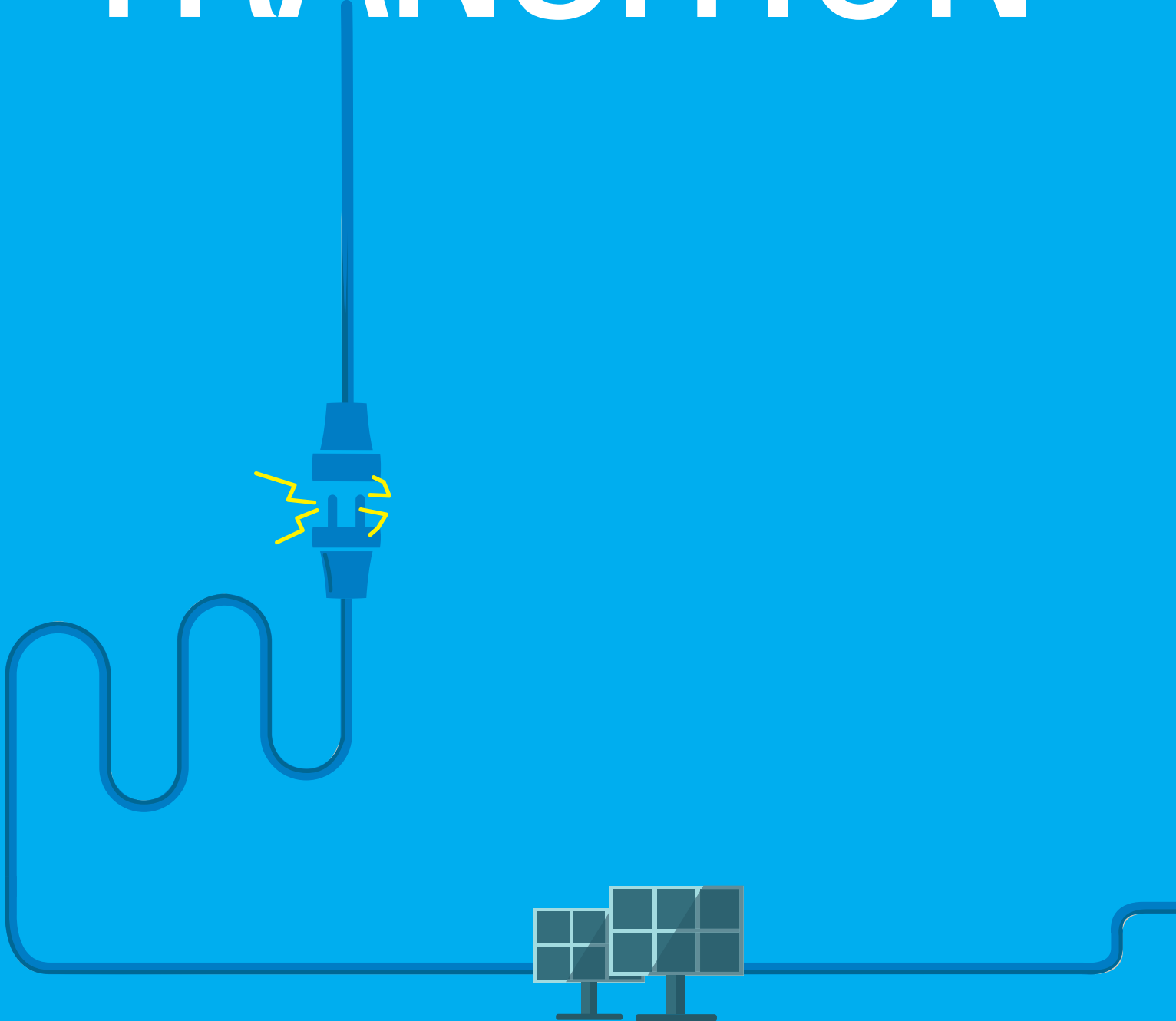
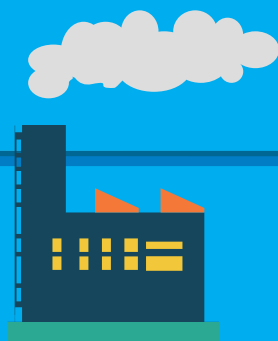






# TRANSITION





Changes are part of our daily lives and occur at an increasingly faster pace. When changes are sudden, the results are unpredictable. What can make the difference is the transitional stage of a change – be it a change of concept, an idea or abstraction – in any area of human endeavor.

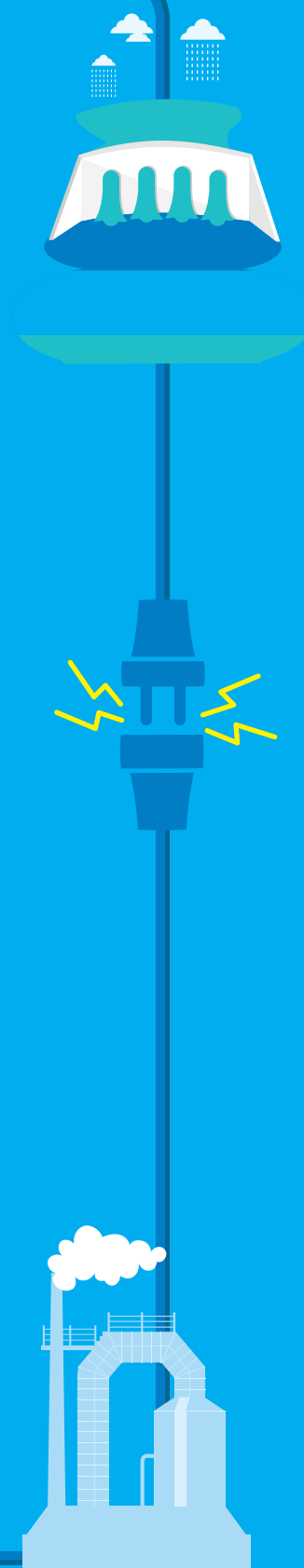
Society's participation in questions of mutual interest, awareness of the need for continually improving natural resource management and expanding access to essential goods and services are all manifested in an accelerated, growing and consistent manner – to such an extent that it surprises the most alert, even the most engaged. For this reason, more than alertness and engagement, changes require anticipation, principally at the transition stage and in this, experience can be an ally.

With all their experience in Brazil and overseas, Tractebel Energia and its parent company ENGIE are alert and closely engaged with the desire for enhanced and better access to energy in the context of the energy transition.

For this purpose, the two companies are expanding and diversifying the energy matrix with a growing participation of renewable sources and anticipating the prospects for distributed generation.

In addition to reporting the principal events of 2015 for the largest private sector generator in Brazil and its plans for the future, this Report describes how ENGIE is reorganizing worldwide to offer a unique synergy between its services, positioning itself increasingly closer to its clients. Based on a new structure of 24 business units, the parent company of Tractebel Energia now considers Brazil with all its potential for growth and renewable energy sources as one of 11 regional units in the world.

To highlight the chosen theme, our Sustainability Report 2015 is illustrated with the different changes and their corresponding transitions which have taken place over the years, all of them connected by something that is indispensable: energy. To us, your reading, suggestions and criticisms are essential.



GRI G4-56

## Mission

Generating energy for life

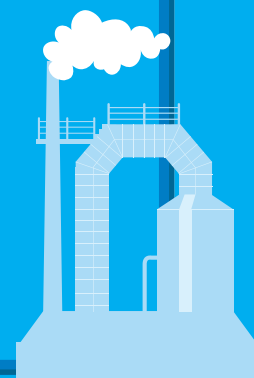


## Vision

In a sustainable way, to be the best energy company in Brazil

## Values

Professionalism, partnership, team spirit, creation of value, respect for the environment, ethics



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# HIGHLIGHTS

GRI G4-1

Tractebel Energia was included in BM&FBovespa's Corporate Sustainability Stock Index (ISE) for the

**11<sup>th</sup>**

consecutive year – one of the 10 companies to have been components of the ISE since its inception

*Institutional Investor* magazine ranking – Electric & Other Utilities – best company, best program, best investor relations professional (buy side and sell side), best CFO (sell side) and best CEO (buy side)

Environmental Brazil Award (Amcham Rio) – Socio-environmental Responsibility Award – the Jorge Lacerda Thermoelectric Complex Environmental Education Program

**2<sup>nd</sup> place**

in the 17<sup>th</sup> Abrasca Award for the Best Annual Report, with an honorable mention for the economic-financial analysis

Anefac Transparency Trophy 2015 – Net Revenue up to R\$5 billion category

Outstanding company in the most ethical companies of Brazil 2015 initiative promoted by the Ethics in Business Institute

Best of Brazil Seal of Distinction promoted by Sextante Brasil

Fritz Muller Award presented by the Santa Catarina Environmental Protection Agency (Fatma):

- Recovery of Degraded Areas Category – Tractebel Environmental Park
- Conservation of Production/Energy Inputs Category – Research and Development project in photovoltaic solar energy
- Research Institute Category – Center of Reference in Sustainable Development – Machadinho Consortium

Von Martius Sustainability Award – Nature Category

**3<sup>rd</sup> place**

for the Headwaters Protection Program



# PRINCIPAL INDICATORS

GRI G4-DMA Economic performance

GRI G4-9 <sup>*</sup>						
Indicators	Unit of measurement	2015	2014	2013	Change 2015/2014	Change 2015/2013
Operational						
Operating plants	nº	28	27	24	3.7%	16.7%
Total installed operating capacity	MW	8,765	8,748	8,685	0.2%	0.9%
Total proprietary installed capacity	MW	7,044	7,027	6,965	0.2%	1.1%
Proprietary installed capacity from renewable sources	MW	5,925	5,908	5,780	0.3%	2.5%
Percentage of proprietary installed capacity from renewable sources	%	84.1	84.1	83.7	0.0 p.p.	0.4 p.p.
Generator complex uptime, discounting scheduled stoppages	%	97.4	96.5	97.4	0.9 p.p.	0.0 p.p.
Generator complex uptime, including scheduled stoppages	%	86.9	86.8	92.3	0.1 p.p.	-5.8 p.p.
Energy sales	GWh	36,012	37,072	35,445	-2.9%	1.6%
	Average MW	4,111	4,232	4,046	-2.9%	1.6%
Contracted energy by client type						
Distributors	%	47	48	53	- 1.0 p.p.	- 6.0 p.p.
Trading companies	%	6	5	9	1.0 p.p.	- 3.0 p.p.
Free consumers	%	47	47	38	0.0 p.p.	9.0 p.p.
Economic-financial indicators						
Total assets	R\$ million	15,300.7	13,609.6	12,637.6	12.4%	17.4%
Shareholders' equity	R\$ million	6,642.1	5,654.9	5,364.6	17.5%	23.8%
Net revenue from sales	R\$ million	6,512.0	6,472.5	5,568.7	0.6%	16.9%
Gross profit	R\$ million	2,708.9	2,497.7	2,657.0	8.5%	1.9%
Result from services (Ebit) <sup>1</sup>	R\$ million	2,503.8	2,302.9	2,387.2	8.7%	4.9%
Pre-tax income	R\$ million	2,033.2	1,956.6	2,001.7	3.9%	1.6%
Net income	R\$ million	1,501.3	1,383.1	1,436.7	8.5%	4.5%
Ebitda <sup>2</sup>	R\$ million	3,114.6	2,895.1	3,042.6	7.6%	2.4%
Total debt (loans, financing and debentures)	R\$ million	3,758.4	3,988.5	3,495.4	-5.8%	7.5%
Cash and cash equivalents and restricted deposits	R\$ million	2,543.6	1,750.7	1,346.1	45.3%	89.0%
Net debt	R\$ million	1,214.8	2,237.8	2,149.3	-45.7%	-43.5%
ROCE <sup>3</sup>	%	23.1	22.3	23.1	0.8 p.p.	0.0 p.p.
Gross debt/Ebitda	R\$ million	1.2	1.4	1.1	-0.2 p.p.	0.1 p.p.
Net debt/Ebitda	R\$ million	0.4	0.8	0.7	-0.4 p.p.	-0.3 p.p.
Participation of third party capital in relation to total assets	%	56.6	58.4	57.6	-1.8 p.p.	-1 p.p.
Operating margin	%	31.2	30.2	35.9	1.0 p.p.	-4.7 p.p.
Net margin	%	23.1	21.4	25.8	1.7 p.p.	-2.7 p.p.

Principal indicators GRI G4-9 <sup>*</sup>						
Indicators	Unit of measurement	2015	2014	2013	Change 2015/2014	Change 2015/2013
Shares						
Net earnings per share	R\$	2.3000	2.1189	2.2011	8.5%	4.5%
Average price per share – ON <sup>4</sup>	R\$	32.03	31.88	33.45	0.5%	-4.2%
Dividends per share	R\$	1.2789	1.1876	2.2584	7.7%	-43.4%
Environmental						
Donation and planting of seedlings (sum total of donated plants)	nº	262,218	301,435	257,110	-13.1%	2.0%
Visitors to the plants	nº	100,464	91,490	100,686	9.8%	-0.2%
Energy intensity (energy consumed by Tractebel Energia per GJ generated)	GJ	0.49	0.48	0.49	2.1%	0.0%
Water consumption	millions of m³	845.2	845.0	902.3	0.0%	-6.3%
Emissions of CO <sub>2</sub> per energy generated – Operational Control	tCO <sub>2</sub> /MWh	0.2115	0.2308	0.2356	-8.36%	-10.22%
Emissions of CO <sub>2</sub> per energy generated – Corporate Stake	tCO <sub>2</sub> /MWh	0.1592	0.1715	0.1821	-7.17%	-12.58%
Human resources						
Number of employees (as of December 31)	nº	1,135	1,134	1,125	0.1%	0.9%
Investment in training and professional development	R\$ million	5.2	5.0	6.4	3.8%	-18.7%
Total hours of training	hours	79,494	75,386	59,663	5.4%	33.2%
Number of occupational and commuting accidents	nº	8	13	10	-38.4%	-20.0%
Frequency rate (TF) of accidents, excluding outsourced positions <sup>5</sup>	%	0.000	1.450	0.980	-	-
Severity rate (TG) of accidents excluding outsourced positions <sup>6</sup>	%	0.000	0.062	0.000	-	-
Frequency rate (TF) of accidents including outsourced positions <sup>5</sup>	%	0.540	2.870	0.950	-81.2%	-43.1%
Frequency rate (TG) of accidents including outsourced positions <sup>6</sup>	%	0.000	0.023	0.006	-	-
Investments in social responsibility programs GRI G4-EC1						
Non-incentivized investments <sup>7</sup>	R\$ th	3,304.36	4,354.28	3,270.12	-31.8%	1.0%
Incentivized investments (Infancy and Adolescence Fund, Culture Incentive Law, Law for Sport and others)	R\$ th	12,014.16	13,823.17	12,721.74	-15.0%	-5.9%
<p><b>1.</b> Ebit = operating income + financial result. <b>2.</b> Ebitda = net income + income tax and social contribution + financial expenses, net + depreciation and amortization + impairments. <b>3.</b> ROCE (return on employed capital) = results from the service/non-current assets. <b>4.</b> Simple average of the closing prices, adjusted for dividends. <b>5.</b> TF: number of occupational accidents for every million hours of exposure to hazards. <b>6.</b> TG: number of days lost due to occupational accidents for every one thousand hours of exposure to hazards. <b>7.</b> Excluding socially responsible investments in Estreito.</p>						

<sup>\*</sup>Indicator of the G4 version of the Global Reporting Initiative(GRI).



# MESSAGE FROM THE MANAGEMENT

GRI G4-1

In 2015, Tractebel Energia reported a net income of R\$1.5 billion, an 8.5% or R\$118.2 million increase over 2014. For the fourth consecutive year, the Company generated a higher market capitalization: R\$21.9 billion as of December 31, 2015. To have achieved these results against the background of a recessionary economy is unequivocal evidence of the resilience of the Company and the confidence endowed in it by the market.

The Company's net earnings were driven by well-developed strategies for reducing exposure to high prices in the short-term market early in 2015, monthly allocations of contracted energy and for maintenance work on the generator complex.

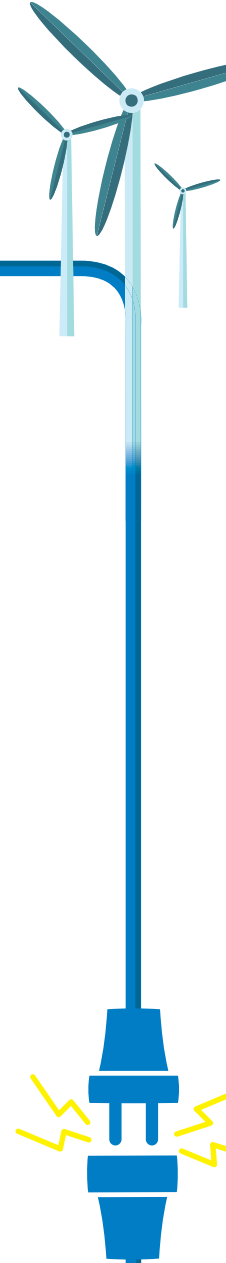
The electricity sector as a whole suffered from a nationwide reduction in industrial activity as well as an ongoing debate surrounding regulatory issues, among these the Generation Scaling Factor – the assured energy adjustment factor used by the hydro plants –, a reflection of the hydrological crisis, which began in late 2012. The GSF question was resolved with the publication of Law 13,203/2015 of December 9 and subsequently regulated by the National Electric Energy Agency – Aneel. With the latter's approval, Tractebel Energia, together with other companies, signed up to the renegotiation of hydrological risk for those plants selling energy through the regulated contracting environment as opposed to those operating in the free market and not parties to the renegotiation agreement.

The Company was also successful in 2015 in maintaining its credit risk ratings on the national scale, despite the downgrade of Brazilian sovereign risk by the leading risk classification agencies. In this respect, on December 31, 2015, net corporate debt stood at R\$1.2 billion, less than the net income for the fiscal year and 45.7% less than at the end of 2014, a reflection of Tractebel Energia's continuing financial soundness.

For the 11<sup>th</sup> consecutive year in 2016, the Company was selected as a component of BM&FBovespa's (ISE) Corporate Sustainability Index. The ISE serves as a tool for evaluating the performance of companies listed on the BM&FBovespa in terms of economic efficiency, environmental equilibrium, social justice and corporate governance. Until 2015, this stock index represented an equities portfolio of up to 40 companies although reduced to 35 in 2016. Only Tractebel Energia and nine other companies have made up the ISE for consecutive years since its inception in 2005.

Tractebel Energia's parent company is a world leader in independent energy production and is consequently part of the global transition towards energy decentralization, decarbonization and digitization. It is in this context that GDF SUEZ has undergone a worldwide restructuring, in the process, changing its corporate denomination to ENGIE. For this reason, since December 17, Tractebel Energia has adopted a new logo. With its potential for renewable energy sources and markets, Brazil has been made one of ENGIE's 24 business units in the world, separate from the bloc of other Latin American countries – ratification of the confidence the parent company has in the capacity of the country to meet its challenges and grow.

As part of this long-term view, Tractebel Energia has proceeded apace with its expansion plan, selling 9.2 average MW for delivery over 20 years beginning November 1, 2018 on the occasion of Aneel's second reserve energy auction in November 2015. This energy is to be generated by the Assú V Photovoltaic Plant, part of a larger project comprising 5 power plants – the Assú Complex in the municipality of the same name in the state of Rio Grande do Norte. Assú V will have an installed capacity of 36.7 MW, work on the plant being scheduled to begin in 2016.





In May, work was concluded on expanding the capacity at the biomass-fired Ferrari Thermoelectric Power Plant in Pirassununga (SP) to 80.0 MW. This adds a further 15.0 MW to the original capacity and therefore to the Company's generator complex as a whole. Work continued apace on the Santa Mônica Wind Complex in Trairi in the state of Ceará, commercial operations expected to begin during the course of 2016. The complex will be made up of four wind farms with a total capacity of 97.2 MW. The Company has already sold 46.0 average MW from this operation at the A-3 Auction held in August 2015 for a 20-year term, deliveries commencing January 1, 2018.

Meanwhile, a start on the implementation of the first phase of the Campo Largo Wind Complex in the state of Bahia with an installed capacity of 326.7 MW was initiated in 2015. This involves the detailed study phase of evaluation of the project's socio-environmental insertion in the region, of equipment circulation logistics and possible synergies for linking its 121 wind turbines – each with an output of 2.7 MW – to the National Interconnected System (SIN). Some of the energy to be produced totaling 82.6 average MW, was sold for a term of 20 years, deliveries beginning January 1, 2019, while the remainder is to be transacted on the free market. The Company's wind projects portfolio also includes the second phase of operations at the Campo Largo site with an installed capacity of 300 MW, and Santo Agostinho in the state of Rio Grande do Norte, with a further installed capacity of 600 MW.

Again, worthy of mention was the licensing and initial work on the Pampa Sul Thermoelectric Power Plant in the municipality of Candiota, state of Rio Grande do Sul. With an installed capacity of 340.0 MW, the project has been approved as a priority by the Ministry of Mines and Energy and will be connected up to the SIN, thus contributing to the stability of the grid's supply.

The Jirau Hydroelectric Power Plant, with a capacity of 3,750 MW comprising 50 units each with an output of 75 MW, reached its assured energy of 2,184 average MW in July with 33 generator units in operation. By December, this total had been increased to 40, with a further unit at the test phase. ENGIE has a 40% stake in the project and scheduled to be transferred to Tractebel Energia subject to the approval of the Special Independent Committee for Transactions with Related Parties, the majority of members of which are representatives of minority shareholders with seats on the Company's Board of Directors.

The Company also invests in the operational and maintenance excellence of the generator complex. If programmed stoppages in 2015 are discounted, plant uptime was 97.4%, surpassing the 96.5% reported for 2014. Tractebel Energia invests in modernization: in addition to improving the performance of the plants and lengthening their useful life, modernization work also ensures incremental gains in output. For instance, improvements at the Salto Santiago, Ponte de Pedra and São Salvador plants have ramped up commercialization capacity of the Company's proprietary energy output already by 15.5 average MW in 2015. Once work is complete, a further 13.2 average MW will have been added to assured energy.

The Company's occupational health and safety record was also a highlight of the year with no accidents on the part of direct employees requiring time off work. In the case of the employees of outsourced suppliers, there were three accidents involving 22 lost days.

The Company's aim is also to contribute to improvements in the community's quality of life. The principal project on this front is the installation of Culture Centers in the regions where power plants are located. Emphasis is given more particularly to those municipalities remote from state capitals where artistic, cultural, skills training and leisure options are limited. Four of these centers have already been opened in Entre Rios do Sul (RS), Quedas do Iguaçu (PR), Alto Bela Vista and Capivari de Baixo (SC). Equipped with auditoriums and exhibition halls, the centers offer courses in digital inclusion and professional skills upgrading. Management of the centers is in the hands of local associations, members of which receive prior training in administering cultural spaces and projects. By the end of 2017, the Company is to inaugurate a further four centers based on the same concepts in Minaçu (GO), Trairi (CE), Saudade do Iguaçu (PR) and Itá (SC).

A vital industry such as the electrical sector requires both planning as well as a long-term regulatory framework within which to operate. Imbalances between energy supply and demand and/or commercialization prices in relation to investments – more especially when these involve importation during a period of currency devaluation – are factors which can occur over a short-term horizon, making even greater the need for responsibility of sector entities and for dialog and understanding. At the same time, investments in renewable energy sources will continue to concentrate the minds of entrepreneurs and Government. Similarly, we



believe that natural gas may also have a key role to play in providing greater security of energy supply in addition to lowering emissions compared with the burning of coal and oil.

In this context, ENGIE's plans for operations in Brazil are not limited to investments in expansion to serve the basic needs of the country. With its new structure, the parent company's objectives include gaining a share of new markets and a closer proximity to clients and consumers through enhanced synergies between products and services. Such products and services range from solutions for distributed generation and greater sustainability for cities to energy efficiency services and other services with an industrial application.

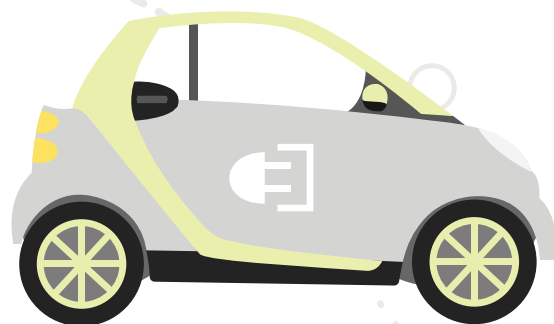
Finally, we wish to extend our thanks to the employees, clients, shareholders, service providers, suppliers and partners of both Tractebel Energia and ENGIE, together with governmental and non-governmental organizations in the roll call of corporate relationships in addition to all others who share our efforts and successes.

**MAURÍCIO STOLLE BÄHR**

Chairman of the Board of Directors

**MANOEL ARLINDO ZARONI TORRES**

Chief Executive Officer





# ABOUT THE REPORT



For the ninth consecutive year, Tractebel Energia presents its Sustainability Report to stakeholders, encompassing all its subsidiaries and based on the Global Reporting Initiative (GRI) guidelines, G4 version. To ensure greater clarity and adherence to the Integrated Report of the International Integrated Reporting Council (IIRC), the GRI G4 Core option has been adopted<sup>1</sup>.

This document encompasses information from January 1 to December 31, 2015, GRI sectorial supplement indicators and IIRC recommendations – especially those relating to the generation of short-, medium- and long-term value and to the description of the business model. The Sustainability Report also incorporates content from the Company's Management Report, published in February 2016. The two documents have largely the same structure, the aim being to maintain homogeneity of corporate communication as called for by the IIRC<sup>2</sup>. [GRI G4-28](#) | [G4-30](#) | [G4-32](#)

With this same purpose in mind, Tractebel Energia discloses socio-economic indicators in its quarterly presentations of economic-financial results, at the same time also ensuring the information in its website is kept current. The consolidated financial performance for the Company and its directly and indirectly controlled companies can be found in the Financial Statements in [www.tractebelenergia.com.br/wps/portal/internet/en/investidores/informacoes-financeiras/demonstracoes-financeiras](http://www.tractebelenergia.com.br/wps/portal/internet/en/investidores/informacoes-financeiras/demonstracoes-financeiras). [GRI G4-17](#)

The decision on content to be presented herein was that of representatives drawn from the various areas of Tractebel Energia, including the members of the Sustainability Committee. Content was subsequently ratified by senior management to reflect the themes of greatest relevance to the Company. Prior to this and with the same objective, stakeholders representing all audience groups relating to Tractebel Energia were consulted via on-site events and through the intermediary of on-line questionnaires. These stakeholders in alphabetical order were: academia; civil entities; clients, competitors; communities; employees; government and autarchies; media; outsourced employees and labor unions; sectorial associations; shareholders; and suppliers and investors.

The report's scope and limits are unchanged<sup>3</sup> from the report for 2014 and published in 2015. The eventual revision of any data published in prior periods is identified accordingly throughout this document, being verified and externally assured by a third party (SGS ICS Certificadora Ltda.). Both verification by a third party as well as data published in previous reports are practices adopted in all reporting cycles by the Company, which in accordance with senior management guidance, engages independent companies to conduct external assurance. [GRI G4-29](#) | [G4-22](#) | [G4-23](#) | [G4-33](#)

In the event of any questions, comments and suggestions with respect to this Report, please contact the Company's Investor Relations Department by e-mail [ri@tractebelenergia.com.br](mailto:ri@tractebelenergia.com.br) or by calling +55 48 3221-7221. [GRI G4-31](#)

## MATERIALITY PROCESS

[GRI G4-18](#) | [G4-23](#)

Tractebel Energia updated the materiality process during the course of the second half of 2015 to ensure the document is content-relevant, involving the stages proposed under GRI G4 – identification, prioritization and validation and in accordance with the organization's principal recommendations: context of sustainability, stakeholder inclusiveness, materiality and completeness.

The analysis and definition process developed to prepare the materiality matrix took into account Company and GRI documentation, industry studies and media surveys. An analysis of previous materiality processes of Tractebel Energia and seven on-site panels held in September 2015 as well as online interviews and consultations involving a total of 127 individuals engaged in the process also provided necessary input<sup>4</sup>.

1. In the GRI terminology "In accordance – Core".

2. As a rule, the Sustainability Report approaches the same themes as in the Management Report albeit in greater depth in relation to social and environmental themes.

3. In 2015, the number of operating power plants increased from 27 to 28. The additional unit – a wind installation – operates on an experimental basis and is located in the city of Tubarão (SC).

4. On site consultations took place at plants operated by Tractebel Energia via video conference with the interviewers.

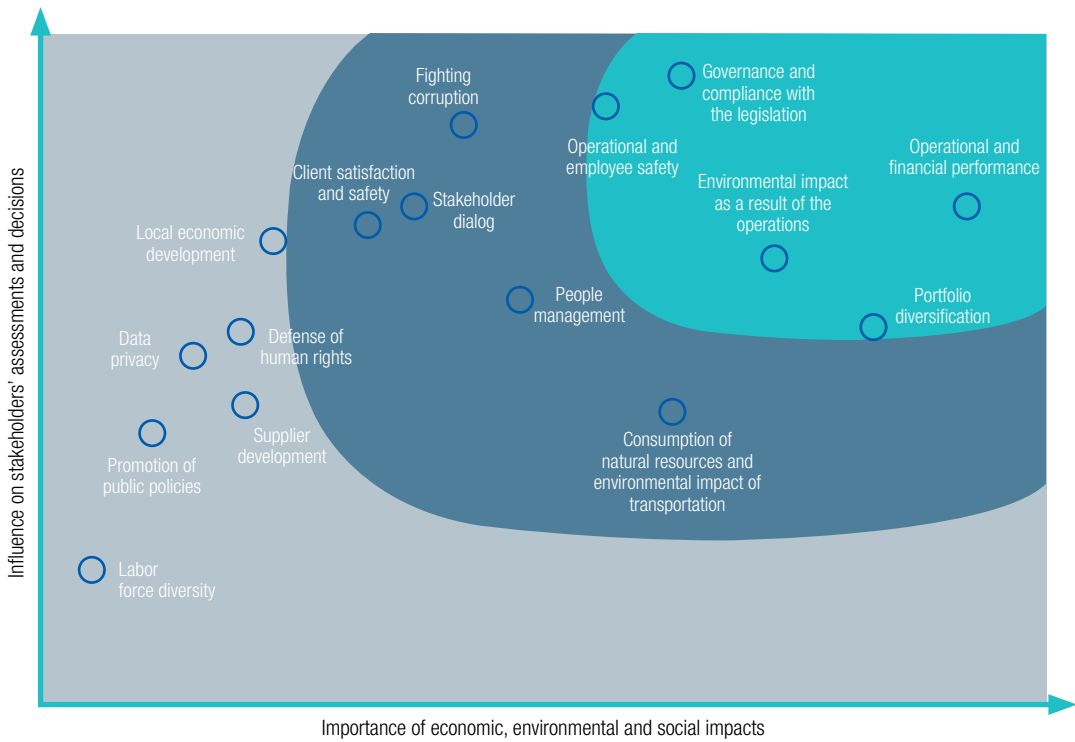
The selection of stakeholders to be consulted took into consideration the process of value creation in the six capitals set out in the Integrated Report guidelines – financial; human; intellectual; manufactured; natural; and social and relationship. In this context, the Company's regional units and head office both mapped the audience groupings to be engaged, identifying the stakeholders where interaction was greatest. Criteria for selection included the influence of stakeholder groups on the capacity of the Company to generate value as well as its impact on the stakeholders within the scope of each one of the six capitals mentioned above. [GRI G4-25](#)

Pursuant to GRI G4 guidance, analyzes were based on the Company's economic, environmental and social impacts and the potential of each sustainability theme to influence the decisions of the previously-identified stakeholders engaged by Tractebel Energia in the process. [GRI G4-24](#)

The principal topics and concerns highlighted by those consulted in the on-site panels were the relevance of energy generation for Brazil; environmental impacts of the generator units (especially in relation to waste and biodiversity); and the socio-economic and cultural impacts on local communities (above all, those arising from the installation of hydroelectric power plants). The way in which these issues are managed is described in the course of this document, topics and concerns being shared with the representatives of the Sustainability Committee, thus facilitating the outlining of action plans and objectives based on such information. Please note, however, that this report does not identify which stakeholder groups raised any given theme. [GRI G4-27](#)

Based on this work, the GRI aspects related to material issues and identified in the process for defining report content were: [GRI G4-19](#)

As a result, five themes were deemed of greatest significance – material –, five also significant and six in the attention zone as shown in the following graph.

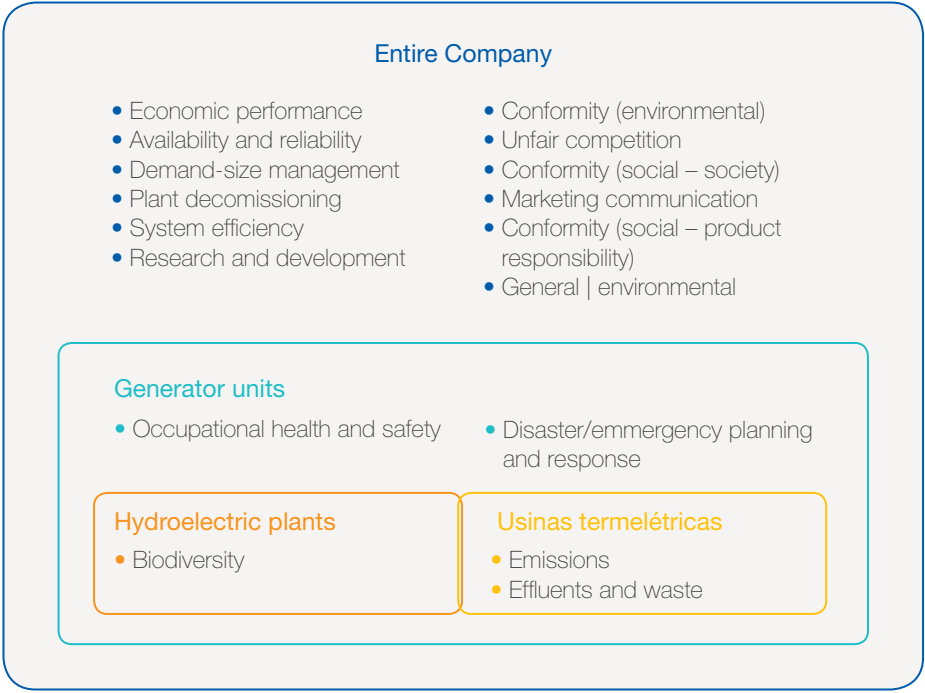


The impacts of the material aspects were then plotted and their limits established as follows: [GRI G4-20](#) | [G4-21](#)

Material Issues	GRI Aspects
Financial and operational performance	Economic performance
	Availability and reliability
	Demand-size management
	Plant decomissioning
	System efficiency *
Governance and compliance with the legislation	Compliance (environmental)
	Unfair competition
	Compliance (society)
	Marketing communication
	Compliance (product responsibility)
Environmental impact due to operations	Emissions
	Effluent and waste
	General (environmental)
Portfolio diversification	Economic performance
	Research and Development
Operational and employee safety	Disaster/emergency planning and response
	Occupational health and safety

\*Refers to the Company's possible contribution to the efficiency of the National Interconnected System (SIN).

