collaboration with other companies in our industry to share information and experience. The organizations of which we are members include:

Brazilian Association of Independent Power Producers (APINE)

– Founded in 1995, APINE supports the sustainable development of the Brazilian power sector (specifically the generation segment). Its members include small, medium and large private generation companies and concession operators engaged in power plant construction, operation and maintenance, within and outside Brazil, as well as engineering companies, coal mining companies, law firms, construction companies and OEMs. APINE members produce elec-

tricity from a wide range of energy sources: hydro, thermal (gas, coal or oil), biomass, wind and solar.

Brazilian Association of Electric Utilities (ABCE)

– This is the oldest trade association in Brazil's power sector, representing more than 60 companies. ABCE's activities largely revolve around committees such as its Legal & Tax Committee and Environment Committee. These groups organize studies, symposiums and meetings throughout Brazil to discuss key issues affecting the power sector.

Brazilian Wholesale Electricity Association (ABRACEEL)

– ABRACEEL advocates for free competition as a tool to improve energy efficiency and energy security across electrical power, ethanol and natural gas. It also works to support the growth of the carbon credit market. ABRACEEL engages with the general public, thought leaders, government agencies, other organizations in the electric power, ethanol and natural gas sectors, and economic actors in general.

Instituto Acende Brasil – This organization develops initiatives and projects to enhance the transparency and sustainability of the Brazilian power sector. Studies developed by the Institute support long-term planning and provide society with insights into key economic, political and institutional factors and pressures affecting the segment.

Brazilian Association of Business Communications (ABERJE)

– ABERJE is a think tank that produces and disseminates knowledge and best practices in business communications.



OPERATIONS AND PROJECTS

OUR OPERATIONS ARE FOCUSED ON RENEWABLE ENERGY

Brazil's energy mix is 60% comprised of renewable sources, especially hydro power, and Brazil is among the top five countries for hydropower potential. Hydropower also plays an important role in the integration and development of regions that are distant from major urban and industrial centers.

Beginning in the 1970s, Brazil experienced a boom in hydropower capacity extending to the 2000s; during that period, hydropower plant capacity grew by more than 400%.

Brazil also boasts significant wind power potential. According to the Global Wind Energy Council (GWEC), Brazil leads Latin America and ranks eighth globally for wind power potential.

Brazil's first wind turbine was built in the 1990s, in Fernando de Noronha (PE), in response to the need to diversify into energy sources that are less vulnerable to crises and create less environmental impact. As an incentive for the development of renewables, such as wind, biomass and small hydro, approximately ten years later the Federal Government created an Incentive Program for Alternative Energy Sources (PROINFA). Pacific Hydro Brazil was among the pioneers in developing projects within the PROINFA program.

Brazil ended 2018 with a wind power capacity of 14.7 GW, according to the Brazilian Wind Power Association (ABEEÓLICA), with 583 wind farms across 12 states—the states of Rio Grande do Norte and Bahia alone have 200 wind farms. The Ministry of Mining and Energy estimates that wind power will become Brazil's second largest energy source over the following years, and will reach

24 GW, or 11.4% of total generation capacity, by 2024.

With our primary focus on renewables, the Brazilian market fits well with SPIC Group's strategic direction. We have a portfolio of wind-farm projects in Brazil and plan to expand our operations in hydro power and solar. In addition, we are preparing to make inroads into the Free Contracting Environment (ACL) and have sought to participate in policy discussions with the Federal Government on the regulation of hybrid power generation in Brazil, enabling us to contribute by developing projects and research in this area.

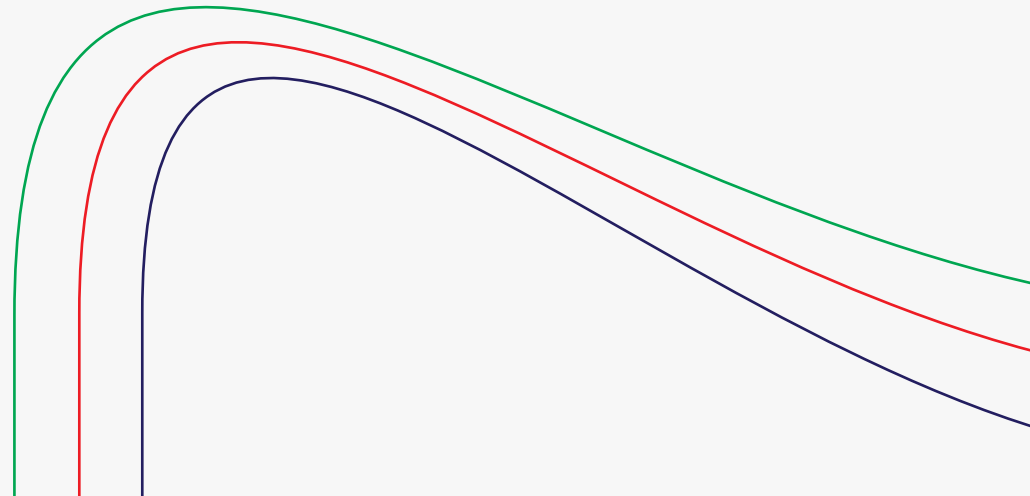
In SPIC Brazil's first year of operation, we diligently met our regulatory obligations to ANEEL, the industry regulator in Brazil, in relation to both our wind farms and the covenants stipulated for the São Simão Hydro Plant concession agreement. Our team's commitment and competence

