

# **AES Corporation Global Company**

Natural gas and coal fired thermal plants
25.6 GW of installed capacity



Over **8.3 GW** of Renewable sources<sup>1</sup>



Projects in operation



World leader in Energy Storage Total of 346 MW<sup>3</sup>



36 GW installed capacity

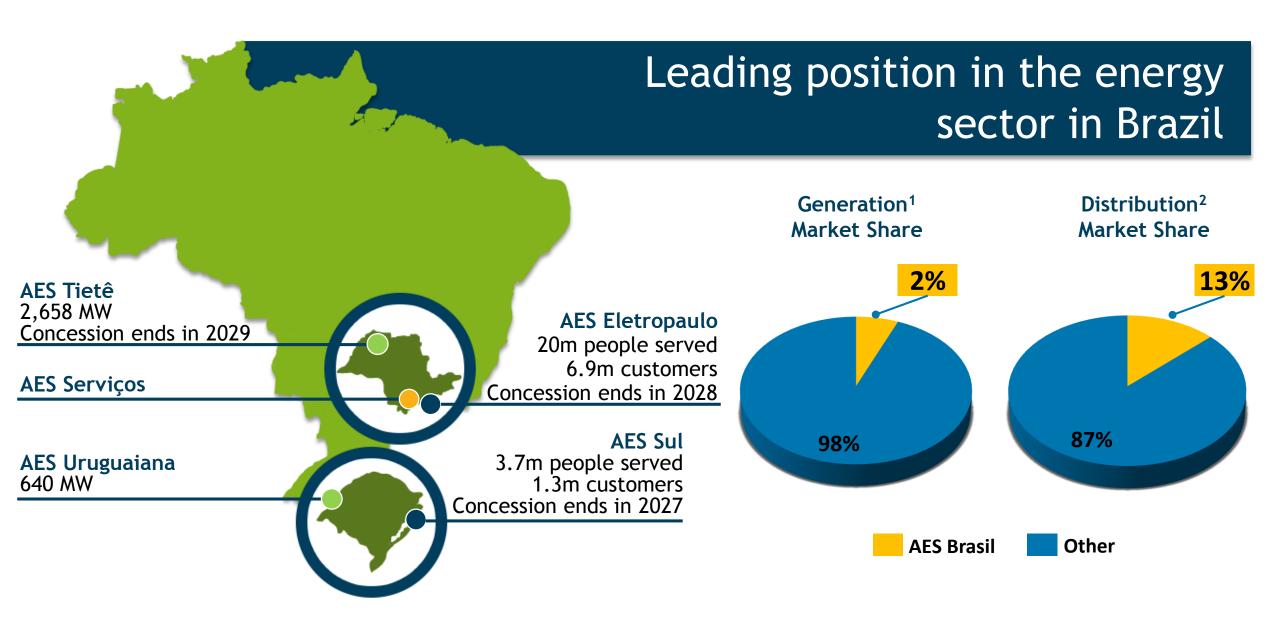
Providing services to over 10+ million customers

18.5 thousand employees

AES Corp is present in 18 countries and 4 continents



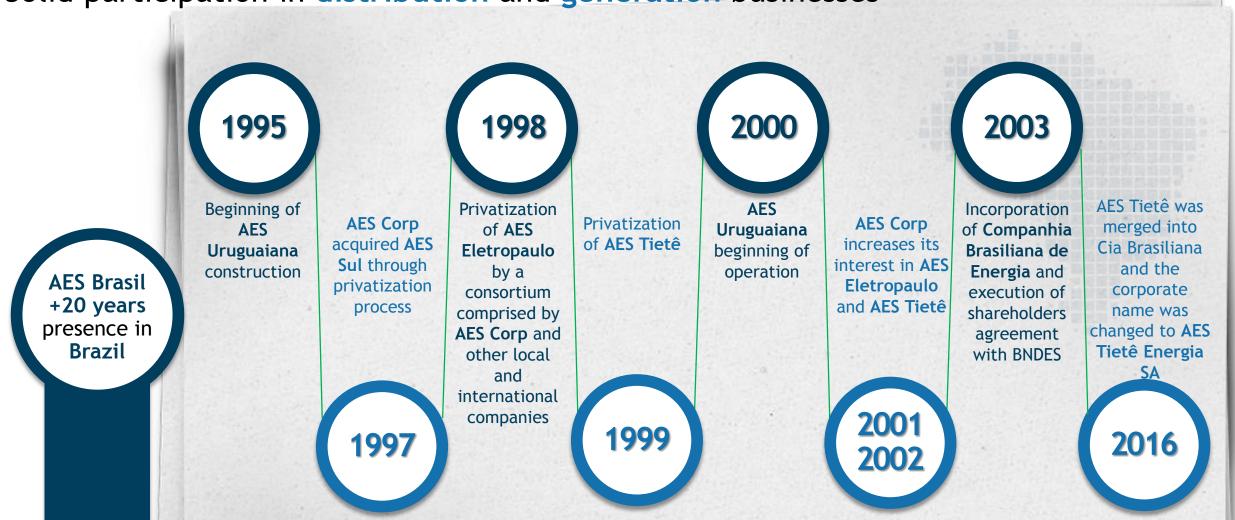






## History in Brazil

Solid participation in distribution and generation businesses





### AES Brasil Mission, Vision and Values

#### **Mission**

To promote well being and development with the safe, sustainable and reliable provision of energy solutions



#### **Vision**

To be the leading power company in Brazil that safely provides sustainable, reliable and affordable energy



#### **Values**

- Put safety first
- Act with integrity
- •Honor commitments
- •Strive for excellence
- •Have fun through work





## AES Brasil environmental responsibility



- Reservoirs repopulation
- Reforesting, border and archeological management programs
- Water quality monitoring
- Recycling and waste disposal programs
- Programs aiming to reduce CO<sub>2</sub> emissions
- Risk Management and identification of opportunities related to climate change



## AES Brasil social responsibility



- Access to reliable energy through social development
- Education for efficient and safe use of electricity
- Program which offer cultural and sports activities simulating citizenship practices
- Sustainable partnership commitment with sustainable development at AES Brasil's value chain