Material aspects within the organization





TO ENSURE THE REPORT'S GREATER RELEVANCE, THE COMPANY HAS UPDATED ITS MATERIALITY ACCORDING TO GRI G4 PROPOSALS: IDENTIFICATION, PRIORITIZATION AND VALIDATION

#### Material aspects outside the Organization

Material aspects	External limit
Economic performance	Supplier
	Government
	Investor
Availability and reliability	Client
	Electricity sector
	Society
Demand-size management	Client
	Electricity sector
	Society
Plant decommissioning	Community
	Civil entity
	Supplier
System efficiency	Government
	Client
	Electricity sector
Economic performance	Society
	Investor
	Electricity sector
Research and Development	Society
	Academia
	Electricity sector
Compliance (environmental)	Society
	Government
	Government
Unfair competition	Electricity sector
	Government
	Society
Marketing communication	Client
	Government

Compliance (product responsibility)	Client
	Government
	Community
Biodiversity	Civil entity
	Government
	Society
Emissions	Community
	Civil entity
	Government
Effluent and waste	Society
	Community
	Civil entity
General (environmental)	Government
	Society
	Community
Occupational health and safety	Supplier
	Community
	Civil entity
Disaster/emmergency planning and response	Supplier
	Government
	Society

Based on the selected criteria and research undertaken, this Report shows the themes deemed as of the greatest relevance to stakeholders and Tractebel Energia in relation to its economic, environmental and social performance.

SELECTION OF THE STAKEHOLDERS CONSULTED BY TRACTEBEL ENERGIA CONSIDERED THE PROCESS OF VALUE GENERATION OF THE SIX CAPITALS IN THE INTEGRATED REPORT GUIDELINES





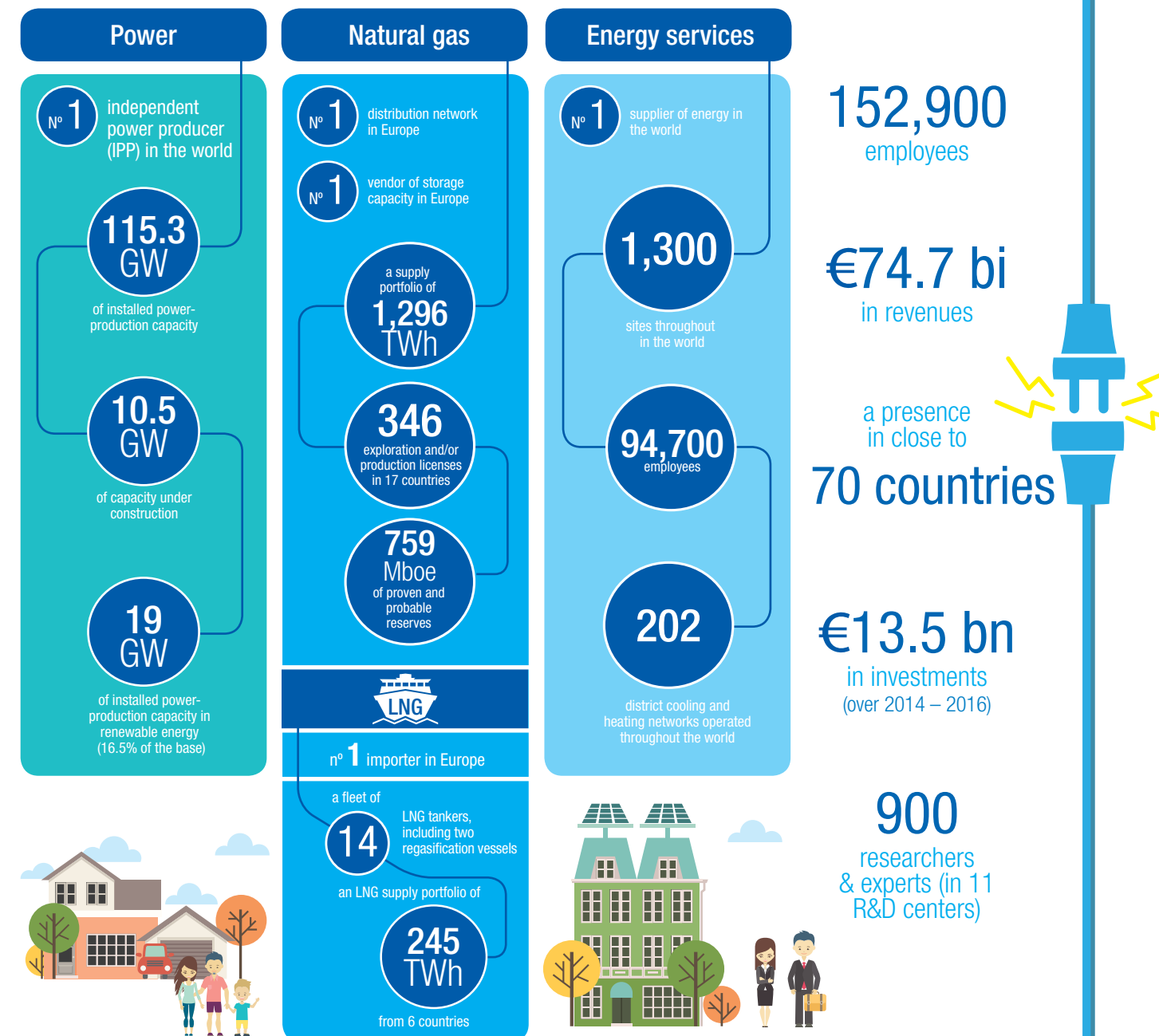
# WHO WE ARE

## ENGIE

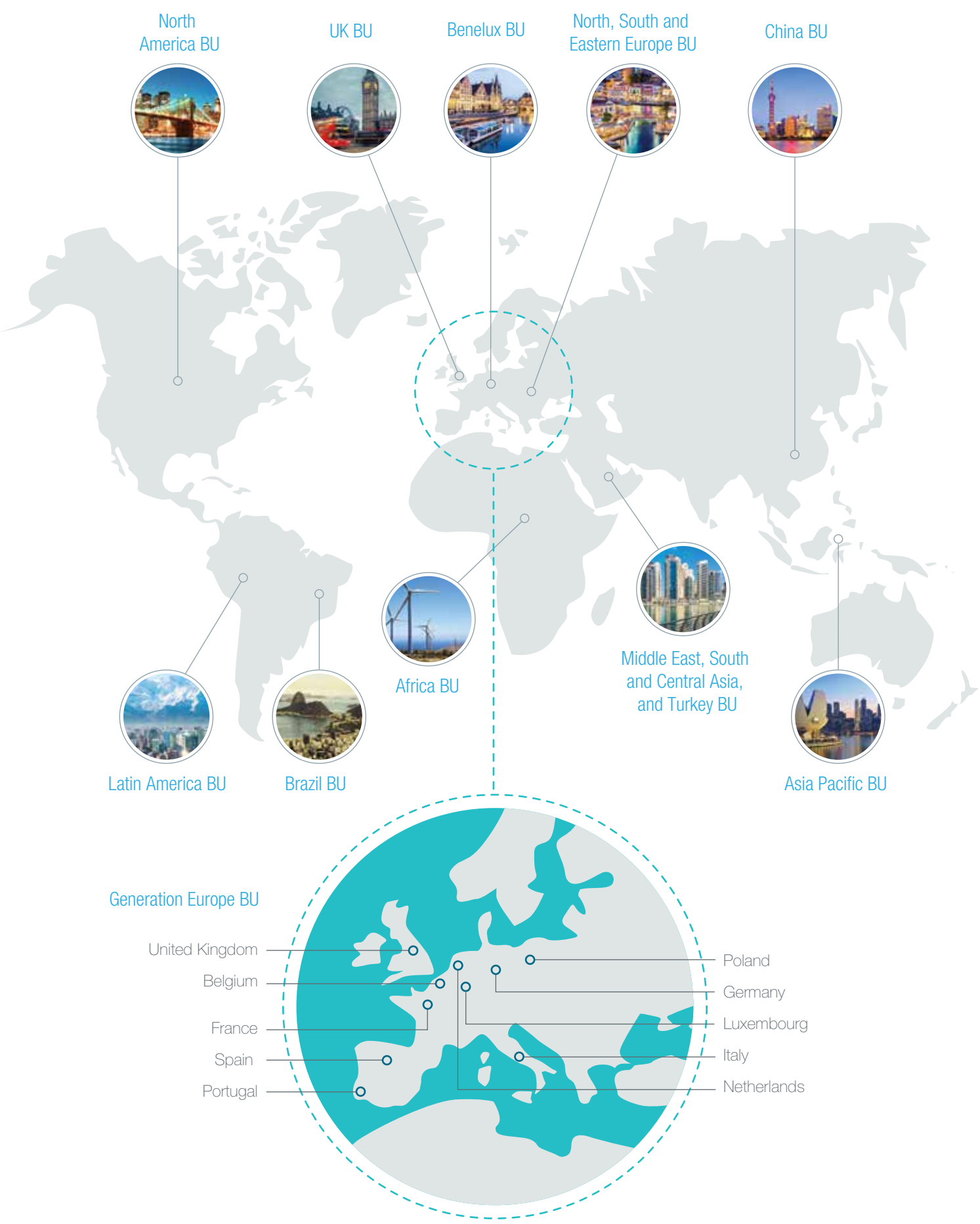
Tractebel Energia's controlling company is ENGIE, the new corporate denomination for GDF SUEZ. A world leader in independent power production, operating in the areas of electricity, natural gas and energy services, ENGIE holds 68.71% of the Company's capital stock.

## ENGIE IN NUMBERS

(Data as at 12/31/14)



ENGIE – 11 BUSINESS UNITS CLOSE TO CLIENTS



The decision to change the corporate denomination was made in parallel with alterations to the corporate structure and business strategy. The goal is to position ENGIE in the forefront of the global energy transition movement based on the triumvirate of energy decarbonization, decentralization and digitization.

From the international point of view, ENGIE's structure is designed to create a new dimension of closer proximity to the clients and greater autonomy of the business units (BUs).

The infographic above shows 11 regional Business Units, among them Brazil. In addition to these units, there are a further five global units and eight in France.

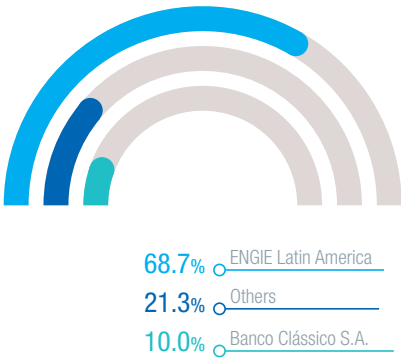
TRACTEBEL ENERGIA

Tractebel Energia is the largest private sector electricity generating company in Brazil. With the start of its Brazilian operations in 1998 and following the acquisition of Gerasul, the Company focused on the installation and operation of energy generation plants. This included bidding for hydroelectric concessions at Federal Government sponsored auctions and via authorizations permitting the installation of thermoelectric power plants, small hydroelectric power units and wind and photovoltaic plants. **GRI G4-3 | G4-6 | G4-7**

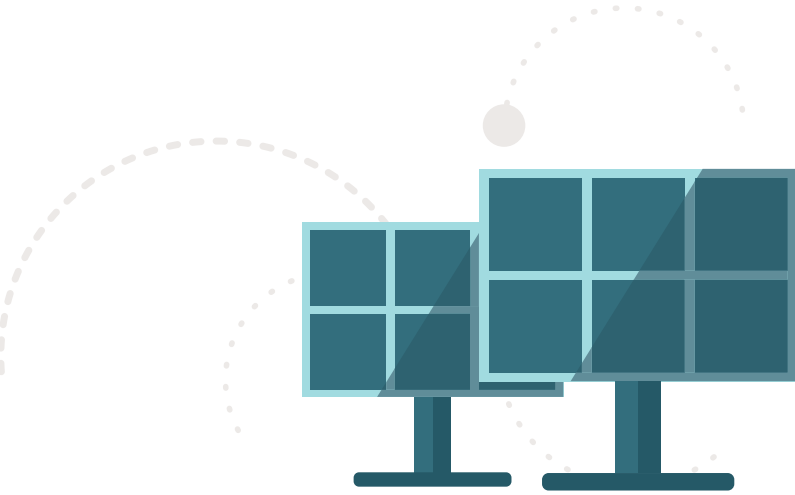
The Company operates in the regulated market, consisting of energy distributors, and the free consumer (companies in the industrial sector) market and subdivided into two groups: conventional (for organizations where demand exceeds 3.0 MW) and incentivized energy (for companies with demand in excess of 0.5 MW, which acquire energy from alternative renewable sources, such as biomass, wind and from Small Hydroelectric Plants – SHPs). Tractebel also operates in the services area, offering commercialization of energy surpluses; representing consumers on the Electric Energy Trade Board (CCEE); and partnerships in energy self-production operations and in the development of generation and cogeneration projects fired from different energy sources. **GRI G4-8**

The Company has a capital stock of R\$2,445.8 million. A total of 652,742,192 common shares is regularly traded on the BM&FBovespa. Tractebel Energia also trades Level I American Depositary Receipts (ADRs) in the United States over-the-counter market under the TBLEY symbol at a ratio of one ADR for every common share.

SHAREHOLDING STRUCTURE  
(AS AT DECEMBER 31, 2015)



THE CHANGE IN PARENT COMPANY DENOMINATION IS PART OF THE OVERALL CHANGE IN THE STRUCTURE AND BUSINESS STRATEGY FOR ACHIEVING LEADERSHIP IN THE WORLD ENERGY TRANSITION

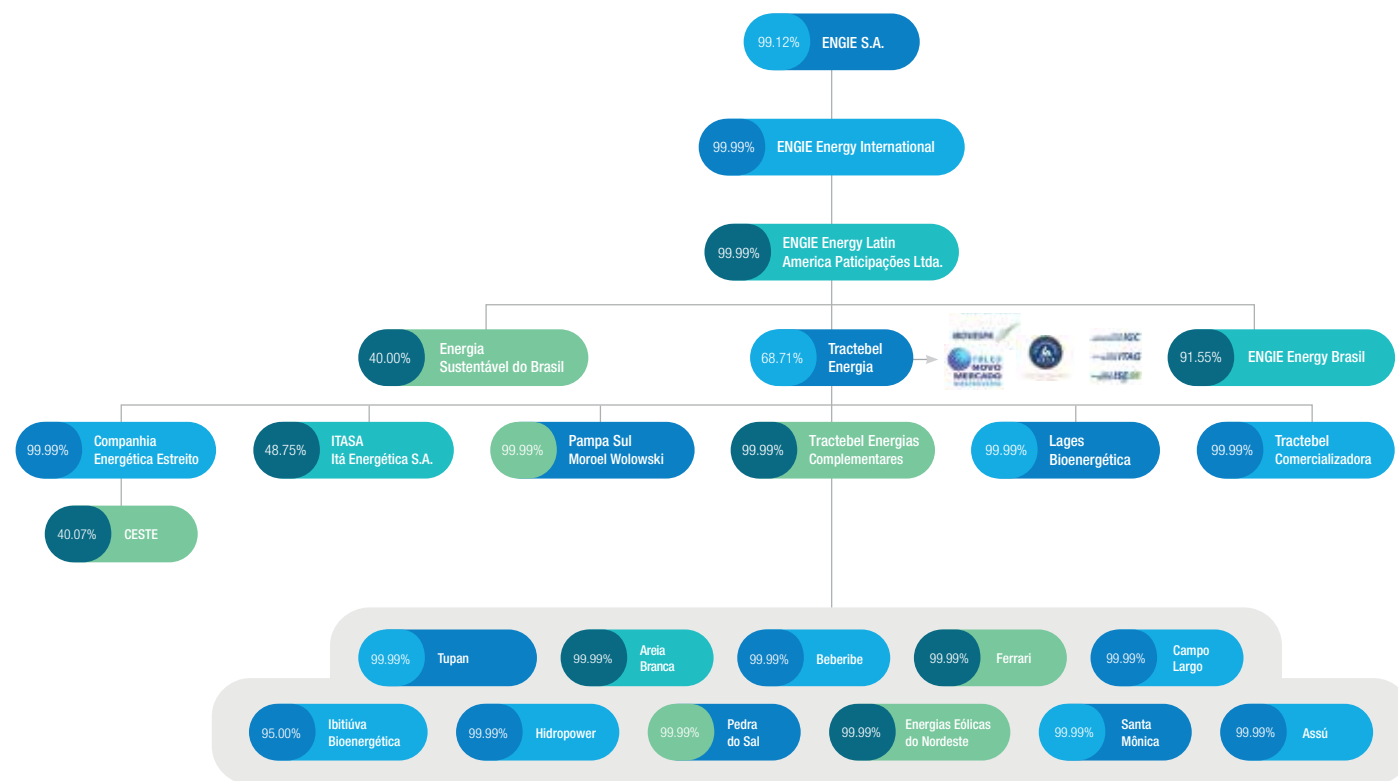




## Corporate structure and generator complex GRI 4-17

Tractebel Energia controls the following companies: Companhia Energética Estreito, Lages Bioenergética Ltda., Tractebel Energias Complementares Participações Ltda., Usina Termelétrica Pampa Sul S.A. and Tractebel Energia Comercializadora Ltda. – the latter responsible for the intermediation and operation of electric energy purchases, sales, imports and exports in the deregulated market.

### SIMPLIFIED CORPORATE STRUCTURE (AS AT DECEMBER 31, 2015)



**INSTALLED CAPACITY OF  
7,044 MW IN DECEMBER 2015  
EQUIVALENT TO 5.4% OF THE  
BRAZILIAN TOTAL**

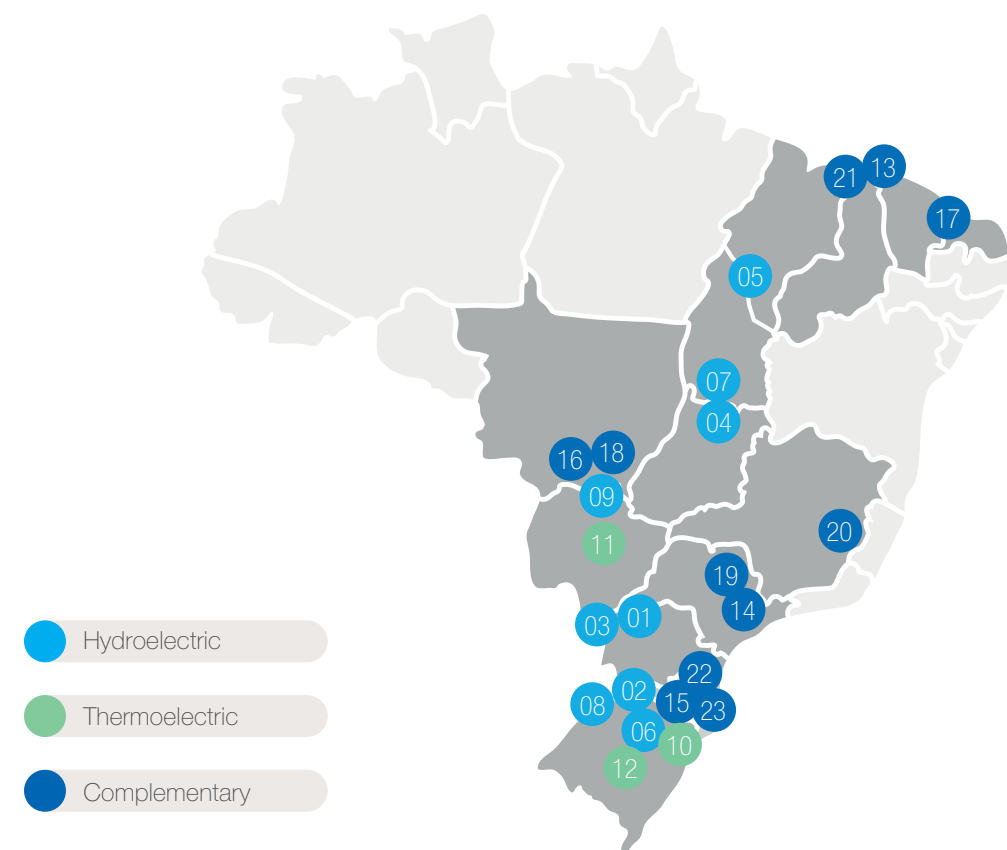
The Company also holds the following stakes in plant consortium concessions in its generator complex: (i) 19.28% in the Machadinho Consortium, the concessionaire for the Machadinho Hydroelectric Power Plant; (ii) 40.07% in the Estreito Energia Consortium (Ceste), which is responsible for the Estreito Hydroelectric Power Plant concession through Companhia Energética Estreito; and (iii) 72.90% in the Andrade Consortium, which is responsible for operating the Ibitiúva Bioenergética Thermal Power Plant through the indirect subsidiary, Ibitiúva Bioenergética S.A., where Tractebel Energias Complementares Participações Ltda holds 95.00% of the capital.

Tractebel Energia also holds a 48.75% stake in the shared control of Itá Energética S.A. (Itasa). Itasa, in turn, holds a 60.50% stake in the Itá Consortium, which operates the Itá Hydroelectric Power Plant concession and in which Tractebel Energia has a direct stake of 39.50%. Adding together its stakes

in Itasa and in the Consortium, Tractebel Energia owns 68.99% of the Itá Hydroelectric Power Plant. Shared control of Itasa is governed by a shareholders' agreement, and decisions of mutual interest to the Itá Consortium are adopted by a management committee comprising four members, two of whom are representatives of Tractebel Energia.

At the end of 2015, the Company reported an aggregate installed capacity of 7,044 MW, equivalent to 5.4% of total Brazilian capacity, and operated a generator complex of 8,765 MW. Consequently, in 2015, Tractebel Energia continued to rank as the largest private sector generator in the country. The Company's generator complex is made up of 28 plants, nine of which are large or medium size, five conventional thermoelectric plants and 14 complementary plants: three small hydroelectric plants (SHPs), seven wind and three biomass plants and one solar photovoltaic plant. Tractebel Energia operates all these plants, 24 of them wholly-owned.

### GEOGRAPHIC DISTRIBUTION OF THE GENERATOR COMPLEX

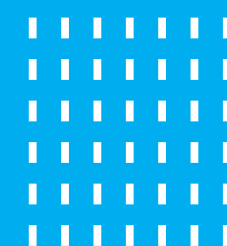


## Composition of the generator complex (12/31/2015) GRI G4-EU1

Hydroelectric plants	Total installed capacity (MW)	Total physical guarantee (MWm)	Ownership	Proprietary installed capacity (MW)	Proprietary physical guarantee (MWm)	Expiration of concession/ authorization
1. Salto Santiago	1,420.0	735.2	100%	1,420.0	735.2	09/27/2028
2. Itá	1,450.0	720.0	69.0%	1,126.9	544.2	10/16/2030
3. Salto Osório	1,078.0	522.0	100%	1,078.0	522.0	09/27/2028
4. Cana Brava	450.0	73.5	100%	450.0	273.5	08/26/2033
5. Estreito	1,087.0	584.9	40.1%	435.6	256.9	11/26/2037
6. Machadinho	1,140.0	529.0	19.3%	403.9	147.2	07/14/2032
7. São Salvador	243.2	151.1	100%	243.2	151.1	04/22/2037
8. Passo Fundo	226.0	119.0	100%	226.0	119.0	09/27/2028
9. Ponte de Pedra	176.1	132.3	100%	176.1	132.3	09/30/2034
<b>Total</b>	<b>7,270.3</b>	<b>3,767.0</b>	<b>-</b>	<b>5,559.7</b>	<b>2,881.4</b>	<b>-</b>
<b>Thermoelectric Plants</b>						
10. Jorge Lacerda Complex <sup>1</sup>	857.0	649.9	100%	857.0	649.9	09/27/2028
11. William Arjona	190.0	136.1	100%	190.0	136.1	04/28/2029
12. Charqueadas	72.0	45.7	100%	72.0	45.7	09/27/2028
<b>Total</b>	<b>1,119.0</b>	<b>831.7</b>	<b>-</b>	<b>1,119.0</b>	<b>831.7</b>	<b>-</b>
<b>Complementary Plants</b>						
13. Trairi Complex <sup>2</sup>	115.4	63.9	100%	115.4	63.9	Various
14. Ferrari (biomass)	80.5	35.6	100%	80.5	35.6	07/26/2042
15. Lages (biomass)	28.0	25.0	100%	28.0	25.0	10/29/2032
16. Rondonópolis (SHP)	26.6	10.1	100%	26.6	10.1	12/18/2032
17. Beberibe (wind)	25.6	7.8	100%	25.6	7.8	08/03/2033
18. José G. da Rocha (SHP)	23.7	9.2	100%	23.7	9.2	12/18/2032
19. Ibitiúva (biomass)	33.0	20.0	69.3%	22.9	13.9	04/05/2030
20. Areia Branca (SHP)	19.8	10.4	100%	19.8	10.4	05/02/2030
21. Pedra do Sal (wind)	18.0	5.7	100%	18.0	5.7	10/01/2032
22. Cidade Azul P&D (solar)	3.0	Not applicable	100%	3.0	Not applicable	Not applicable
23. Tubarão R&D (wind)	2.1	Not applicable	100%	2.1	Not applicable	Not applicable
<b>Total</b>	<b>375.7</b>	<b>187.7</b>	<b>-</b>	<b>365.6</b>	<b>181.6</b>	<b>-</b>
<b>Grand total</b>	<b>8,765.0</b>	<b>4,786.4</b>	<b>-</b>	<b>7,044.3</b>	<b>3,894.7</b>	<b>-</b>

1. Complex consists of three plants.

2. Complex consists of four plants: Trairi, Guajiru, Fleixeiras I and Mundau Wind farms.



IN 2015, THE COMPANY OPERATED 28 PLANTS: NINE HYDROELECTRIC, FIVE THERMOELECTRIC AND 14 COMPLEMENTARY PLANTS

### TRACTEBEL ENERGIA ENERGY MATRIX (AS AT 12/31/2015)

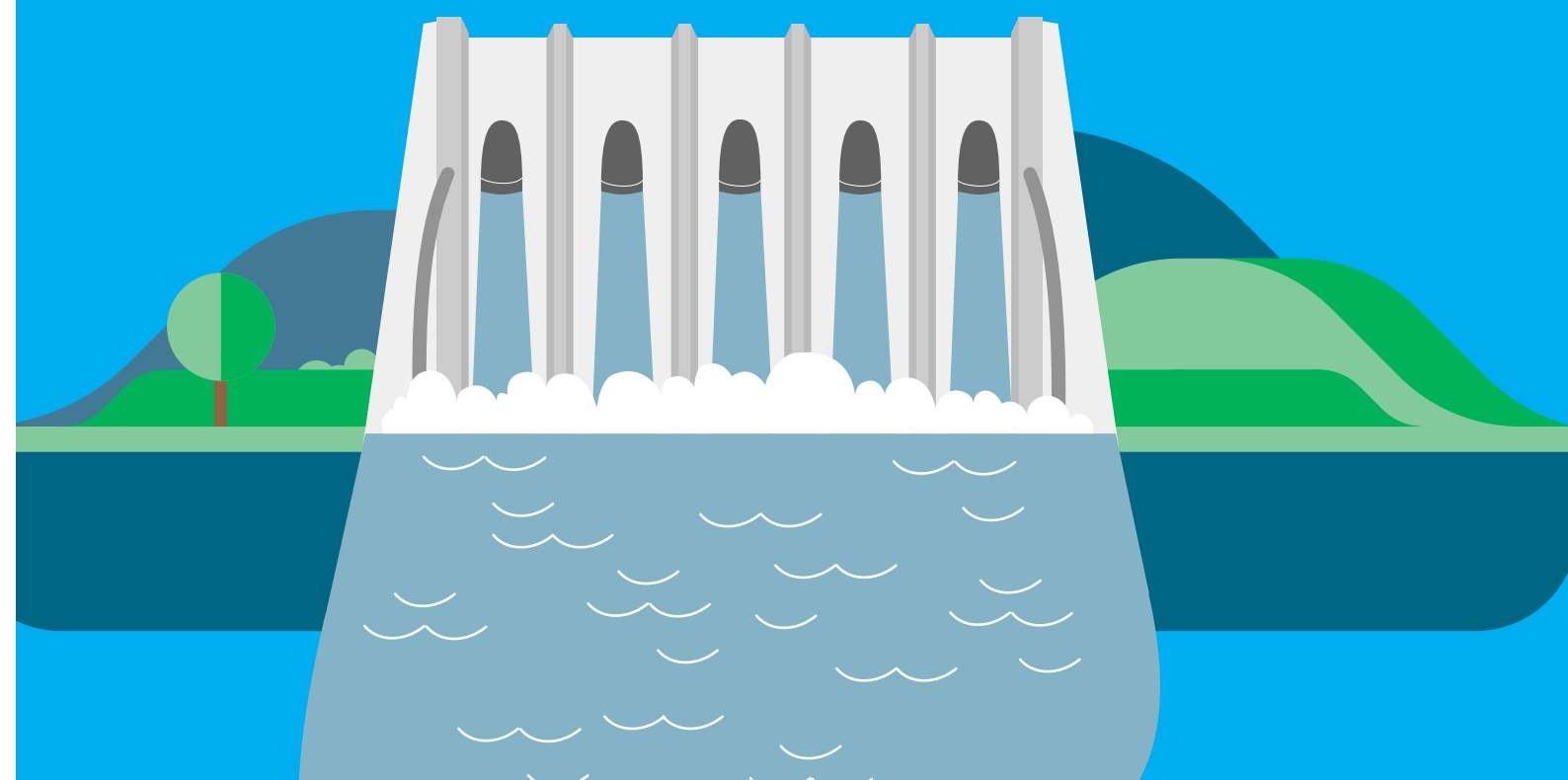


79% Hydroelectric  
16% Thermoelectric  
5% Complementary

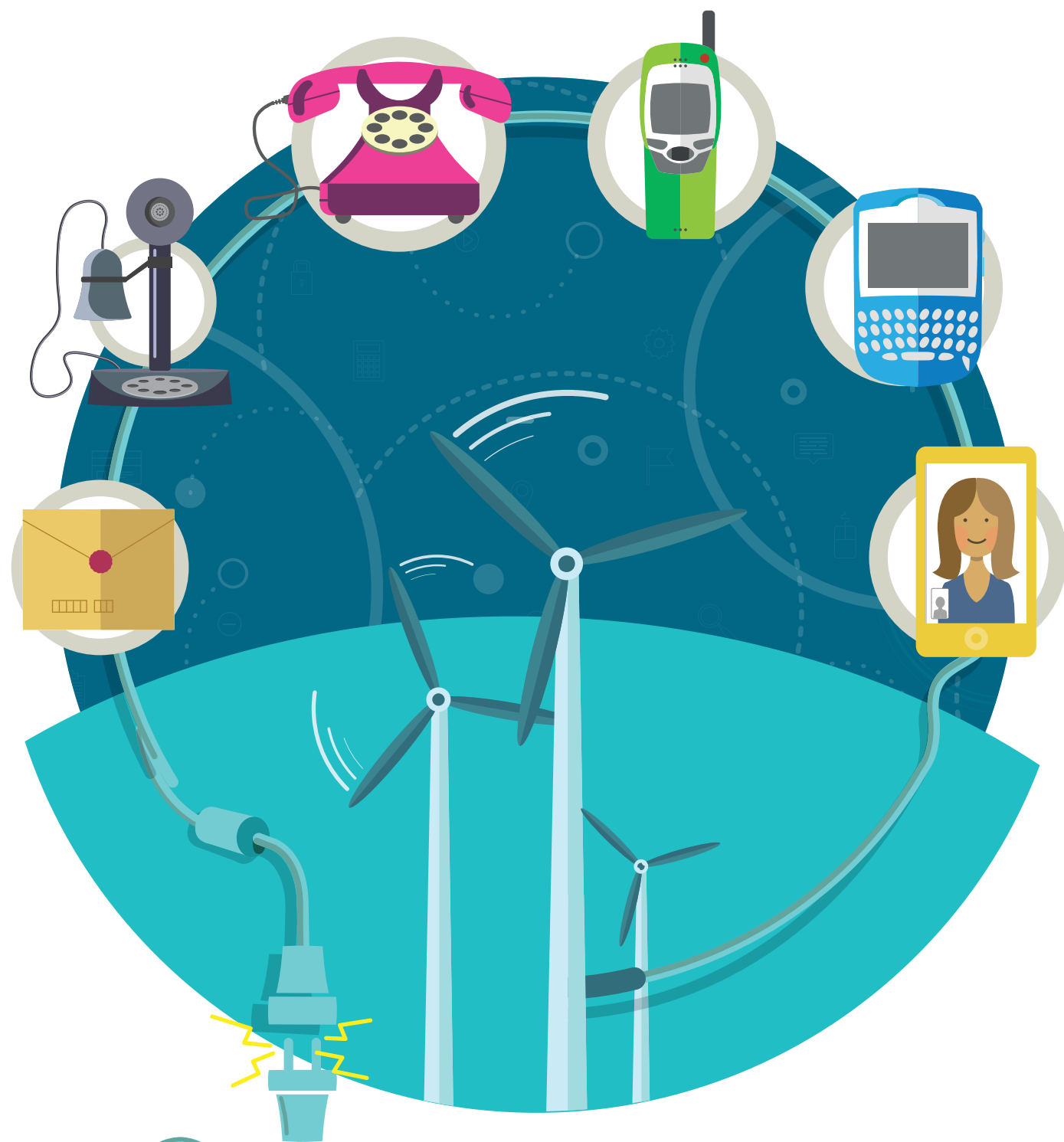


TRACTEBEL ENERGIA OPERATED A GENERATOR COMPLEX OF 8,765 MW AT THE END OF 2015 ACCOMPANYING THE GROWTH TENDENCIES OF THE LAST FEW YEARS

IN 2015, TRACTEBEL ENERGIA CONTINUED TO BE THE LARGEST PRIVATE SECTOR ENERGY GENERATOR IN BRAZIL







# CORPORATE GOVERNANCE

GRI G4-DMA Unfair competition

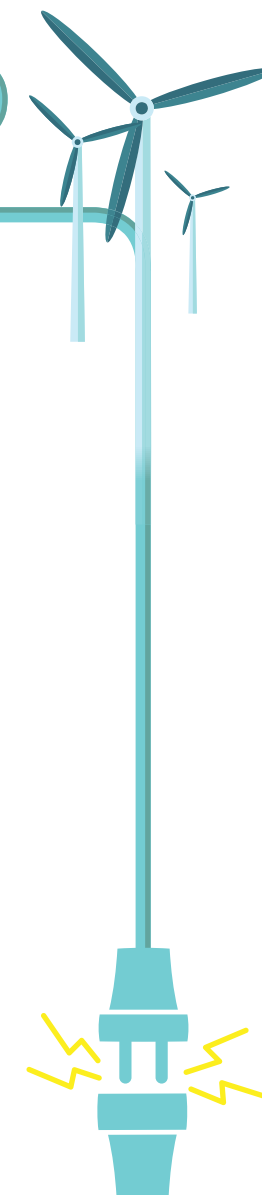
The governance of Tractebel Energia and its subsidiaries is based on the principles of ethics and transparency, particular care being taken to observe the tenets of the Sarbanes-Oxley Act. All companies strive to adopt best market practice, creating value and competitive advantages in the way they are managed.