helped to ensure we ended the year with no unmet regulatory obligations or regulatory penalties.

Learn below about our power generation projects in operation in Brazil:

BY 2024,

WIND POWER IS EXPECTED
TO BECOME BRAZIL'S SECOND
LARGEST ENERGY SOURCE



WIND POWER

VALE DOS VENTOS

Our largest wind power asset in operation in Brazil, located in Mataraca (PB), the Vale dos Ventos wind farm comprises a total of sixty 800 KW wind turbines installed on leased private properties. The wind farm is divided into 10 discrete units with a capacity of 4.8 MW each, enough to cover approximately 2.2% of total demand in the state of Paraíba in 2017, while avoiding approximately 17,000 metric tons of greenhouse gas emissions per year. With the wind turbines and service roads occupying only 5% of total wind-farm area, our operation coexists harmoniously with other economic activities in the region.

As a significant investment in 2018, we reinforced much of the underground cabling at the unit to minimize adverse events and electrical losses. High levels of wind farm availability have been maintained over the past 10 years, regardless of wind conditions, as a direct result of servicing and inspection to maintain wind turbine performance.

In such a complex operation as a wind farm, we perform preventive maintenance to avoid unscheduled shut-downs for maintenance. This saves on crew time and resources, improves the performance and useful life of our generation assets, and helps to prevent injuries and enhance operational and occupational safety.



Commissioned:

2009



Homes powered:

100,000



Operation:

60 turbines



Location:

**Mataraca
PB**



Capacity:

48 MW



Output:

**~104 GWh
pa**



Output in 2018:

**109,020
MWh**



MILLENNIUM

Our first renewable energy development in Brazil, the Millennium wind farm is also located in Mataraca and is benefited by strong coastal winds.

The electricity produced at Millennium is enough to supply power to thousands of homes and avoid approximately 4,600 metric tons of greenhouse gas emissions per year.

In 2018, a preventive maintenance program covering all 13 wind turbines was initiated to improve durability and reliability.



Commissioned:
2007



Operation:
13 turbines



Capacity:
10.2 MW



Output:
~27 GWh pa



Output in 2018:
28,508 MWh



Homes powered:
40,000



Location:
**Mataraca
PB**

CERTIFICATIONS

In 2018, SPIC Brazil's wind farms were certified to ISO 55001 for asset management, supporting the long-term efficiency and sustainability of the business. These operations were already certified to ISO 9001 (quality), 14001 (environment) and OHSAS 18001 (health and safety).



HYDRO POWER

Situated between the municipalities of São Simão (GO) and Santa Vitória (MG), the São Simão Hydro Plant was handed over to SPIC Brazil for operation on May 10, 2018. Our greatest asset at the plant is no doubt its well selected team of professionals. Throughout six months of supervised operation, we focused our attention on structuring and training the workforce.

We built a team with strong expertise, which understudied the previous operation, identified, assessed and mitigated potential risks, and worked quickly to respond to any equipment faults. This ensured a successful handover and, after our seven first months of operation, we ended the year with the highest power output in the last four years, and a 10% improvement on the last few years. This was thanks not only to carefully selected and well trained

teams, but also to preventive maintenance shutdowns scheduled by the National Grid Operator (ONS), which optimized maintenance timing and improved our availability and output rates in the period.

In 2018 we developed plans for an upgrade of the plant as an obligation under the concession agreement, which requires the replacement of a range of systems and equipment and all electronics at the unit. The project is pending approval by senior management, and investments for the following years will be announced in the second half of 2019.

The first step in the project—an energy assessment—is already in progress and is due to be completed in 2019. The assessment will inform a briefing presentation by our Brazilian management to global headquar-

ters, and the members of the Board will then decide on how to proceed with the project.