# INVESTMENT PLAN

2015 - 2019

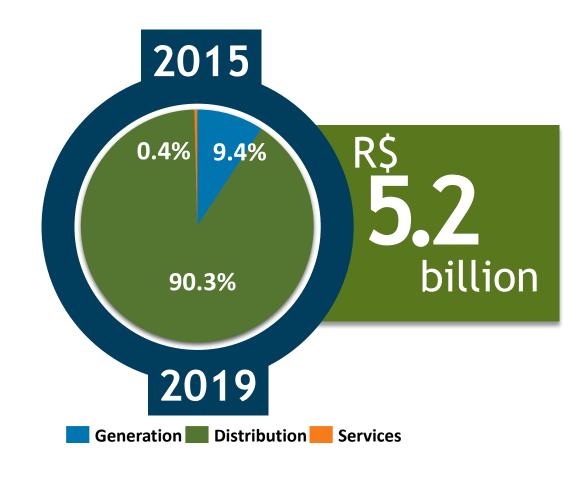
AES Eletropaulo R\$ 3.5 billion

R\$ 1.2 billion

AES Sul

AES Tietê
R\$ 487 million

AES Serviços R\$ 19 million





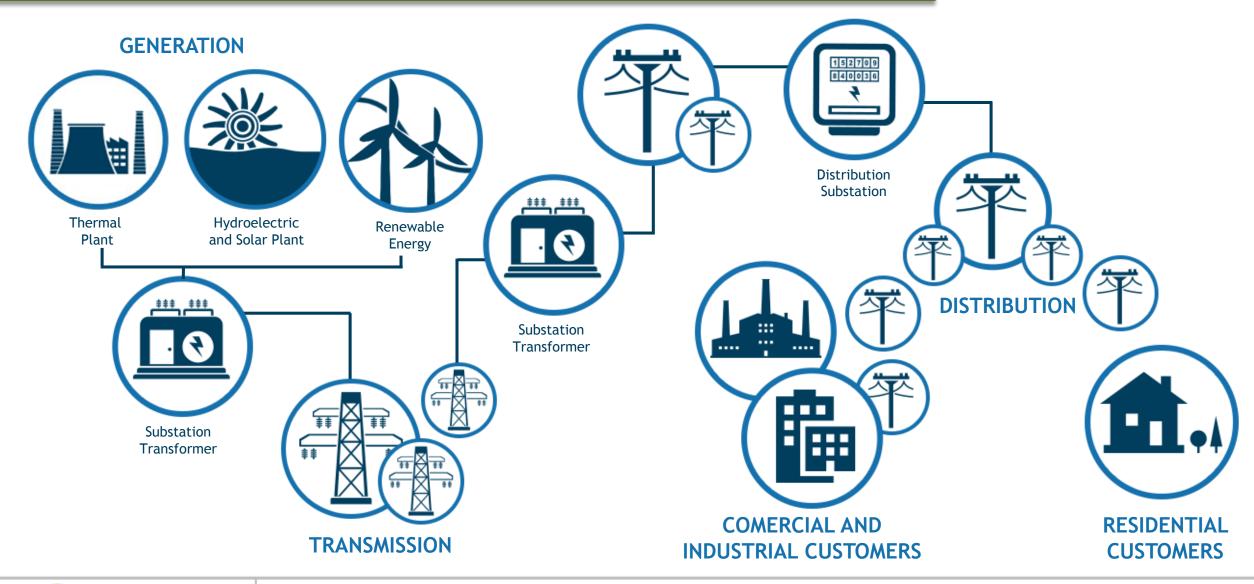
## AES Brasil widely recognized





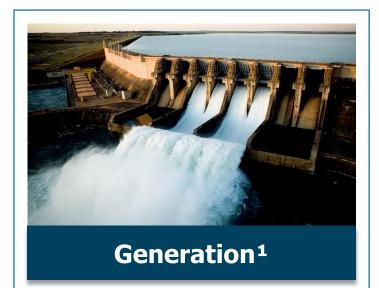


# National Interconnected System





## Energy sector in Brazil: businesses segments



- 4,437 power plants
- 150 GW of installed capacity
- System based on hydro plants (61%)
- Contracting environment: free and regulated markets



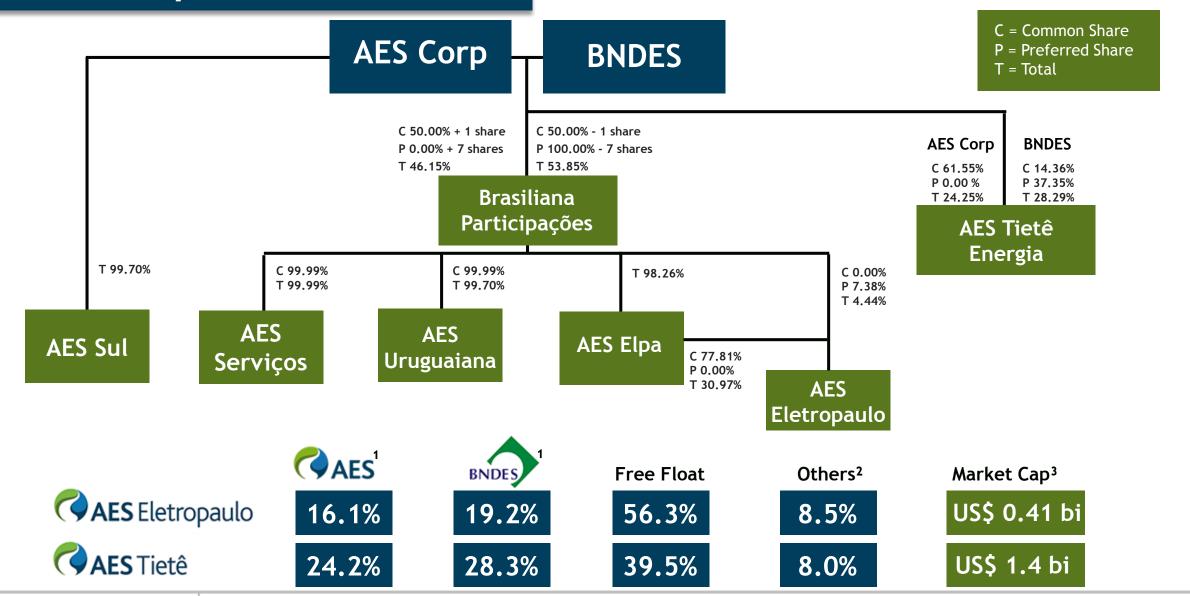
- **104** agents
- High voltage transmission (>230 kV)
- 116,767 km lines (National Integrated System)
- Regulated tariff (annually adjusted by inflation)



- **63** distribution companies
- 342 TWh energy distributed
- 190 million consumers
- Annual tariff adjustment
- Tariff reset every four or five years
- Regulated contracting environment



### Ownership Structure





#### **AES** Tietê Grande River Brazil Agua Vermelha (1.396 MW) Euclides de Cunha (109 MW) Nova Avanhandava (347 MW) Caconde (80MW) Limoeiro (32 MW) Promissão (264 MW) Mogi-Guaçu (7 MW) bitinga(132 MW) São Joaquim (3 MW) Bariri (143 MW) São José (4 MW) Barra Bonita (141 MW)

- 3<sup>rd</sup> largest among private generation companies
- Concession expires in 2029
- Market Cap: US\$ 1.4 billion¹

- 9 hydroelectric plants and 3 SHP³ in São Paulo
- Installed capacity of 2,658 MW, physical guarantee<sup>2</sup> of 1,278 MWavg
- Consistent evolution of client portfolio

Investment grade (Moody's):

- National: Aa2

International: Ba2





- Largest distribution company in Latin America
- 24 cities attended in São Paulo metropolitan area
- Concession contract expires in 2028
- Market Cap: US\$ 409 million¹
- 16% of Brazil's GDP<sup>2</sup> in its concession area
- 4,526 km<sup>2</sup> concession area
- 46 thousand km of distribution and transmission lines
- 6.9 million customers
- 20 million people served
- 44 TWh distributed in 2015
- 7,165 employees as of December 2015

#### **Investment Grade:**

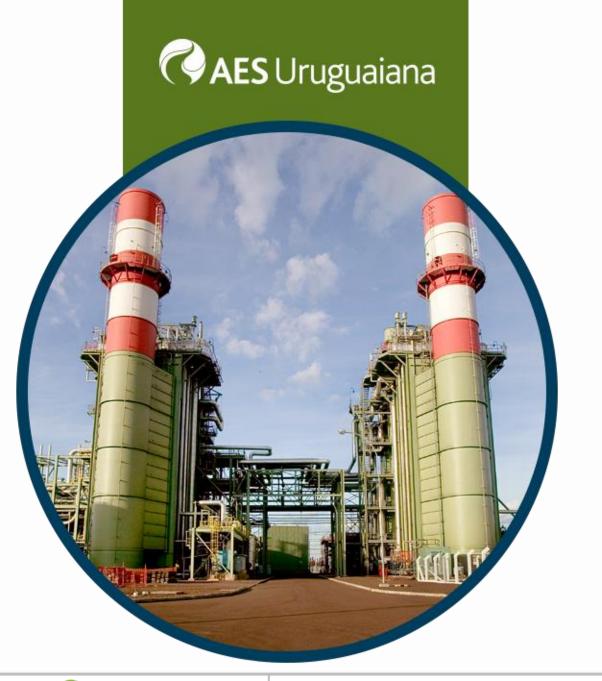
	Fitch	S&P	Moody's
National	<b>A</b> +	A+	A2
International	BB	ВВ	Ba3





- SAIDI of 19.11% (hours) and SAIFI of 8.42% (times)
- Operating costs 2% below the regulatory levels<sup>1</sup>
- 118 cities attended in Rio Grande do Sul state
- Concession contract expires in 2027
- 1.3 million customers
- 8,870 GWh sold in 2015
- 99,512 km² concession area
- 3.7 million people served
- 2,355 direct employees¹
- Regional GDP growth of 3.2%<sup>2</sup>
- R\$ 258 million Ebitda in 2015
- R\$ 214 million invested in 2015
- National investment grade (S&P): BBB-





- Beginning of commercial operations in 2000
- Located in the State of Rio Grande do Sul city of Uruguaiana
- Operations were suspended in 2008 due to lack of gas supply
- Initiated arbitration against YPF in Argentina
  - ICC1 awarded the merits in favor of AES Uruguaiana in 2013
  - Next and final phase refers to the damages calculation
- Emergency operations in 2013, 2014 and 2015 to support reservoirs recovery in Brazil
- Looking for long-term solution