The Company is listed on the Novo Mercado, members of which adopt BM&FBovespa's highest level of corporate governance, practices, which in some cases, exceed the requirements of both Novo Mercado listing regulations as well as the standard legislation. This posture has been instrumental in Tractebel Energia's inclusion as one of the 10 companies which are components of BM&FBovespa's Corporate Sustainability Index (ISE) since the stock index's inception in 2005. The current ISE portfolio, valid from January 4 through December 29, 2016, was announced in November 2015 and includes the shares of 35 companies. On November 24, 2015, the date the new portfolio was announced, the stock index's shares had a total market capitalization of R\$960.5 billion, equivalent to 44.8% of the total capitalization of companies with shares traded on the BM&FBovespa.

The Company adopts additional measures to protect the interests of all its shareholders, to which the following rights are guaranteed:

- Voting in the General Shareholders Meetings, both annual and extraordinary;
- Submission of shareholders' recommendations to the Board of Directors through the specific channel in the website's Investors' Portal;
- Receiving dividends and participating in the payout of profits and other distributions;
- Supervising Management and withdrawing from the Company in circumstances pursuant to the Corporate Law; and
- Receiving at least 100% of the price paid for a common share pertaining to the controlling bloc in accordance with the Novo Mercado listing regulations in the event of a public offering of shares as a result of the sale of a controlling stake (100% tag-along rights).

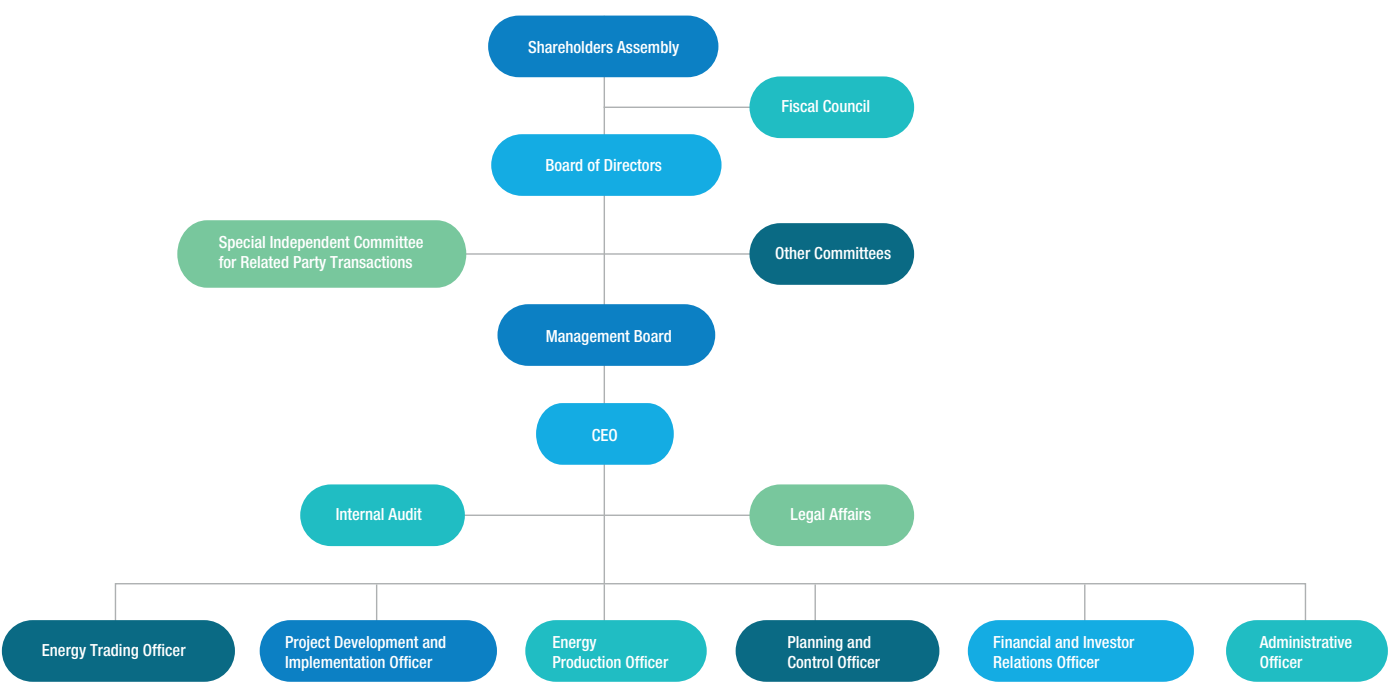
Tractebel Energia's Corporate Bylaws prescribe that any dispute between its shareholders, principally in relation to the capital markets and corporate law, should be settled through the Market Arbitration Panel – an independent and confidential body for resolving disputes under the auspices of BM&FBovespa.



MANAGEMENT STRUCTURE GRI G4-34

The highest level in the Company's management hierarchy is the General Shareholders' Meeting, and below this, the Board of Directors and the Management Board.

MANAGEMENT ORGANIZATION CHART (AS AT 12/31/2015)



Board of Directors

The Corporate Bylaws and the Board of Directors' Internal Charter – available from the Company's website – establish the functions of the Directors and Executive Officers as well as the rules for the delegation of authority. Among the principal functions of the Board of Directors, are to:

- Establish the Company's mission, vision, values, policies and goals;
- Decide the strategic business objectives and ensure implementation of organizational structures and procedures in order to achieve these objectives;
- Ensure that clarifications are provided to shareholders; and
- Elect and remove the executive officers and establish their duties as well as supervise the management of these executives.

The Company's Bylaws establish that the Board of Directors must consist of no less than five and no more than nine effective members and an equal number of alternates, all elected at a General Shareholders' Meeting (GSM) for two-year terms of office. Members are eligible for reelection. One member and his alternate represent the employees, elected by the direct vote of the employees and approved at a GSM. At least 20% of the board members must be independent, as required by Novo Mercado Listing Regulations. The Chairman of the Board does not hold an executive position in the Company. Self-evaluation by board members is undertaken annually and the result registered in publicly disclosed minutes.

Breakdown of the Board of Directors (as of 12/31/2015)

Full members	Alternates
Maurício Stolle Bähr – Chairman	Patrick Charles Clement Obyn
Philip Julien De Cnudde – Vice Chairman	Pierre Victor Marie Nicolas Devillers
Antonio Alberto Gouvêa Vieira – Minority shareholders' representative	Luiz Leonardo Cantidiano Varnieri Ribeiro – Minority shareholders' representative
Dirk Achiel Marc Beeuwsaert	Gil de Methodio Maranhão Neto
Luiz Eduardo Simões Viana	*
José Pais Rangel – Minority shareholders' representative	José João Abdalla Filho – Minority shareholders' representative
Manoel Arlindo Zaroni Torres	André de Aquino Fontenelle Canguçu
Roberto Henrique Tejada Vencato – Employee representative	Luiz Antônio Barbosa – Employee representative
Willem Frans Alfons Van Twembeke	José Carlos Cauduro Minuzzo

\*Position temporarily vacant due to the resignation of one of the members – temporarily substituted by the then alternate, no new appointment having since been made.

Fiscal Council

Tractebel Energia's Fiscal Council has been permanently installed since 2013. It has the duties of analyzing the Company's Financial Statements, supervising the activities of the Management Board and the evaluation of risk management systems and the internal controls. In the event that additional services are agreed with the independent audit company which audits the Financial Statements, it is

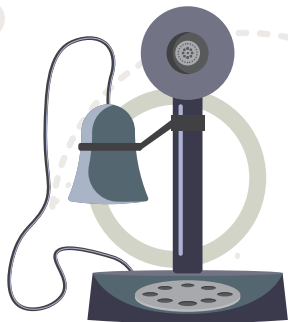
also incumbent on the Fiscal Council to evaluate the proposals to be submitted to the Board of Directors.

The Fiscal Council comprises from three to five effective members and an equal number of alternates, elected by the General Shareholders' Meeting for a term of office of one year, members being eligible for reelection.

Breakdown of the Fiscal Council (as of 12/31/2015)

Full members	Alternates
Manoel Eduardo Lima Lopes	Aliton Pinto Siqueira
Carlos Guerreiro Pinto	Manuel Eduardo Bouzan de Almeida
Paulo de Resende Salgado	Flávio Marques Lisboa Campos

ONE OF THE MEMBERS OF THE COMPANY'S BOARD OF DIRECTORS IS AN EMPLOYEE REPRESENTATIVE, ELECTED BY DIRECT VOTE AND RATIFIED BY THE GENERAL SHAREHOLDERS' MEETING



## Committees

Tractebel Energia has nine committees to assist Management in taking decisions on specific matters. The committees have a consultative function and are as follows:

- **Strategic Committee** | Handles such matters as the selection and monitoring of expansion projects for the generator complex and the monitoring of trends in the electricity industry. It is common for Tractebel Energia's officers as well as outside guests to be invited to speak on pre-selected matters on the Committee's agenda.
- **Human Performance Committee** | The aim of this body is to ensure the implementation of the fundamentals of human performance in order to minimize lapses or human error at the plants operated by Tractebel Energia and its subsidiaries.
- **Financial Committee** | Submits policies to the Management Board for investments, pre-payments and anticipation or postponement of receivables. It is also incumbent on this committee to select the financial institutions with which the Company has an interest in working and to identify asset-liability mismatches, proposing hedging operations where necessary.
- **Energy Committee** | Proposes Tractebel Energia's commercialization guidelines – including participation in auctions –, purchase and sale prices, quantitative limits for energy contracts eligible to comprise the Company portfolio, this in turn involving the monitoring of the electric power market.
- **Risk Management Committee** | Identifies and classifies events that result in risks to the businesses, according to their probability and significance, and defines the respective control procedures. The Committee is responsible for raising the awareness in the handling of corporate risk and defining goals and guidelines for risk management.
- **Innovation Committee** | Stimulates the development of ideas that add value to the Company. It receives and evaluates proposals, recommending to the Management Board allocation of funds for selected initiatives as well as actions for recognizing the proponents of such proposals. In addition, the Committee collaborates so that the Company participates in contests focused on innovation and promoted by the ENGIE Group.
- **Tax Planning Committee** | In the light of the tax legislation, decides which cases and under what circumstances Tractebel Energia should challenge administrative and judicial rulings. Also presents suggestions, which can generate tax credits, including those arising from new projects taking into account opportunities for reducing the tax take.
- **Sustainability Committee** | Contributes to consolidating sustainability as part of the Company's corporate culture, proposing goals and actions in sustainable development to the Management Board, adopting the necessary coordination with the organizational units in order to execute the same. Stimulates initiatives and evaluates requests for support of actions benefiting communities in regions surrounding the head office and plants – whether already in operation or under construction. In addition, the Committee promotes education in sustainability for internal and external stakeholder audiences. The employee representative with a seat on the Board of Directors is one of the committee members.
- **Special Independent Committee for Transactions with Related Parties** | With a view to fine tuning corporate governance practices, Tractebel Energia and its parent company ENGIE, took the decision to set up an independent committee for assessing transactions with related parties. The committee is installed by the Board of Directors whenever the Company intends to negotiate any transaction with related parties. It is the Committee's responsibility to negotiate and recommend or otherwise, the execution of these transactions, thus making the process more transparent and secure. The Committee comprises from three to five members, the majority of which, representatives of the minority shareholders with seats on the Board of Directors.

## Management Board

## COMPRISING SPECIALISTS DRAWN FROM DIFFERENT AREAS OF TRACTEBEL ENERGIA, THE ADVISORY COMMITTEES LEND ADDITIONAL EXPERTISE TO MANAGEMENT DECISIONS

As enshrined in the Corporate Bylaws, the Chief Executive Officer's responsibilities are to chair the meetings of the Management Board, coordinate and guide the activities of the other executive officers, to allocate special activities and tasks for executing the resolutions of the Board of Directors and the Management Board.

executive officers are nominated by the Board of Directors and elected by the GSM. The Management Board works on a collegiate basis, the approach to matters on the agenda being a matrix one, albeit respecting the specific functions of each board member.

The Chief Executive Officer and the remaining

### Breakdown of the Management Board (as at 12/31/2015)

Name	Position
Manoel Arlindo Zaroni Torres	Chief Executive Officer
José Carlos Cauduro Minuzzo	Energy Production Officer
Marco Antônio Amaral Sureck	Energy Commercialization Officer
José Luiz Jansson Laydner	Projects Development and Implementation Officer
Eduardo Antonio Gori Sattamini	Finance and Investor Relations Officer
Edson Luiz da Silva	Planning and Control Officer
Júlio César Lunardi	Administrative Officer

## CODES AND POLICIES

Tractebel Energia conducts its activities and relations with stakeholders based on codes and policies, which express its corporate values and organizational culture. In this way, the Company shares the principles and procedures in these instruments with its various stakeholders. The resulting interaction fosters social capital and relationships.

The codes and policies to be found in the website are described below.

- **Code of Ethics | GRI G4-DMA Promotion of public policies** A compendium of principles to be followed by all those either directly or indirectly involved with corporate responsibilities, Tractebel Energia's Code of Ethics, approved by the Board of Directors, is in its third edition and aligned with the guidelines enshrined in ENGIE's Ethics and Compliance Program. The document is based on Tractebel Energia's values, providing guidance as to the conduct to be adopted by all in seeking to fulfill the Company's Mission and Vision. On joining Tractebel Energia, all employees and directors receive a copy of the Code of Ethics as well as undergoing regular training on guidelines and procedures included in the document. Tractebel Energia also makes the Code available to its commercial partners, suppliers and subcontractors. The document can be accessed in digital format both on the intranet as well as through the corporate website in both Portuguese and English versions. It is also available in audio in the same languages. **GRI G4-56**
- **Environmental Code** | Sets out the Company's commitments to the environment and sustainable development.
- **Sustainable Management Policy** | Expresses the Company's commitment to quality, the environment, occupational health and safety, social responsibility and energy management.
- **Policy on Climate Change** | Establishes commitments and actions contributing to the mitigation of climate change as well as for the adaptation to its consequences.
- **Human Rights Policy** | Launched in 2015, the policy establishes the commitments and the guidelines involving respect for human rights in relation to company projects, operations and the value chain. Tractebel Energia and its subsidiaries aim to be proactive agents in protecting human rights within their sphere of influence. This policy formalizes the commitment to the theme concomitantly with the Company's Code of Ethics, guidelines issued by ENGIE and the principles of the United Nations Global Compact.
- **Stakeholder Engagement Policy** | Ratifies the commitment to comply fully with the pertinent legal requirements and details the procedures that must be adopted by the Company and its subsidiaries in the relationship with its stakeholders in the development, installation and operational stages of the power generation plants under their responsibility.
- **Trading and Disclosure Policy** | Lays down the practices for disclosure and the use of corporate information as well as for the trading of securities issued by Tractebel Energia such as shares and debentures.
- **Investments and Derivatives Policy** | Establishes criteria for investing available resources in the financial market and limits for the use of derivative products.
- **Online Privacy Policy** | Regulates the obtaining, use and release of personal information on users of its websites and services.

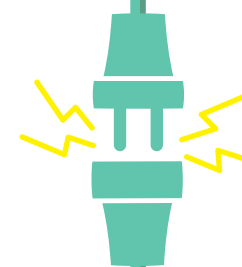
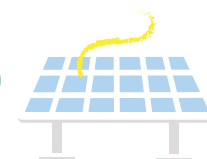
## INTERNAL CONTROLS

MOSAIC is an internal controls program employed by all companies controlled either directly or indirectly by ENGIE. It was installed at Tractebel Energia in 2005 to ensure compliance with Sarbanes-Oxley legislation. All operations are included in 14 processes, which are in turn subdivided into 65 sub-processes. In addition to evaluating internal controls through the use of processes and sub-processes. The program also assesses the overall control environment, based on Committee of Sponsoring Organizations of the Treadway Commission (COSO) methodology. COSO is a joint initiative of five private sector organizations – American Accounting Association; American

Institute of Certified Public Accountants (CPAs); Financial Executives International; The Association of Accountants and Financial Professionals in Business; and The Institute of Internal Auditors –, created in the United States in 1985 for adopting preventive measures to avoid fraud in internal corporate procedures and processes.

In addition, the results of the internal audit tests and the evaluation of the overall controls environment are approved by the Chief Executive Officer and by the Finance and Investor Relations Officer and then submitted to the Fiscal Council and the Board of Directors.





# BUSINESS MODEL AND CREATION OF VALUE

Tractebel Energia's business model is based on the development of long-term ethical and transparent relationships to create value for shareholders and other stakeholders over the short, medium and long terms.

## STRATEGY

Tractebel Energia's businesses are based on two principal strategies. The first is related to the commercialization of energy and the second to the responsible expansion of the generator complex.

## COMMERCIALIZATION OF ENERGY GRI G4-4

Tractebel Energia sells energy in the regulated market through the intermediary of auctions, the assumption being that the price ceiling proposed by the National Electric Energy Agency – Aneel will be sufficient to ensure the feasibility of the projects developed by the Company.

Besides seeking to enhance client loyalty and the diversification of the portfolio in free market operations, Tractebel Energia endeavors to sell available energy

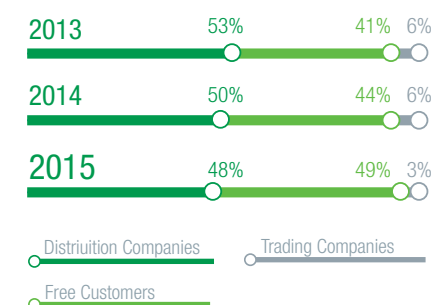
gradually through its trading company at attractive prices and minimize the risks of exposure to prices in the short-term market (spot or Price for Settlement of Differences – PLD).

The Company seeks to diversify its client portfolio both across different industrial sectors as well as among companies in the same sector. As a result, it is possible to offset the effects of a negative scenario in given sectors or in the case of unfavorable circumstances with specific customers, so reducing the risks of revenue shortfall.

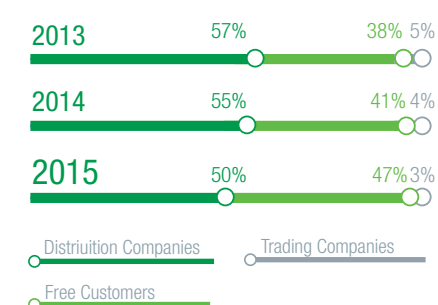
Sales are executed as and when the opportunity arises, principally when the market indicates a propensity to purchase. Operations involving the acquisition of energy for resale are also undertaken when necessary or opportune.

In 2015, free consumers represented 48.8% of the physical sales and 47.3% of net revenue from sales, equivalent to year-on-year increases of 4.8 p.p. and 6.6 p.p., respectively.

## BREAKDOWN OF CLIENTS BY PHYSICAL SALES (%)

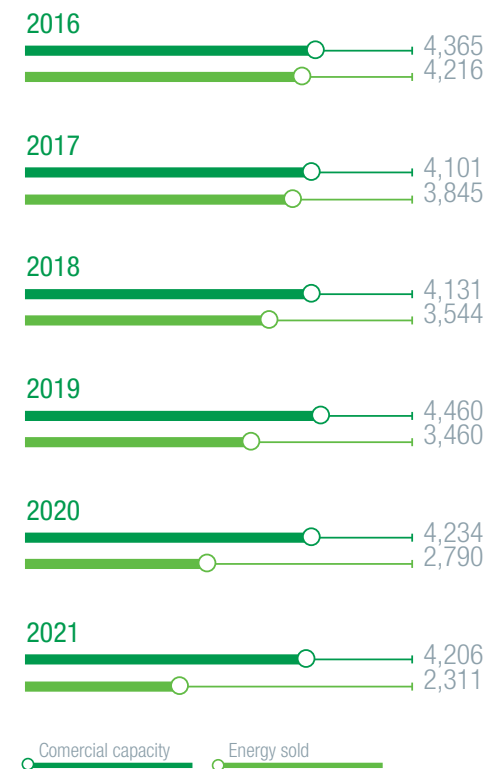


## BREAKDOWN OF CLIENTS BY CONTRACTED SALES INCORPORATING NET SALES REVENUE (%)





## ENERGY BALANCE (average MW)



## RESPONSIBLE EXPANSION OF THE GENERATOR COMPLEX GRI G4-13

The installed capacity of Tractebel Energia's generator complex has increased 89% from 3,719 MW to 7,044 MW since privatization in 1998.

Directly or through ENGIE, the Company remains alert to opportunities for expansion in different regions of Brazil, contingent however on the requisites of economic feasibility and adherence to the concept of sustainability. The Company has thus been diversifying its energy matrix and its chosen regional markets, prioritizing renewable energy sources.

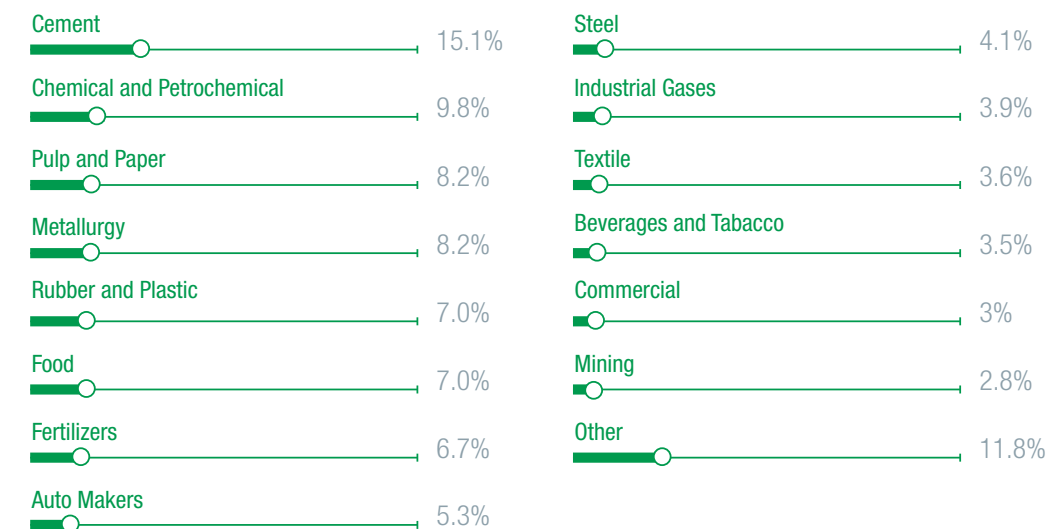
From the economic and financial point of view, growth in the generator complex contributes to the longevity of the business as well as increasing revenue due to the incremental contribution to the portfolio of energy available for commercialization. Another aspect for consideration in terms of the expansion strategy is the creation of value for Brazilian society as a whole through the increased offer of available energy, improved security of the national grid system and the creation of direct and indirect employment, among other positive factors.

Tractebel Energia's generator complex grew during the year thanks to completion in May 2015 of expansion work begun in 2014 at the Ferrari Thermoelectric Power Plant. Installed capacity was increased from 65.5 MW to 80.5 MW and physical guarantee from 23.2 MW to 35.6 average MW, adding 15 MW to the generator complex. Additionally, inclusion of the Tubarão Research and Development Wind Project in

the state of Santa Catarina also contributed a further 2.1 MW. Total installed capacity as at the end of 2015 was 7,044 MW, an increase of 17 MW or 0.2% in relation to the 7,027 MW at the end of 2014. Work on the installation of the Pampa Sul Thermoelectric Power Plant in the state of Rio Grande do Sul was also started in the same period, conclusion being scheduled for the second half of 2018.

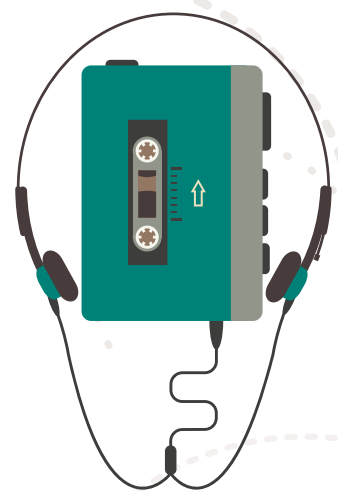
## DIVERSIFICATION OF THE CLIENT PORTFOLIO BY SECTOR GRI G4-8

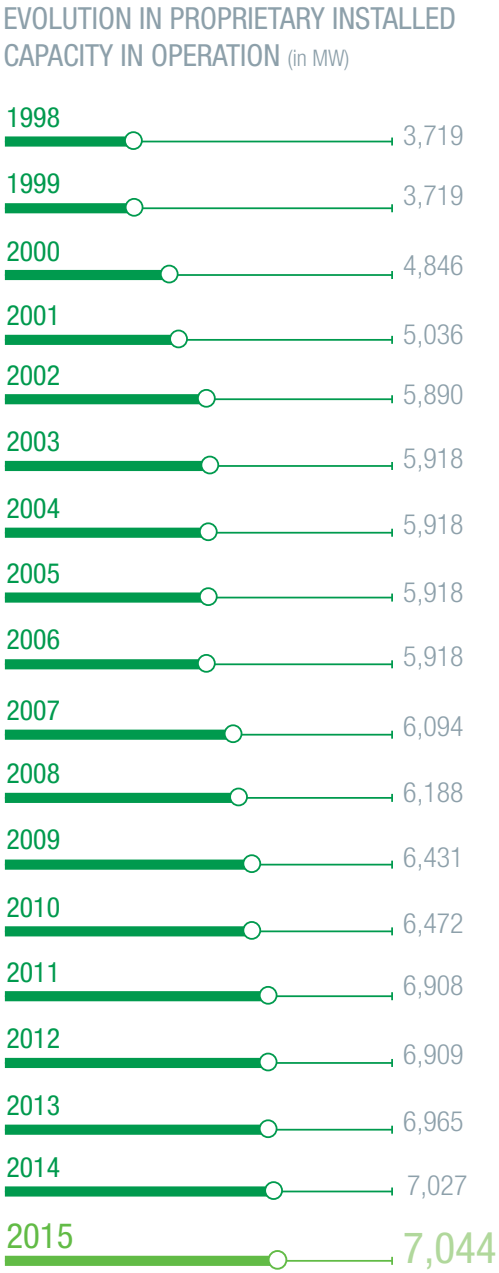
(as at 12/31/2016)



## MODERNIZATION

MODERNIZATION WORK IN PROGRESS ON THE PASSO FUNDO (RS), SALTO SANTIAGO (PR) AND PONTE DE PEDRA (MS) HYDRO PLANTS AS WELL AS THE JORGE LACERDA THERMOELECTRIC COMPLEX (SC) WILL ALL CONTRIBUTE TO THE INCREASE IN THE USEFUL LIFE OF THE OPERATIONS AND THE PHYSICAL GUARANTEE OF THE GENERATOR UNITS. IN 2015, THERE WAS AN INCREASE IN COMMERCIAL CAPACITY AT THE SALTO SANTIAGO HYDROELECTRIC PLANT FROM 723.0 MW TO 735.3 AVERAGE MW AND AT THE PONTE DE PEDRA HYDROELECTRIC PLANT, FROM 131.6 MW TO 132.3 MW.





Additional installed capacity should continue to come on stream in the next few years as construction work at new plants is concluded. Below we itemize the various projects with work in progress.

- Jirau Hydroelectric Power Plant** | Located on the Madeira River, the project's local head office is in Porto Velho, state of Rondônia. At the end of 2015, 40 of the 50 generator units were in operation while a further unit was at the assembly and commissioning stage. ENGIE Latin America, the direct controlling company of Tractebel Energia, holds a 40% stake in the project. This stake is expected to be transferred to Tractebel Energia when the principal development risks have been mitigated, and subject to the agreement of the Special Independent Committee for Transactions with Related Parties.
- Pampa Sul Thermoelectric Power Plant** | Located in the municipality of Candiota (RS), the plant will be fired from mineral coal extracted from a seam in the region. At the end of 2015, earth moving activity and work on the excavation of the foundations of some structures (boiler, powerhouse and chimney stack) was in progress. Construction activity on the base, preliminary structural work and concreting of the boiler structures was also in progress.
- Campo Largo Complex – Phase I** | FMade up of a complex of wind generation projects, situated in the state of Bahia with the potential for developing approximately 630 MW. Work on the first phase of the project involving installed capacity of 326.7 MW was in progress in 2015.
- Santa Mônica Wind Complex** | Located in the municipality of Trairi (CE), the project sits adjacent to the Trairi Wind Complex, the latter already in commercial operation. Santa Mônica will share existing structures with Trairi, such as substation and transmission lines. Operations are scheduled to begin in the second quarter of 2016.
- Assú V Photovoltaic Plant** | At Aneel's second reserve energy auction (Aneel Auction 009/2015) in November 2015, the Company sold (through a subsidiary) 9.2 average MW of solar energy at R\$302.99/MWh, deliveries to be made over 20 years, starting November, 2018. The energy will be generated by the Assú V Photovoltaic Plant with an installed capacity of 36.7 MW, a component part of the overall Assú Photovoltaic Complex, to be installed in the municipality of Assú (state of Rio Grande do Norte).

Projects with work in progress (as at 12/31/2015)						
Plants under construction	Total installed capacity	Total physical guarantee (MWm)	Ownership	Proprietary installed capacity (MW)	Proprietary physical guarantee (MWm)	Expiration of concession/authorization
Jirau <sup>1</sup> (Hydroelectric)	3,750.0	2,184.6	40%	1,500.0	882.0	08/13/2043
Pampa Sul (Thermoelectric)	340.0	323.5	100%	340.0	323.5	03/30/2050
Campo Largo Complex – Phase I (Wind)	326.7	157.8	100%	326.7	157.8	Various
Santa Mônica Complex <sup>2</sup> (Wind)	97.2	48.7	100%	97.2	48.7	Various
Assú V (Solar)	36.7	9.2	100%	36.7	9.2	-
Total	4,550.6	2,723.8		2,300.6	1,421.2	

1. The 40% stake refers to that of the controlling company, Engie Latin America.  
2. Complex consists of four plants: Estrela, Cacimbas, Santa Monica and Ouro Verde.

In addition to these projects, Tractebel Energia has other projects at an advanced stage of development as shown in the table below.

- Santo Agostinho Wind Complex** | Located in the municipalities of Lajes and Pedro Avelino, state of Rio Grande do Norte. The process of obtaining the environmental license began in 2015 with conclusion of this stage scheduled for the second half of 2016.
- Norte Catarinense Thermoelectric Power Plante** | Located in the municipality of Garuva (SC), the plant is to be natural gas-fired. The Environmental Impact Study (EIA) together with the respective Environmental Impact Report (Rima) were finalized in 2015 and the respective public hearing held. The Preliminary License is expected to be issued by the end of the first quarter 2016, the plant then being eligible to participate in future new energy auctions.

- Campo Largo Wind Complex – Bahia (Phase II)** | This project will add about 330 MW to the project's installed capacity.
- Alvorada Photovoltaic Complex** | Located in the state of Bahia, the complex will comprise four projects with a total installed capacity estimated at up to 120 MWp. At the end of 2015, the projects were at the environmental licensing and solar radiation evaluation stages.
- Assú Photovoltaic Complex** | Comprises three Photovoltaic Plants with a total installed capacity of approximately 110 MWp. As already mentioned, the energy to be generated by the Assú V Photovoltaic Plant was sold at the 2015 Second Reserve Energy Auction. The Solares I and II Plants are currently at the environmental licensing and solar radiation evaluation stages.



Projects under construction (as of 12/31/2015)				
Project	Total capacity (MW)	Primary source	Ownership	Location
Santo Agostinho	600.0	Wind	100%	Lajes and Pedro Avelino (RN)
Norte Catarinense (natural gas)	600.0	Thermal	100%	Garuva (SC)
Campo Largo Complex – Phase II	326.7	Wind	100%	Umburanas e Sento Sé (BA)
Alvorada	120.0	Solar	100%	Bom Jesus da Lapa
Assú Complex – Plants I and II	73.4	Solar	100%	Assú (RN)
<b>Total</b>	<b>1,720.1</b>			

### COMPETITIVE ADVANTAGES

- Management and operational capacity** | ENGIE's worldwide experience in the management and operation of energy systems together with Tractebel Energia's expertise in Brazil through its team of experienced professionals working side by side with talented young people, is complemented by a continuous program for improvement, skills upgrading and development of the Company's professionals.
- Stable financial performance** | Tractebel Energia is a stable and resilient Company thanks to the combination of strong cash generation, high Ebitda margin, consistent net income, absence of currency exposure and disciplined financial management.
- Diversification of the generator complex** | A diverse range of primary energy sources attenuates the impact of variations due to climatic, market and demand factors, among others. This reflects the complementary nature of the energy sources and their respective cycles (of hydrology, wind, solar radiation, the seasonality of biomass supplies and the supply of fuel for conventional thermal powered plants).
- Parent company, a world leader in energy and alert to macro-trends** | As a component of the ENGIE group, Tractebel Energia is in the vanguard of global trends in energy. At the same time, it is well placed to take full advantage of innovative opportunities adapted to the Brazilian market and with potential to create value.

THE RD&I PROJECTS ARE STRATEGIC TO TRACTEBEL ENERGIA'S BUSINESS MODEL

### INTANGIBLE ASSETS

In addition to those assets incorporated in the Financial Statements, Tractebel Energia's intangible assets also include human and intellectual capital, research, development and innovation activities and corporate image.

#### HUMAN AND INTELLECTUAL CAPITAL

The Company is conscious of the importance of people for the sustainability of the business, promoting several programs focused on the development and retention of its professionals. In 2015, Tractebel Energia offered its employees an average of 79.5 thousand hours of training.

The Company has developed programs focused on the development of leaders and managers as well as running corporate education initiatives to ensure that its human capital is suitably trained. Additionally, in 2015, the Company created the Viva Retirement Program with the aim of monitoring and guiding professionals who have given years of service to Tractebel Energia. With participation optional, this Program is designed to promote information and reflection on the new routine for employees close to retirement. Legal, emotional and health related aspects are also included in the Program. **GRI G4-LA10**

#### RESEARCH, DEVELOPMENT AND INNOVATION (RD&I) **GRI G4-DMA Research and development (formerly EU8)**

Research, Development and Innovation (RD&I) projects are closely associated to the Company's intellectual capital. The area is becoming increasingly more strategic to Tractebel Energia's business model. Research projects are directly related to improvements in operations and the search for cleaner and more efficient sources of generating energy. Consequently, the knowledge developed from these initiatives is incorporated into the Company's strategies.