Commissioned:
1978



Unit capacity:
285 MW



Height:
127 m



Operation:
6 turbines



Turbine discharge:
425 m³/s



Reservoir area:
703.21 km²



Installed capacity:
1,710 MW



Mean annual flow:
2,306 m³/s



Location:
Santa Vitória (MG), on the border with São Simão (GO)



Homes powered:
approximately
6 million



Spillway capacity:
24,100 m³/s



Dam length:
3,600 m



Annual output:
10,538 GWh



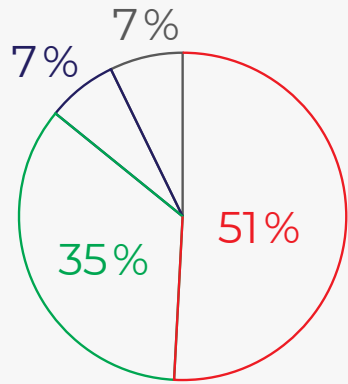
Output in 2018:
9,217.8 GWh

→ **a four-year record**

The São Simão Hydro Plant reservoir has a storage capacity equivalent to 2.54% of the impoundment volume in the Southeast/Midwest System, and 6.7% of the storage capacity of the Paranaíba River subsystem.

SÃO SIMÃO HYDRO PLANT OWNERSHIP STRUCTURE

SPIC Brazil is the majority shareholder and operator of the São Simão Hydro Plant. Another three companies have interests in the project, as detailed below:



- SPIC BRASIL ENERGIA PARTICIPAÇÕES S/A
- ZHEJIANG ENERGY INTERNATIONAL LTD.
- ZLCFB-HONG KONG COOPERAÇÃO INTERNACIONAL DE INVESTIMENTO LIMITADA
- CPD ENERGY INVESTMENT CO., LIMITED

TRADING

Under the concession agreement for the São Simão Hydro Plant, 30% of firm capacity can be sold in the Free Contracting Environment (ACL). Given the complexity of Brazil's power sector, we assembled a team of professionals with extensive industry experience, we developed a Credit and Trading Policy—which has been approved by the Board of Directors—and we invested in systems automation to standardize processes.

Our Trading Department was set up just 40 days before our first transactions in the ACL. In this short space of time, we developed a Trading Policy and core operations management processes, as well as an extensive network of reliable and reputable commercial partners within the Brazilian power sector.

Senior Management is responsible for managing our commercial transac-

tions in the Eletrobrás Power Trading Chamber (CCEE), including both ACL and ACR contracts, and for ensuring compliance with our Trading Policy in order to deliver strong shareholder returns while maintaining responsible levels of risk. Senior Management is also responsible for planning and managing electric power trading initiatives, including pricing studies, power portfolio allocation strategy, and product pricing. It also conducts market intelligence studies to inform strategic decisions, including Mergers & Acquisitions (M&A).

Our ACL contract portfolio has a balanced composition of long-term (3-5 years), medium-term (1-3 years), short-term (1 year) and spot contracts. SPIC Brazil's policy on developing commercial partners requires that we consider both qualitative and quantitative aspects and develop relationships with solid companies offering low levels of credit risk. Our

trading transactions essentially consist of over-the-counter transactions on an electronic platform (BBCE) and requests for proposals (RFPs) where products have limited liquidity.

30%
OF THE POWER OUTPUT
FROM SÃO SIMÃO IS SOLD
IN THE ACL MARKET

The well structured trading department we developed in 2018 provides assurance to both our shareholders and our commercial partners. All processes have been mapped out, and a back office system (contractual records and guarantee monitoring) has been implemented and integrated with SAP to ensure that all purchase and sale transaction records are traceable and reliable. A middle office function is responsible for preparing inputs for decision-making, and has developed market intelligence tools using concepts borrowed from both the power sector and capital markets, which provide a dashboard with a real-time market heat map and trends to inform decision-making and position taking. At the front-office level, we actively receive and visit companies and organizations in our industry to ensure we are abreast of significant developments and trends in the market.

SPIC Brazil's commercial performance has also been strong in terms of Gen-

eration Scaling Factor (GSF) management, total revenue and average portfolio pricing.