## Fast Facts Combined cycle gas turbine (CCGT)

Capacity (MW) 640 MW

Authorization expiration 2027



- Customer-focused Company, that provides electrical energy services
- Focus on offering integrated and high-added-value solutions to the electrical energy agents, industrial and commercial segments, based on AES Brasil strong capabilities and know-how

#### Main Products

- Commercial technical services
- Consulting in energy efficiency
- Construction and maintenance of substations and transmission lines
- Commercial service: face-to-face service and debt collection
- Affinities: insurance
- Over 5 years of operation
- 3 operational bases cities of Barueri, São Paulo and Itapecerica da Serra
- 92 vehicles
- 505 employees



# Corporate governance Key for the investment decision

- Operational and Investment Management Committee: robust capital allocation process
- Corporate policy of Integrated Risk Management<sup>1</sup> monthly assessed by Companies' Executive Officers and quarterly by Fiscal committee and Board of Directors
- Corporate governance manual; audit committee installed
- High level of commitment, with monthly Board of Directors meetings

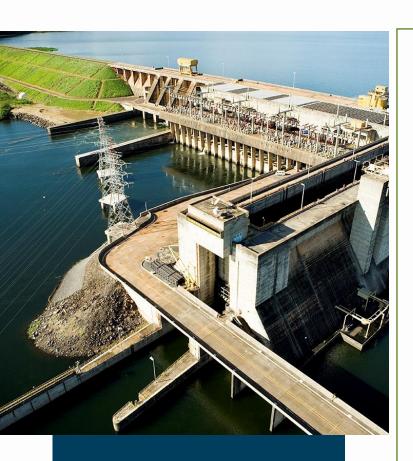
- Listed at BM&FBovespa:
  - ELPL3 and ELPL4: level II
  - TIET11 (units): level II
- ISE Corporate Sustainability Index portfolio
- Tag along rights



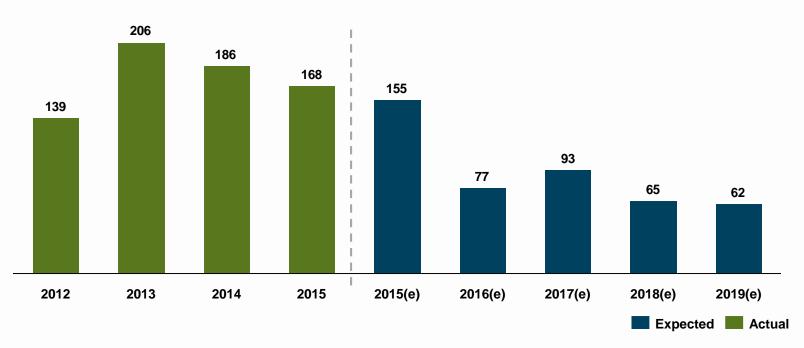




### Investment focused on power plants modernization



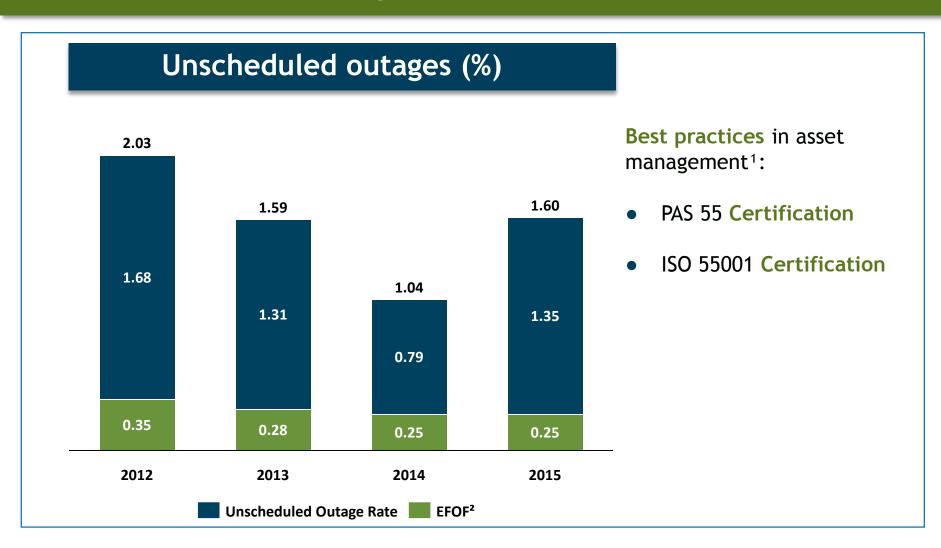
#### Investment program totaled R\$ 168 million in 2015



Power plants modernization process, aiming for continuous improvement in operational conditions and ensuring availability in its generation plants



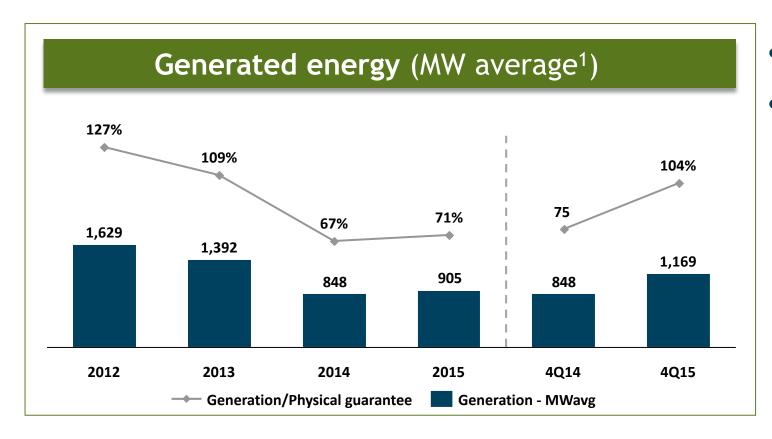
# Investments and Best Practices in Asset Management, translates into outages reduction







# Energy generation decrease reflects hydrology behavior in the country

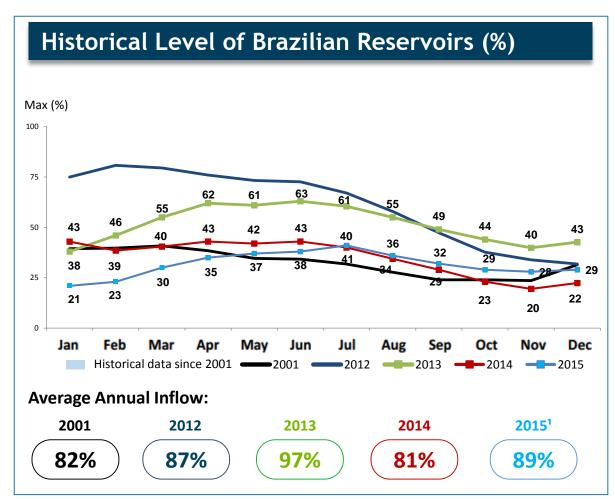


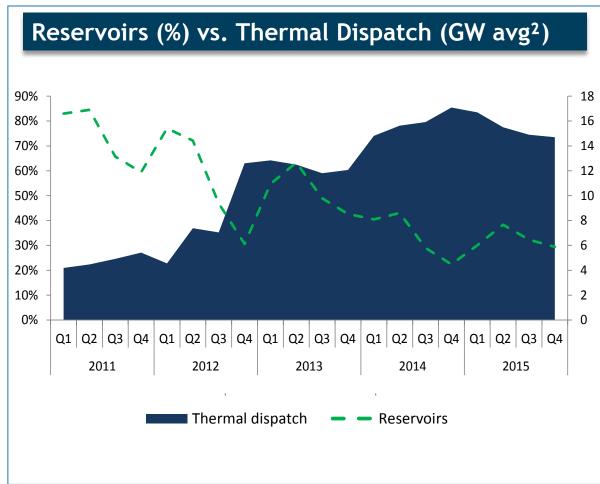
- Hydropower plants are dispatched by ONS<sup>2</sup>
- Dispatch are also related to hydrological conditions:
  - Low hydrology translates into low generation levels