An example of this is the 3 MWp Cidade Azul Photovoltaic Plant with its 19,424 solar panels and fruit of the Aneel 013/2011 Strategic Research and Development Project. Inaugurated in 2014, the objective of the plant is to study the characteristics of this power source in the overall energy matrix, the costs involved and the performance of the installed equipment. Three different solar photovoltaic panel technologies and five inverter models at the plant are currently being tested.

Hours of training and skills upgrading – 2015 <b>GRI G4-DMA Training and education</b>			
Managers, coordinators and specialists	Analysts, engineers and team heads	Technical and operational career personnel	Total number of hours
5,766.85	25,920.05	47,807.50	79,494.40

Average number of hours of training by gender and employee category <b>GRI G4-LA9 I</b> <b>GRI G4-DMA Training and education</b>				
	Managers, coordinators and specialists	Analysts, engineers and team heads	Technical and operational career personnel	Average total
Female	39.56	47.26	38.23	42.69
Male	50.83	68.29	83.85	75.15
<b>Average total</b>	<b>49.28</b>	<b>63.84</b>	<b>78.11</b>	<b>70.04</b>

The Assú and Alvorada development projects are a direct result of the value which research brings to the Company's human, intellectual and manufacturing capital. Both projects are photovoltaic and are being installed for testing know-how in this area on a larger scale.

Under Law 9,991 of July 24, 2000, it is mandatory for generation concessionaires and independent electric energy producers to invest at least 1% of their annual net operating revenue in Research and Development (R&D) Aneel-regulated programs for the electric sector. In 2015, Tractebel Energia invested R\$52.7 million in its R&D program, allocated as follows:

- **R\$15.1 million** to the National Scientific and Technological Development Fund (FNDCT);
- **R\$7.6 million** to the Ministry of Mines and Energy (MME), as the Company's contribution to the funding of the Energy Research Company (EPE); and
- **R\$30.0 million** million for projects with work in progress involving aspects listed in the following table.

R&D project areas – 2015	
Area	Value (R\$)
Electric energy generation	4,072.45
Safety	36,219.57
Operation of electric energy systems	54,658.52
Planning of electric energy systems	63,204.46
Strategic research	163,405.56
Thermoelectric generation	729,128.13
Environment	1,006,313.54
R&D management program	1,209,524.47
Energy efficiency	2,018,701.23
Supervision, control and protection of electric energy systems	2,487,499.71
Alternative sources of electric energy generation	22,249,644.48
Total	30,022,372.12

Approximately R\$19 million was invested during the year in an R&D project for developing and certifying a 3.3 MW capacity wind turbine. The aim of the project is to reduce the country's technological dependence in the area and to meet the growing demand for electric energy from renewable sources.

The Company also launched the Inove program for further encouraging innovation. The program rewards innovative ideas and projects in five categories: Operation and Maintenance, Research and Development (R&D), Commercial and Business, Socio-environmental and Management. All employees are eligible to participate with the exception of managers of the organizational units and members with seats on the Innovation Committee.

This initiative is in line with ENGIE's strategy, which believes that innovation is essential if the challenges of the world in constant mutation are to be met as well as contributing to the development of countries, companies and people. For this reason, it has launched a worldwide program of innovation to foster entrepreneurial creativity. As part of this Program, ENGIE Brasil is organizing the second edition of the ENGIE Brasil Award for Innovation open to startup companies or entrepreneurs who produce innovative commercial or technological solutions related to the following themes: decentralized en-

ergy, green mobility; energy storage; smart grids and social inclusion through energy efficiency or access to energy.

IMAGE

Tractebel Energia's corporate image is built and consolidated thanks to its practices and dialog with its various stakeholders. A survey conducted in 2015 by Reputation Dividend in partnership with the Attitude Group, classified the Company among the top twenty with the best reputational values in the Brazilian market. The survey shows Tractebel Energia placed 16th in the overall ranking and first among companies in the Brazilian electricity industry.

The Company's logo – yet another important asset related to its image – was also reformulated in 2015 following the change in the parent company's corporate denomination to ENGIE. Various initiatives in the communication field are to be taken during the course of 2016 to improve this new identity's market penetration.

CREATION OF VALUE

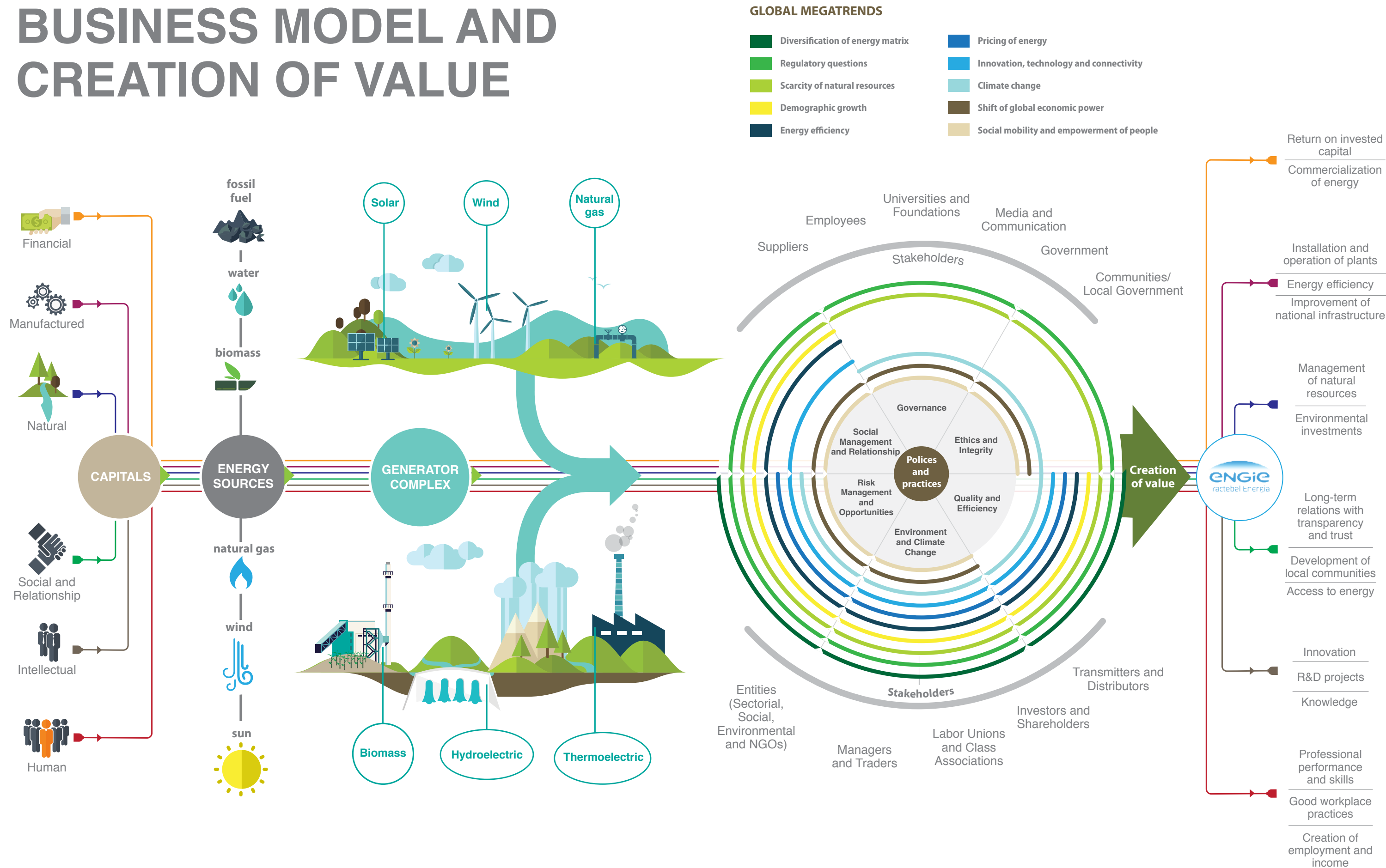
Tractebel Energia's business model focuses on corporate policies and practices which foster value creation for the Company's different stakeholders.

INNOVATION AT THE SANTA MÔNICA COMPLEX

During 2015, Tractebel also introduced innovations at the Santa Mônica Wind Complex with Eolift – French-built equipment used for lifting wind tower sections starting from those at the top and concluding with those at the base. The tower is erected by placing each new section beneath those already installed, a process which continues until the final tower height has been reached (of 120 meters). The raising of the tower and the positioning of a new section take about three hours using precision hydraulic jacks under specialized supervision. Compared with conventional methods, the new system dispenses with the need for large cranes which usually represent high costs.



# BUSINESS MODEL AND CREATION OF VALUE





# MANAGEMENT OF RISKS AND OPPORTUNITIES

The analysis of corporate risks and opportunities is conducted through a systemic process, which permeates all corporate activities and involves both employees and senior management. The outcome to this process is reflected in the Risks and Opportunities Matrix, an internal document that establishes parameters for running the businesses.

The analysis of corporate risks encompasses their identification and classification as well as probability of occurrence, significance in terms of financial impact and image, and degree of control required. Based on this analysis, the Company draws up action plans for each risk, pinpointing any related opportunities. Consequently, risk analysis goes beyond satisfying the demands of the controlling shareholder or those of the market, serving as an efficient strategic planning tool in itself. Through constant monitoring throughout the year, several corporate objectives emerge from the action plans resulting from this analysis. After due approval by the Management Board, the objectives generate goals for career management employees, the latter's variable compensation being linked to the extent that the goals are achieved. The risks and opportunities are characterized by possible deviations from Tractebel Energia's Medium Term Financial Plan (PMT). Negative deviations in relation to the PMT are indicative of risks while positive deviations indicate opportunities. **GRI G4-14**

The principal risks evaluated are:

- **Market risk** | The supply and demand of electricity can deviate from forecast so affecting energy prices and volumes.
- **Regulatory risk** | Adverse movements in electricity sector regulations. Historically, the Federal Government exercises a high degree of influence on the Company's businesses, including overall structure of the industry, the terms and conditions of the power purchasing agreements, which Tractebel Energia is authorized to sign, as well as production levels.
- **Taxation risk** | Adverse changes in the tax legislation and the actions of the tax authorities.
- **Risk arising from economic factors** | Alteration in the economic variables such as interest, foreign exchange, commodity prices, economic growth and inflation, thus affecting the Company's businesses.
- **Contractual default risk** | Non-compliance with the provisions in the Company's power purchasing and sale agreements and with the commercialization rules of the Electric Energy Trade Board (CCEE). Another key aspect in this context is the possibility of a concession contract signed with the Federal Government being rescinded unilaterally under unforeseen conditions.
- **Socio-environmental risk of the operating plants** | Adverse change in the environmental regulations and the activities of organized social movements in relation to the operating plants.
- **Risk in the development and installation of new projects** | Occurrence of events in the development and installation of projects, resulting in delays to the construction schedule or additional costs for installation or involving plant operations.



- **Risk of energy shortages** | Shortfall in the physical guarantee of the Company's plants and in purchased energy. Among the factors influencing the availability of energy are reduced rainfall and fuel shortages at the conventional thermoelectric and the biomass plants. A shortage of primary energy in conjunction with the obligation to deliver assured energy may result in exposure to the short-term market where prices tend to be high.
- **Risk of human resources** | Labor shortages (own or third party employees) due to the failure to hire and train within a suitable time for meeting the Company's expansion needs and to replace vacancies on the payroll; increase in costs due to competition for labor in the light of economic growth; strikes and stoppages; and work-related accidents.
- **Technological risk of information** | Downtime or lack of security for IT resources can negatively affect the Company's operations and image.

- **Major accident risk** | Major accidents and disasters due to natural or man-made causes, involving the implementation of projects, the operation of plants and the management of the Company. Payment of substantial costs of restoring the environment and for environmental damage claims may oblige the Company to delay or reallocate investments to other areas, having a negative effect on the businesses.

On the issue of climate change, opportunities arising for Tractebel Energia's activities are identified in the operation of the existing plants and in the development of new projects. Thus, the Company invests in renewable conventional and non-conventional resources in order to reduce the impact of its operations and also in non-renewable sources to provide the National System Operator (SIN) with a strategic reserve to cover situations involving unexpectedly low rainfall regimes. **GRI G4-EC2**

## TRACTEBEL PROMOTES THE STRENGTHENING OF ITS INSTITUTIONAL IMAGE THROUGH MANAGEMENT OF BUSINESS RISKS AND OPPORTUNITIES



### Risks and opportunities arising from climate change\* GRI G4-EC2 | G4-DMA Economic performance

Risk (climate change)	Driver: physical, regulatory or other kinds of driver	Impacts	Disclosures on management approach
Adverse changes in environmental regulations and the activities of organized social movements	Regulatory and social	<ul style="list-style-type: none"> <li>· Increase in expenses and additional investments</li> <li>· Fines and penalties</li> <li>· Projects become unviable</li> <li>· Pressures of a social nature (demonstrations, press, communities contiguous to the plants/reservoirs, among others)</li> <li>· Setting targets for reduction or levels of Greenhouse Gas Emissions (GGE)</li> <li>· Limitation on generation to minimize environmental impacts</li> <li>· Impossibility of continuing to operate the Company's plants</li> </ul>	<ul style="list-style-type: none"> <li>· Maintenance and renewal of NBR ISO 9001, 14001 and OHSAS 18001 (Occupational Health and Safety) certifications of the 14 certified plants</li> <li>· Strengthening of the Company's image through socio-environmental programs</li> <li>· Raising awareness among employees and partners on the importance of sustainability</li> <li>· Activity of the Sustainability Committee</li> <li>· Proactive stance and permanent goal of broadening the Company's insertion in the sphere of influence of the plants and head office as well as monitoring community requirements adjacent to the locations where Tractebel Energia runs its operations</li> <li>· Active participation in representative entities</li> <li>· Monitoring of the legislative and regulatory changes</li> <li>· Adoption of Tractebel Energia's, Code of Ethics and the Environment Code, ENGIE's Social Referential, Tractebel's Sustainable Management Policy and Tractebel's Policy for Climate Change</li> </ul>
Major accidents and disasters due to natural and human factors involving the installation of projects, operation of the plants and Company administration	Natural disasters	<ul style="list-style-type: none"> <li>· Loss of life</li> <li>· Partial or total interruption of the activities at the affected plant</li> <li>· Loss of revenue due to downtime</li> <li>· Exposure of the Company to the short-term energy market where prices tend to be high</li> <li>· Expenses with the recovery of units and areas, indemnifications, penalties of a social and environmental nature</li> <li>· Fall in the market capitalization of the Company</li> <li>· Damage to the image of Company</li> </ul>	<ul style="list-style-type: none"> <li>· Greater degree of prevention, integrating forecasts, early warning and restoration in the management of accidents due to natural causes</li> <li>· More detailed assessment of new projects at the due diligence stage (notably with regard to construction aspects)</li> <li>· Climatological and hydro-meteorological monitoring</li> <li>· Monitoring of civil, mechanical and electrical structures</li> <li>· Work force training and development</li> <li>· Preparation of Emergency Attendance Plans including the Integrated Environment and Quality Management System (SIG) for each plant as well as the execution of periodic simulations of pre-identified emergency situations</li> <li>· Civil liability insurance related to personal injury or damage to third parties and to the environment</li> <li>· Engagement of insurance for assets, loss of profits and energy deficit</li> </ul>

\*In addition to the listed items, ENGIE and Tractebel Energia have operations classified under UNO's Clean Development Mechanism (CDM).

BUSINESS OBJECTIVES  
GENERATE GOALS FOR CAREER  
MANAGEMENT EMPLOYEES



# Dam safety

GRI G4-DMA Planning and response to disasters/emergencies (formerly EU21)

Tractebel Energia's projects are prepared in accordance with the regulations of the Brazilian Technical Standards Association (ABNT). In specific cases and/or where these standards do not cover a given situation, the Company adopts internationally recognized regulations and technical standards. Tractebel Energia adheres to a conservative safety factor in its projects, all the dams it operates being classified as low risk according to the National Water Agency's (ANA) risk matrix and adopted by Aneel.

Tractebel Energia employs the best civil engineering practices in its hydroelectric enterprises whether at the construction stage or in plant operations and maintenance, these including measures to ensure dam safety. The Company incorporates good techniques and criteria for technical quality, safety and cost - established and recommended by the organizations cited above. Tractebel also adopts the standards of other Brazilian and overseas entities such as those of Eletrobrás, the United States Bureau of Reclamation (USBR, responsible for building dams in the west of the country and the second largest hydroelectricity generator in the western United States) and the U.S. Army Corps of Engineers, responsible for investigating, developing and maintaining water and environmental-related resources.

The Company adopts Dam Safety Plans, the methodology of which is in line with the principles of the International Commission on Large Dams and the Brazilian Large Dams

Committee as well as Law 12,334 of the Brazilian National Dam Safety Policy approved in 2010 and currently pending regulation by Aneel. The plans encompass all the dams and civil structures associated thereto, covering:

- Instrumentation-based dam safety monitoring and routine monthly inspections by specialist technicians;
- Annual inspections of the dams and civil structures by a multi-disciplinary engineering team with analysis of the data and preparation of inspection reports and reports on performance of the dams and civil constructions related to the hydroelectric plants;
- Execution of programmed annual maintenance during the inspections;
- Emergency Plan of Action (EPA) at each plant and incorporating periodic training with simulations on procedures to be adopted in the event of a dam-related accident or other structure having impacts downstream and/or upstream from the hydroelectric plant; and
- Reservoir Hydrology Monitoring Plan associated with the Dam Safety Plan and the EPA on an integrated basis with the remaining reservoirs on the same river and the rules for operation of spillway structures.

All the Company's hydroelectric plants are certified according to NBR ISO 9001 and 14001 and NBR OHSAS 18001 standards, undergoing periodic internal and external audits (with Bureau Veritas Certification).

Worthy of note also is that specialists from Tractebel Energia also sit on the Dam Safety Committee, the Brazilian Association for Electric Energy Generating Companies (Abrage) as well as participating in periodic debating forums run by the Brazilian Large Dams Committee. Again, ENGIE is represented on the Executive Board of the International Hydropower Association (IHA) which has as its mission to advance sustainable hydropower by building and sharing knowledge on its role in renewable energy systems, freshwater management and climate change solutions (website: [www.hydropower.org](http://www.hydropower.org)).



## SCENARIOS AND PROSPECTS

Tractebel Energia and its parent company adopt a long-term vision. In spite of the current political and economic instability directly affecting the electricity sector as well as energy demand as a whole, the outlook is for Brazil to once more over the medium term demonstrate its capacity for development. In this context, the prospects for ENGIE in Brazil are good. The Group is attentive to the energy transition and potential synergies between the different areas of operation and expanding opportunities for a closer relationship with the end customer.

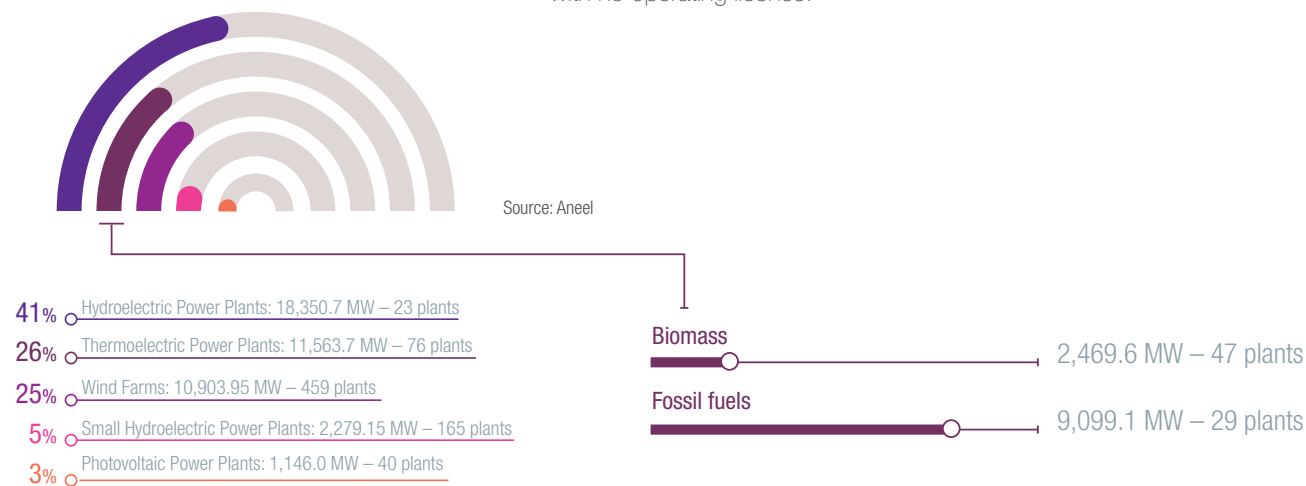
### Expansion of the Brazilian matrix GRI G4-EU10 | GRI G4-DMA Uptime and reliability

Aneel data reveals that in 2015, an additional 6,428 MW was added to commercial capacity in Brazil. Of this total, 2,655 MW was wind generated; 2,299 MW from HPPs; 1,356 MW from thermal plants; and 117 MW from Small Hydroelectric Plants (SHPs). By the end of 2015 the country's installed capacity totaled 140,857 MW.

Installed capacity (as at December 31, 2015)			
Type	Numbers	Capacity (kW)	%
Small Hydroelectric Plants (SHP)	542	397,551	0.28
Wind Power Plants (WPP)	316	7,632,732	5.42
Small Hydroelectric Plants (SHP)	479	4,886,168	3.47
Photovoltaic Power Plants (PPP)	34	21,339	0.02
Hydroelectric Power Plants (HPP)	198	86,366,478	61.31
Thermoelectric Power Plants (TPP)	2,896	39,563,472	28.09
Nuclear Power Plants (NPP)	2	1,990,000	1.41
<b>Total</b>	<b>4,467</b>	<b>140,857,740</b>	<b>100</b>

## BRAZILIAN ELECTRIC ENERGY EXPANSION MATRIX

The accompanying graph shows the expansion matrix, excluding plants sold via auction but still with no operating license.



Tractebel Energia has expanded generation capacity significantly over recent years to meet the country's growing energy demand as explained under Responsible Expansion of the Generator Complex on page 38.

## Electric sector sustainability

As has been the case in the past few years, the Brazilian electricity sector was once more severely impacted by drought in 2015. However, the country's hydrological potential is undeniable: in 2015, hydro plants accounted for 65% of total installed capacity. Together with this potential, other factors involving hydro generation make a positive contribution: low generation costs and reduced emissions from hydroelectric generation when compared to conventional thermoelectric generation.

Nevertheless, extreme climatic events – frequent in the last few years –, point to the need for changes in planning and operation of the national electricity sector. Changes seen in rainfall patterns have shown that it is not possible to maintain hydraulic sources of energy as the core of the system alone. Rather, it is important to include thermal energy fired for example by natural gas – a source where there are efficient technologies for generating energy with corresponding low levels of atmospheric pollution. Such adjustments in the energy matrix are crucial if a collapse in indigenous energy supplies is to be avoided, a scenario only averted in 2015 thanks to the depressed state of the Brazilian economy and resulting weak energy demand.

The federal government has shown itself to be aware of the issue by encouraging investment in projects using other primary energy sources. The principal focus on this front has been wind generation, output from this source growing by 56.9% alone. Brazilian Wind Energy Association data shows that more than 100 plants of this type were commissioned during the course of the year with an investment of about R\$19.2 billion. Photovoltaic power generation also reported growth in Brazil during the year. For example, at the 2<sup>nd</sup> Reserve Auction held in November, 33 projects based on this technology were negotiated – one of them by Tractebel Energia: the Assú V project.

Dedicated to the development of initiatives and actions for increasing the degree of transparency and sustainability in the Brazilian electricity sector, the Acende Brasil Institute ([www.acendebrasil.com.br](http://www.acendebrasil.com.br)) believes the main challenges to the system's sustainability and security, are:

- Reconsideration of the concept of constructing hydroelectric power plants with reservoirs;
- Maintenance of Greenhouse Gas Emissions (GGE) at low levels;
- Discussion on the authorization of private sector participation in nuclear power generation; and
- Evaluation of the use of thermal power sources to guarantee security of supply.

At the global level, the highlight of the year was the 21<sup>st</sup> Conference of the Parties (COP21) held in France in December. Some 195 countries were represented in Paris, ENGIE among them. The Acende Brasil Institute sees the core of the agreement on measures to reduce climate change due to GGEs as incorporating energy generation and use. In this context, hydroelectric projects under construction in the Amazon Basin – among them Jirau – are classified as Clean Development Mechanism (CDM) by the United Nations.

The Brazilian commitment at the conference reflected an absolute goal of a 43% reduction in emissions by 2030 in relation to 2005. To reach this target, the Federal Government is to prioritize three sectors: energy, forests and agriculture. The national target is for the energy matrix (electricity, oil and other components) to include a 45% participation in renewable energy – currently it stands at 39.4% –, through increased use of biofuels and an enhanced use of hydraulic, wind, biomass and solar sources to produce electricity. In addition, an envisaged growth in distributed generation also features as an important factor in reducing emissions.

A further challenge for Brazil is to increase the level of energy efficiency. The Government has set a goal of a 10% gain in efficiency in the electricity sector by 2030. Technological advances and management of demand are both promising tendencies in this direction. However, such would imply complex proposals and are contingent on not only investments but also changes in consumption patterns.

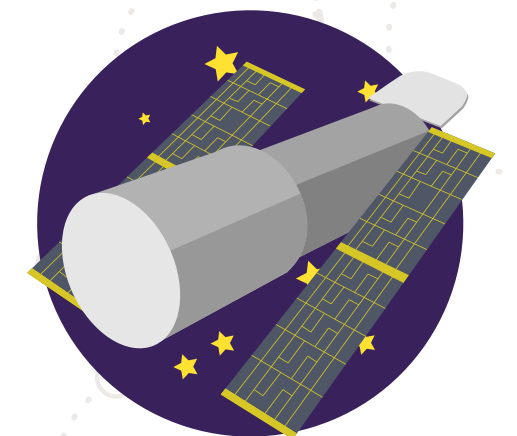
## TRACTEBEL PHOTOVOLTAIC PROGRAM

In June 2015, the Company launched the Tractebel Voltaic Program as part of its focus on the need to diversify energy sources for generation and the growth in distributed energy. The Program offers the option to Tractebel's employees of financing the acquisition of residential photovoltaic systems for generating energy with repayment over 120 months. This type of installation qualifies under Aneel's Electric Energy Compensation System, a mechanism whereby energy supplied by the installed photovoltaic system can be injected into the local distributors' network and subsequently discounted from the energy acquired from the distributor by the consumption unit or by another pertaining to the same consumer.

## Sustainable Development Goals (SDG)

The United Nations Organization (UNO) officially launched the Sustainable Development Goals (SDG) in 2015. Having a horizon out to the year 2030, the 17 SDGs involve a diversified range of topics such as the eradication of poverty, food security and agricultural sustainability, health, education, gender equality and reducing inequality. SDGs also incorporate energy, water and sanitation, sustainable standards of production and consumption, climate change, sustainable cities, protection and sustainable use of the oceans and the terrestrial ecosystems, reinforcing inclusive economic growth, infrastructure and industrialization, governance and the means of implementation. The goals were established after a broad based debate organized by the UNO with the participation of government, non-government organizations, civil society and companies for expanding and enhancing the Millennium Development Goals (MDG), which were supposed to have been achieved by 2015. Tractebel Energia implements several initiatives compatible with the SDGs and has an increasingly close adherence to these objectives among its corporate goals for sustainability in 2016.

THE COMPANY  
AIMS FOR FULL  
ALIGNMENT TO  
SUSTAINABLE  
DEVELOPMENT  
GOALS, EXECUTING  
INITIATIVES  
COMPATIBLE WITH  
UNO'S DECLARED  
OBJECTIVES







# ECONOMIC-FINANCIAL MANAGEMENT

## MACROECONOMIC SCENARIO

The year saw a worsening of the economic crisis in Brazil. The Federal Government Statistics Office (IBGE) posted a decline in GDP of 3.8% in 2015, making this the worst recession in 25 years since 1990 when GDP fell by 4.3%.

According to the Amplified Consumer Price Index (IPCA), accumulated inflation during the year was 10.7%, 4.1 percentage points higher than the upper end of the Central Bank's tolerance band for inflation of 6.5%. The 2015 inflation rate was the highest since 2002 when the figure was 12.5%.

This gloomy panorama has already been borne out for industrial production, the IBGE reporting an accumulated decline of 8.3%, the largest contraction since the launch of the historical series in 2003. There has also been an impact on employment: according to the IBGE, the average jobless rate was 6.8% in the six leading metropolitan regions of the country in 2015 compared with 4.8% in 2014.

During the year, the *Real* suffered a major devaluation in relation to the US Dollar, the exchange rate closing the year at R\$3.92, a depreciation of 47.5% compared with the final rate for 2014.

The Central Bank of Brazil's *Boletim Focus* is forecasting a further drop in GDP in 2016 of about 3.0% and in industrial production of about 3.5%. The IPCA for 2016 is estimated at about 7.0%. As a result, the leading rating agencies have downgraded Brazilian sovereign credit risk from investment to speculative grade, reflecting both the current scenario and also the general outlook for the country.

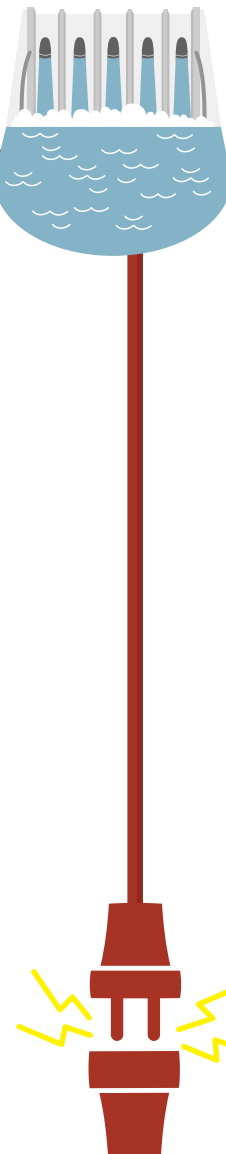
## SECTORIAL SCENARIO – ELECTRICITY CONSUMPTION

GRI G4-EU10 | G4-DMA Availability and reliability

Empresa de Pesquisa Energética (EPE) – Energy Research Company reported a decline in electricity consumption of 2.5% in 2015 compared to 2014. In the industrial sector, there was a 5.3% contraction – reflecting the reduction in economic activity during the course of the year. Industry registered monthly decreases in consumption, this trend intensifying during the second half with consumption falling by 7.7% from October through December – the largest drop for the year and a record for the period since the launch of the series in 2004. EPE statistics also show residential consumption declining by 0.7%, the impact of tariff hikes. Commercial services reported a small increase of 0.6% compared to 2014, significantly down on the average annual 6% rate of expansion recorded over the past five years.

Meanwhile, the load carried by the National Interconnected System (SIN) registered a year-on-year decrease of 1.9%. The negative result is a reflection of poor industrial output – notably in the Southeast/Central-Western subsystem, accounting for about 60% of demand from Brazilian industry –, as well as a reduction in the level of activities in the commercial and services sector and the impact of electricity tariff hikes on the consumption of all consumer classes.

EPE forecasts for 2016, suggest that load carried through the SIN can be expected to grow 1.0%, or 627 average MW higher than the 2015. The following table summarizes expected loads in average MW for the next few years.



## Load (average MW)

### Forecasted load under the Brazilian Energy Expansion Plan (2016 to 2020)

Subsystem	2016	2017	2018	2019	2020
Southeast/Central-West	37,654	38,978	40,507	42,048	44,067
South	10,948	11,367	11,860	12,357	12,918
Northeast	10,534	10,929	11,390	11,885	12,525
North	5,437	5,616	5,948	6,181	6,905
<b>SIN</b>	<b>64,573</b>	<b>66,891</b>	<b>69,705</b>	<b>72,470</b>	<b>76,415</b>

## TRACTEBEL ENERGIA'S PERFORMANCE IN 2015

### GRI G4-EC1 | G4-DMA Economic performance

The management of the Company's financial capital is based on financial discipline with rigorous respect for the terms of receivables, disbursements and cash predictability.

Financial information (R\$ million)	2013	2014	2015	Change 2015/2014
Total assets	12,637.6	13,609.6	15,300.7	12.4%
Shareholders' equity	5,364.6	5,654.9	6,642.1	17.5%
Net revenue from sales	5,568.7	6,472.5	6,512.0	0.6%
Gross income	2,657.0	2,497.7	2,708.9	8.5%
Income before financial result/taxes (Ebit) <sup>1</sup>	2,387.2	2,302.9	2,503.8	8.7%
Operating income	2,001.7	1,956.6	2,033.2	3.9%
Net income	1,436.7	1,383.1	1,501.3	8.5%
Ebitda <sup>2</sup>	3,042.6	2,895.1	3,114.6	7.6%
<b>Financial indicators (R\$ million)</b>				
Total debt (loans, financing and debentures)	3,495.4	3,988.5	3,758.4	-5.8%
Cash and cash equivalents and restricted deposits	1,346.1	1,750.7	2,543.6	45.3%
Net debt	2,149.3	2,237.8	1,214.8	-45.7%
ROCE <sup>3</sup> (%)	23.1	22.3	23.1	0.8 p.p.
Gross debt/Ebitda	1.1	1.4	1.2	-0.2 p.p.
Net debt/Ebitda	0.7	0.8	0.4	-0.4 p.p.
Participation of third party capital in relation to total assets (%)	57.6	58.4	56.6	-1.8 p.p.
Operating margin (%)	35.9	30.2	31.2	1.0 p.p.
Net margin (%)	25.8	21.4	23.1	1.7 p.p.
<b>Shares</b>				
Net earnings per share (R\$)	2.2011	2.1189	2.3000	8.5%
Average price per share <sup>4</sup> — ON (R\$)	32.03	31.88	33.45	0.5%
Dividends per share (R\$)	2.2584	1.1876	1.2789	7.7%
Employee salaries and benefits	243.3	263.7	292.3	10.8%
Payments to government	1,618.3	1,681.3	1,858.7	10.6%

1. Ebit = operating income + financial result. 2. Ebitda = net income + income tax and social contribution + net financial expenses + depreciation and amortization + provision impairments. 3. ROCE (return on employed capital) = result from the service/non-current assets. 4. Simple average of closing prices adjusted for dividends.

## NET REVENUE FROM SALES

### NET REVENUE FROM SALES

Net revenue from sales increased from R\$6,472.5 million in 2014 to R\$6,512.0 million in 2015, representing growth of R\$39.5 million, or 0.6%. This increase is largely due to the following combination of factors: (i) R\$822.5 million – an increase in the net average selling price; (ii) R\$600.5 million – a reduction in revenue from transactions in the short-term market, including those conducted within the scope of the CCEE; and (iii) R\$182.3 million – reduced energy sales.

### NET AVERAGE SELLING PRICE

The net average selling price was R\$171.37/MWh, 14.9% higher than the R\$149.20 reported for 2014. The price increase was largely due to monetary restatement of existing agreements as well as higher prices negotiated for new contracts.