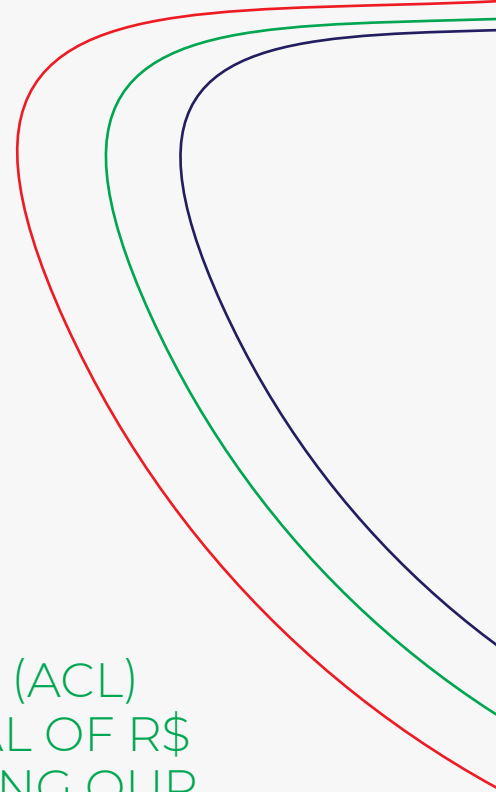
Our Generation Scaling Factor (GSF) was negative in June only, resulting in an added requirement of 20 MW at a cost of R\$ 6 million, with a cumulative annual impact on revenue of approximately 2%. This has been recognized by our Board of Directors and by our partners as a particularly positive result, especially given the historically negative performance and substantial losses incurred by hydro power plants in general in the year.

Despite the severe hydrological conditions, and despite it being our first year of operation, our total revenue was approximately R\$ 270 million in 2018, exceeding our targets by R\$ 10 million as a result of prudent GSF management and minimizing credit risk, resulting in zero delinquent accounts. Average selling prices in the year were approximately R\$

195.26/MWh, with this strong performance reflecting our commercial strategy of capitalizing on higher short-term prices.

Total ACL revenue as recorded in our trading accounts at year-end 2018 was approximately R\$ 1 billion for the period 2018-2021. Aggregate ACR and ACL transaction revenue for financial year 2018 was a total of approximately R\$ 1.3 billion.

ELECTRICITY TRADING (ACL)
REVENUE WAS A TOTAL OF R\$
270 MILLION, EXCEEDING OUR
TARGET BY R\$ 10 MILLION



ECONOMIC AND FINANCIAL PERFORMANCE

OUR WIND FARMS AND HYDRO PLANT OPERATED IN PROFIT IN THE YEAR

SPIC Brazil's results of operations were positive throughout 2018, with an operating margin (EBITDA to Net Revenue) of 83% for São Simão and 56% for Pacific Hydro Brazil, both exceeding initial projections of respectively 78% and 43%.

Excellence in resource management has been key in fulfilling our commitments in terms of hydro plant and wind farm operation and maintenance, investment in hydro plant modernization, reforestation and talent acquisition.

NET REVENUE

SPIC Brazil's first year of operation saw strong performance. Our São Simão Hydro Plant recorded net operating revenue at year-end of 1.25 billion. Pacific Hydro Brazil (PHB) posted net operating revenue of R\$ 59,272 million, up 2% on the previous year. The improvement was driven by higher-than-expected average rates in the year as a result of a rate increase by 6.92% in July 2018 reflecting the cumulative change in the Broad Consumer Price Index (IGP-M) from July 2017 to June 2018.



OPERATING COSTS AND EXPENSES

Our São Simão Hydro Plant recorded lower-than-projected operating expenses at R\$ 214,385 in 2018, with expenses largely consisting of new hires to the team throughout the year, delivering savings of approximately R\$ 10 million. Wind farm operating expense was down 5% year-on-year at R\$ 32,537 in 2018 compared with R\$ 34,401 in 2017.

EBITDA

São Simão posted EBITDA of more than R\$ 1 billion, exceeding projections by 2%; EBITDA for our wind farms was R\$ 33.2 million, a year-on-year increase of 3%.

DEBT

SPIC Brazil paid R\$ 7.18 billion for the hydro power concession, part of which (R\$ 4.5 billion) was financed. The Company made an amortization payment of R\$ 400 million maturing in November 2018, and the remainder was refinanced at more attractive rates, with maturities divided as follows: one year (R\$ 1.1 billion), three years (R\$ 1.1 billion) and five years (R\$ 1.9 billion). Pacific Hydro Brazil's debt balance was reduced by R\$ 14.8 million compared with the previous year, ending the year at R\$ 96.3 million, with R\$ 79.3 million payable to the Brazilian Development Bank (BNDES).