#### Critical hydrological scenario over the last 2 years

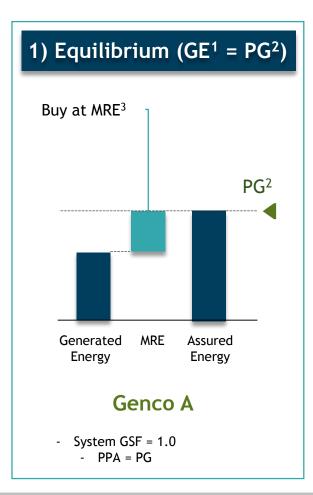


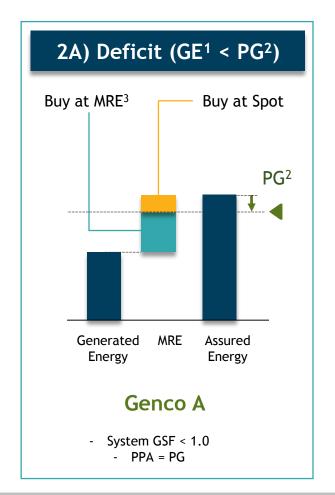


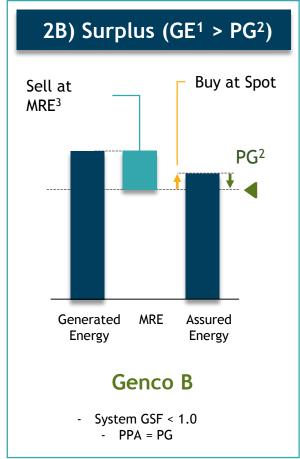


## **Energy Reallocation Mechanism**

(ERM) for hydrological risk sharing







- A physical guarantee (assured energy) is assigned to support contracts
- Energy dispatch optimized by centralized system operator (ONS) on a tight pool

### Key drivers for hydrological risk

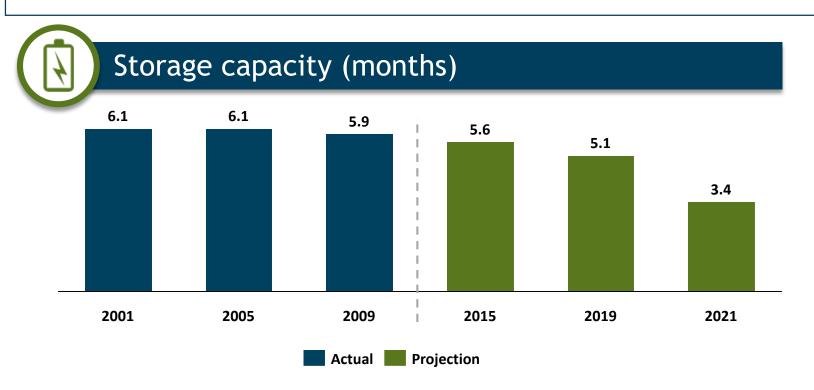
- Generated Energy

   (hydro) in the entire
   system (MRE) influenced by hydrology
- Spot Price marginal cost influenced by hydrology and thermal dispatch



# Tight hydrology and lower system storage capacity requires more flexible generation

Thermo São Paulo (503MW) and Thermo Araraquara (579MW)



Current contracted energy is based on renewable (mainly Wind) and run-of-river hydro projects, which has reduced the energy storage capacity over the recent years.





Source: ONS and AES

### AES Brasil growth perspectives



#### Natural Gas Power Plants

~1.5GW of dispatchable source

- 2 natural gas combined cycle power plants ready to go to energy auctions
- Peak generation:short-term dispatchsolution
- Assessing M&A opportunities

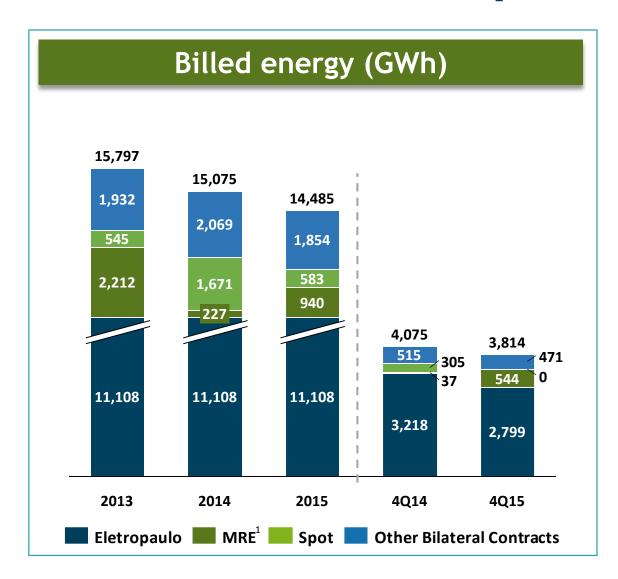
# Renewable Energy **Solar and Wind**

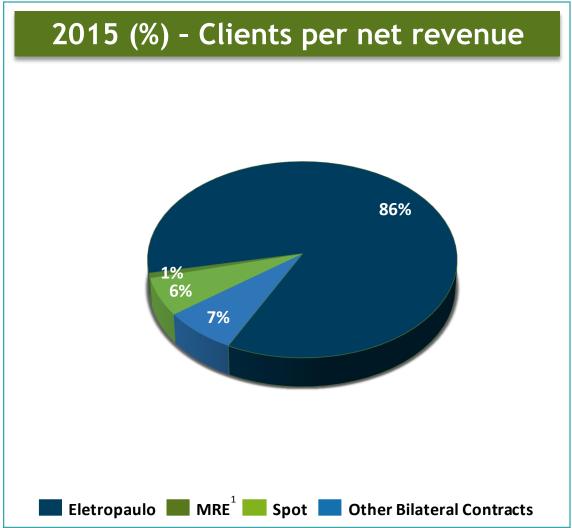
- 180 MW solar project:
  São Paulo and Minas
  Gerais state (close to HPP
  AGV<sup>1</sup>). To participate in
  2016 energy auctions
- ~150MW solar project: Under development
- Assessing M&A opportunities





## In 2015, AES Eletropaulo was our main client







# Contracting environment and opportunities











# Commercialization strategy post-2015 leveraging cash flow

Our goal is to sell the major part of Company' physical guarantee in the free market

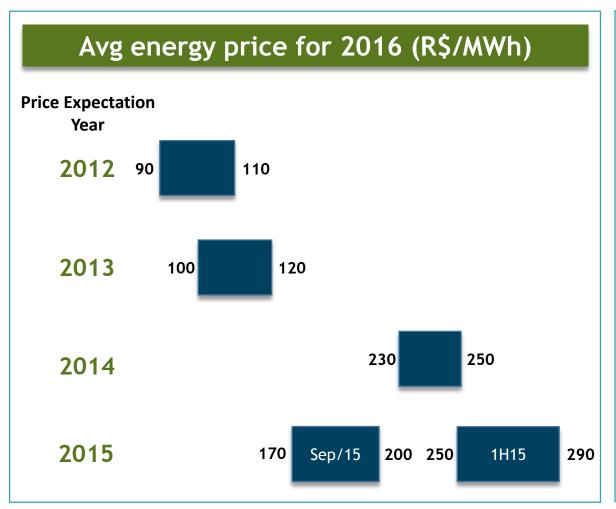
- Customized energy with global experience
- Focus on long term contracts and off takers with a strong financial background aiming to ensure Company's cash flow
- Practices and policies to ensure an adequate risk-profile assessment
- Client relationship actions to promote AES Tietê and identify clients needs (i.e.: workshops, site visits, satisfaction surveys)