### SALES VOLUME

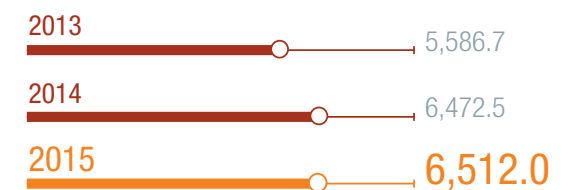
In 2015, energy sales volume was 36,012 GWh (4,111 average MW) against 37,072 GWh (4,232 average MW) recorded in 2014, a reduction of 1,060 GWh (121 average MW) or 2.9%. These variations were due to a combination of the following key factors: (i) the expiry of agreements with distributors and trading companies, where the related energy was sold to free consumers or settled on the short-term market, attenuating the negative impacts arising from the systemic deficit in hydroelectric generation; and (ii) an increase in purchase volumes.

### COMMENTS ON CHANGES IN NET REVENUE FROM SALES BY CLIENT CLASS

#### Distributors

The annual net sales revenue was R\$3,046.6 million, a slight increase of 0.1% in relation to fiscal year 2014, when net revenue was R\$3,044.0 million. This growth is a reflection of the association of the following variations: (i) R\$246.1 million – growth of 8.4% in net average selling price; and (ii) R\$243.5 million – reduction of 7.7%, or 1,434 GWh (163 average MW) in energy sales volume.

### NET REVENUE FROM SALES (R\$ million)



### NET AVERAGE SELLING PRICE\* (in R\$/MWh)



\*Net of exports and sales taxes.

### SALES VOLUME (in average MW)



#### Trading companies

Net sales revenue from trading companies in 2015 amounted to R\$209.0 million, 12.6% down from the R\$239.2 million reported in 2014. The reduction represents the results of the following factors: (i) R\$129.4 million – a fall of 42.8% or 881 GWh (101 average MW) in energy volume sold; and (ii) R\$99.2 million – growth of 52.7% in the net average selling price.

### Free consumers

In 2015, the Company reported revenue from this segment of R\$2,915.7 million, 29.7% greater than the R\$2,247.9 million posted in 2014. This expansion reflects: (i) R\$477.2 million – growth of 20.4% in net average selling prices; and (ii) R\$190.6 million – again a growth of 1,255 GWh (143 average MW) or 7.7% in energy sales volume.

### Transactions in the short-term market, including those conducted through the CCEE

For the 12 months of 2015, there was a year-on-year decline of R\$600.5 million in short-term transaction revenue from R\$903.1 million in 2014 to R\$302.6 million. The results recorded for this item include an increase in revenue of R\$78.6 million, booked in the fourth quarter of 2015 and reflecting the renegotiation of hydrological risk for some of the Company's plants where energy was commercialized under the Regulated Contracting Environment pursuant to Law 13,203/2015. A more detailed explanation of these variations is to be found in the item on the following page Details of Short-term Operations Including Transactions Conducted through the CCEE.

### SELLING COSTS OF ENERGY AND SERVICES

The selling costs of energy and services were R\$3,803.1 million, 4.3% or R\$171.7 million less than the R\$3,974.8 million reported in 2014. These variations are essentially due to the following factors:

- **Electric energy purchased for resale** | The year-on-year increase of R\$506.5 million largely reflects: (i) price readjustments for existing agreements; and (ii) an increase in medium and long-term purchases of 552 GWh (63 average MW), particularly the acquisition of surplus energy from Jirau.

- **Transactions in the short-term market including those conducted through the CCEE**

| On a year-on-year comparative basis, there was a reduction of R\$972.4 million in costs. Such a variation reflects a reduction in costs of R\$120.2 million in the fourth quarter 2015 relative to the effects arising from the completion of renegotiation of the hydrological risk. Greater details are given in the specific item below.

- **Fuels for the production of electric energy**

| The growth of R\$45.8 million over the preceding fiscal year was principally due to rising unit prices and the distribution costs of natural gas consumed at the William Arjona Thermoelectric Power Plant due to the depreciation of the *Real* against the US dollar.

- **Charges for the use of and connection to the electricity grid**

| The increase of R\$30.5 million between successive fiscal years was largely due to the annual readjustment in transmission tariffs.

- **Materials and third party services**

| Costs rose by R\$33.0 million in relation to 2014 mainly due to the greater demand for operational and maintenance services, notably at the Jorge Lacerda Thermoelectric Complex, the Charqueadas Thermoelectric Power Plant and the Salto Santiago and Estreito hydroelectric plants.

- **Financial compensation for use of water resources (royalties)**

| There was a year-on-year increase in costs of R\$7.5 million, in large part due to the annual price readjustment.

- **Personnel** | An increase of R\$22.3 million, principally due to the annual adjustments in employee compensation and benefits.

- **Depreciation and amortization** | An increase of R\$7.4 million over 2014 above all due to the incorporation of new assets in the Company's generator complex.

- **Net operational provisions** | There was a negative effect of R\$77.2 million on results in relation to 2014. The main factors driving increased provisioning costs were: (i) a R\$92.3 million reversal of a provision for a civil action involving the collection of a surcharge on the Tariff for Use of the Transmission System (TUST) by Ponte de Pedra Hydroelectric Power Plant (UHPP), following a decision found in favor of the Company, thus reducing the risk of loss from a judicial process; (ii) a R\$15.7 million reversal of a provision for a Brazilian Social Security Department (INSS) collection as a result of the Company's agreement to the Refis da Copa tax amnesty; (iii) a reduction of R\$17.7 million in the provision for a civil action arising from the judicial dispute with a supplier (mentioned above); and (iv) R\$12.2 million with respect to the constitution and reversal for payment in fourth quarter 2014 and first quarter 2015, respectively, of a provision for a civil action involving indemnification for expropriations at Cana Brava Hydroelectric Power Plant.

- **Others** | In 2015, there was a negative variation in relation to 2014 of R\$70.6 million, essentially reflecting: (i) reversal of prescribed liabilities in 2014 for R\$54.8 million relating to energy purchases and transmission overheads; (ii) payment of R\$6.1 million in indemnifications for expropriations which took place in 2015; and (iii) an increase of R\$10.0 million in the premium on the Company's renewed insurance policies.

### DETAILS OF SHORT-TERM OPERATIONS INCLUDING TRANSACTIONS CONDUCTED ON THE ELECTRIC ENERGY TRADE BOARD (CCEE)

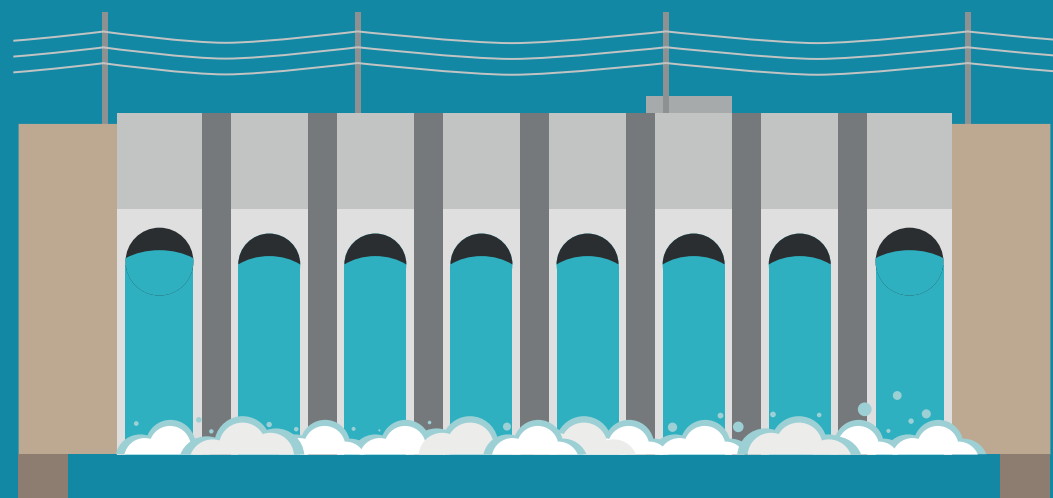
Short-term operations are classified as energy purchase or sale operations not exceeding six months and having the optimization of Tractebel's exposure on the CCEE as their prime objective. Consequently, the price for these operations is dictated by the Price for Settlement of Differences (PLD) or spot price. This item also includes

transactions conducted on the CCEE, given the volatile, seasonal and therefore short-term nature of the results originating from those booked at CCEE. Additionally, long and short positions are settled at the spot price, and therefore similar to the short-term operations described above.

As to the transactions conducted through the CCEE, the various monthly credit or debit entries to the account of an agent are summarized in a single billing as a receivable or a payable. This therefore requires an entry to either an income or an expense account. In this context, it is worth pointing out that due to adaptations to the Company's portfolio management strategy, changes have been taking place in billing profile in the past few years. Such fluctuations complicate direct comparison of the elements comprising each billing in the two years – the reason for including this specific topic – allowing us to analyze the oscillations of the principal elements involved in spite of allocation being to either income or expenses according to the credit or debit nature of the billing to which they relate.

WITH GROWTH OF 20.4% IN NET AVERAGE SELLING PRICES OF ENERGY, THE COMPANY'S NET REVENUE FROM FREE CONSUMERS REACHED R\$2,915.7 MILLION





**7.6%**

THERE WAS A  
YEAR-ON-YEAR INCREASE  
OF 7.6% FROM R\$2,895.1  
MILLION TO R\$3,114.6  
MILLION IN 2015

Generically speaking, these elements are income or expense items arising for example from: (i) the application of the Energy Reallocation Mechanism (MRE); (ii) the Assured Energy Adjustment Factor which occurs when generation in relation to allocated energy from the plants which are part of the MRE is greater (Secondary Energy) or less (Generation Scaling Factor – GSF); (iii) the so-called sub-market risk; (iv) dispatch triggered by the Risk Aversion Curve (CAR); (v) the application of System Service Charges (ESS), resulting in dispatch diverging from the thermal plants order of merit; and (vi) naturally, exposure (a short or long position in the monthly accounting) which will be settled at the PLD price.

For 2015 as a whole, the net result (the difference between revenues and costs – less taxes on revenues and costs) from short-term transactions, including those executed through the CCEE, was positive at R\$235.7 million against a negative result of R\$136.2 million in 2014, that is, an improvement of R\$371.9 million between comparative years.

This variation is largely due to a combination of the following factors: (i) a major reduction in the negative effect of the adjustment in physical guarantee in relation to the GSF; (ii) a decline in the long position on the CCEE, a reflection of the Company's monthly power allocation strategy; (iii) a decrease in thermoelectric exposure due to the significant reduction in average PLD in 2015 in spite of the overall increase in exposed volume; (iv) recognition in fourth quarter 2015 of the effects of signing up to the hydrological risk renegotiation at some of the Company's plants where energy is sold in the Regulated Contracting Environment (ACR) pursuant to Law 13,203/2015; (v) reduced impact of results from transactions on the CCEE in the fourth quarter 2015 compared with the same quarter in 2014 with the recognition of amounts due to the recovery from the negative impacts of operations through the CCEE in 2014 following forced stoppages at company generator units; (vi) increase in revenue with ancillary services; (vii) the increase in MRE revenue linked to the Energy Optimization Tariff (TEO); (viii) the positive effects of

short-term transactions in 2015; and (ix) the reversal in the second quarter 2014 of the provisions for supposed costs relative to the participation of generators in the prorating of System Service Charges (ESS) as per CNPE Resolution 03, given the reduced risk of loss from a judicial action contesting the collection of these amounts. The effects mentioned in items (ii) and (v) attenuated the positive impact of the remaining factors.

Worthy of note also was the significant reduction in year-on-year average PLD, thus contributing significantly to mitigating negative impacts stemming from the application of the GSF and thermoelectric exposure, and on the other hand, to the reduction in the positive effects arising from surplus energy settled through the CCEE.

On a year-on-year comparative basis, the average PLD for the South and Southeast/Central-Western submarkets declined by 57.8% from R\$675.81/ MWh in 2014, to close at R\$285.41 in 2015.

With the enactment of Law 13,203/2015 and pursuant to Aneel guidelines, in December 2015 the Company formally signed up to the renegotiation of the hydrological risk for plants where energy is sold through the Regulated Contracting Environment. The decision also reflected the need to mitigate the negative effects of the GSF on generator plants subject to the Energy Reallocation Mechanism – MRE. As a condition to signature, the Company agreed to remove all preliminary injunctions impeding the payment of the GSF at its plants.

This renegotiation was made retroactive to January 2015 and resulted in the reimbursed amount (net of the risk premium) of R\$223.2 million, booked to the asset Renegotiation of hydrological risk to appropriate. This amount will be offset against payment of future risk premiums to be incurred by the Company. The following table shows the results to be reimbursed following renegotiation for 2015 and the extension of the term for amortization of unit premiums under the ACR mechanism by product class.

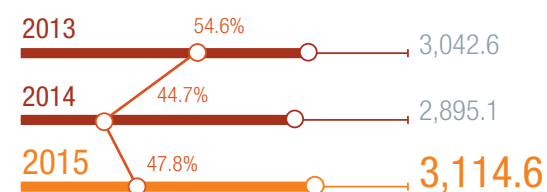
#### Criterion for renegotiation of the hydrological risk

Plant	Product	Amount renegotiated (average MW)	Amount renegotiated (MW)	Net unit reimbursement (R\$)	Total reimbursement (R\$ million)	Term* (years)
Cana Brava HPP	SP92	261.66	2,292,177	18.26	41.9	13.25
Itá HPP	SP92	336.00	2,943,360	18.26	53.7	13.25
Machadinho HPP	SP92	84.04	736,190	18.26	13.4	13.25
Ponte de Pedra HPP	SP95	123.55	1,082,315	23.80	25.8	7.17
Salto Santiago HPP	P97	150.00	1,314,000	24.36	32.0	2.92
São Salvador HPP	SP91	142.13	1,245,048	16.52	20.6	17.25
Estreito HPP	SP91	247.13	2,164,859	16.52	35.8	17.25
<b>Total</b>	<b>-</b>	<b>1,334.51</b>	<b>11,777,950</b>	<b>-</b>	<b>223.1</b>	<b>-</b>

\*Extension of payment term for the premium from January 2016 for reimbursement of the 2015 results.



## EBITDA\* (R\$ million) AND EBITDA MARGIN



\*Ebitda represents net income + income tax and social contribution + financial expenses, net + depreciation and amortization.

## EBITDA AND EBITDA MARGIN

In 2015, Ebitda increased by 7.6% or R\$219.5 million from R\$2,895.1 million in 2014 to R\$3,114.6 million. The Company reported an Ebitda margin of 47.8%, an increase of 3.1 p.p. in relation to 2014. This performance largely reflects a combination of the following factors: (i) an increase of R\$640.2 million in net revenue from sales of contracted energy; (ii) growth of R\$506.5 million in energy purchases for resale; (iii) the positive impact of R\$426.4 million in transactions conducted in the short-term market including

those executed within the scope of the CCEE; (iv) reversal in 2014 of a provision of R\$54.5 million covering the impacts of CNPE Resolution 03, published in 2013; (v) a R\$45.8 million increase in fuel consumption; (vi) an increase of R\$30.5 million in charges for the use of the electricity network and connection; (vii) a reduction of R\$17.7 million in 2015 in relation to the preceding year of a provision for a civil action arising from a legal dispute with a fuel supplier; (viii) reversal in 2014 of provisions for the collection of a surcharge on Ponte de Pedra Hydroelectric Power Plant's Tariff for Use of the Transmission System in the amount of R\$92.3 million; (ix) reversal of prescribed liabilities in 2014 amounting to R\$54.8 million; and (x) an increase of R\$80.4 million in other costs and operational expenses. If the non-recurring events in 2014 mentioned in items (iv), (viii) and (ix) are factored out, the increase in Ebitda would have been R\$421.1 million or 15.6% greater in 2015 in relation to the preceding year.

The following table reconciles net income with Ebitda.

### Reconciliation of net income with Ebitda

Amounts (in R\$ million)	2013	2014	2015	Change 2015/2016 (%)
Net income	1,436.7	1,383.1	1,501.3	8.5
(+) Income tax and social contribution	565.0	573.5	531.9	-7.3
(+) Financial expenses, net	385.5	346.3	470.6	35.9
(+) Depreciation and amortization	582.6	592.1	600.4	1.4
(+) Provision for impairments	72.8	0.0	10.3	-
Ebitda	3,042.6	2,895.1	3,114.6	7.6

## FINANCIAL RESULT

• **Financial Income** | On a comparative year-on-year basis, financial income increased R\$74.4 million, or 36.0% from R\$206.4 million in 2014 to R\$280.8 million in 2015. This variation is largely the result of the following factors: (i) an increase of R\$138.8 million in revenue from financial investments; (ii) a reversal of R\$61.4 million in 2014, corresponding to interest and monetary restatement of prescribed liabilities already mentioned in the item Costs of Energy Sales and Services – Others; (iii) recognition in 2014 of R\$11.0 million in gains as a result of legal rulings in favor of the Company; and (iv) an increase of R\$4.0 million in the monetary restatement of court escrow deposit accounts.

• **Financial expenses** | On a comparative year-on-year basis, expenses rose from R\$552.7 million to R\$751.4 million, a R\$198.7 million or 36.0% increase, resulting largely from the combination of the following variations: (i) growth of R\$75.6 million in interest and monetary restatement of debt; (ii) an increase of R\$138.3 million in interest and monetary restatement on concession fees payable; (iii) a decrease of R\$17.9 million in interest and monetary restatement of provisions and contingencies; and (iv) an increase of R\$4.5 million in currency translation expenses on corporate debt.

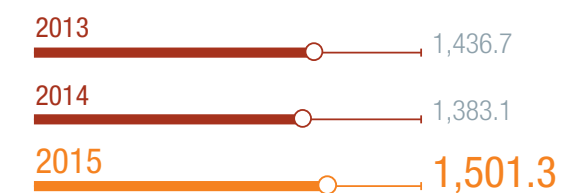
## INCOME TAX (IT) AND SOCIAL CONTRIBUTION (CSLL)

For the full 12-month period of 2015, income tax and social contribution expenses declined from R\$573.5 million in 2014 to R\$531.9 million in 2015: a difference of R\$41.6 million. This variation also reflects interest on shareholders' equity credited to shareholders during the year. Tax rates on profits in 2015 and 2014 were 26.2% and 29.3%, respectively.

## NET INCOME

Net income increased from R\$1,383.1 million in 2014 to R\$1,501.3 million in 2015, an R\$118.2 million, or 8.5% increase. This variation was principally due to: (i) a R\$219.5 million improvement in Ebitda; (ii) an increase of R\$124.3 million in net financial expenses; (iii) an increase of R\$8.3 million in depreciation and amortization expenses; (iv) recognition of asset impairment of R\$10.3 million in fiscal year 2015; and (v) a R\$41.6 million reduction in Income Tax and Social Contribution expenses.

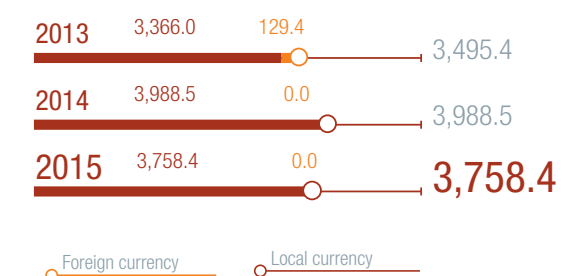
## NET INCOME (R\$ million)



## DEBT

Company's gross consolidated debt as at December 31, 2015, represented mainly by loans, financing and debentures, net of hedge operations, totaled R\$3,758.4 million, a decrease of 5.8% or R\$230.1 million, compared to the position as at December 31, 2014. Of total corporate debt at the end of the period, 34.2% was currency denominated (29.9% at the end of 2014). However, if the contracted swap operations are taken into account, currency exposure was zero at the end of the period under analysis.

## GROSS DEBT (R\$ million)



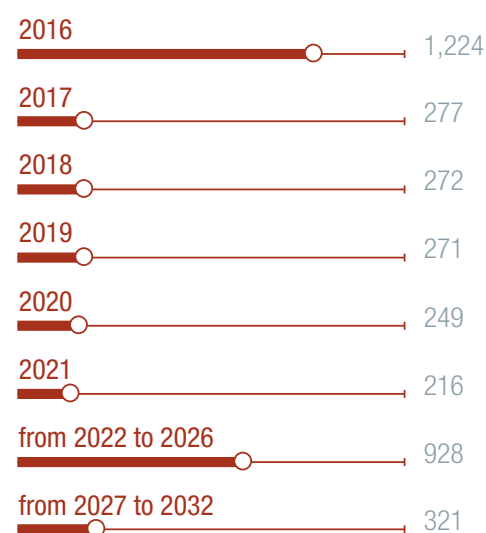
## THE COMPANY INVESTED R\$917.3 MILLION IN THE ACQUISITION OF PROJECTS AND IN THE CONSTRUCTION, MAINTENANCE AND REVITALIZATION OF ITS GENERATOR COMPLEX

The variation in Company debt is largely related to a combination of the following factors: (i) draw-downs from the National Development Bank – BNDES and its financial agents in the aggregate amount of R\$104.6 million for investments in the modernization of the Salto Santiago and Passo Fundo HPPs and the Jorge Lacerda Thermo-electric Complex and for the expansion work at the Ferrari Thermoelectric Power Plant; (ii) loan agreements in US dollars equivalent to R\$27.0 million, subject to swap operations for protecting the total cash flow from currency appreciation; (iii) R\$394.4 million in charges payable together with monetary restatement and currency translation effects; and (iv) R\$760.7 million in amortization of loans, financing and debentures.

The average weighted nominal cost of debt at the end of 2015 was 11.1%.

In December 31, 2015, the Company's net debt (total debt less derivative operations, deposits earmarked in guarantee of debt servicing and cash and cash equivalents) was R\$1,214.8 million, a reduction of 45.7% compared with the end of 2014.

### MATURING DEBT SCHEDULE (R\$ million)



### BREAKDOWN OF DEBT



### Net debt (R\$ million)

	12/31/2013	12/31/2014	12/31/2015	Change 2015/2014 (%)
Gross debt	3,496.6	4,052.7	4,247.2	4.8
Result of derivative operations	(1.1)	(64.2)	(488.8)	660.9
Deposits earmarked for debt servicing	(121.9)	(146.0)	(146.8)	0.5
Cash and cash equivalents	(1,224.3)	(1,604.7)	(2,396.9)	49.4
Total net debt	2,149.3	2,237.8	1,214.8	-45.7

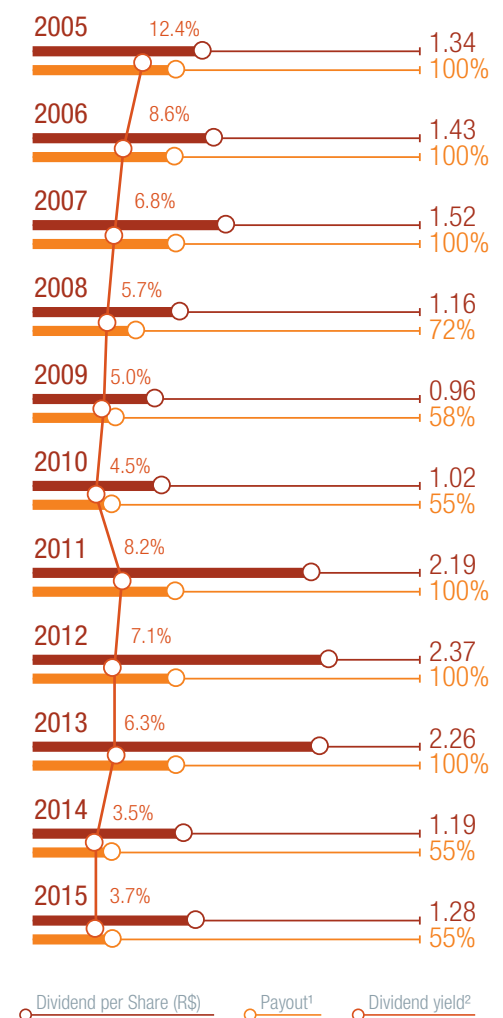
### INVESTMENTS

In 2015, the Company invested a total of R\$917.3 million in the construction, maintenance and revitalization of its generator complex and in the acquisition of projects. Construction work at the Santa Mônica and Campo Largo wind parks, the Pampa Sul TPP, the Assú Photovoltaic Complex and the Ferrari Thermoelectric Power Plant involved further investments of R\$493.6 million and will translate into an increase of about 11% in the Company's installed capacity over the next four years. A further R\$222.9 million was dedicated to investments in maintenance with a view to the continuation of a high plant uptime factor, this being 97.4% in 2015. A total of R\$134.5 million was invested in the modernization of the Salto Santiago and Passo Fundo plants – permitting a 12.2 average MW increase in the Company's total physical guarantee in 2015. In 2015, the Company also acquired projects amounting to a total of R\$66.3 million.

### PROPOSED DIVIDENDS

The total payout of profits for the 2015 fiscal year as proposed by Tractebel Energia Board of Directors, including interest on shareholders' equity, to be ratified by the Annual General Meeting, amounted to R\$834.8 million, equivalent to R\$1.2788764646 per share or 55% of net adjusted distributable income.

### TRACK RECORD OF DIVIDEND DISTRIBUTION (PAYOUT) (2005-2015)



1. Considering the adjusted net income for the fiscal year 2. Based on the closing price weighted by share volume in the period.

## THE COMPANY IS A COMPONENT OF THE SPECIAL CORPORATE GOVERNANCE (IGC) AND SPECIAL TAG ALONG (ITAG) STOCK INDICES

**R\$21.9 bi**

TRACTEBEL ENERGIA'S MARKET CAPITALIZATION AT THE END OF FISCAL YEAR 2015. THE COMPANY'S CLOSING PRICE FOR THE YEAR WAS R\$33.49/SHARES

### SHARE PERFORMANCE

- 13.3% Depreciation of shares comprising the Ibovespa
- 8.7% Depreciation of shares comprising the IEE
- 2.3% Appreciation in the shares of Tractebel Energia

**45.7%**

REDUCTION IN COMPANY NET DEBT IN RELATION TO 2014

### CAPITAL MARKETS

Since its listing on BM&FBovespa's Novo Mercado, Tractebel has become a component of the Special Corporate Governance Stock Index (IGC) and the Special Tag Along Stock Index (ITAG), incorporating those companies offering greater protection to minority shareholders in the event of the sale of a controlling stake. The Company's shares are also included in the Corporate Sustainability Stock Index (ISE), comprising companies with a recognized commitment to social and corporate responsibility, as well as the Electric Energy Stock Index (IEE), which is a sector index made up of the more significant listed companies in the industry.

Throughout 2015, the Company's shares remained as components of the country's leading stock index, the BM&FBovespa. In June, the Company was also included in the Euronext-Vigeo EM 70 – a stock index composed of companies in developing countries ranked highest by performance in corporate responsibility. Vigeo is the leading rating agency for corporate social responsibility and analyzes approximately 330 indicators.

Tractebel Energia's common shares are traded on the São Paulo Stock Exchange (BM&FBovespa) under the TBLE3 symbol. In addition, the Company's Level I American Depositary Receipts (ADRs) trade on the US Over-the-Counter OTC market under the TBLEY symbol at a ratio of one ADR for each common share.

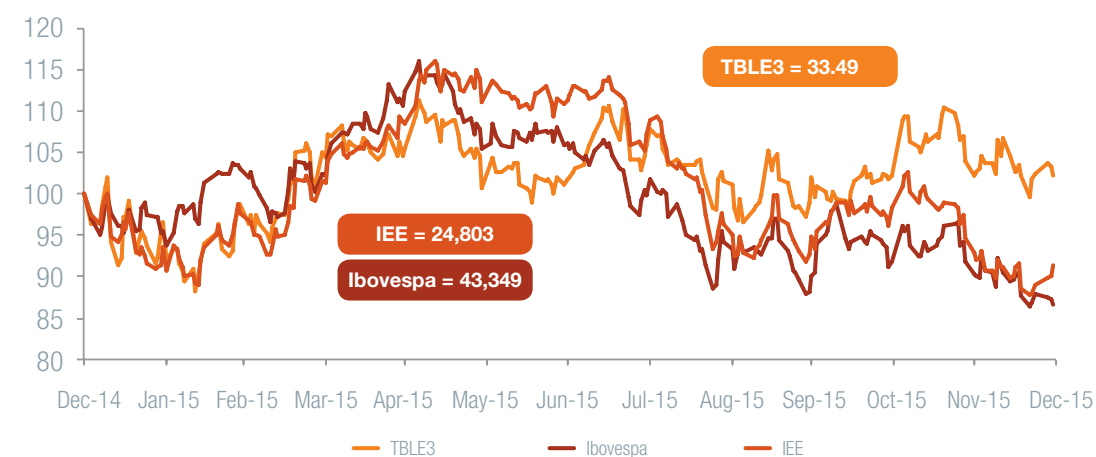
### SHARE PERFORMANCE

The benchmark Ibovespa stock index for the Brazilian equities market reported a depreciation of 13.3% in 2015, the third consecutive year in which the index has declined. This is a reflection of the economic and political uncertainty surrounding the country, which was recently downgraded by two risk classification agencies to a sub-investment grade rating.

Set against this scenario, Tractebel Energia's shares appreciated 2.3% while the IEE and Ibovespa both reported a depreciation of 8.7% and 13.3%, respectively. The Company's shares recorded a closing price for the year of R\$33.49/share, equivalent to a market capitalization of R\$21.9 billion.

The average daily trading volume for TBLE3 was R\$27.9 million, an increase of 2.3% in relation to 2014.

TBLE VS. IBOVESPA VS. IEEX (Baseline 100 – December 31, 2014)







# MANAGEMENT OF QUALITY

Management of the Company's manufactured capital is based on an Integrated Management System (SIG) in conjunction with the Sustainable Management Policy. This covers five dimensions (quality, environment, occupational health and safety, social responsibility and energy management) and is subject to a process of continuous upgrading. Administrative norms for the acquisition of equipment and materials and the contracting of services incorporate ethical and socio-administrative aspects.

Half of the 28 plants controlled by Tractebel Energia – or 83.6% of the operated capacity – is certified in accordance with NBR ISO 9001 (for quality), NBR ISO 14001 (for the environment) and NBR OHSAS 18001 (for Occupational Health and Safety) standards. In the area of social responsibility, the Company endeavors to adhere to the orientations in the NBR ISO 26000 standard (not susceptible to certification); the three plants in the Jorge Lacerda Thermoelectric Complex are among the 14 which are certified according to the NBR ISO 50001 standard for energy management. The standard provides support for companies worldwide in the drive for improving energy performance, increasing efficiency and reducing the impacts related to climate change. The Jorge Lacerda Thermoelectric Complex is the first electric energy generation business in Brazil to receive this certification, valid for three years up to 2018.

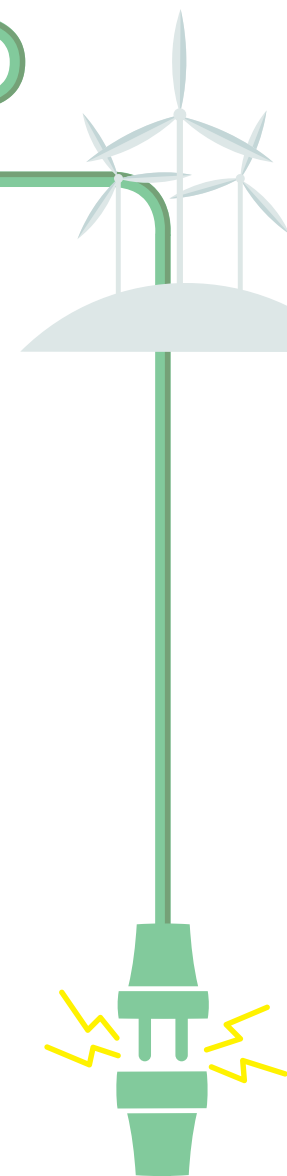
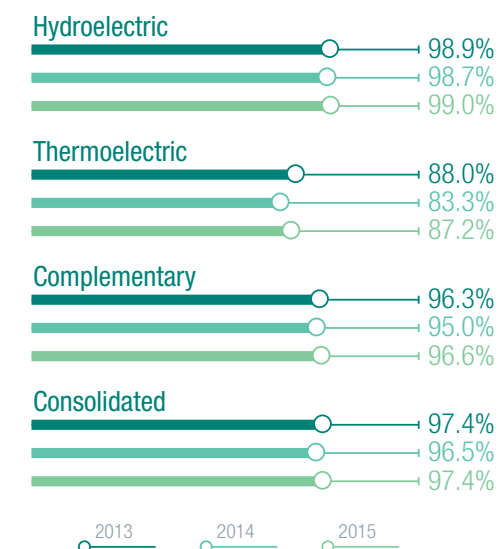
## OPERATING PERFORMANCE

Tractebel Energia believes the reliability, uptime and safety of its generator complex are fundamental aspects in quality management. The Company measures these aspects through an internal plant uptime indicator, the calculation of which takes into account the energy supply capacity of the installations and the period of unscheduled and emergency downtime at the generator units.

For the full 12-month period of 2015, excluding scheduled stoppages, the plants reported uptime of 97.4%: 99.0% in the case of the hydroelectric plants, 87.2% for the thermal powered units and 96.6% for the units driven by complementary sources.

The overall uptime for the year taking into consideration programmed stoppages was 86.9%: 89.1% for the hydroelectric plants, 72.5% for the thermoelectric plants and 87.2% for the plants powered from complementary energy sources. Modernization work in progress simultaneously at the Salto Santiago and Passo Fundo power plants and programed modernization at Ponte de Pedra, depressed the overall uptime performance of the hydroelectric plants and reflected in the overall uptime result as well.

### PLANT UPTIME, EXCLUDING SCHEDULED STOPPAGES

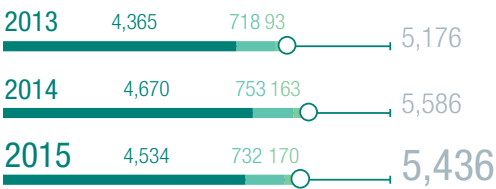


The following table shows the corporate targets for the principal operating indicators and the results achieved in 2015 for the management of plant operational quality.

Operational targets 2015		
Description	Target	Result
Uptime at the hydroelectric plants, discounting programmed stoppages	98.5%	99.0%
Satisfaction Ratio of the National Electric System Operator (ONS)	90.0%	93.6%

In 2015, the Company's total electricity energy output reached 47,622 GWh (5,436 average MW): a reduction of 2.7% in relation to 2014. This is due above all to low flow hydrology in the North Region, the location of the Estreito and Cana Brava hydro plants, and to the programmed stoppages for modernization of the generator units units at the Salto Santiago, Passo Fundo and Ponte de Pedra operations. Out of total generated energy, the hydroelectric plants were responsible for 39,723 GWh (4,534 average MW), a 2.9% reduction; the thermal plants, for 6,410 GWh (732 average MW), a decline of 2.8%; and the complementary plants for 1,489 GWh (170 average MW), an increase of 4.0%.