VALUE CREATION

(In thousands of reais)

	São Simão	Wind farms
Total output	6,073.6 GWh	137.52 GWh
Net operating revenue	1,253,067	59,272
EBITDA	1,038,682	33,172
Operating costs and expense	214,385	25,092
CAPEX/total investment	10,974	5,442
Net income/loss for the year	439,558	95
Environmental protection and project investment	787	150

OUR SÃO SIMÃO HYDRO PLANT AND WIND FARMS REPORTED HIGHER-THAN-PROJECTED EBITDA AND LOWER-THAN-PROJECTED OPERATING EXPENSE



SOCIAL & ENVIRONMENTAL PERFORMANCE

SUSTAINABILITY AS A BUSINESS STRATEGY, CREATING VALUE FOR ALL STAKEHOLDERS

Sustainability is among our values at SPIC Corporation: it is embedded in our business strategy and in our policy of prioritizing clean energy developments in order to create increasing economic, social and environmental value for our shareholders, customers, partners, communities, employees and the environment.

Our sustainability strategy at SPIC Brazil is still under development, but in our first year of operation we worked to establish a management system and culture addressing the pillars of economic, social and environmental sustainability, covering the following aspects:

ECONOMIC

- implement sustainable business practices that uphold ethical conduct and a culture of accountability, responsible procurement and governance in general;
- ensure compliance with applicable laws, regulations, treaties, conventions and standards, including our policies and Code of Conduct;
- deliver long-term shareholder returns and value creation;
- ensure customers' expectations are met or exceeded.

SOCIAL

- deliver long-term benefits to the communities surrounding our projects by promoting local sustainable development, including for indigenous groups, and direct and indirect economic investment, and implementing skills-building initiatives in these communities;
- implement best practices in occupational health and safety that create a safe and healthy work environment for our employees with a focus on human development and fostering diversity and inclusion;
- maintain ethical, conscientious and collaborative relationships with all stakeholders, working to create shared value.

ENVIRONMENT

- preserve and protect the environment by managing risks and mitigating environmental impacts from our operations;
- use natural resources effectively and efficiently;
- contribute to reducing global dependence on fossil fuels through renewable energy developments;
- assist customers in meeting their obligations and mitigating and managing climate change;
- play an active role in environmental stewardship in areas affecting, creating or enhancing positive environmental impacts.

OUR SUSTAINABILITY STRATEGY IS CURRENTLY UNDER DEVELOPMENT, AND IS REQUIRED TO BE ALIGNED WITH SPIC CORPORATION GUIDELINES



PEOPLE

SPIC Brazil's positive performance in our first year of operation was made possible by our teams' commitment to the company's development and growth. We faced a number of challenges throughout 2018 in attracting talent and structuring our leadership and operations teams on a timely basis. This process was initiated in 2016 following SPIC Overseas' acquisition of Pacific Hydro Brazil, and was intensified toward the end of 2017 with the acquisition of the São Simão Hydro Plant.

In addition to recruiting, this involved training and capacity building in a process that leveraged synergies across functions to internally structure the organization. Thirteen Chinese expatriates on the team moved to Brazil to work directly with the Brazilian team. To help our Brazilian and Chinese team members connect with each other and build camaraderie, we organized

a variety of activities aiming to create a multicultural organization that respects diversity and values differences to achieve competitive advantage.

We also implemented a Buddy Program in which several Brazilian employees volunteered to support their expatriate colleagues in integrating into and working more closely with the rest of the team, and especially in adapting to a new country.

As a year of organizational structuring at SPIC Brazil, we dedicated extra effort to attracting top talent from the market; we implemented and enhanced employee benefits; and we channeled investment to human capital through a structured senior leadership development program. In 2019, this process will continue with further investment in organizational development, implementing our

IN OUR **BUDDY**

PROGRAM, BRAZILIAN
EMPLOYEES VOLUNTEERED TO
BUDDY UP WITH EACH OF THE 13
CHINESE EXPATRIATES, HELPING
THEM INTEGRATE INTO THE
TEAM AND ADAPT TO BRAZILIAN
CULTURE

rewards and benefits strategy, developing career pathways, and strengthening our brand as an employer.