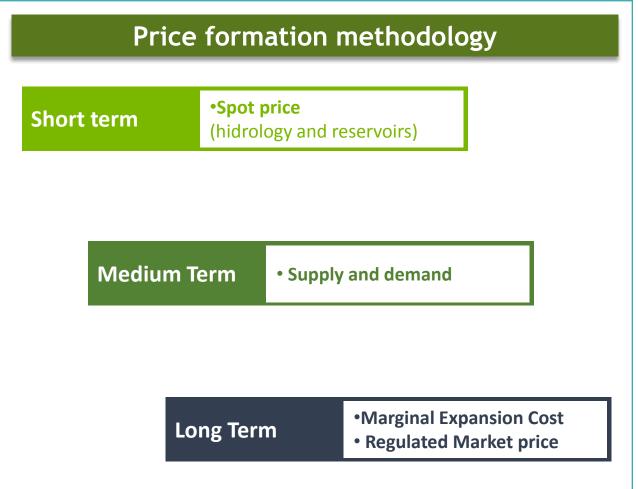




### Free Market

#### Dynamic and competitive market

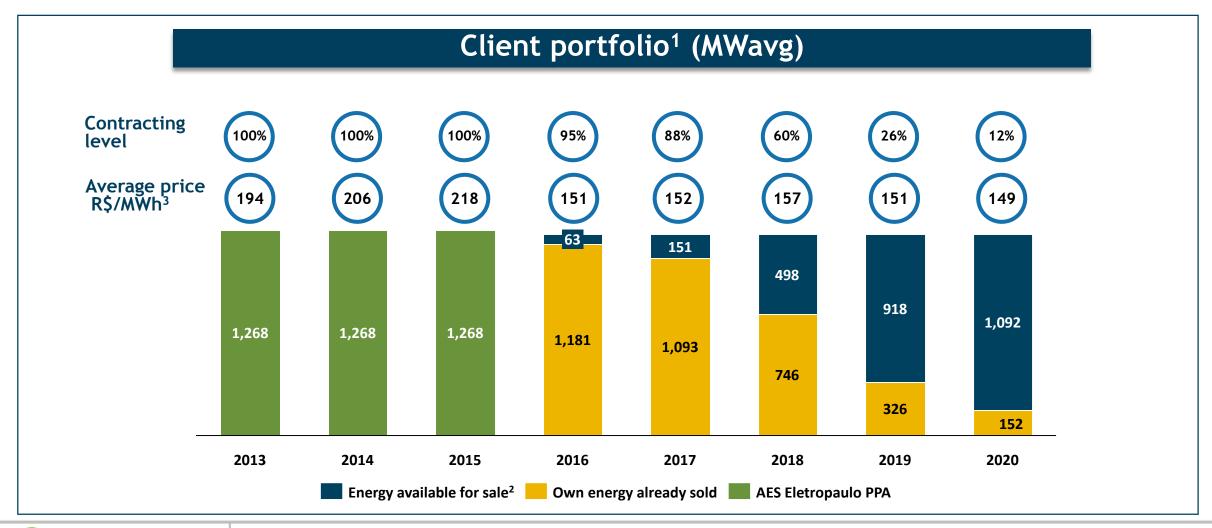






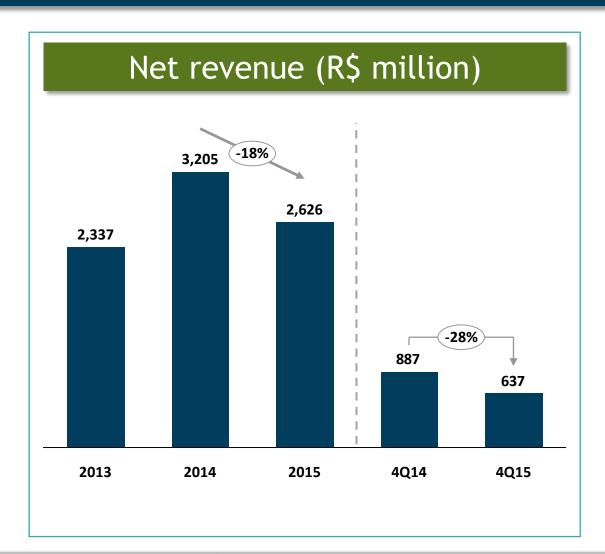
# Commercialization strategy-

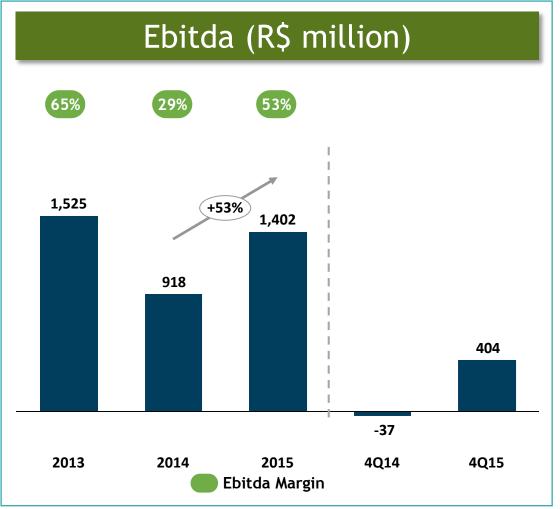
Consistent evolution of client portfolio





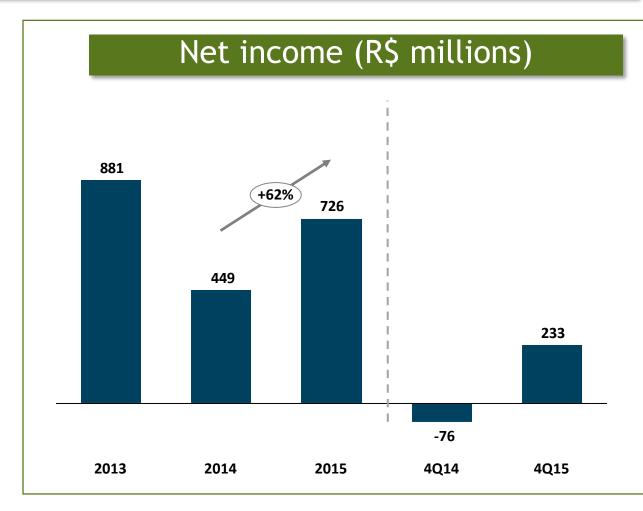
### Consistent annual results







#### And returns...

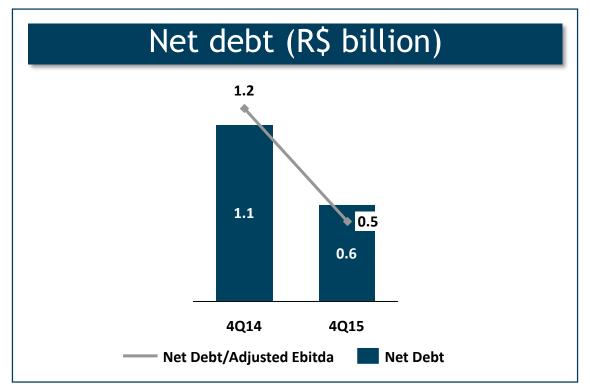


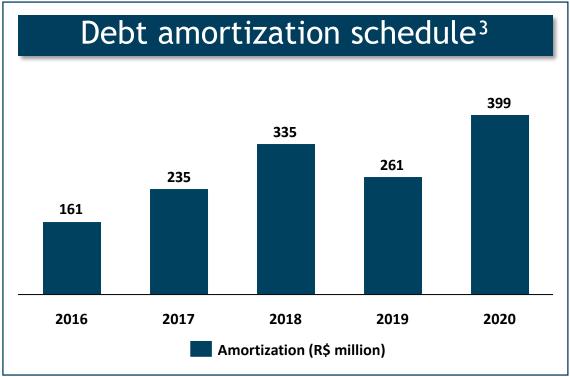
- Minimum of 25% dividend payout of annual net income according to bylaws
- Distribution practice: quarterly basis
- Average payout from 2008 to 2015: 99%
- Average dividends since 2008: R\$ 822 million per year<sup>1</sup>
- AES Tietê's management decided to propose the payment of R\$ 464 million for 4Q15
- R\$ 726 million distributed in divididends in 2015



1 - from 2008 until 2015.

## Low leverage level...





#### Covenants

- Net debt/Adjusted Ebitda<sup>2</sup> < 3.5x
- Adjusted Ebitda<sup>2</sup>/Financial Expenses > 1.75x

#### **Debt Cost**

Average cost (% CDI)<sup>1</sup>

Average term (years)

Effective rate

#### 4Q14 4Q15

106% 101%

2.96 2.18

13.6% 16.3%



<sup>1 -</sup> Brazilian Interbank Interest Rate

<sup>2 -</sup> Adjusted Ebitda - (i) by the financial expenses/revenues and (ii) by the depreciation and amortization values to improve the reflection of the Company's operational cash generation