GENERATION (in average MW)



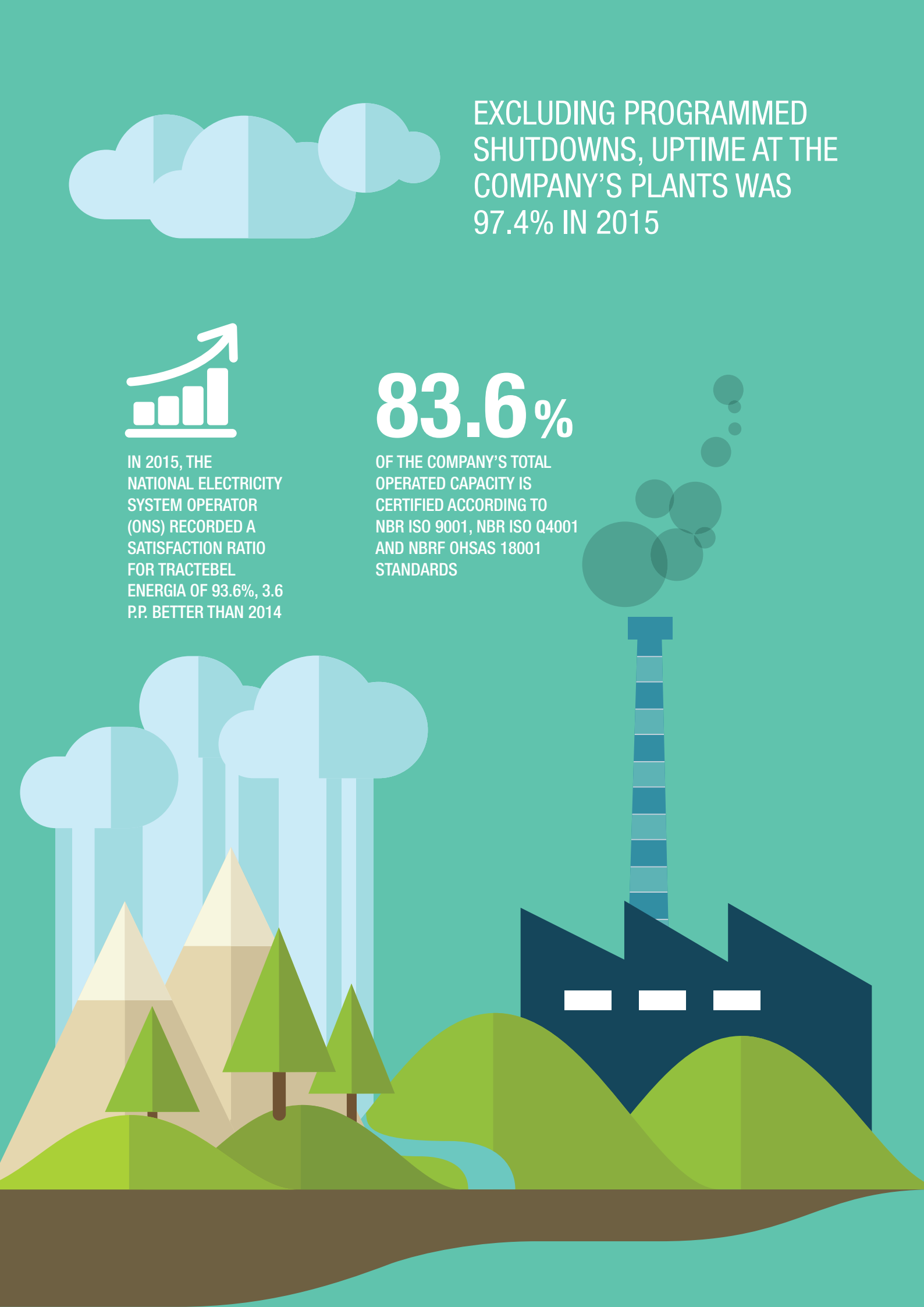
In this context, it is worth pointing out that an increase in the Company's hydroelectric generation does not necessarily reflect an improvement in economic-financial performance. Conversely, a reduction in this type of generation does not imply categorically a deterioration in economic-financial performance due to the adoption of the Energy Reallocation Mechanism (MRE), which defrays the risks of hydro generation among its participants.

As to the Company's thermal generation, its increase reduces exposure to the Price for the Settlement of Differences (PLD), the opposite being the case when there is a decrease, all other variables being equal.

With its coal-fired thermal plants, Tractebel Energia has set a priority to achieve reference values for net energy efficiency as established in Aneel's Normative Resolution 500 of July 17, 2012. This establishes an efficiency value of 25% for plants with an installed capacity of up to 50MW; 30% above 50MW and up to 150MW; and 35% for remaining plants. **GRI G4-EU11**

Average efficiency of Tractebel Energia's thermoelectric plants in 2015 GRI G4-EU1   G4-EU11					
Thermoelectric Plants /Unit		Installed capacity (MW)	Average efficiency (%)	Main fuel	Aneel reference value (NR 500) <sup>1</sup>
Jorge Lacerda Complex	UTLA 1 <sup>2</sup>	100	22	Coal	30
	UTLA 2 <sup>2</sup>	132	29	Coal	30
	UTLB	262	29	Coal	35
	UTLC	363	34	Coal	35
	<b>Total CTJL<sup>3</sup></b>	<b>857</b>	<b>31</b>	<b>Coal</b>	<b>33.65</b>
Charqueadas	UTCH	72	19	Coal	25
William Arjona	UTWA	190	26	Gas	-

1. The reference values in Aneel's Normative Resolution 500 relates to coal-fired thermoelectric plants only. 2. The UTLA units were listed individually (in 1 and 2) given their differing characteristics (in terms of operating periods, equipment manufacturer, installed capacity etc.). 3. In the case of the thermoelectric complexes where there is more than one plant belonging to the same concessionaire, the use of the reference value for measuring net energy efficiency may be on a joint basis.





# ENVIRONMENTAL MANAGEMENT

GRI G4-DMA Compliance

Tractebel Energia's environmental management employs the following guidelines:

**Balance** | The Company adopts the binomial of rational use of natural resources and the mitigation of environmental impacts as a means to achieve a balance between its activities, conservation and the preservation of the environment.

**Environmental aspects and impacts** | Environmental impacts and aspects which are characteristic of Tractebel Energia's activities, are identified and classified according to relevance and probability of occurrence. Operational controls and management programs are set up in order to mitigate impacts deemed as negative. These controls and programs include the consumption of natural resources, Greenhouse Gas Emissions (GGE), disposal of waste and management of the biodiversity, among other indicators.

**Legal compliance** | All plants operated by Tractebel Energia have environmental approvals and licenses required by the current legislation<sup>5</sup>. The Company monitors changes in the laws, standards and resolutions regulating its activities. Precautionary procedures are adopted to ensure that all the plants in the generator complex have the necessary authorities and environmental licenses required by the appropriate government bodies on a timely basis and with the correct validity. Tractebel Energia assesses and calibrates its operations and procedures whenever necessary to ensure adherence to the legal requirements as well as other voluntary commitments it has assumed. Such adjustments are based on issues raised through the management system as well as eventual divergences identified by audits.

5. Please note however that the renewal of Areia Branca HPP's license has been requested although up to the end of 2015, formal response had still not been received from the Regional Office of the Minas Gerais Environmental Protection Agency (Supram/MG), the licensing authority.

In 2015, the Company renewed the operational licenses for four plants: Pedra do Sal Wind Farm, the Ferrari Thermoelectric Power Plant, José Gelazio da Rocha SHP and the Ponte de Pedra Hydroelectric Power Plant. The Tubarão Wind Farm also received its first operational license while the Pampa Sul Thermoelectric Plant obtained its Installation License.

The Company also adopts as standard procedure environmental management goals for plants certified under NBR ISO 14001. The goals set for 2015 are shown as follows.

**General Aspects (applicable to all the plants):**

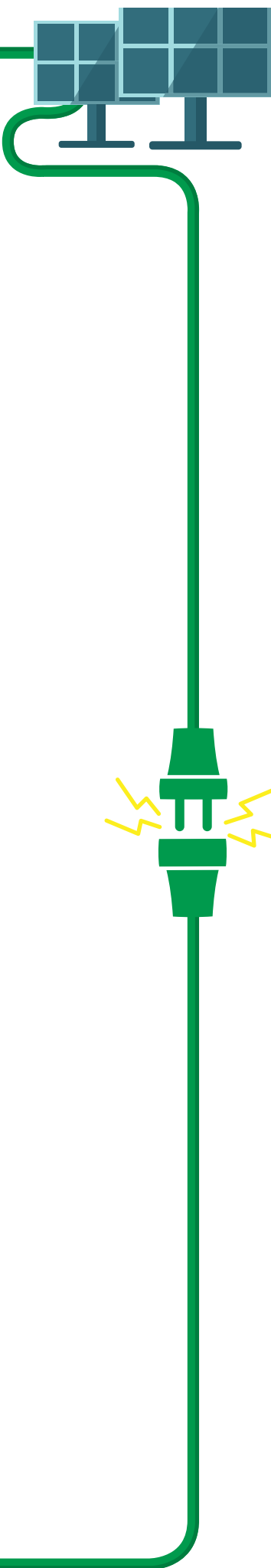
- Relationship with society – visiting program, environmental education, donation of seedlings and the protection of headwaters;
- Reduction in generation of solid waste, liquid effluent and atmospheric emissions – including recovery and recycling activities;
- Participation in relevant committees and associations (for example, hydrographic basin committees); and
- Maintenance of valid environmental licenses.

**Specifications for hydroelectric plants:**

- Management of riparian zones along reservoir banks;
- Mitigation and compensation of environmental impacts caused by reservoir filling and power plant operations; and
- Release of fish stocks.

**Specifications for thermoelectric plants:**

- Increase in energy efficiency and a reduction in CO<sub>2</sub> emissions.



In 2015, the Company set a total of 103 environmental goals with formal programs, performance indicators and measurement. The year-end situation was as follows:

2015 environmental goals				
Unit	Nº of goals	In progress	Achieved	Not achieved
Jorge Lacerda Thermoelectric Plant	12	5	3	4
Lages Cogeneration Plant	5	0	4	1
Cana Brava Hydroelectric Plant	7	5	2	0
Estreito Hydroelectric Plant	3	3	0	0
Itá Hydroelectric Plant	9	2	7	0
Machadinho Hydroelectric Plant	8	1	5	2
Passo Fundo Hydroelectric Plant	8	1	3	4
Ponte de Pedra Hydroelectric Plant	9	0	6	3
São Salvador Hydroelectric Plant	9	1	6	2
Salto Osório Hydroelectric Plant	11	3	7	1
Salto Santiago Hydroelectric Plant	10	2	6	2
Charqueadas Thermoelectric Plant	8	0	7	1
William Arjona Thermoelectric Plant	4	0	1	3
Total	103	23	57	23

BIODIVERSITY OF WATER BODIES AND HABITATS

GRI G4-EN11 | G4-EN12 | G4-EN13 | G4-EN14 | G4-EN26 | G4-EU13 | G4-DMA Biodiversity

Hydroelectric plants can have a direct impact on the ichthyofauna (combination of fish species existing in a given bio-geographic region) due to the inflow and outflow of water inherent to energy generation. Tractebel Energia operates its power plants in such a way as to mitigate these impacts. These include various measures to divert fish away from the plant structures or allow them to escape from the interior of the plant to the main water body. In some cases, the fish may actually have to be recovered when for some reason they become trapped inside plant installations. Once captured, the fish are immediately returned to their original habitat.

Tractebel undertakes a range of different preventive measures against the introduction of invasive species, harmful organisms and pathogenic agents which can affect the reliability of energy generation. Among these initiatives are periodic surveys of the population of golden mussel larvae, often to be found in reservoir waters and cooling systems. Among other benefits, these surveys are used to plot the reproduction and life cycles of this organic incrustation, permitting the future adjustment of control methods in accordance with the seasonal reproduction period for this species. A further initiative is the control of aquatic macrophytes to diminish the effects of eutrophication (the excessive presence of nutrients in the water), preventing their indiscriminant development and ensuring the continued multiple use of the reservoirs.

The installation of hydroelectric plants has a transformational effect on the environment with the aquatic environment becoming lentic (reservoirs have a standing water effect) for example. While this process is taking place, changes occur in the physical-chemical characteristics of the water resources. This has a direct impact on the aquatic biodiversity, more especially the ichthyofauna. Some species find the new environment to be ideal for their survival, development and reproduction, although others are unable to adapt to the new conditions. In order to assess this process over time, Tractebel Energia has been investing in R&D projects and monitoring the ichthyofauna in the regions of the hydroelectric plants it operates. The Company also promotes the periodic release of fish fries (newly hatched fish) into the reservoirs for restocking with native species. In 2015, Tractebel Energia invested approximately R\$437.7 thousand in technological projects for developing germplasm banks and the production of native fish species for replenishing the Iguaçu River. In addition, 45 thousand native fish fries were released into the reservoirs along the Iguaçu River – 23 thousand at Salto Santiago HPP and 22 thousand at Salto Osório HPP.

Another impact arising from the installation of a hydroelectric plant is the loss of habitat resulting from flooding during the reservoir filling process. In the course of this process, a good part of the brush is cleared and stranded fauna recovered and relocated to areas in keeping with the original environment. Once the reservoir is filled, a permanent preservation area must be installed with the restoration of areas degraded by construction. While not involved in the installation of any new hydroelectric plant in 2015, Tractebel Energia donated or planted 262,218 seedlings of native forest species in the areas of influence of the plants it operates.

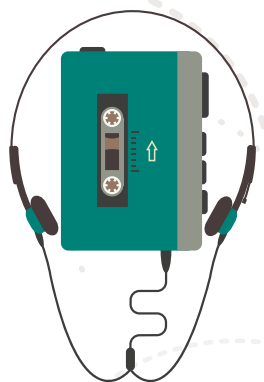
In August 2015, work started on the Pampa Sul TPP in Candiota (RS). Various initiatives were taken towards the conservation of the biodiversity of the Pampa Biome in the region. Among these, of particular importance is the Plant Germplasm Rescue Subprogram, involving the recovery of species on the Critically Endangered Species of Flora List in the state of Rio Grande do Sul. The subprogram is responsible for the relocation of two species of bromeliad, the collection and donation of iguana hackberry and myrta-

ceae seeds and the transplantation of examples of the swamp corticeira. In addition, the Company also implemented the following programs:

- **Fauna Recovery and Relocation Program |** For relocating animals found during brush clearance in areas directly impacted by the project.
- **Replanting Riparian Green Cover and the Ecological Corridor Connection |** Involves initiatives for conservation of riparian and head-water green cover.
- **Forestry Replacement Program |** For compensating the loss of green cover as a result of plant/reservoir installation.
- **Ichthyofauna Rescue and Monitoring Program |** Recovery of fish found during the construction process.
- **Program for Control and Eradication of Invasive Exotic Plant Species |** Helps to control invasive species which compete with and crowd out native species.

The Rational Brush Clearance Plan for the installation of the Santa Mônica Wind Farm Complex begun in 2014, sets out procedures for reducing the impact on the local flora and fauna. While the Company was authorized to clear brush over a 175.1-hectare area, in practice only 28% of this area was effectively cleared. Clearance of 5.79 hectares of a Permanent Preservation Area (APP) for the installation of the project required specific licenses and the replacement of green cover in an area equivalent to twice the size of the area cleared (11.58 hectares), also located in an APP and scheduled for implementation in 2016. In addition, the brush clearance phase at the Complex was run in tandem with the Fauna Rescue and Monitoring Program. Environmental Compensation payment to the licensing body is also required by law with the funds to be allocated to Conservation Units in the state of Ceará – amounts still to be established.





## THE COMPANY OPERATES A CORPORATE HEADWATERS CONSERVATION PROGRAM WHICH BY DECEMBER 2015, HAD DIRECTLY BENEFITED 903 FAMILIES

Other key initiatives under the Complex's Basic Environmental Plan (PBA) in relation to the biodiversity are the Plan for Recovery of Degraded Areas and Control of Erosive Processes; the Water Quality Monitoring Program (surface and groundwater); the Soil Quality Monitoring Program; Noise and Vibration Levels Monitoring Program; and the Environmental Education Program.

In other areas, the Company runs a corporate program for headwater conservation jointly with government organizations and the third sector. The program contributes to the water which the community consumes, helping to reduce pathogen water-borne diseases. Initiatives also include the enclosure of areas in the vicinity of headwater springs, the construction of protective brick-built covering around springs to avoid contamination and the reforestation of the surrounding area with indigenous species. As of December 2015, 831 springs had been protected in this manner to the direct benefit of 903 families. The program was recognized in 2013 with the Brazil Environmental Award. In 2015, this same initiative was ranked third in the Von Martius Sustainability Award, Nature category.

Tractebel Energia maintains operating units located in or adjacent to protected areas and/or areas of high biodiversity value. These are:

### Itá HPP

**Location:** between the municipalities of Itá (SC) and Aratiba (RS).

**Reservoir area:** 142 km<sup>2</sup>.

**Permanent Preservation Area (APP):** 22.56 km<sup>2</sup>.

**Regional biodiversity:** 27 species of mammal, 94 of birds, 31 of reptiles, 11 of amphibians, 40 of fish and 60 of flora (tree species).

**Unidades de Conservação:** Parque Estadual Fritz Plaumann (SC) of 7.41 km<sup>2</sup>, Parque Municipal Teixeira Soares (RS) of 4.61 km<sup>2</sup> and Parque Municipal de Preservação Ambiental de Severiano de Almeida (RS) of 0.15 km<sup>2</sup>.

### Cana Brava HPP

**Location:** municipality of Cavalcante (GO).

**Reservoir area:** 139 km<sup>2</sup>.

**Permanent Preservation Area (APP):** 3.2 km<sup>2</sup>.

**Regional biodiversity:** 92 species of mammal, 304 of birds, 98 of fish, 41 of amphibians and 77 of reptiles.

**Conservation Units:** Avá-Canoeiro indigenous reserve.

### Passo Fundo HPP

**Location:** municipality of Entre Rios do Sul (RS).

**Reservoir area:** 151 km<sup>2</sup>.

**Permanent Preservation Area (APP):** 4.11 km<sup>2</sup>.

**Regional biodiversity:** 18 species of mammal, 122 of birds, 14 of reptiles, 10 of amphibians, 44 of fish and 20 of flora.

**Conservation Units:** Parque Estadual Rondinha of 10 km<sup>2</sup>; and Reserva Municipal da Sagrisa of 4 km<sup>2</sup>.

### Machadinho HPP

**Location:** between the municipalities of Piratuba (SC) and Maximiliano de Almeida (RS).

**Reservoir area:** 79 km<sup>2</sup>.

**Permanent Preservation Area (APP):** 44.05 km<sup>2</sup>.

**Regional biodiversity:** 52 species of mammal, 192 of birds, 63 of fish, at least two species of reptile and 522 of flora.

**Conservation Units:** Parque Florestal Estadual Espigão Alto (RS), with 13.33 km<sup>2</sup>.

### Salto Santiago HPP

**Location:** between the municipalities of Rio Bonito do Iguaçu and Saudade do Iguaçu (PR).

**Reservoir area:** 208 km<sup>2</sup>.

**Permanent Preservation Area (APP):** the mandatory acquisition of areas for the formation of an APP was not required by the legislation at the time the plant was installed.

**Regional biodiversity:** 14 species of mammal, 302 species of birds, 14 species of amphibians and 39 species of fish.

### Ponte de Pedra HPP

**Location:** between the municipalities of Itiquira (MT) and Sonora (MS).

**Reservoir area:** 14.5 km<sup>2</sup>.

**Permanent Preservation Area (APP):** 7.8 km<sup>2</sup>.

**Regional biodiversity:** 80 species of mammal, 249 of birds, 58 of reptiles, 17 of amphibians and nine invertebrates.

**Conservation Units:** the plant reservoir is adjacent to the Parque Estadual da Serra de Sonora with approximately 79 km<sup>2</sup>.

### José Gelazio da Rocha SHP

**Location:** Rondonópolis (MT).

**Reservoir area:** 0.27 km<sup>2</sup>.

**Permanent Preservation Area (APP):** the legislation does not require the installation of an APP along the margins of the plant reservoir.

**Regional biodiversity:** 80 species of mammal, 249 of birds, 58 of reptiles, 17 of amphibians and nine invertebrates.

**Conservation Units:** Parque Estadual Dom Osório Stoffel, with 64.22 km<sup>2</sup>.

### Salto Osório HPP

**Location:** between the municipalities of São Jorge d'Oeste and Quedas do Iguaçu (PR).

**Reservoir area:** 55 km<sup>2</sup>.

**Permanent Preservation Area (APP):** the mandatory acquisition of areas for the formation of an APP was not required by the legislation at the time the plant was installed.

**Regional biodiversity:** 13 mammals, 303 bird species, 09 species of amphibians and 39 species of fish.

### Rondonópolis SHP

**Location:** Rondonópolis (MT).

**Reservoir area:** 0.024 km<sup>2</sup>.

**Permanent Preservation Area (APP):** not required by the legislation along the plant reservoir margins.

**Regional biodiversity:** 80 species of mammal, 249 of birds, 58 of reptiles, 17 amphibians and nine invertebrates.

**Conservation Units:** Parque Estadual Dom Osório Stoffel, with 64.22 km<sup>2</sup>.

### São Salvador HPP

**Location:** between the municipalities of São Salvador do Tocantins and Paranã (TO).

**Reservoir area:** 104 km<sup>2</sup>.

**Permanent Preservation Area (APP):** 47.53 km<sup>2</sup>.

**Regional biodiversity:** 26 species of mammal, 242 of birds, 38 of reptiles, 29 of amphibians and 209 of fish.

**Conservation Units:** Environmental Protection Area of Lago de São Salvador do Tocantins, Paranã and Palmeirópolis, with 145.25 km<sup>2</sup>.

### Estreito HPP

**Location:** between the municipalities of Estreito (MA), Aguiarnópolis and Palmeiras do Tocantins (TO).

**Reservoir area:** 555.0 km<sup>2</sup>.

**Permanent Preservation Area (APP):** 125.0 km<sup>2</sup>.

**Regional biodiversity:** two species of aquatic mammal, 164 of birds, 21 of reptiles, 38 of amphibians and 50 of fish.

**Conservation Units:** the reservoir runs adjacent to the Monumento Natural das Árvores Fossilizadas Conservation Unit, with 356.3 km<sup>2</sup>.

### Areia Branca SHP

**Location:** Caratinga and Ipanema (MG).

**Reservoir area:** 1.36 km<sup>2</sup>.

**Permanent Preservation Area (APP):** 112.71 hectares around the plant reservoir.

**Regional biodiversity:** 17 species of mammal, 191 of birds, six species of reptile and 20 species of amphibian.

**Conservation Units:** none in the directly affected area.

The Company also conducts surveys of species in the areas contiguous to the reservoirs. However, there is still no consolidated number of how many species figure on the national conservation lists. In 2014, the Company began a survey in two regions of the species included on the International Union for the Conservation of Nature's (IUCN) Red List of Endangered Species with the following results: **GRI G4-EN14**

Areas covered by the Salto Santiago and Salto Osório HPPs

- **Vulnerable:** six species, of which two are avifauna and four, flora.
- **Near threatened:** 15 species of which 12 are avifauna, two mammalian fauna and one, flora.
- **Endangered:** three species of which two are flora and one, avifauna.
- **Critically endangered:** one species of flora.
- **Least concern:** 246 species, of which three are ichthyofauna, 41 mammalian fauna, 184, avifauna, 17 herpetofauna and one of flora.

Area covered by the Ponte de Pedra HPP and José Gelazio and Rondonópolis SHPs

- **Vulnerable:** four species.
- **Near threatened:** two species.
- **Endangered:** zero.
- **Critically endangered:** zero.
- **Least concern:** 103 species.

Given the nature of its business and current Brazilian legislation, the Company does not substitute habitats.

Rather, it practices a process of environmental compensation through the allocation of a percentage of its investments destined for the installation of the power plant projects. Hence, Tractebel Energia supports the implementation and maintenance of conservation units in the regions in which it operates such as the Parque Estadual Fritz Plaumann and the Parque Natural Municipal Mata do Rio Uruguai Teixeira Soares<sup>6</sup>. The Parque Estadual Fritz Plaumann covers an area of 717.5 hectares and is one of the most important environmental protection areas in the state of Santa Catarina as well as being a benchmark for management and organization. The Company was one of the parties responsible for its installation in 2006, representing environmental compensation for the licensing of the Itá Hydroelectric Power Plant. The Company's joint operations with government and the third sector have been crucial for protecting the park, which includes one of the few remaining stands of Uruguay River Forest (or Deciduous Seasonal Forest), part of the Atlantic Rain Forest biome and classified as critically endangered. The conservation unit is administered by the state of Santa Catarina Protection Agency (Fatma), with technical collaboration from the State Park's Co-management Team (Ecopef) and an Advisory Board representing 19 institutions.

The Parque Natural Municipal Mata do Rio Uruguai Teixeira Soares in the municipality of Marcelino Ramos in the state of Rio Grande do Sul is a Conservation Unit of 423 hectares. The conservation unit was donated to the community by the Itá Consortium of which Tractebel Energia is a part. The park was developed as environmental compensation (also for the licensing of the Itá Hydroelectric Power Plant) by the Brazilian Institute for the Environment and Renewable

Natural Resources – IBAMA. The reason for selection and acquisition of the location for the park in the 1990s was similarly due to the existence of some of the remaining stands of Deciduous Seasonal Forest. The area represents a genetic bank, serving to replenish and maintain the region's flora and fauna, including several species on the critically endangered list. Another notable characteristic of the park is management conducted on a participative basis with the support of an Advisory Council, its members drawn from 16 local institutions.

In 2015, no impacts on the biodiversity due to the introduction of substances that do not occur naturally in the habitats were identified. Furthermore, no monitoring and measurement of changes in habitat, ecological processes and direct and indirect impacts on affected species were conducted. Similarly, no measurement was made of the extent of impacted areas and reversibility or irreversibility of the impacts.

WATER GRI G4-DMA Water I G4-DMA Effluent and waste

Water withdrawal by the Company is regulated and inspected by the official agencies responsible for each region. In situations representing risks to water sources, withdrawal is suspended. Monitoring of quality indicators of water discharged into water bodies is conducted periodically using physical-chemical and biochemical analyzes in order to prevent pollution and/or contamination of the water source. The discharge of water used in the cooling systems of thermoelectric power plants complies with the standards required by the current legislation. In 2015, Tractebel Energia discharged a total of 842,031,622.98 m³ of water on a planned basis at a quality compatible with current legislation. **GRI G4-EN22**

Total water withdrawal by source GRI G4-EN8		
Water sources	Volume 2014	Volume 2015
Surface water*	845,048,505.0 m³	845,236,521.25 m³
Ground water	29,696.0 m³	21,150.94 m³
Rainwater collected directly and stored by the organization	1,622,400.0 m³	2,155,440.00 m³
Municipal water supplies or other water utilities	6,434.0 m³	1,879,059.24 m³
Total volume of water withdrawn	846,707,035.00 m³	849,292,171.43 m³
The criteria used in the calculations and measurement of water withdrawal comply with the requirements of ENGIE, Tractebel Energia's controlling company. Data is audited annually by a third party.		
*No water is withdrawn from wetlands, lakes and the sea.		

The Charqueadas, Ferrari, Ibitiúva, Wiliam Arjona, Lages and the Jorge Lacerda Thermoelectric Plants operate on a closed circuit basis, recycling the water used in the generation process. The following table shows the percentage portion and volume of water recycled and reused in relation to total consumption.

Percentage and total volume of recycled and reused water GRI G4-EN10		
	2014	2015
Total and percentage of recycled water	22,465,181.0 m³ (2.7%)	20,558,439.92 m³ (2.42%)
Total and percentage of reused water	2,155,440.00 m³ (0.25%)	7,697,502.25 m³ (0.91%)
Total and percentage of withdrawal of rain water	1,622,400.0 m³ (0.2%)	2,155,440.00 m³ (0.25%)
The criteria used in the calculations and measurement of water withdrawal comply with the requirements of ENGIE, Tractebel Energia's controlling company. Data is audited annually by a third party.		

6. The Company engaged outside specialists for preparing studies for installing the two parks, these subsequently receiving approval from the appropriate environmental protection agencies. The standards, methodologies and assumptions adopted for the related actions (restricted to these two conservation units) correspond to those taken into consideration by the specialists involved and pursuant to the environmental legislation.

TRACTEBEL ENERGIA SUPPORTS THE INSTALLATION AND MAINTENANCE OF CONSERVATION UNITS IN THE REGIONS OF INFLUENCE SURROUNDING ITS UNITS



FUELS GRI G4-DMA Energy

Tractebel Energia's Policy on Climate Change incorporates measures for reducing the consumption of fossil fuels, among these the preferential use of flex-fueled vehicles, the engagement of collective passenger transportation services at the majority of plants and the use of conference calls and video conferencing. The following tables show the consumption of fossil fuels and energy intensity for 2015 and 2014.

Energy consumption within the organization GRI G4-EN3   G4-EU2				
		2014	2015	
Sale	By type*	Electric energy sold	37,072 GWh (4,232 average MW)	36,012 GWh (4,111 average MW)
		Steam sold	25.4 GWh	24 GWh
Consumption	Non-renewable	Coal	58,987,165.12 GJ	58,370,842.88 GJ
		Diesel oil	158,458.38 GJ	112,604.13 GJ
		Fuel oil	111,729.13 GJ	198,905.66 GJ
		Gas	15,301,731.72 GJ	13,643,509.79 GJ
		Total	74,559,084.35 GJ	72,325,862.46 GJ
	Renewable	Wood-based biomass	2,374,328.34 GJ	2,441,765.81 GJ
		Sugarcane-based biomass	7,736,777.24 GJ	8,635,209.87 GJ
		Total	10,111,105.58 GJ	11,076,975.68 GJ
	By type	Consumption of grid electricity <sup>2</sup>	616,546.1 GJ	660,145.50 GJ <sup>1</sup>
	Total	Total consumption of energy <sup>3</sup>	85,286,736.03 GJ	84,062,983.64 GJ

Standards, methodologies and assumptions adopted: the criteria used in the calculations and measurement of water withdrawal comply with the requirements of ENGIE, Tractebel Energia's controlling company. Data is audited annually by a third party.

\*The amount shown as energy sold corresponds to proprietary energy from the business and not the excess from self-production.

1. The amount relates to energy consumption at the units (industrial use + administrative buildings). 2. References (electric energy): the Invoicing Metering System (SMF) is responsible for recording data for electric energy generated and consumed by the plants. There are various norms for minimizing equipment faults and avoiding possible fraud. The technical aspects to which the SMF should be submitted, are subject to ONS guidance. On the other hand, the way the data is handled and the terms and rules for delivering the information are established by the Electric Energy Trade Board (CCEE). 3. Total energy consumption = total renewable fuels + total non-renewable fuels + Grid consumption.

Energy intensity GRI G4-EN5		
Energy intensity	2014	2015
Consumption of energy within the Company (GJ)	84,062,983.64	85,286,736.03
Energy production (GJ)	171,440,768.65	176,191,271.92
Energy intensity (Consumption of energy within the Organization/Production of energy)*	0.49	0.48

\*Types of energy included in the intensity ratio: fossil fuels, renewable fuels and energy from the Grid.

REDUCTION OF ENERGY CONSUMPTION

GRI G4-EN6 | GRI G4-DMA Energy

The Jorge Lacerda Thermoelectric Complex accounts for 76.6% of installed capacity in Tractebel Energia's entire thermoelectric generation complex. The JLTC recorded a slight year-on-year increase of approximately 0.5% in energy consumption during 2015. The result reflects largely shortfalls in output at UTLA, the most efficient plant in the Complex. The main causes were: the formation of ash deposits, a fault in the feed water heater and increased consumption as well as reduction in efficiency of UTLA2 due to natural wear and tear of the equipment (overhaul scheduled for 2016/2017). However, there was no significant decline in consumption at UTLA1 and

UTLB, principally due to initial installation work on investments, overhauls and corrective maintenance work in 2015 and improvements in operational and maintenance procedure.

In 2016, the Company envisages greater reductions as a result of the implementation of investments at UTLA1 (new precipitator, replacement of turbine vanes, new condenser and economizer) and the start of other actions and adaptations at UTLA2: combustion system, BP turbine and automation modernization. In relation to auxiliary energy consumption, there was a 0.5% reduction in relation to 2014.

Reduction of energy consumption GRI G4-EN6						
Year	Coal consumption (t)	Net generation (MWh)	LHV* (kcal/kg)	LHV (kJ/kg)	Specific coal consumption (kJ/kWh)	Reduction (%)
2015	3,252,723	4,458,498	3,865	1,6157	11,787	0.44
2014	3,292,797	4,506,770	3,851	1,6096	11,735	0.32
2013	3,671,283	5,156,550	3,956	1,6536	11,773	3.86

\*Lower heating value (LHV).

Standards, methodologies and assumptions adopted: (i) NBR ISO 50.001, which describes the energy use and consumption and energy efficiency, and (ii) ASTM PTC 4-2008, for calculation of efficiency and lower heating value for coal. Types of energy included in the reductions and base used for the calculation: fossil fuel (mineral coal).



THE COMPANY ENVISAGES ADOPTION OF MEASURES TO REDUCE FOSSIL FUEL CONSUMPTION, AMONG THEM, THE PREFERENTIAL USE OF FLEX-FUEL CARS

WASTE GRI G4-EN23 | G4-EN25 | G4-DMA Effluent and waste

Tractebel seeks to dispose of waste generated from its units in an environmentally correct manner and, wherever possible, to promote its reuse or recycling. The Company neither imports nor exports waste, insists that the companies engaged for final disposal comply with the appropriate environmental legislation, particularly Law 12,305/2010, which introduced the National Solid Waste Policy.

Disposal of waste

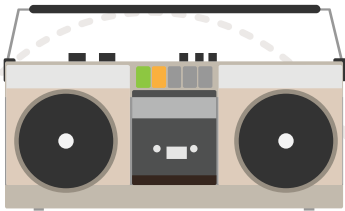
Disposal method	Hazardous waste (ton)		Non-hazardous waste (ton)	
	2015	2014	2015	2014
Reuse	66.58	8.71	2.12	7.6
Recycling	42.33	112.7	1,806,806.09	1,809,045.00
Composting	NA	NA	69.05	40.91
Recovery of degraded areas	NA	NA	563.01	1,756.67
Recovery, including energy recovery	0.0063	NA	116.83 (used as fuel)	111.68
Incineration (mass burn)	17.04	0.02	NA	N/A
Landfill	226.42	324.74	1,592.05	356.89
Coal mine shafts	NA	N/A	61,187.49	39,328.77
Onsite storage	93.38	68.33	25.94	38.35
Co-processing	223.64	150.9	24.40	1.25
Road surfacing	NA	NA	0.51	0.74

The increase in the amount of incinerated hazardous waste compared with 2014 is due to the final disposal of remaining pallets following the installation of the Trairi Wind Complex.