Total employees:
147



Total employees by age group:

up to 30:
14

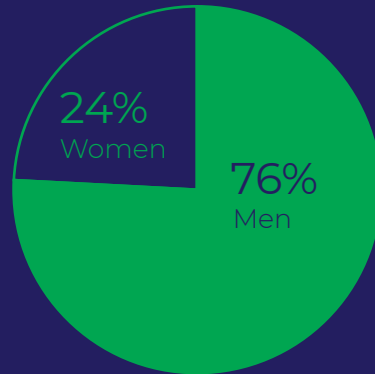
30 to 40:
75

40 to 50:
42

50 and over:
15



Total employees by gender:



Training indicators:



Total hours of training:
5,627



Hours of training per employee:
38.5

RECOGNIZED LEADERSHIP

The trade magazine *Full Energy* named SPIC Brazil CEO Adriana Waltrick one of the 100 most influential people in the energy industry in 2018, in the Generation, Transmission and Distribution category, which brings together some of the largest players in the sector.

In an award program organized by SPIC Group, Waltrick was named one of the top 10 employees Group-wide. She was invited to an award ceremony in China and was the only representative of a country outside Asia.



SAFETY

Our wind farms and hydropower plant have a safety policy that puts people, communities and the environment first, and we work to prevent impacts from our operations and manage risks affecting our assets. Our employees are engaged in disseminating our occupational safety policies, standards and practices, ensuring that they continually demonstrate a preventive mindset.

This process comprises four phases:

- **Integrate:** disseminating knowledge about the risks existing at each of our facilities and operations through training on each function's policies and procedures, adopting robust programs for preventing injuries and diseases, and supporting well-being—in compliance with applicable Brazilian laws and regulations;

- **Raise awareness:** the importance of safety is reinforced through regular safety meetings at our business units, with tone from the top provided through internal communication campaigns and informational booklets and materials on the subject;
- **Manage:** our Integrated Management System is certified to ISO 9001, ISO 14001 and OHSAS 18001 and addresses multidisciplinary aspects across the company, with a focus on managing and responding to risks, crises and emergencies that could affect our employees, suppliers, communities and the environment.
- **Recognize:** based on the principle that occupational safety is everyone's responsibility, we encourage our employees to take responsibility for ensuring safety compliance at all

times at the workplace. Employees at all levels of the organization are encouraged to immediately stop any unsafe work and report any minor deviations, injuries or near misses. There were no lost-time injuries at our business units in 2018, and our wind farms have now completed five years with no incidents.

To celebrate another year with no lost-time injuries in 2018, we launched a Safety Campaign and organized a raffle for an international travel package at each of our business units.

5 YEARS

WITH NO SAFETY INCIDENTS AT
OUR WIND FARMS



ENVIRONMENT

We have continued to implement environmental management systems and tools in our operations. Some of the areas we have prioritized include energy efficiency, water savings, emissions and waste.

SPIC Brazil's environmental procedures and initiatives are based on ISO 14001:2015 and applicable Brazilian regulations, which are managed using a dedicated software system and validated by a multidisciplinary team.

Our initial operation of the São Simão Hydro Plant in 2018 created a number of challenges in terms of our investment in environmental programs for managing operational impacts.

As a condition under the concession agreement, we are required to invest continuously in educational programs covering aspects that include operations, the environment and biodiversity. We are also responsible for managing the reservoir and its surrounding protected areas in accordance with applicable laws and regulations, and for protecting the integrity and safety of plant assets.

Seven specific concession conditions require us to maintain, review and implement biodiversity programs, and to conduct studies and research on, and monitor and manage, biodiversity

A total of 14 programs are required under concession covenants for the São Simão Hydro Plant, as follows:

- Erosion Monitoring Program;
- Social and Property Management Program;
- Environmental Emergency Preparedness and Response Program;
- Environmental Education Program;
- Limnological, Water Quality and Invasive Species (Golden Mussel) Monitoring Program;
- Terrestrial Fauna Monitoring Program;
- Fish Conservation Program;
- Fishery Survey Program;
- Social Communication Program;
- Generator Unit Switching and Maintenance Activities;
- Feasibility Study on Fishways;
- Riparian Reforestation Program;
- Vegetation Clearing and Offsets;
- Fish Stocking Program;
- Reservoir Water and Bank Area Conservation and Usage Program.

The results of and progress on these initiatives are communicated to regulators in an Annual Covenant Report.

In our first year managing the São Simão Hydro Plant we maintained and continued existing environmental programs.

Our Vale dos Ventos and Millennium wind farms have been certified to ISO 14001 and by Bureau Veritas Certification since 2010. Our business units are also periodically audited for compliance with the requirements for implementing environmental management systems.

To expand vegetation cover and help minimize greenhouse gas (GHG) emissions, in 2018 we planted 500 native tree saplings within the Vale dos Ventos wind farm area in Mataraca.