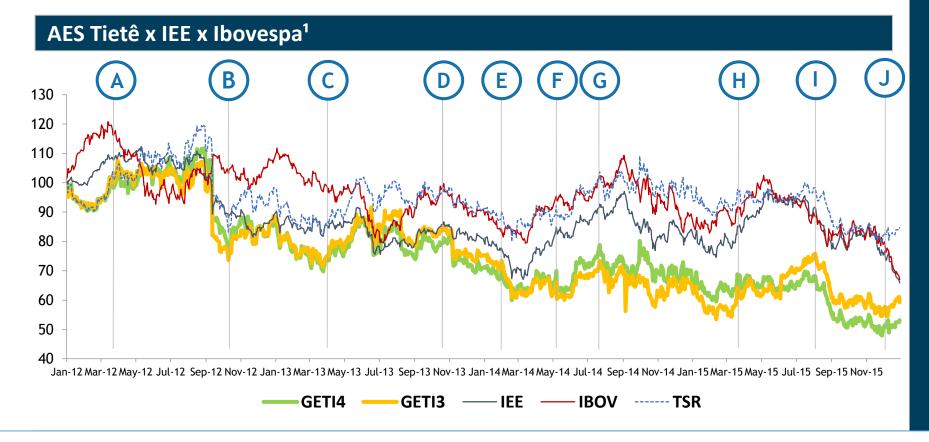


# ...and consistent cash flow

R\$ Million	4Q14	4Q15	2014	2015
Initial Cash	223	423	457	501
Operating Cash Flow	(109)	409	1,187	1,248
Investments	(41)	(42)	(173)	(137)
Net Financial Expenses	(38)	(93)	(94)	(162)
Net Amortization	500	67	499	(233)
Income Tax	(33)	(24)	(483)	(220)
Free Cash Flow	279	317	936	496
Dividends and IoE	-	-	(892)	(257)
FINAL CASH CONSOLIDATED	501	740	501	740



### Capital markets

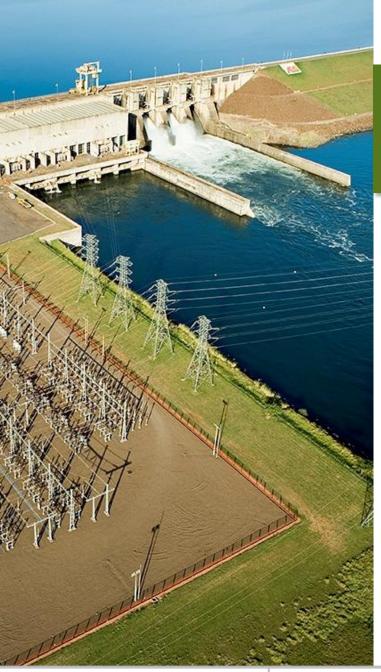


- A Mar/2012: 4Q11 results above market expectations
- B Sept/2012: announcement of the Energy Reduction Program, through the PM 579<sup>4</sup>
- Feb/2013: High thermoelectric dispatch to conserve water in the reservoirs increase spot prices
- Aug/2013: 2Q13 results above consensus due to higher-than-expected spot prices
- **E** Nov/2013: weak 3Q13 results affected by seasonality strategy
- Feb/2014: 4Q13 results slightly below consensus but market show high expectations on 2014 commercialization strategy
- G May/2014: 1Q14 EBITDA above expectation benefited from seasonality strategy
- H Jan/2015: Hydrology for rainy season worse than expected
- Jun/2015: Corporate Restructuring announced
- **Dez/2015:** Corporate Restructuring concluded

- Market cap<sup>3</sup>: US\$ 1.4 billion / R\$ 5.5 billion
- BM&FBOVESPA: GETI3 (common shares) and GETI4 (preferred shares)
- ADRs negotiated in US OTC Market: AESAY (common shares) and AESYY (preferred shares)







# We have strong capabilities and business governance

- Asset Management ISO 55001 certification, 1st Generation company in America
- AES Tietê has been included in the ISE since 2007

- Attractive returns to investors.
   Strong cash generation;
   Maximization of payout
- Cost efficiency and optimized capital allocation
- Established risk management capability

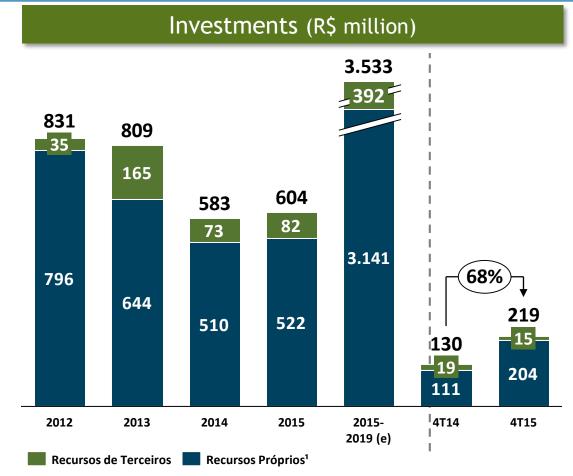




#### 2015 investments focused on

#### system expansion and customer service





#### 2015 Investments focused on:

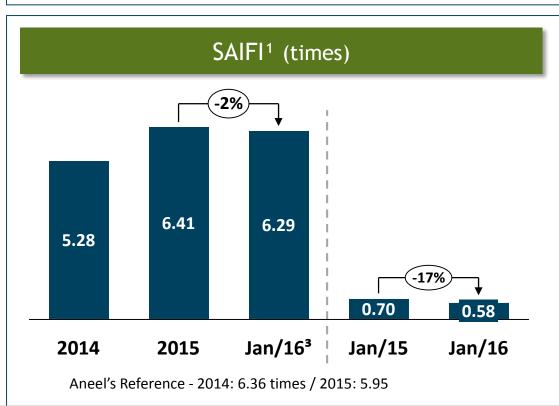
- R\$ 262.3 million in system expansion for the addition of new clients and focus on customer satisfaction
- R\$ 136.3 million in operational reliability through the maintenance of 7,800 km distribution and transmission lines

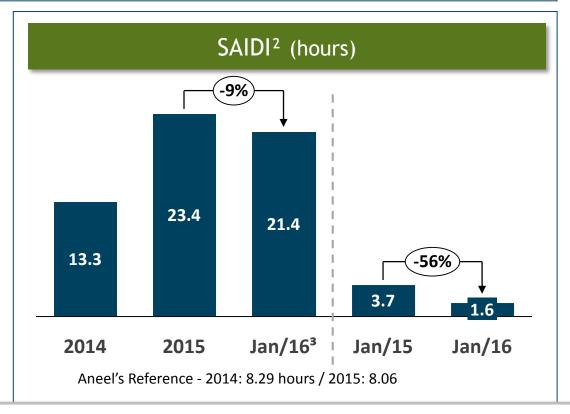
R\$ 303 million additional investment plan by 2017 seeking the recovery of the Quality Indexes<sup>1</sup>



# Plan to recover the quality indexes already in place

- Recovery plan of the quality indicators:
  - R\$ 303 Million of additional investments by the end of 2017
  - Hiring of 554 new people, being 273 electricians, 51 electrical technicians and 230 technicians and supervisors





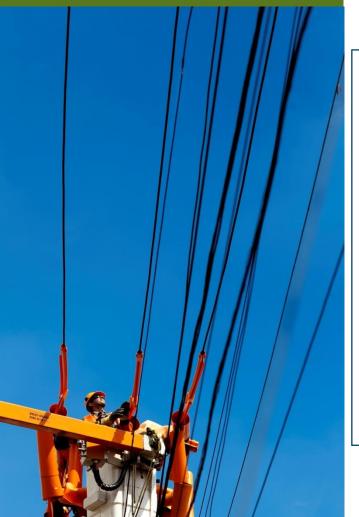


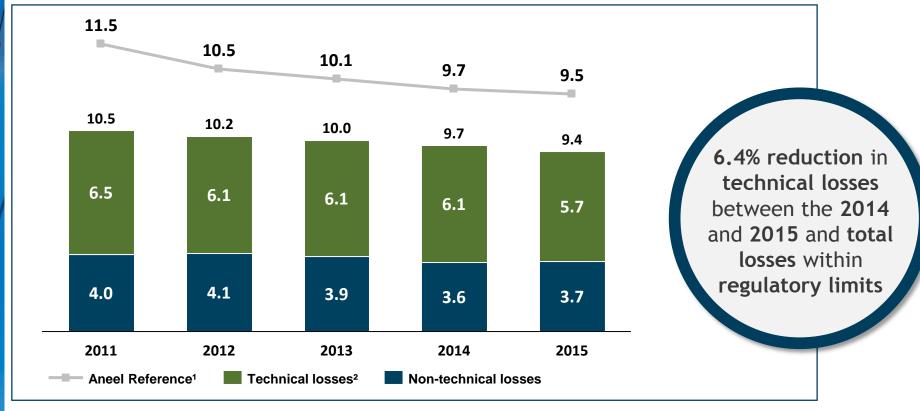
 $<sup>1 -</sup> System \ Average \ Interruption \ Frequency \ Index; \quad 2 - System \ Average \ Interruption \ Duration \ Index$ 

<sup>3 -</sup> Last twelve months (jan/16 to fev/15)