The generation of driftwood in hydroelectric plant reservoirs varies from one period to another, so justifying a significant decrease in 2015 relative to the preceding year. This variation can be seen in the amounts of non-hazardous waste used for the recovery of degraded areas.

The increase in the amount of ash disposed in coal pits is justified by the crisis in the civil construction industry with the consequent reduction in demand for this type of waste for cement manufacture.

The substitution of electrostatic precipitators at UTLA resulted in an increase in the number of outsourced workers at the installations of CTJL. This contributed to a notable increase in the generation of sewage sludge and consequently the amount of non-hazardous waste disposed in Class II landfills.



THE WASTE FROM TRACTEBEL ENERGIAS’S UNITS IS DISPOSED CORRECTLY IN LINE WITH THE CURRENT LEGISLATION SUCH AS THE NATIONAL SOLID WASTE POLICY

Total weight of waste generated and destination, by method of disposal GRI G4-EN23

HAZARDOUS WASTE

Description	Generated (tons)	Disposed (tons)	Disposed (%)	Final destination
Water contaminated oil	14.80	14.26	96.4	Class I industrial landfill
Industrial batteries	0.14	0.13	96.6	
Oil and schist sludge	0.02	0.02	100.0	
Paint sludge	0.20	0.13	67.4	
Oil contaminated gravel	0.06	0.06	100.0	
Print cartridges and toners	0.02	0.02	91.1	
Contaminated packaging (contaminated solids)	22.42	20.58	91.8	
Sand blasting slag	86.26	86.01	99.7	
Spent lamps in general	1.04	0.84	80.8	
Sanitary sewage sludge	70.29	70.29	100.0	
Acoustic insulation foam paneling	0.07	0.07	100.0	
Materials containing mercury	0.00	0.00	100.0	
Materials contaminated with oils, grease and chemical products	31.42	26.62	84.7	
Materials containing asbestos or glass wool	3.30	3.26	98.8	
Wet and dry cell batteries	0.25	0.17	66.0	
Chemical products	0.84	0.62	73.9	
Kerosene and other contaminated solvents (washing of parts)	1.04	0.96	92.3	
Health services waste	0.01	0.01	100.0	
Solder dross (electrodes, wires, welding rods, tin)	1.04	1.01	96.8	Sanitary landfill
Resins in general	2.43	1.19	49.0	
Electrical-electronic scrap	1.32	0.18	13.8	
Solder dross (electrodes, wires, welding rods, tin)	9.36	8.42	90.0	Incineration
Solder dross (electrodes, wires, welding rods, tin)	0.00	0.00	100.0	
Electrical-electronic scrap	0.00	0.00	100.0	
Chemical products	17.00	17.00	100.0	REC. Co-processing
Health services waste	0.04	0.04	100.0	
Water contaminated oil	153.23	153.23	100.0	
Oil or schist sludge	5.09	5.09	100.0	
Oil contaminated gravel	12.72	12.38	97.4	
Print cartridges and toners	0.13	0.12	93.7	
Contaminated packaging (contaminated solids)	1.54	1.45	94.1	
Aerosol packaging	0.00	0.00	100.0	
Residual grease	0.12	0.12	100.0	
Spent lamps	0.11	0.11	100.0	
Materials contaminated with oils, grease and chemical products	58.76	47.30	80.5	
Materials containing asbestos or glass wool	0.01	0.01	100.0	
Chemical products	0.18	0.18	100.0	
Kerosene and other contaminated solvents (washing of parts)	0.03	0.03	100.0	
Solder dross (electrodes, wires, welding rods, tin)	0.07	0.07	100.0	
Resins in general	3.52	3.52	100.0	
Electrical-electronic scrap	0.06	0.04	70.4	

HAZARDOUS WASTE

Description	Generated (tons)	Disposed (tons)	Disposed (%)	Final destination
Industrial batteries	3.44	3.44	100.0	REC. Recycling
Print cartridges and toners	0.14	0.06	42.2	
Aerosol packaging	0.38	0.27	72.0	
Agrochemical packaging	0.03	0.00	11.6	
Spent lamps in general	3.30	2.58	78.1	
Used insulation oils	3.29	3.29	100.0	
Used lubrication oils	23.10	23.10	100.0	
Dry and wet cell batteries	1.73	0.19	11.1	
Electrical-electronic scrap	9.74	9.40	96.6	
Print cartridges and toners	0.45	0.39	87.0	REC. Reutilization
Used insulation oil	0.40	0.40	100.0	
Used lubrication oil	65.96	61.44	93.1	
Returnable industrial towels	4.36	4.36	100.0	REC. Utilization as fuel
Sanitary sewage sludge	0.01	0.01	100.0	

NON-HAZARDOUS WASTE

Styrofoam	0.02	0.02	100.0	Controlled landfill
Sanitary sewage sludge	78.54	78.54	100.0	
Wood	0.08	0.03	40.6	
Plastics	0.04	0.04	100.0	
Common waste (food, lavatory paper, cigarette packaging)	3.71	3.71	100.0	
Organic waste	10.56	10.56	100.0	Class II industrial landfill
Construction rubble	101.55	101.55	100.0	
Sand blasting slag	55.46	48.77	87.9	
Filters from air conditioning systems	0.03	0.01	31.3	
Styrofoam	0.08	0.08	96.4	
Stone wool	205.46	205.35	99.9	
Sanitary sewage sludge	921.50	921.50	100.0	
Sludge from water treatment plants	12.36	12.36	100.0	
Wood	0.92	0.92	100.0	
Sleeves (sleeve filters)	9.20	9.20	100.0	
Acoustic insulation foam paneling	0.09	0.09	100.0	Sanitary landfill
Common waste (food, lavatory paper, cigarette packaging)	5.23	4.92	94.1	
Organic waste	15.80	15.40	97.4	
Non-contaminated industrial solids (non-contaminated silica gel, air conditioning filters, files, PVS waste, hosepipes)	19.37	15.83	81.7	
Rubber scrap	2.74	2.55	93.1	
Glass	0.67	0.61	91.2	
Air conditioning filters	0.02	0.02	100.0	
Styrofoam	0.23	0.23	100.0	
Cooking oil	0.12	0.12	100.0	
Cardboard and paper	5.37	5.37	100.0	
Plastics	0.16	0.16	100.0	

NON-HAZARDOUS WASTE

Description	Generated (tons)	Disposed (tons)	Disposed (%)	Final Destination
Common waste (food, lavatory paper, cigarette packaging)	126.89	126.89	100.0	Sanitary landfill
Organic waste	26.23	26.23	100.0	
Non-contaminated industrial solids (non-contaminated silica gel, air conditioning filters, files, PVS waste, hosepipes)	0.02	0.02	100.0	
Rubber scrap	0.85	0.79	92.3	
Ferrous metal scrap	0.04	0.04	100.0	
Non-ferrous metal scrap (copper, aluminum, brass, stainless steel, silver, bronze)	0.06	0.06	100.0	
Glass	0.08	0.08	100.0	Incineration
Wood	0.20	0.20	100.0	
Wood	2.60	2.60	100.0	REC. Composting
Organic waste	66.45	66.45	100.0	
Air conditioning filters	0.12	0.12	100.0	REC. Co-processing
Styrofoam	0.00	0.00	100.0	
Stone wool	21.12	21.12	100.0	
Rubber scrap	2.22	1.90	85.5	
Electrical-electronic scrap	1.55	1.28	82.7	REC. Paving of highways
Construction site rubble	0.51	0.51	100.0	
Fly ash	1,072,847.62	1,072,847.62	100.0	
Bottom ash (boilers)	595,093.55	595,093.55	100.0	REC. Recycling
Plaster	19,913.60	19,913.60	100.0	
Styrofoam	0.02	0.02	100.0	
Wood	0.18	0.18	100.0	
Cooking oil	0.40	0.40	100.0	
Cardboard and paper	43.57	43.13	99.0	
Plastics	24.95	23.79	95.3	
Rubber scrap	0.36	0.18	49.3	
Ferrous metal scrap	2,049.53	2,047.26	99.9	
Non-ferrous metal scrap (copper, aluminum, brass, stainless steel, silver, bronze)	144.98	144.61	99.7	
Glass	0.06	0.06	100.0	REC.Recovery of degraded areas
Driftwood (wood waste accumulating in reservoirs)	563.01	563.01	100.0	
Wood	0.42	0.40	95.6	REC. Reutilization
Organic waste	0.13	0.13	100.0	
Ferrous metal waste	1.81	1.56	86.4	
Non-ferrous metal scrap (copper, aluminum, brass, stainless steel, silver, bronze)	0.03	0.02	88.4	
Wood	116.83	116.83	100.0	REC. Reutilization as fuel
Bottom ash (boilers)	60,205.65	60,205.65	100.0	
Plaster	981.84	981.84	100.0	Coalmines
Bottom ash (boilers)	30,735.81	30,735.81	100.0	
Fly ash	15,845.03	15,845.03	100.0	REC. Recycling

The Company sells fly ash from its coal-fired thermoelectric plants to the cement industry as part of its commitment to the corporate Policy on Climate Change. The use of fly ash contributes to the reduction in CO<sub>2</sub> emissions by substituting limestone in cement manufacture. Ash from the biomass plants is used in agriculture to replace conventional agricultural inputs, among these limestone.

On the other hand, bottom ash is used as foundation material for highway asphaltting. This same material is also used to neutralize soil acidity in the recovery of coalmine tailings due to their high pH. Some of the bottom ash from the Charqueadas Thermoelectric Plant is returned to coal mining areas and used for the environmental recovery of land directly contiguous to the mine affected by coal mining activities.

Disposal – ash to the cement industry			
	2014 (t)	2015 (t)	Change (%)
Charqueadas Thermoelectric Power Plant	120,977.14	198,940.01	39.2
Jorge Lacerda Thermoelectric Power Plant	1,647,458.53	1,469,001.16	-10.8

Disposal – ash for agriculture/forestry work			
	2014 (t)	2015 (t)	Change (%)
Lages Co-generation Plant	33,931.81	17,265.38	-49.1
Ibitiúva Thermoelectric Power Plant	11,516.00	29,315.46	60.7
Ferrari Thermoelectric Power Plant	61,472.00	70,110.85	12.3

EMISSIONS GRI G4-DMA Emissions

Greenhouse Gas emissions (in tCO <sub>2</sub> e)						
Emission sources	Operational control	Corporate participation	Operational control	Corporate participation	Operational control	Corporate participation
	2013		2014		2015	
Scope 1 GRI G4-EN15						
Stationary combustion	6,449,189.72	6,447,636.82	6,358,562.58	6,357,397.51	6,093,182.65	6,091,658.38
Mobile combustion	557.73	564.60	671.54	693.97	637.11	658.51
Processes	2,346.56	2,349.56	4,120.11	4,120.11	5,345.05	5,345.05
Fugitive emissions	172.17	172.35	26.14	1,170.04	226.73	236.13
Agricultural activities	20.34	20.91	4.63	11.21	5.73	8.30
Solid waste	0.68	0.68	0.37	0.37	12.61	2.89
Total scope 1	6,452,290.19	6,450,744.91	6,363,385.37	6,363,393.22	6,099,409.88	6,097,919.26

Greenhouse Gas emissions (in tCO <sub>2</sub> e)						
Emission sources	Operational control	Corporate participation	Operational control	Corporate participation	Operational control	Corporate participation
	2013		2014		2015	
Scope 2 GRI G4-EN16						
Purchase of electricity from the grid	18,847.60	20,168.44	18,711.25	19,670.31	18,751.32	19,709.00
Scope 3 GRI G4-EN17						
Activities related to fuel and energy not included in scopes 1 and 2	5.87	5.87	1,642.86	1,642.86	39.97	39.97
Transportation and distribution (upstream)	16,180.97	16,361.54	18,679.86	18,800.61	19,824.84	19,929.93
Waste generated in the operations	57.67	63.66	502.26	503.31	807.45	816.05
Business travel	1,019.16	1,126.81	662.6	718.35	915.34	981.16
Employee commuting (home-work-home)	362.89	393.41	345.1	484.87	458.34	498.53
Transportation and distribution (downstream)	10,369.92	10,369.92	10,020.20	10,020.20	10,414.26	10,414.26
Total scope 3	27,996.48	28,321.21	31,852.87	32,170.20	32,460.21	32,679.90
Total emissions	6,499,134.27	6,499,234.56	6,413,949.50	6,415,233.72	6,150,621.41	6,150,308.17
Biomass emissions (tCO <sub>2</sub> )	502,360.53	426,155.73	941,304.07	882,667.28	1,102,109.56	1,025,261.65
Non-Kyoto gases (tCO <sub>2</sub> e)	0.35	0.36	279.39	325.59	374.67	438.35

Based on the emissions from the plants for which it has operational control, Tractebel Energia reported a total year-on-year decline in 2015 of 4.11% from 6,413,949.50 tCO<sub>2</sub>e in 2014 to 6,150,621.41 tCO<sub>2</sub>e in 2015. There was a reduction in Scopes 1 and 2 and an increase in emissions under Scope 3.

Tractebel Energia's GGE by scope in tCO <sub>2</sub> e – Operational Control basis (2013-2015) GRI G4-EN19			
Scopes	2013	2014	2015
Scope 1	6,452,290.19	6,363,385.37	6,099,409.88
Scope 2	18,847.60	18,711.25	18,751.32
Scope 3	27,966.44	31,852.87	32,460.21
Total	6,499,134.27	6,413,949.50	6,150,621.41

The evolution in GGEs taking the corporate stake approach is intrinsically related to the operational control approach, emissions varying proportionally to Tractebel Energia's shareholding stake in the plants. Hence, it can be argued that there has been a reduction in total GGEs.

In addition, the Tubarão Wind Farm is shown as part of Tractebel Energia's generator complex given its 100% operational control and 100% stake in the project although plant emissions are insufficient to have any impact on Tractebel Energia's aggregate emissions (growth of 11.20 tCO<sub>2</sub>e in 2015 emissions).

Tractebel Energia's GGEs in tCO <sub>2</sub> e – Corporate Stake basis (2013-2015) GRI G4-EN19			
Scopes	2013	2014	2015
Scope 1	6,450,744.91	6,363,393.22	6,097,919.26
Scope 2	20,168.44	19,670.31	19,709.00
Scope 3	28,321.21	32,170.20	32,679.90
Total	6,499,234.56	6,415,233.72	6,150,308.17

Evolution in emissions from Tractebel Energia's energy generation in tCO <sub>2</sub> e/MWh (2013-2015) GRI G4-EN18				
Parameter	Unit of measurement	2013	2014	2015
Operational Control	tCO <sub>2</sub>	6,499,134.27	6,413,949.50	6,150,621.41
	tCO <sub>2</sub> /MWh	0.2356	0.2308	0.2115
Corporate Stake	tCO <sub>2</sub>	6,499,234.56	6,415,233.72	6,150,308.17
	tCO <sub>2</sub> /MWh	0.1821	0.1715	0.1592

In the light of the data shown above, there was a decrease in Tractebel Energia's emissions in 2015 compared with 2014 of 4.13%, in line with a similar decrease taking the Operational Control approach, of 4.11%.

Volume of emissions of NOx, SOx and other air emissions (2015) GRI G4-EN21	
Categories	Volume of emissions (t)
NOx	15,767.94
SOx	119,844.06
Particulate matter (MP)	3,600.06

NOx, SOx emissions and other air emissions in t/MWh GRI G4-EN21				
Categories	2013	2014	2015	Change 2014 x 2015 (%)
NOx	0.00038	0.00036	0.0003311	-8.73
SOx	0.00278	0.00242	0.0025165	3.83
MP	0.00006	0.00008	0.0000756	-5.82

From the point of view of plants operated by the Company, emissions of substances which deplete the ozone layer amounted to approximately 0.21 t of hydrochlorofluorocarbons – HCFC (R-22), corresponding to 374.67 tCO<sub>2</sub>e. On the other hand, taking the corporate stake approach, emissions amounted to 0.24 t of R-22, corresponding to 438.35 tCO<sub>2</sub>e. This gas is used in refrigeration equipment and air conditioning installed at the Company's units. **GRI G4-EN20**

The Standards and Methodologies used for measurement were:

- ISO 14064-1:2007 – Greenhouse Gas Effect – Specification and guidance to organizations for quantifying and preparing reports on emissions and removal of greenhouse gases.
- Brazilian GGE Program Protocol.

Tractebel Energia's full Emissions Inventory for 2015 (and all its Subsidiaries) can be found in Attachment I of this Report.

### INVESTMENTS

#### GRI G4-EN31 | GRI G4-DMA General

The principal environmentally-dedicated investments made in 2015 were distributed as shown in the following table.

Total environmental protection expenditures and investments by type GRI G4-EN31		
Category of investments	Investments (CAPEX)	Amount (R\$)
Prevention and environmental management costs	Implementation of a herbarium at Passo Fundo HPP	165,356.06
	Installation of Telemetry and Hydrology Stations at the Passo Fundo, Itá, Salto Santiago, São Salvador, Cana Brava and Ponte de Pedra HPPs	972,535.64
	Installation of a Conservation Unit (Parque Natural da Mata do Rio Uruguai Teixeira Soares)	1,213,694.18
	Installation of an Environmental Monitoring Center and expansion of the Utilities Center Laboratory at CTJL	569,535.75
	Equipment for monitoring air quality and meteorological data	792,842.99
Waste disposal, emissions treatment and remediation costs	Expansion of the Waste Center and the Materials Deposit at Machadinho HPP	19,284.50
	Substitution of UTLA's electrostatic precipitators in the CTJL	30,686,034.37
	Waterproofing of the secondary yard for coal storage at CTJL	637,977.69
Total		35,057,261.18
Operational Costs (OPEX): R\$33,570,469.81. Costs of General Civil Liability Insurance cover: R\$640,497.85.		





# SOCIAL MANAGEMENT

GRI G-4-DMA Grievance mechanisms related to environmental impacts | G4-DMA Compliance |  
G4-DMA Marketing communication | G4-DMA Compliance

Since 2014, the Tractebel Energia Stakeholder Engagement Policy has provided clear guidance on relations with stakeholders. It ratifies procedures with respect to all stages of corporate activity and can be accessed from the website. During the installation of new operations, for example, the Company runs outreach programs for supplying information on aspects involving the projects – both positive and neg-

ative. Such programs serve to identify local community expectations and to meet requirements which are compatible with the Company's possibilities and obligations. Other actions and events which focus on engagement as well as enhancing the relationship between Tractebel Energia and its stakeholders can be found in the following table.

## Approach to and frequency of stakeholder engagement GRI G4-26

Approach to stakeholder engagement	Frequency of engagement	Stakeholder groups
Public hearings	When prospects are for the construction of a new project	Surrounding community, environmental and social entities and direct partners in the project
Materiality Matrix	Biannual preparation and annual updating, including part of the process for producing the Sustainability Report	All
Website	Constant	All. The organization's approach to stakeholder engagement is divided as follows: communication consultancy, attending clients, attending the community, investors, energy trading, Ethics Committee, environment, occupational safety and medicine, research and development and recommendations for shareholders' meetings
Environment Week	Annual	Employees (own and outsourced), suppliers, local community, socio-environmental organizations and the surrounding community
Ethics, Sustainability and Energy Seminar	Annual	Employees (direct and indirect), suppliers, local community, socio-environmental organizations and the surrounding community
Internal Occupational Accident Prevention Week (Sipat)	Annual	Employees (own and outsourced) and suppliers
Plant Visits Program	Constant	Surrounding community, suppliers, clients, investors, academia and primary education institutions



The Company also contributes to the development of the electricity sector as a whole and the communities situated in its concession areas through the participation of employees and/or directors in entities, associations and forums related to certain aspects or relevant issues. In 2015, Tractebel Energia participated in the following bodies: **GRI G4-16**

- Brazilian Association for Electric Energy Generating Companies (Abrage).
- Brazilian Mineral Coal Association (ABCM).
- Brazilian Association of Risk Management (ABGR).
- Brazilian Maintenance Association (Abraman).
- Brazilian Energy Traders Association (Abracel).
- Brazilian Association of Electric Energy Industry Accountants – (Abraconee).
- Brazilian Association of Independent Power Producers (Apine).
- Capivari de Baixo Commercial and Industrial Association (Acicap).
- Florianópolis Commercial and Industrial Association (Acif).
- Lages Commercial and Industrial Association (Acil).
- Tubarão Commercial and Industrial Association (Acit).
- Healthcare Association (Elosaúde).
- Santa Catarina Association of Telecommunications and Information Technology Users (Sucesu).
- Energy Co-Generation Industry of São Paulo (Cogen).
- Apuaê-Inhadava Hydrographic Basin.
- Electric Energy Trade Board (CCEE).
- Electric Energy Research Center (Cepel).
- Canoas River Basin Committee.
- Tubarão River Hydrographic Basin and Lagunar System Committee.
- State of Rio Grande do Sul Energy Planning Committee (Copergs).
- Council for Development of the Cantuquiriguaçu Territory (Condetec).
- National Water Resources Council (CNRH).
- Santa Catarina State Water Resources Council for Santa Catarina (CERH-SC).
- Paraná State Water Resources Council (CERH-PR).
- Environment Council of the National Confederation of Industry (CNI).
- Industries Federation of the State of Santa Catarina (Fiesc).
- Confederation and Center of Industries for the State of Rio Grande do Sul (Fiergs).
- Business Management Foundation Committee (Funcoge).
- Eletrosul Social Security Foundation (Elos).
- Santa Catarina Leaders Group (LIDE-SC).
- Acende Brasil Institute.
- Brazilian Investor Relations Institute (Ibri).
- Internal Auditors of Brazil Institute (Audibra).
- International Hydropower Association (IHA).
- National Electric System Operator (ONS).
- Society for Complementary Social Security (Previg).
- World Energy Council – Brazilian Committee of the World Energy Council (CBCME).

Tractebel Energia also adheres to the United Nations Organization's Millennium Development Goals (MDGs) – which in 2016 were redenominated the Sustainable Development Goals (SDGs) –, through the Santa Catarina We Can Movement, of which it is also a supporter. Indirectly through ENGIE, the Company is signatory to the Carbon Disclosure Program (CDP) and the United Nations Global Compact. In December 2015, Tractebel Energia ratified its agreement with the Brazilian Business Pact for Integrity and Against Corruption, to which it had acceded in 2011. All are voluntary initiatives. **GRI G4-15**

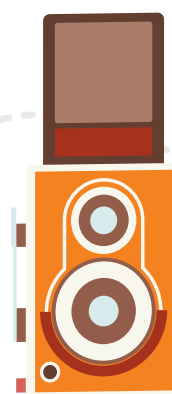
## EMPLOYEES **GRI G4-DMA Employees**

The core objective underlying Tractebel Energia's Human Resources guidelines is strengthening management by results. This is sustained by the quest for a responsible, fair and ethical working environment which provides quality of life and satisfaction to the employees, ensuring the right conditions for performance, development and recognition. In this context, the Company offers its employees one of the most comprehensive benefits plans in the sector. The plan includes life insurance (with cover for total or partial permanent incapacity due to accident or disease); health insurance plan (encompassing assistance for medical/hospital, odontological and drugstore expenses); psycho-therapy, physiotherapy and specialized reeducation treatment; eye glasses and ophthalmological lenses; hearing aids and orthopedic aids; help in the event of handicap and incapacity (for family members there is a Specialized Personal Support Program); extended maternity leave as well as paternity leave; plan for the acquisition of shares in the parent company; and food/meal coupons and transportation vouchers. In addition, Tractebel Energia subsidizes 80% of the value of prescription drugs

for employees and their family members, 60% of the cost of language courses and 50% for school graduation tuition. Employees are also guaranteed freedom of association. In 2015, 100% were covered by collective bargaining agreements. **GRI G4-LA2 | G4-11**

The Company is conscious of the importance of helping its employees to prepare for the end of their working lives, offering them a complementary pension plan and depositing 50% of the contribution to the corporate Complementary Pension Fund (Previg). During 2015, Tractebel Energia paid in R\$20.4 million to the fund, which at the end of the year had a membership of 1,786 between employees and ex-employees. Tractebel Energia is also a sponsor of the Fundação Eletrosul de Previdência e Assistência Social (ELOS) complementary pension plan since some of its ex-employee retirees are members. In 2015, the Company's contribution to ELOS was R\$3.2 million. **GRI G4-EC3**

As at December 31, 2015, 76 employees were already retirees under the state pension scheme although continuing to work at Tractebel Energia. A further 38% were entitled to take state pension in the next five years and 6% within ten years. The Company has implemented a plan for succession and filling new positions to manage the transition process. In 2013, it relaunched a Voluntary Severance Plan (PDV), prioritizing those employees who had already qualified for the state retirement pension or were entitled to do so by 2016. The plan is entirely optional and is also designed to provide information and reflection on the new post-retirement routine, also covering the legal, emotional and healthcare aspects. The plan is divided into three stages: preparation for retirement, post-retirement and initiatives for continuing to maintain a bond with the Company. **GRI G4-LA10**



**EVERY TWO YEARS, THE COMPANY UNDERTAKES AN ORGANIZATIONAL CLIMATE SURVEY, THE MOST RECENT BEING IN 2014, WITH THE PARTICIPATION OF 76% OF THE EMPLOYEES, RECORDING A SATISFACTION RATE OF 74%**

The Human Resources programs for the development and retention of talent are mentioned under the Intangible Assets item.

EMPLOYEE PROFILE

At the end of 2015, Tractebel Energia had a payroll of 1,135 (84.2% male and 15.8% female). A total of 1,124 has permanent labor contracts, two with contracts for a specific period and nine

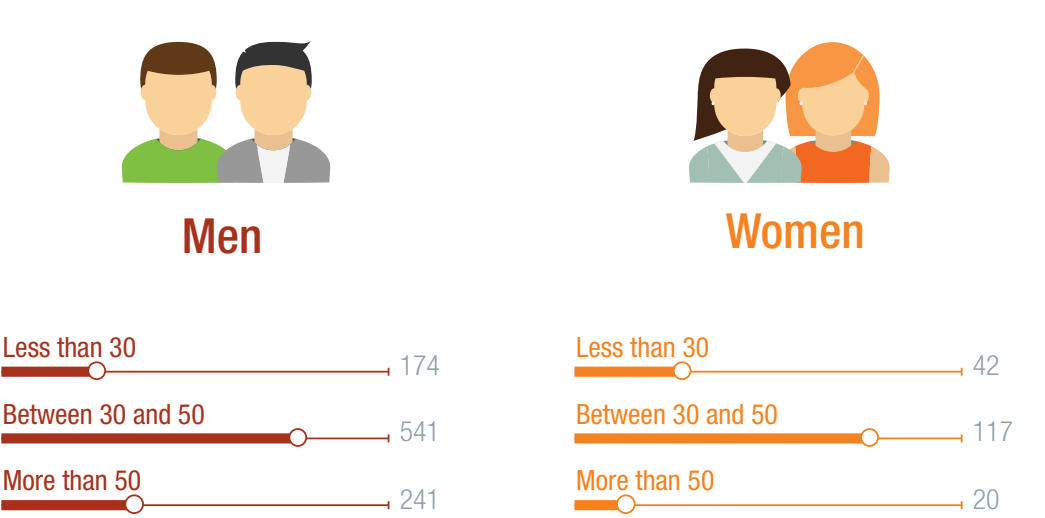
with apprentices' contracts (the Young Apprentice program). There are also an additional 1,023 outsourced employees. **GRI G4-10**

At the close of the period under review, Companhia Energética Estreito S.A. had 26 employees, Itá Energética S.A., a further seven contracted personnel while Usina Termoeletrica Pampa Sul S.A. employed 28 professionals.

Tractebel Energia's payroll profile in 2015 GRI G4-10			
Category	Men	Women	Total
Managerial	101	15	117 (10.3% of the total)
Analysts, engineers and specialists	320	86	406 (35% of the total)
Operators, maintenance technicians and administrative staff	535	77	612 (53.9% of the total)

Tractebel Energia's payroll in 2015 by region GRI G4-10		
State	Number of employees	Percentage in relation to total payroll numbers (%)
Santa Catarina	742	65.4
Rio Grande do Sul	171	15.1
Paraná	105	9.3
Maranhão	53	4.7
Goiás	21	1.9
Tocantins	14	1.2
Ceará	9	0.8
Mato Grosso do Sul	8	0.7
Mato Grosso	5	0.4
São Paulo	4	0.4
Minas Gerais	2	0.2
Piauí	1	0.1

TRACTEBEL ENERGIA'S PAYROLL IN 2015 BY GENDER AND AGE GROUP **GRI G4-LA1**



New hires in 2015 by gender and age group GRI G4-LA1		
Age group	Men	Women
Less than 30	17	14
Between 30 and 50	11	6
More than 50	-	-

Terminations in 2015 by gender and age group GRI G4-LA1		
Age group	Men	Women
Less than 30	7	4
Between 30 and 50	13	3
More than 50	15	3

Average time of service at Tractebel Energia of employees terminated in 2015 GRI G4-LA1		
Gender/age group	Numbers	Average time of service (years)
<b>Women</b>	<b>10</b>	<b>9.1</b>
Less than 30	4	0.0
Between 30 and 50	3	3.0
More than 50	3	27.3
<b>Men</b>	<b>35</b>	<b>18.0</b>
Less than 30	7	0.6
Between 30 and 50	15	13.2
More than 50	13	30.3
<b>Total</b>	<b>45</b>	<b>16.0</b>

Turnover rate 2015 GRI G4-LA1			
Gender/age group	Terminations	Numbers	Turnover rate (%)
<b>Women</b>	<b>10</b>	<b>179</b>	<b>5.6</b>
Less than 30	4	42	9.5
Between 30 and 50	3	20	15.0
More than 50	3	117	2.6
<b>Men</b>	<b>35</b>	<b>956</b>	<b>3.7</b>
Less than 30	7	174	4.0
Between 30 and 50	15	241	6.2
More than 50	13	541	2.4
<b>Total</b>	<b>45</b>	<b>1,135</b>	<b>4.0</b>

## OCCUPATIONAL HEALTH AND SAFETY (OHS)

### GRI G4-DMA Occupational health and safety

The physical and psychic integrity, professionalism, skills and competency of the employees are Company priorities. In this context, Occupational Health and Safety (OHS) is one of the five pillars supporting Tractebel Energia's Policy of Sustainable Management. All agreements with service providers carry clauses with respect to the theme to ensure that occupational health and safety is guaranteed in full.

With this objective in focus, the Company ran two key campaigns during the year: Less Consumption, More Sustainability – to promote and increase employee awareness on the consumption of natural resources, both in and outside the company. The second, The Ten Rules that Save Lives, involved both direct employees and outsourced personnel with a detailed presentation on the appropriate behavior and actions to be taken (or avoided) in the event of risk scenarios. Thanks to these and other OHS-related initiatives such as the permanent installation of formal occupational health and safety committees together with the Internal Accident Pre-



vention Commissions (Cipas) – which totaled 131 members in 2015, representing all the areas of Tractebel – no accidents were recorded requiring time off work among direct employees during the year. The targets for Frequency Rate (Taxa de Frequência – TF) and Severity Rate (Taxa de Gravidade – TG) of less than 2.2 and 0.052, respectively, were achieved. The goal of avoiding all fatal accidents on the Company's premises was also achieved as shown in the following table. **GRI G4-LA5**

Accidents reported in 2015 GRI G4-LA6	
<b>With direct employees</b>	
Number of hours of exposure to hazards	2,094
Number of occupational or commuting accidents with and without time off work	8
Number lost days – occupational accidents	0
Number of fatal accidents	0
<b>With employees from contracted companies</b>	
Number of hours of exposure to hazards	3,502,115
Number of occupational or commuting accidents with and without time off work	28
Number of lost days – occupational accidents with time off work	3
Number lost days – occupational accidents	22
Number of fatal accidents	0
Frequency Rate (TF)	0.86
Severity Rate (TG)	0.000

## OHS Indicators

	2013	2014	2015	Target 2015
Frequency Rate (TF), excluding outsourced positions <sup>1</sup>	0.980	1.450	0.000	
Severity Rate (TG), excluding outsourced positions <sup>2</sup>	0.000	0.062	0.000	<0.052
Frequency Rate (TF), including outsourced positions <sup>1</sup>	0.950	2.870	0.540	<2.20
Severity Rate (TG), including outsourced positions <sup>2</sup>	0.006	0.023	0.000	

1. TF = number of occupational accidents for every million hours of exposure to hazards.

2. TG = number of days lost due to occupational accidents for every one thousand hours of exposure to hazards.

Of the collective bargaining agreements between Tractebel Energia and the labor unions, 90% include specific clauses on OHS issues, in particular training and education for first responders and members of Cipas. The agreements are nationally binding (between the Company and the labor unions for each region of the country where Tractebel Energia operates). The parent company, ENGIE is not involved in any agreement. The Company requires that annual refresher training be given to the teams of first responders to ensure that they are fully equipped to give first aid in the event of personal accidents in the Company's installations. **GRI G4-LA8**

## CLIENTS

### GRI G4-DMA Products and services labelling

Tractebel Energia's relationship with its clients, be they in the regulated or the free environment market, is one of mutual trust and creation of value. In this context, to foster the rational use of electricity is one of the Company's commitments in its Policy on Climate Change. This Policy is validated in the Energy Efficiency Program which is offered to industrial clients with information on how to rationalize the use of energy and eliminate or minimize eventual environmental impacts.

Tractebel Energia does not serve residential consumers directly. At the end of 2015, its commercial portfolio consisted of 228 clients, drawn from industrial, commercial and services sectors and corresponding to about 460 consumer units. Conducted on a biannual basis, no formal consumer satisfaction surveys were conducted in 2015. On the occasion of the last survey in 2014, the Company registered a favorability ratio of 94.8% (either satisfied or very satisfied). The previous survey in 2012 had reported a favorability index of 94.5%. **GRI G4-EU3**

Within the scope of the Client Relationship Program, which encapsulates its commercial policy and focus on sustainable development, in 2004, the Company launched the Tractebel Energia Energy Efficiency Diagnosis Program. The Program is offered free of charge to unregulated market consumers as a means of identifying possibilities for reducing the consumption of energy and for presenting alter-

natives for optimizing its use. The Company uses a methodology of conducting interviews, data collection, measurements, analyses and studies of the consumer's installations and operations in addition to assessing external information, references, software, etc. In 2015, Tractebel Energia conducted energy efficiency diagnoses at three clients, identifying savings totaling 40,447 MWh in consumption. The Electric Energy Diagnosis Report pinpoints the areas where there is potential for implementing rationalized and conscious energy consumption. The implementation of suggested improvements is the exclusive option of the Program's beneficiaries.