Trees were planted in areas where vegetation cover was least dense and where there were forest patches nearby that could provide protection and the right conditions for the seedlings to develop. The tree saplings were species originating from the Atlantic Forest biome in Paraíba, supporting the development of local flora.



HEALTH AND QUALITY OF LIFE

We seek to provide our employees with greater quality of life at the workplace by raising awareness and engaging them in initiatives in which they share in the responsibility for the success of the initiative and for tracking results.

We have an extensive Health and Quality of Life Program in place that is focused on preventing stress and diseases by encouraging healthier lifestyles, including exercise, healthy eating and mental health.

SPIC Brazil's wind farms and hydro-power plant have a personal nutrition monitoring program in which employees undergo a bioimpedance analysis and then receive personalized

advice on healthy nutrition. We also have a partnership with a recreational and sports club in São Simão where employees can engage in exercise.

Employees at our offices in Natal and São Paulo are offered a number of health, sports and recreational programs that encourage them to lead a more active and healthier lifestyle. To manage our Health and Quality of Life Program, we set up a committee of representatives from the HSE (Health, Safety & Environment), Communications and Human Resources departments, who regularly assess these programs taking account of the specific needs and conditions of each location. The high-level initiatives within this program include:

- Workplace exercise;
- A partnership with a subscription-based fitness center app that provides employees with access to fitness centers in Brazil and around the world;
- Football championships;
- Sports advice;
- Participation in running events (two free events per year);
- Lectures on health and well-being;
- Annual flu vaccination campaigns;
- A partnership with a global provider of mental health support, including psychological, financial and legal counseling and advice for employees.

SPIC BRAZIL'S HEALTH AND QUALITY OF LIFE PROGRAM IS FOCUSED ON PREVENTING STRESS BY ENCOURAGING HEALTHIER LIFESTYLES AND EXERCISE



COMMUNITIES AND PARTNERS

We are committed to doing business with social responsibility and seek to maintain open dialog based on transparency, ethics and respect for the communities surrounding our operations.

SPIC Brazil has continued the social and economic development initiatives previously piloted by Pacific Hydro Brazil in Mataraca, given their quality and credibility, and this has provided an opportunity to establish closer relationships with community leaders. We have also looked for ways to make an even greater contribution to local residents.

Support from the community was vital in our first year of operation. In 2018 we organized consultations on important issues such as impacts on the landscape, regional flora and fauna, and cultural heritage. In addition, our revegetation programs have provided valuable support to local biodiversity.

At São Simão, we pursued efforts in 2018 to ensure compliance with social and environmental covenants and establish closer relationships with local community leaders. In 2019 we will conduct a survey of the 13 towns surrounding the plant to gain in-depth insight into their social and economic context and identify community needs in order to design community engagement strategies that can effectively support regional development.

COMMUNITY FUND

We continued our Community Fund Program in 2018, in which we select projects that contribute to the development of Barra do Camarutuba, in the municipality of Mataraca (PB), where our Vale dos Ventos and Millennium wind farms are located. The program supports initiatives in the areas of Education & Training, Culture & Arts, Sports, Recreation & Tourism, Health & Well-Being, and the Environment.

Through this initiative, we have supported local development by funding projects focused on human development and empowering and strengthening communities. Any person aged 21 years or over can participate in the project selection process. Once per year, SPIC Brazil issues a call for project proposals inviting community members to submit their projects by email to comunidades@spicbrasil.com.br. An assessment committee

selects the projects that will be awarded funding and provides training on topics such as social entrepreneurship, managing project funding, etc. The winning projects in 2018 were:

- EMBROIDERY LESSONS
- “MAIS APRENDIZADO”
- LEARNING CROCHET WITH RECYCLABLE MATERIALS
- SEWING ART
- INNOVATION AND ENTREPRENEURSHIP
- CONFECTIONERY
- “SEWING AND TRANSFORMING”
- MIND-BODY PRACTICES: WITH A FOCUS ON STRETCHING EXERCISES BASED ON TAI CHI CHUAN
- REVIVING CULTURE

AN INITIATIVE IN MATARACA (PB) SUPPORTED COMMUNITY DEVELOPMENT THROUGH INITIATIVES ACROSS FRONTS SUCH AS EDUCATION, CULTURE, ARTS, WELL-BEING AND THE ENVIRONMENT



In addition to recognizing and supporting the development of local potential through activities such as handicrafts, and reviving cultural activities such as *'coco de roda'* (a traditional dance dating back to the early twentieth century that was dying away in the region), the projects we have funded help to strengthen a sense of belonging and to activate the local economy, as new skills are learned and the products created as part of these initiatives are then marketed in the region.