## Efficiency in losses reduction

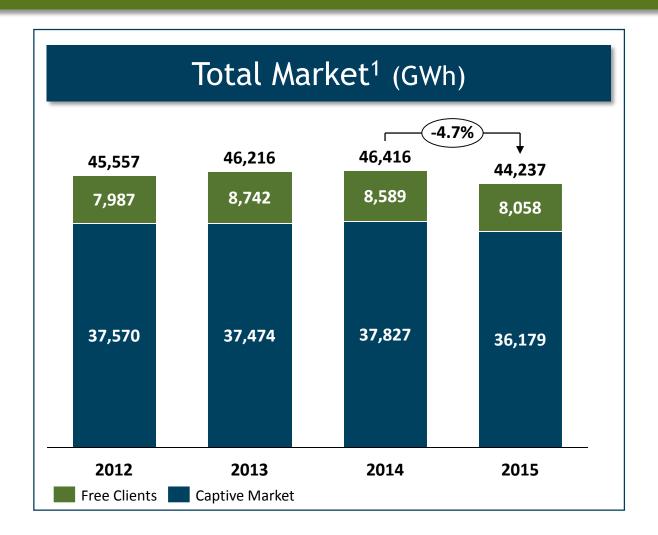
over the last four years







#### Large concession area



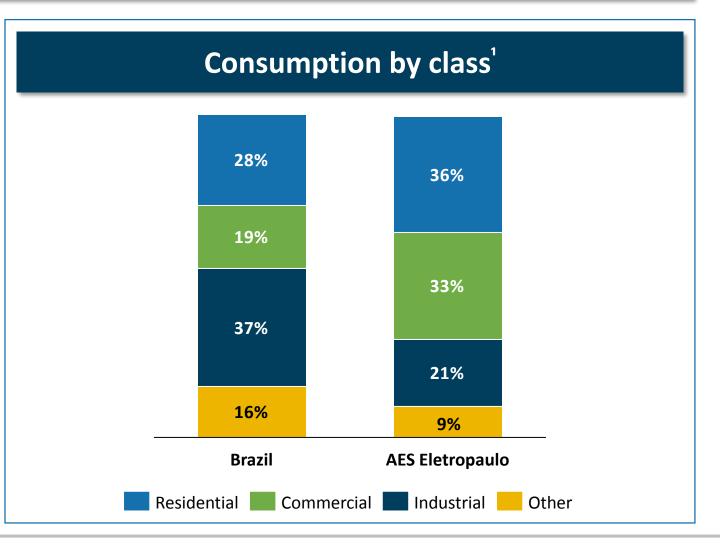
- AES Eletropaulo concession area consists of a mature market, representing approx. 16% of national GDP<sup>2</sup>
- State of São Paulo's GDP average growth of 2.0% p.a. for the last 5 years<sup>3</sup>





## Consumption expansion is mostly in residential and commercial classes

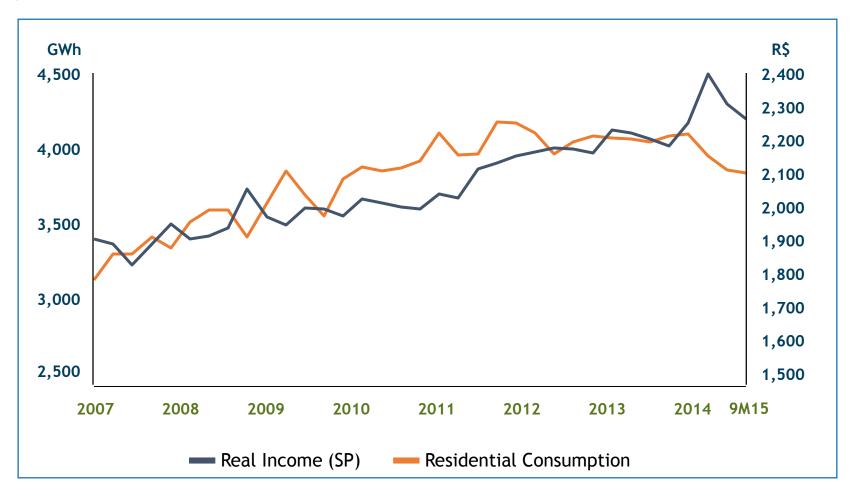






#### Residential Class

#### consumption in line with São Paulo state real income





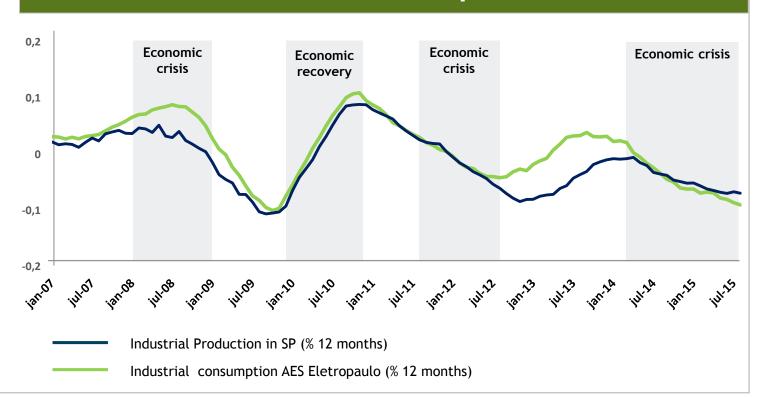
Residential consumption per client grew an average of 0.9% in the last 8 years<sup>1</sup>



1 - base date: 2007-2014 43

#### Industrial class consumption tied to the industrial production growth in the state of São Paulo

#### Industrial class X Industrial production in SP<sup>1</sup>



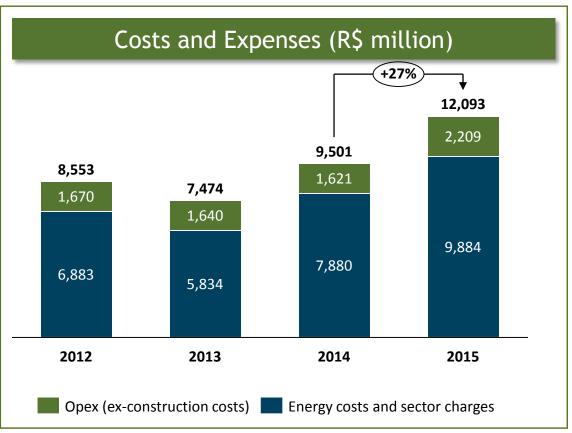
- Industrial consumption impacted by lower industrial production in Brazil
- Consumption focused on more resilient segment (residential and commercial classes)





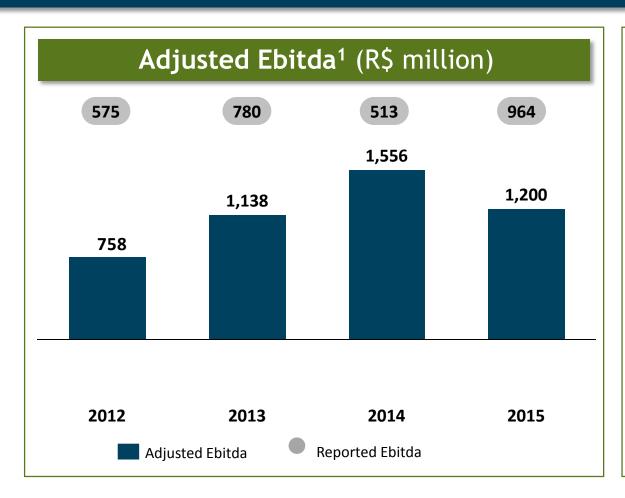
# Gross revenue 62% greater in 9M15 mainly due to tariff readjustment and extraordinary tariff resets

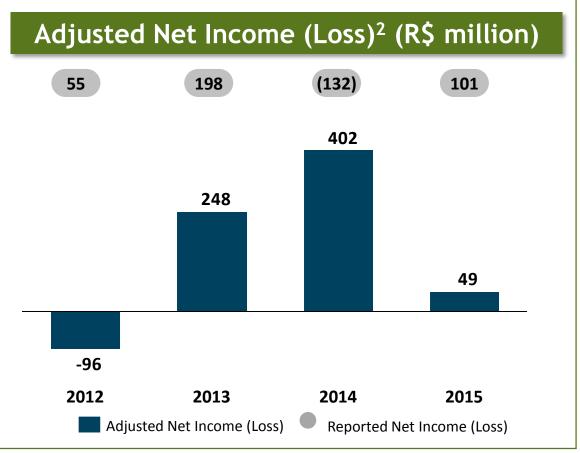






# 23% reduction of the Adjusted Ebitda mainly due to non manageable and non recurrent expenses







# Cost management projects generated R\$ 1 billion<sup>1</sup> in savings until 2014

#### 1st wave - 2007-2010

- Headcount reduction
- Support functions centralization - shared services
- Overhead reduction management and contracts renegotiation
- Leadership headcount reduced by 44% from 2008 to 2013
- Currently operating at the same PMSO level as in 2007 while every quality indicators have improved