## SUPPLIERS **GRI G4-12 I G4-DMA Supplier assessment for labor practices**

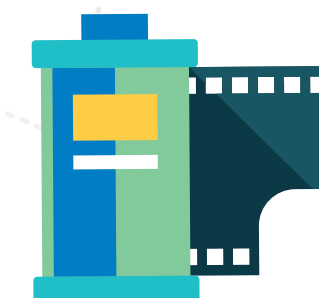
Tractebel Energia's value chain is made up of thousands of suppliers of goods and services in different regions of Brazil and overseas. The Company adopts the role of a catalyst for propagating the concepts of sustainable development. In the light of this approach, it seeks continual improvement in the relationship with its suppliers, focused on engagement and commitment with human rights, social responsibility, occupational health and safety and the environment. In the case of small and middle market companies heavily dependent on the Company for their revenues, support is given to marketing and economic-financial management to eliminate any eventual dependence.

Tractebel Energia also adopts procedures which are governed by administrative standards for selecting offers necessary to meet its interests at the best cost-benefit ratio and on an acceptable basis for both parties. In addition, outsourced employees enjoy a permanent benefits program which includes health and dental care plans, the values of which are built into employment agreements.

The Company adopts a specific procedure of constant supplier evaluation. In addition to the examination of legal and technical documentation prior to signature of an agreement, Tractebel Energia conducts evaluations of performance during the execution of certain services. The evaluations are annual should the agreement period be more than 12 months. Where agreements are for a lesser period, assessments are made on the conclusion of the service.

This assessment incorporates aspects such as quality of the services, safety, occupational medicine and hygiene, the environment and administrative and legal issues. Should the supplier's score be less than the minimum of 70% – and should the supplier show

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non-compliance during the course of the execution of the agreement –, Tractebel Energia will request the supplier to address the issues with remedial plans.

In 2015, 27 suppliers reported non-compliance with labor practices, particularly in the area of occupational health and safety, poor standards of hygiene and excessive working hours. In accordance with its management procedures, Tractebel Energia agreed several points for adjustment and improvement with all parties in this group, in no case contractual rescission being required. These suppliers represented 1.34% out of a total of 2,008 active suppliers to the Company at the end of 2015. **GRI G4-LA15**

In addition, priority is given to hiring local suppliers and local procurement<sup>7</sup> as part of the strategic focus on sustainability. For example, in 2015, 62% of all suppliers were engaged locally, that is 1,236 companies out of a total of 2,008 commercial partners. Coal is a case in point. This resource is the principal raw material of the thermal power plants located in southern Brazil and virtually all the Company's needs are acquired locally. In 2015, R\$3.44 billion was paid out to local suppliers in relation to an aggregate amount of R\$3.8 billion, equivalent to 90.48% of the total amount expended on coal supplies. **GRI G4-EC9**

I G4-DMA Procurement practices

COMMUNITIES **GRI G4-S01 I G4-DMA Local communities**

Tractebel Energia endeavors to permanently expand the dialog with the community and contribute to local sustainable development in the regions contiguous to its head office and plants. To this end, the Company develops programs for community engagement at all its operations around the country. It also seeks to maintain ethical and transparent relations, develop partnerships with local entities – such as universities and the third sector organizations –, at the same time, prioritizing the engagement and training of professionals and suppliers domiciled in the region in which it conducts its activities.

In addition, all projects where installed capacity is to be expanded are preceded by an assessment of social and environmental impacts. These are monitored on a permanent basis through programs which begin at the construction phase, often being continued once the plant is fully operational. In these cases, the results of socio-environmental assessments are disclosed through the medium of public hearings as called for under current Brazilian legislation. A case in point was the public hearing held in the city of Garuva (SC) in 2015 on the construction of the Norte Catarinense Thermoelectric Power Plant, one of the Company's projects at the evaluation and licensing stage. Throughout the year, Tractebel Energia also continued to implement several programs and actions for improving the quality of life in the community surrounding the Santa Mônica Wind Complex in the state of Ceará. Such programs and actions include:

- Drilling, opening and donating artesian wells for the communities located in the areas directly affected by the Complex;
- Pedagogic projects which benefit the communities and the public school network, most notably, the installation of a botanic nursery garden;
- Signature of an agreement with Trairi City Government and the ENGIE Foundation for the implementation of the Healthy Children, Healthy Future program designed by the NGO, INMED for promoting nutritional education for children of school age in the community through preventive actions in the areas of healthcare, nutrition and hygiene; and

- Introduction of a 0800 number for handling external demands from the public, thus creating a further communication channel and direct line of contact with the community.

In the case of the Pampa Sul Thermoelectric Power Plant in the state of Rio Grande do Sul, Tractebel Energia has maintained a series of socio-environmental measures such as programs for hiring and training local labor, social communication, environmental education and replanting riparian margins and the connecting ecological corridor.

One of the leading relationship initiatives with the communities in which the Company operates is the Sustainability and Culture Centers. Installed with the support of Tractebel Energia since 2011, these make a significant contribution to the sustainable development of small municipalities. The principal aims of these centers are:

- To stimulate an enhanced appreciation of local customs and traditions in the communities in which Tractebel Energia operates;
- To provoke the search for knowledge through social and digital inclusion among young people, contributing to the creation of employment, income and a reduction in rural and urban depopulation from the areas within the sphere of influence of the plants;
- To provide various spaces for community confraternization for all and any kind of cultural expression such as the performing and plastic arts, dance performances, musical shows and movie exhibitions; and
- To make the Sustainability and Culture Centers economically sustainable entities with a structured program for generating income and ensuring that costs are controlled.

At the end of 2015, four centers were operating: Entre Rios do Sul Culture Center (SC), Alto Bela Vista Culture Center (SC), Capivari de Baixo Sustainability and Culture Center (SC) and the Quedas do Iguaçu Culture Center (PR).

Numbers – Sustainability and Culture Centers in 2015

Center	Different workshops/ classes offered	Enrolled students	Performances/ events held by the community	Estimated audience at the performances/ events
Entre Rios do Sul	15	318	5	7,000
Alto Bela Vista	13	216	15	10,000
Capivari de Baixo	5	159	122	27,000
Quedas do Iguaçu	6	153	64	15,000

7. Suppliers situated in the same region (North, Northeast, Center-West, Southeast or South) where Tractebel Energia's operational units and Head Office are located.

In 2016, the Concórdia Culture Center (SC) is to be opened in partnership with Concórdia city government and in 2017, the Centers in Minaçu (GO), Trairi (CE), Itá (SC) and Saudade do Iguaçu (PR) are to be unveiled.

The Plant Visiting Program is another important medium for community engagement. In partnership with other entities, the Company runs guided tours for students, researchers and tourists around the plants in its generator complex. Visitors are shown plant operations as well as the socio-environmental programs Tractebel Energia offers. Complementary to this program are presentations made in schools and other community spaces, the emphasis being on environmental education. In 2015, a total of 100,464 took part in this program.

Tractebel Energia provides a system whereby Sustainability Committee members are able to evaluate proposals for sustainable development in the regions of the plants and head office. Known as Sustainability Projects, Actions and Goals Manager (GAS), the system also permits budgetary control of approved initiatives, irrespective of whether these are proposed by third parties or directly implemented under Tractebel Energia's Social Responsibility Programs for cultural development, social inclusion and environmental improvement. Following continuous fine tuning since inception in 2010, GAS was one of the 2015 award winners in the Tractebel Energia innovation incentive program, Inove.

The Company sets annual goals and actions under its Social Responsibility Programs – Cultural Development, Environmental Improvement and Social Inclusion –, as well as the Education Program for Sustainability. The principal initiatives taken to achieve the goals set out in these programs have been mentioned during the course of this Report. Other highlights are shown as follows:

- Realization of the IV Ethics, Sustainability and Energy Seminar with simultaneous presentations at the head office and the Salto Santiago Hydroelectric Power Plant, with transmission via video link to other plants. The Seminar's theme was water management.
- Realization of Sustainability and Environment Weeks in areas surrounding the Jorge Lacerda Thermoelectric Complex in the state of Santa Catarina and the Salto Santiago and Salto Osório hydroelectric power plants in the state of Paraná.
- Realization of the Voluntary Energy Social Gymkhana. This initiative involved employees from all Tractebel Energia's plants and organizational units with the donation of toys, items of personal hygiene, apparel and foodstuffs to philanthropic institutions. Each product carries a pre-established score, the winning teams being able to select the final destination of the donations. In all, the gymkhana received donations of 27,783 items from 883 volunteers (77.8% of the employee payroll).
- Maintenance of the revitalization project at the Vila Vermelho settlement in the municipality of Cavalcante (GO) near the Cana Brava Hydroelectric Plant, including repairs to the school, originally donated by the Company in 2004.
- Ongoing work on the installation of new Culture Centers and the Headwaters Conservation Program.

During the course of the year, the Company invested R\$15.3 million in socially responsible initiatives, of which 21.5% corresponded to own resources and 78.4% to incentivized funding as shown in the following table.

Social responsibility indicators (R\$ thousand)				
	2013	2014	2015	Change 2015/2014 (%)
Non-incentivized social projects	3,270.12	4,354.28	3,304.36	-31.77
Incentivized social projects via the Children and Adolescents Fund	2,079.50	1,887.43	1,780.91	-5.98
Incentivized social projects under the sport incentive laws	360.00	1,319.04	1,320.00	0.07
Incentivized cultural projects under the Rouanet Law	10,282.24	9,396.10	7,583.44	-23.90
Incentivized social projects under the healthcare incentive laws	-	1,220.60	1,187.77	2.76
Incentivized social projects under the Municipal Fund for the Elderly	-	-	142.04	-
<b>Total</b>	<b>15,991.86</b>	<b>18,177.45</b>	<b>15,318.52</b>	<b>-18.66</b>

Municipalities and states where reservoirs associated to hydroelectric plants are located, received R\$180.3 million in royalties – Financial Compensation for Use of Water Resources – CFURH (Compensação Financeira pela Utilização de Recursos Hídricos). The legislation requires that funds be apportioned in equal tranches of 45% to the municipalities and states, while the federal government receives the remaining 10%. The percentage of flooded area in each municipal district is the criterion used for prorating the proceeds to the various government beneficiaries. In 2015, the Company paid out royalties to eight states and 65 municipalities as direct beneficiaries of the CFURH.

Another key economic impact on the communities arising from the Company's activities is the leasing of areas for installation of wind plants. The areas on which these operations are installed together with surrounding land do not belong to the Company. Rather, these areas are leased from their owners, the latter receiving normally 0.5% of the net revenue of the project. Consequently, direct and indirect income is generated and circulates in the surrounding region among landowners, traders and the local economy as a whole, driving the growth of the municipalities and states as a result of the increased revenue. In 2015, Tractebel Energia paid out R\$2.8 million on 52 leasing agreements.



THE COMPANY'S SUSTAINABILITY COMMITTEE IS RESPONSIBLE FOR EVALUATING SUSTAINABLE DEVELOPMENT ACTIONS, CONTRIBUTING TO THE EFFICACY OF THE INITIATIVES

# SOCIAL BALANCE

The data for the Social Balance is prepared in accordance with the model established by the Brazilian Federal Accounting Council's (CFC) NBCT-15. This model uses data categorization which sometimes diverges from the GRI indicators, an example being employee age groups.

	2015				2014			
1 – Calculation basis	(R\$ thousand)				(R\$ thousand)			
Net Revenues (NR)	6,512,037				6,472,496			
Operating Income (OI)	2,033,232				1,956,649			
Gross Payroll (GPR)	170,130				154,972			
Total Value Added (TVA)	4,121,326				3,685,023			
2 – Internal social indicators	R\$ thousand	% over GPR	% over NR	% over TVA	R\$ thousand	% over GPR	% over NR	% over TVA
Meals	17,021	10.00	0.26	0.41	13,472	8.69	0.21	0.37
Compulsory social charges	58,031	34.11	0.89	1.41	53,694	34.65	0.83	1.46
Private pension	39,304	23.10	0.60	0.95	36,355	23.46	0.56	0.99
Health	17,758	10.44	0.27	0.43	15,595	10.06	0.24	0.42
Occupational health and safety	5,741	3.37	0.09	0.14	4,302	2.78	0.07	0.12
Education	729	0.43	0.01	0.02	747	0.48	0.01	0.02
Culture	29	0.02	0.00	0.00	32	0.02	0.00	0.00
Professional training and development	3,591	2.11	0.06	0.09	3,576	2.31	0.06	0.10
Daycare or daycare assistance	153	0.09	0.00	0.00	145	0.09	0.00	0.00
Sport	508	0.30	0.01	0.01	352	0.23	0.01	0.01
Profit-sharing	43,121	25.35	0.66	1.05	45,409	29.30	0.70	1.23
Transportation	4,258	2.50	0.07	0.10	4,207	2.71	0.06	0.11
Others	1,207	0.71	0.02	0.03	1,556	1.00	0.02	0.04
Total – internal social indicators	191,451	112.53	2.94	4.65	179,442	115.79	2.77	4.87
3 – External social indicators	R\$ thousand	% over OI	% over NR	% over TVA	R\$ thousand	% over OI	% over NR	% over TVA
Education	133	0.01	0.00	0.00	115	0.01	0.00	0.00
Culture	8,204	0.40	0.13	0.20	8,313	0.42	0.13	0.23
Health and sanitation	1,130	0.06	0.02	0.03	722	0.04	0.01	0.02
Sector indicator	1,330	0.07	0.02	0.03	1,478	0.08	0.02	0.04
Others	4,518	0.22	0.07	0.11	7,550	0.39	0.12	0.20
Total contributions to society	15,316	0.75	0.24	0.37	18,178	0.93	0.28	0.49
Taxes (excluding social charges)	1,218,473	59.93	18.71	29.57	1,196,191	61.13	18.48	32.46
Total – external social indicators	1,233,789	60.68	18.95	29.94	1,214,369	62.06	18.76	32.95
4 – Environmental indicators	R\$ thousand	% over OI	% over NR	% over TVA	R\$ thousand	% over OI	% over NR	% over TVA
4.1 – Investments related to the production/operation of the company								
Liabilities and environmental contingencies	11,448	0.56	0.18	0.28	10,964	0.56	0.17	0.30
Technological and industrial development program	24,151	1.19	0.37	0.59	37,915	1.94	0.59	1.03
Others	7,878	0.39	0.12	0.19	6,076	0.31	0.09	0.16
Total investment related to the operation/production of the company	43,477	2.14	0.67	1.05	54,955	2.81	0.85	1.49
4.2 – Investment in external programs and/or projects								
Environmental education projects in communities	1,106	0.05	0.02	0.03	1,004	0.05	0.02	0.03
Preservation and/or revitalization of degraded environments	4,848	0.24	0.07	0.12	5,682	0.29	0.09	0.15
Others	1,377	0.07	0.02	0.03	2,531	0.13	0.04	0.07
Total investments in external programs and/or projects	7,331	0.36	0.11	0.18	9,217	0.47	0.14	0.25
Total environmental investment (4.1 + 4.2)	50,808	2.50	0.78	1.23	64,172	3.28	0.99	1.74

	2015		2014	
Distribution of environmental investment	R\$ thousand	% over total	R\$ thousand	% over total
Total investment in environmental prevention activities	23,315	45.89	37,124	57.85
Total investment in environmental maintenance activities	24,638	48.49	22,769	35.48
Total investment in environmental compensation activities	2,855	5.62	4,279	6.67
Number of environmental, administrative and legal claims filed against the company:	24		24	
Total fines and indemnifications judicially or administratively determined for environmental matters:	-		-	
With regard to the establishment of annual goals for the minimizing of waste, the general consumption in production/operations to increase efficiency in the use of natural resources, the company:	( ) does not have goals (X) fulfilled 0% to 50% ( ) fulfilled 51% to 75% ( ) fulfilled 76% to 100%		( ) does not have goals (X) fulfilled 0% to 50% ( ) fulfilled 51% to 75% ( ) fulfilled 76% to 100%	
5 – Workforce indicators	2015 (in units)		2014 (in units)	
Number of employees at the end of the period	1,135		1,134	
Number of new hires in the period	48		47	
Number of dismissals in the period	45		44	
Number of outsourced employees	1,023		830	
Number of interns	67		28	
Number of employees over 45	439		439	
Number of employees by age group:				
Under 18	2		8	
From 18 to 35	468		474	
From 36 to 45	226		213	
From 46 to 60	419		422	
Over 60	20		17	
Number of employees by education level:				
Illiterate	0		0	
Elementary education	5		7	
High school education	640		637	
Higher education	336		340	
Postgraduate	154		150	
Number of women working at the company	179 (15.8%)		171 (15.1%)	
Percentage of management positions held by women	9.5%		9.3%	
Number of men working at the company	956 (84.2%)		963 (84.9%)	
Percentage of management positions held by men	10.7%		11.1%	
Number of Afro-descendants working at the company	There is no formal statement by employees as to the race to which they belong		There is no formal statement by employees as to the race to which they belong	
Percentage of management positions held by Afro-descendants	There is no formal statement by employees as to the race to which they belong		There is no formal statement by employees as to the race to which they belong	
Number of handicapped or special-needs employees	35		29	
Difference between the lowest salary paid in the company and the minimum wage (national or regional)	1		1	
Difference between the lowest salary paid in the company and the minimum wage	1		1	

6 – Relevant corporate citizenship information GRI G4-DMA Market presence		2015	2014	
Ratio of highest to lowest salary at the company		20,4	20,3	
Total on-the-job accidents	Tractebel: 0 Outsourced companies: 3	Tractebel: 3 Outsourced companies: 13		
The social and environmental projects implemented by the company were decided upon by:	( ) Upper management ( ) Upper and middle management (X) All employees	( ) Upper management ( ) Upper and middle management (X) All employees		
The risk and security standards in the workplace were decided upon by:	( ) Upper and middle management ( ) All employees (X) All + CIPA	( ) Upper and middle management ( ) All employees (X) All + CIPA		
With regard to labor unions, right for collective bargaining and internal representation of workers, the company:	( ) Will not get involved (X) Follows ILO standards ( ) Encourages and follows ILO standards	( ) Will not get involved (X) Follows ILO standards ( ) Encourages and follows ILO standards		
Private pension arrangements contemplate:	( ) Upper management ( ) Upper and middle management (X) All employees	( ) Upper management ( ) Upper and middle management (X) All employees		
Profit-sharing contemplates:	( ) Upper management ( ) Upper and middle management (X) All employees	( ) Upper management ( ) Upper and middle management (X) All employees		
Regarding the selection of suppliers, the same ethical and social and environmental responsibility standards adopted by the company:	( ) Will not be considered ( ) Are recommended (X) Are required	( ) Will not be considered ( ) Are recommended (X) Are required		
Regarding the participation of employees in volunteer activities, the company:	( ) Will not get involved (X) Supports ( ) Organizes and encourages it	( ) Will not get involved (X) Supports ( ) Organizes and encourages it		
Number of fines and indemnities to clients:	(0) In Company (N.A.) At consumer defense bureau (0) In court	(0) In Company (N.A.) At consumer defense bureau (0) In court		
<b>Number of labor suits filed:</b>				
Brought against the Company		58	37	
Found to have grounds		15	11	
Found to be without grounds		37	25	
<b>Total amount of indemnifications and fines paid by court order:</b>		2,165,638.93	373,146.09	
<b>Distribution of Value Added:</b>	<b>R\$ thousand</b>	<b>% over total</b>	<b>R\$ thousand</b>	<b>% over total</b>
Government	1,858,723	45.1	1,681,291	45.61
Employees	292,274	7.1	263,671	7.16
Shareholders	835,687	20.3	775,932	21.06
Third Parties	469,026	11.4	356,956	9.69
Retained	665,616	16.2	607,173	16.48
<b>7 – Other information</b>		<b>2015</b>	<b>2014</b>	
Water consumption		7,260,548.46 m³	6,163,417.0 m³	
Electric energy consumption		183.4 GWh	171.3 GWh	
Annual amount of waste produced		1,927,805.53 ton	1,862,767.33 ton	
Annual amount of waste recycled		1,926,079.86 ton	1,822,753.82 ton	

# SUMMARY OF GRI G4 DISCLOSURES

GENERAL STANDARD DISCLOSURES			
General standard disclosures	Page number/Response	External assurance	Global compact
STRATEGY AND ANALYSIS			
G4-1	6, 10		
ORGANIZATIONAL PROFILE			
G4-3	23		
G4-5	118		
G4-6	23		
G4-7	23		
G4-8	23, 39		
G4-9	8, 9		
G4-10	96		6
G4-11	95		3
G4-12	101		
G4-13	38		
G4-14	49		
G4-15	95		
G4-16	94		
IDENTIFIED MATERIAL ASPECTS AND BOUNDARIES			
G4-17	15, 24		
G4-18	15		
G4-19	16		
G4-20	17		
G4-21	17		
G4-22	15		
G4-23	15		
STAKEHOLDER ENGAGEMENT			
G4-24	16		
G4-25	16		
G4-26	93		
G4-27	16		
REPORT PROFILE			
G4-28	15		
G4-29	15		
G4-30	15		
G4-31	15		
G4-32	15		
G4-33	15		
GOVERNANCE			
G4-34	30		
ETHICS AND INTEGRITY			
G4-56	3, 34		10

## SPECIFIC STANDARD DISCLOSURES

Material aspects	Information on management approach and indications	Page number/response	Omissions	Outside assurance	Global Compact
<b>CATEGORY: ECONOMIC</b>					
Economic performance	<b>G4-DMA</b>	8, 51, 58			
	G4-EC1	9, 58			
	G4-EC2	50, 51	The costs of measures adopted to manage the risks and opportunities have not been shown in order to maintain the objectivity and relevance of the reported information.		7
	G4-EC3	95	The Company offers a complementary benefits plan to its employees through PREVIG – Sociedade de Previdência Complementar. PREVIG's benefits plans are Defined Contribution (DC) or Defined Benefit (DB and BSPS), the latter closed to new members. The Company also sponsors the ELQS DC plan, also closed to new members. As of the end of 2015, the net estimated amounts of the principal liabilities were: R\$20.03 million for the DB and BSPS plans and R\$255.00 million for the DB ELQS plan. In the event of a deficit in the plans, the Company complies with the rules established by Previc – the Federal Government's National Complementary Pension Department for preparing a plan covering the unfunded amount. Employees contribute with a percentage of between 3% and 7% of their monthly salary and the Company makes a parallel contribution in the same amount.		
	G4-EC4	Tractebel Energia receives tax relief (Ponte de Pedra and São Salvador) in the amount of R\$21, 278 thousand. The Company also enjoys a reinvestment incentive (Ponte de Pedra) totaling R\$4,165 thousand.			

## SPECIFIC STANDARD DISCLOSURES

Market presence	<b>G4-DMA</b>	108		
	G4-EC5	Considering the fixed portion only, in 2015, the lowest salary paid by Tractebel Energia was the same as the prevailing minimum wage (salary paid to Young Apprentices) irrespective of gender. The Career and Compensation Plan (PCR) covers the entire Company, irrespective of locality or gender. The same rules apply to compensation for all operating units.		6
Procurement policies	<b>G4-DMA</b>	102		
	G4-EC9	102		
<b>CATEGORY: ENVIRONMENTAL</b>				
Energy	<b>G4-DMA</b>	82, 83		
	G4-EN3	82		7   8
	G4-EN5	82		8
	G4-EN6	83		8   9
Water	<b>G4-DMA</b>	81		
	G4-EN8	81		7   8
	G4-EN10	81		8
Biodiversity	<b>G4-DMA</b>	76		
	G4-EN11	76/The survey was conducted adjacent to the hydroelectric plants since these represent almost the entirety of the Company's areas which are protected and of high biodiversity value.		8
	G4-EN12	76	Indicator partially attended since information on the measurement of direct and indirect impacts, both positive and negative are absent.	8
	G4-EN13	76		8
	G4-EN14	76, 81/The survey of species included on the IUCN Red List was not conducted at all units within the scope of the report although this is programmed for the next three years for remaining units.		8
Emissions	<b>G4-DMA</b>	88		
	G4-EN15	88		7   8
	G4-EN16	89		7   8
	G4-EN17	89		7   8
	G4-EN18	90		8
	G4-EN19	89, 90		8   9
	G4-EN20	91		7   8
	G4-EN21	90,91		7   8



SPECIFIC STANDARD DISCLOSURES

Effluent and waste	<b>G4-DMA</b>	81, 84	
	G4-EN22	81	8
	G4-EN23	84, 85, 86, 87	8
	G4-EN24	76/No significant spills were registered at plants operated by Tractebel Energia. The significance of the spills is evaluated according to ENGIE, the parent company's impacts and risks analysis matrix	8
	G4-EN25	84	8
	G4-EN26	76/Information on existing water bodies adjacent to the thermoelectric power plants and wind farms is not being disclosed in order to maintain the objectivity and relevance of the reported data.	8
Compliance	<b>G4-DMA</b>	74	
	G4-EN29	In 2015, the Company was not subject to non-monetary fines or sanctions due to non-compliance with environmental laws and regulations. Similarly, no non-monetary sanctions were applied or actions taken against the Company under arbitration mechanisms.	8
General	<b>G4-DMA</b>	91	
	G4-EN31	91	7   8   9
Grievances and complaints related to environmental impacts	<b>G4-DMA</b>	92	
	G4-EN34	No significant complaints were recorded in 2015.	8
<b>CATEGORY: SOCIAL</b>			
<b>SUB-CATEGORY: Labor practices and decent work</b>			
Employment	<b>G4-DMA</b>	95	
	G4-LA1	97, 98	Survey by region for hirings and turnover not shown since this distinction was not made. 6
	G4-LA2	95	Benefits to temporary and part time employees not provided.

SPECIFIC STANDARD DISCLOSURES

	<b>G4-DMA</b>	98	
	G4-LA5	99	
			We do not show: - Own and outsourced employees, segregated by region and gender. - The number of accidents with outsourced employees but outside the perimeter of the units. - Information on self-employed personnel at the units and who are exposed to risk in order to include their specific hours in this respect. Information on bodies of water adjacent to the thermoelectric plants and wind farms is not disclosed in order to maintain the objectivity and relevance of the information reported.
Occupational health and safety	G4-LA6	99	
	G4-LA7	In December 2015, Tractebel Energia had 759 employees who received an additional amount for job-related dangers in their occupational activities.	
	G4-LA8	100	
Training and education	<b>G4-DMA</b>	43	
	G4-LA9	43	6
	G4-LA10	43, 95	
Supplier assessment for labor practices	<b>G4-DMA</b>	101	
	G4-LA15	102	
<b>Subcategory: Society</b>			
Local communities	<b>G4-DMA</b>	102	
	G4-S01	102	1
Public policy	<b>G4-DMA</b>	34	
	G4-S06	Tractebel Energia's approach to the support of political parties or for candidates to elective positions adheres rigorously to the current legislation. Donations are approved by the Ethics Committee and notified in the website of the Higher Electoral Court (TSE). In 2015, the Company made no donations to political parties and/or politicians.	10
	<b>G4-DMA</b>	28	
Anti-competitive behavior	G4-S07	In 2015, Tractebel Energia reported no administrative or legal actions taken against it for unfair competition or anti-trust and monopoly practices.	

## SPECIFIC STANDARD DISCLOSURES

	<b>G4-DMA</b>	92
Compliance	G4-S08	Tractebel Energia incurred no fines and non-monetary sanctions in 2015 for non-compliance with laws and regulations.
<b>SUB-CATEGORY: Product responsibility</b>		
	<b>G4-DMA</b>	100
Product and service labeling	G4-PR5	Tractebel Energia undertakes surveys to measure the satisfaction of its clients every two years, the most recent survey being in 2014.
	<b>G4-DMA</b>	92
Marketing communication	G4-PR7	In 2015, no incidents of non-compliance with regulations and voluntary codes concerning marketing communications including publicity and sponsorship were reported.
	<b>G4-DMA</b>	92
Compliance	G4-PR9	In 2015, the Company registered no administrative or legal actions with respect to fines for non-compliance with laws and regulations concerning the provision or use of products and services.

SECTORIAL SUPPLEMENT	Information on management approach and indications	Page number/response	Omissions	External assurance	Global Compact
<b>CATEGORY: Electric Utilities Sector</b>					
General standard disclosures for the sector	EU1	26, 72			
	EU2	82			
	EU3	100			
Uptime and reliability	<b>G4-DMA</b>	53, 57			
	EU10	53, 57			
Demand management	G4-DMA (formerly EU7)	101			
Research and development	G4-DMA (formerly EU8)	43			
Efficiency of the system	EU11	72			
	EU12	Tractebel Energia is exclusively an electric energy generation company with no responsibility for transmission and distribution.			

## SPECIFIC STANDARD DISCLOSURES

	<b>G4-DMA</b>	76
Biodiversity	EU13	76/There are no situations which would classify as effective substitute habitats.
Emergency and disaster planning and response	G4-DMA (formerly EU21)	52/Tractebel Energia has implemented Emergency Response Plans (PAEs) at certified plants (83.6% of total energy output); a Crisis Situations Communication Manual; Simulated Schedule for Scenarios envisaged in the plant PAEs; Civil Liability Insurance, including a specific clause in the event of instances of sudden pollution. The plans are also tested in accordance with the schedule established in the PAEs for each certified unit. Employees, and outsourced and subcontracted personnel are all involved. A subsequent evaluation of plan effectiveness is undertaken and if necessary, an action plan is drawn up to correct verified faults. In addition, response time and procedural efficiency are measured.

# SGS ICS CERTIFICADORA LTDA, (SGS) STATEMENT OF SUSTAINABILITY ACTIVITIES IN “SUSTAINABILITY REPORT 2015” (RS 2015) OF TRACTEBEL ENERGIA S.A. (TRACTEBEL).

## ASSURANCE NATURE AND SCOPE

SGS was hired by Tractebel to undertake the assurance of Sustainability Report 2015 (RS2015) in an independent manner. The assurance scope, based on assurance methodology of SGS' Sustainability Report, includes texting and data for 2015 provided therein.

The responsibility for the information of Tractebel "RS 2015" and its presentation lies on company's board of directors and management. SGS has not taken part in preparation of any material provided in "RS2015". Our responsibility is to give our opinion regarding the text, data, charts and statement within the assurance scope, which will be detailed later in order to communicate Tractebel stakeholders.

The SGS Group has developed a set of Sustainability Assurance Communication protocols based on best practices provided in Global Reporting Initiative (GRI) guide and the NBC TO 3000 assurance standard. These protocols are different options of assurance level, depending on context and capability of Claimant Organization.

This report was assured through our protocols to assess content legitimacy and its alignment to Sustainability Report Preparation Guide (G4 2013), and it has demonstrated a limited level. The assurance has covered a combination of previous investigation, interviews with strategic employees, review of documents, records and data and assessment of report for alignment with GRI protocols. The Tractebel accounting information and/or referred to "RS 2015" was not assessed as integrating part of this assurance process.

## STATEMENT OF INDEPENDENCE AND COMPETENCE

The SGS Group is a worldwide leading organization in inspections, analysis and verifications, operating in more than 140 countries and service provision, including management system certification, audit and capacitation in quality, environmental, social and ethical areas, assurance of sustainability report and verification of greenhouse gases. SGS reinforces its independence from Tractebel and is exempt from interest conflict with organization, its subsidiaries and stakeholders.

The assurance team was made based on members' knowledge, expertise and qualification to this service; it was composed of:

- A Lead Auditor for Sustainability Report Assurance, Lead Auditor for Assessment and Monitoring of Socio-environmental Programs, Lead Auditor for Compliance Programs and Risk, Lead Examiner of Sustainability Indicators, Lead Auditor for ISO 26000 Standard.
- An Audit for Sustainability Report Assurance, Lead Examiner of Greenhouse Gases (GHG) and Climate Changes program, Lead Auditor for Socio-environmental programs, Lead Auditor for Environmental, Quality, Energy, Health and Safety Management System.

## ASSURANCE OPINION

Regarding the methodology provided and verification performed, we have not found any circumstances indicating the information and data provided in RS 2015 are not reliable nor characterize a fair and balanced representation of Tractebel's sustainability activities in 2015. The assurance team concluded the report can be used by Tractebel stakeholders. We believe the organization has chosen the appropriate assurance level to its needs.

In our opinion, the report content meets the GRI G4 requirements, including some indicators specific to the Electric Segment G4 with Essential Option.

## RECOMMENDATIONS, FINDINGS AND CONCLUSIONS OF GLOBAL GUIDELINES OF GLOBAL REPORTING INITIATIVE GRI G4

Tractebel's Sustainability Report 2015 is properly aligned with GRI G4, Essential Option. The substantial aspects and its limits inside and outside the organization. In general, they were properly defined in accordance with GRI Report Principles, there is no information that might be evidenced. It is important to highlight the involvement and initiative of Tractebel's team to make the Report and provide promptly the information requested by assurance team.

Some opportunities to improvement were found, so that the Tractebel's sustainability report may reach higher levels:

- a) As usual, Tractebel uses the same text of "Top Management Statement", both in Top Management Report, Accounting Statement and Sustainability Report, it is recommended the strengthening the top management opinions of company regarding this matter, as well as company strategy for sustainability matters.
- b) To harmonize the environmental guidelines of company provided in previous sustainability reports with those from other company's internal documents.
- c) To enhance the materiality process used as Report base, implementing more frequent consult with company's target audience, by using the current communication mechanisms and interfaces.
- d) It is recommended a more teaching explanation of the terms and technical thinking that are usual in electric energy segment but too far from reality of this segment in order to understand them better. For example, it would be good to explain how the variation of coal used in thermal-electric plants impacts on its heating power and, therefore, the efficacy of plant producing energy (indicator G4-EN6).
- e) For sustainability reports, which is the instrument used by different stakeholders of company, the proper behavior is not to assume the prior knowledge of the content required in GRI indicators by the writers. Therefore, as example, even if Tractebel does not use PCB/ascarel on its process, it is important to state that this aspect so that the reader realizes the sectorial indicator of G4-EN23 is met.
- f) It is also recommended that all premises used by organization to report an indicator are indicated clearly, so that the reader can understand the information fully. One example is the note of risk exposure which Tractebel considers that, for certain functions, all hour worked should be considered as risk exposure.
- g) Due to relevance of sustainable development in Brazil, it is recommended that during the next editions, Tractebel shall report the indicators G4-SO3 to G4-SO5 that address the issues against corruption.

Despite of process quality of Report elaboration and finished product provided, it is necessary to consider the following items as to the information made available in report, in order to contribute to its enhance and completion and contribute to transparence required to readers:

- a) The late renewal of environmental license for PCH Areia Branca is due, not only to internal reasons of Regional Environmental Superintendence of Minas Gerais (Supram/MG), regulator in charge of, but also the performance of legal term to request the said renewal by Tractebel, as set forth in legislation in effect.
- b) Despite of the company present the total quantity of water caught per source as provided in indicator G4-EN8, it is still required to indicate the water volume used by thermal-electric plant per source, so the indicator could be considered attended.

Executed by and on behalf of SGS

**Marcelo Abrantes Linguitte and Fabian Peres Gonçalves**

**Lead Auditor and Sustainability Report Auditor**

**SGS ICS Certificadora Ltda.**

**April 20th, 2016**

**www.sgs.com**

# CORPORATE INFORMATION

## COMPANY ADDRESS GRI G4-5

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## TEXT

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Tractebel Energia

## PHOTOGRAPHS

Mariana Waechter | Shutterstock

Attachment I – Greenhouse Gas Emissions Inventory