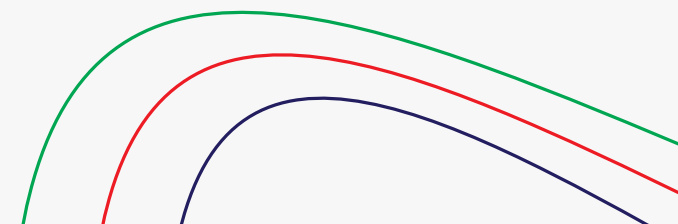
Also within the Community Fund Program, we support local women's empowerment in the region by contributing to the self-organization and economic and political engagement of women in the Barra do Camaratuba community, in Mataraca (PB). After two years of implementing projects in the region, it became

clear that women play an important political role in their communities and that it would be essential to supplement the projects in place in the community with initiatives specifically designed for this audience. This initiative was supported by a specialized consultancy that organized workshops and networking opportunities, and coached participants.

Activities as part of this initiative in 2018 led to the creation of a group called *'Mulheres Mãos que Criam'*, formed by artisans and residents of Barra de Camaratuba. The first step was an identity-building process that primarily consisted of group activities revolving around community advocacy. This helped participants to see themselves as part of a community and realize that in unity there is strength.

To address topics such as the solidarity economy and political participation, we also organized individual and collective training and capacity-building activities, as well as meetings with the municipal government, the Secretary of Tourism and the Brazilian Small Business Support Service (SEBRAE) to further strengthen empowerment within the group.

A GROUP OF ARTISANS CALLED
*'MULHERES MÃOS QUE
CRIAM'* WAS ORGANIZED IN
2018 TO SUPPORT WOMEN'S
EMPOWERMENT IN MATARACA



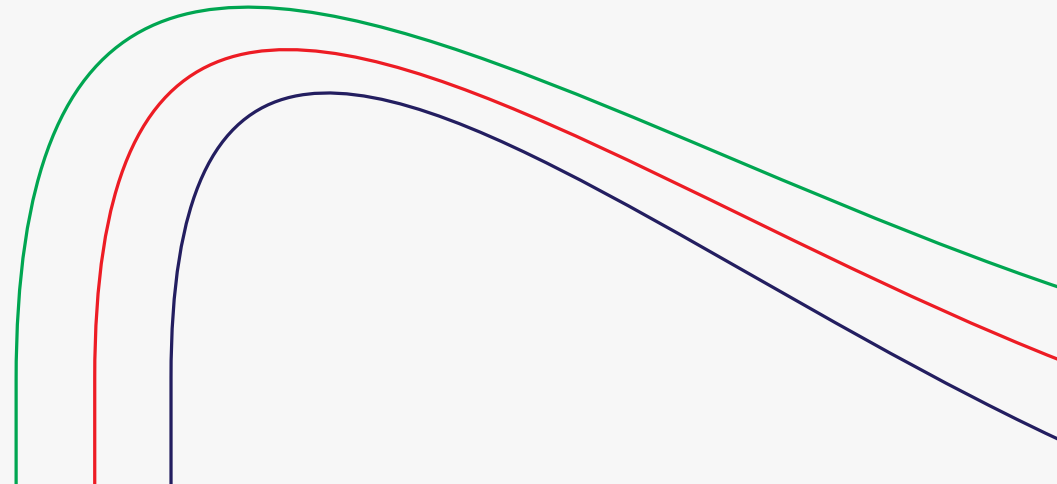
RESEARCH AND DEVELOPMENT

SPIC Group has a high-level Research and Development Center formed by specialists, academics and prestigious institutions that support the sustainable development of the business. Research and testing conducted at Group headquarters contribute to development across SPIC Global.

Incorporating state-of-the-art innovation and technology, these projects are focused on optimizing resources, processes and operating practices, among other aspects. The Center engages and maintains alignment with other Group companies and provides solutions and expertise.

While our R&D department at SPIC Brazil is still incipient, it is staffed by professionals with extensive market experience who work to understand and gain insight into the context surrounding our operations in the Brazilian market. The group recently designed its first innovation project, which was approved by the Board of Directors in 2018. The project will develop a special tool for strategic power-trading assessments with capabilities to monitor market conditions and weigh the risks in each decision, enhancing the sustainability of the business.

SPIC GLOBAL HAS A MODERN,
INNOVATIVE, HIGH-TECH R&D CENTER
THAT SUPPORTS GROUP COMPANIES
WORLDWIDE



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(www.reportsustentabilidade.com.br)

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