#### 2<sup>nd</sup> wave - 2010-2012

- Benchmark approach
- Process review and IT tools to increase performance
- Development of strategic sourcing capability
- Continuous overhead reduction
- Administrative and operational activities centralized in a new site
- Real Estate Plan: sale of assets and maximization of occupancy rate

#### 3<sup>rd</sup> wave - 2013-2015

- Efficiency gains through process transformation and IT tools integration
- Cost management and innovation as part of the Company's culture
- Consider the total cost of ownership for CAPEX/OPEX allocation decisions
- Sustainability driving value (e.g., ABS initiative with suppliers)



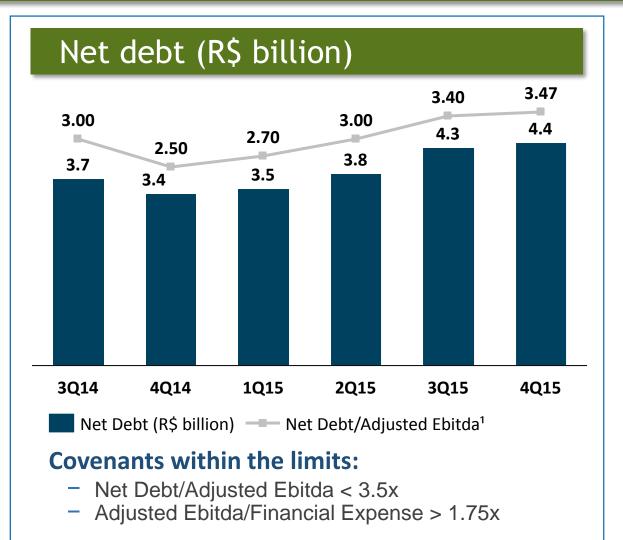


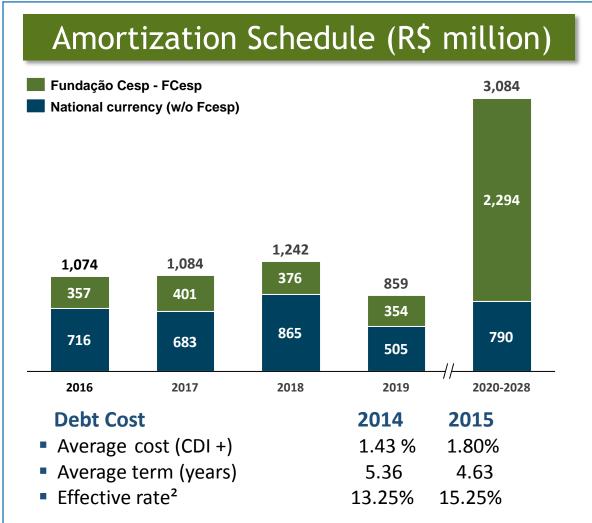
### Operational cash flow generation

Cash Flow - R\$ Million	2014	2015	Var.
Initial Balance of Cash	974	909	(65)
Operating Cash Flow	752	571	(181)
Investments	(501)	(634)	(133)
Net Financial Expenses / Net Amortization	(53)	(36)	17
Pension Fund Expenses	(210)	(195)	15
Income Tax	(49)	(106)	(57)
Restricted Cash	65	21	(44)
Free Cash	4	(378)	(382)
Dividend and Interest on Own Capital	(69)	-	69
Final Balance of Cash	909	531	(378)



#### Leverage level within financial covenants

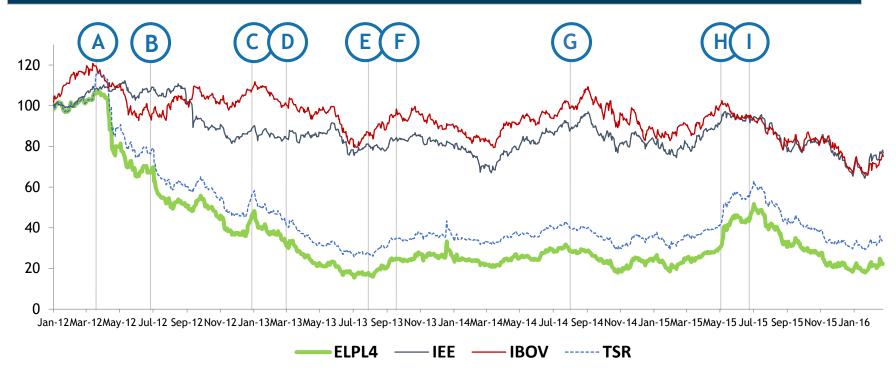






#### Capital markets

#### AES Eletropaulo x IEE x Ibovespa<sup>1</sup>



- Apr/2012: Aneel announced 3PTRC proposal (tariff cut of 8.81%)
- B Jul/2012: Aneel announced official 3PTRC (tariff cut of 9.33%) lowering dividend payout expectations
- Dec/2012: Court deems Eletropaulo liable for Eletrobras lawsuit. Eletropaulo appealed the decision.
- D Feb/2013: 4Q12 EPS affected by energy costs and regulatory charges
- E Jul/2013: Low tariff adjustment due to payment of 2/3 of 3PTRC "Bubble"
- F Aug/2013: 2Q13 results above expectations. Efficiency in cost reduction.
- G Jul/2014: Tariff readjustment approved by ANEEL including 50% of "cable" restitution
- H May/15: 4<sup>th</sup> Tariff Reset Cycle preliminary numbers released
- July/15: 4<sup>th</sup> Tariff Reset Cycle final numbers released

- Market cap<sup>3</sup>: US\$ 0.4 billion/R\$ 1.6 billion
- BM&FBOVESPA: ELPL3 (common shares) and ELPL4 (preferred shares)
- ADRs at US OTC Market: EPUMY (preferred shares)









# We have strong capabilities and corporate governance

- AES Corporation and BNDES as major shareholders: long-standing reputation in the market
- Consumption focused on more resilient segment (residential /commercial market)
- First power distribution company in the Americas to obtain ISO 55001 certification of the Asset Management Program

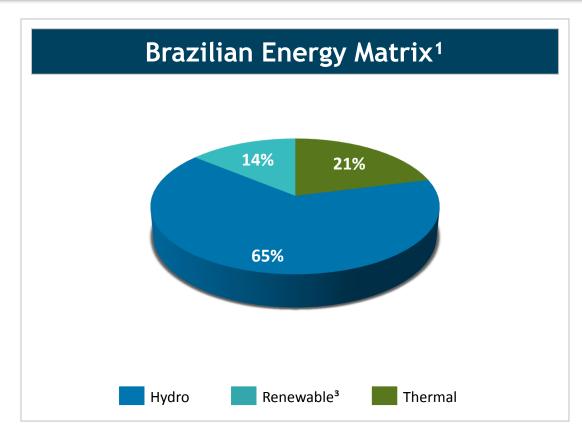
- 2015-2019 investment plan of R\$ 3.5 billion mainly focused on customer services and better quality indicators
- Efficiency on recognizing investments on the RAB

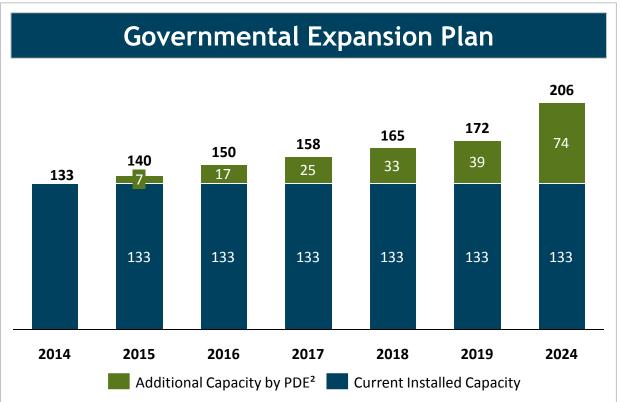






#### Brazilian Energy Matrix and perspectives

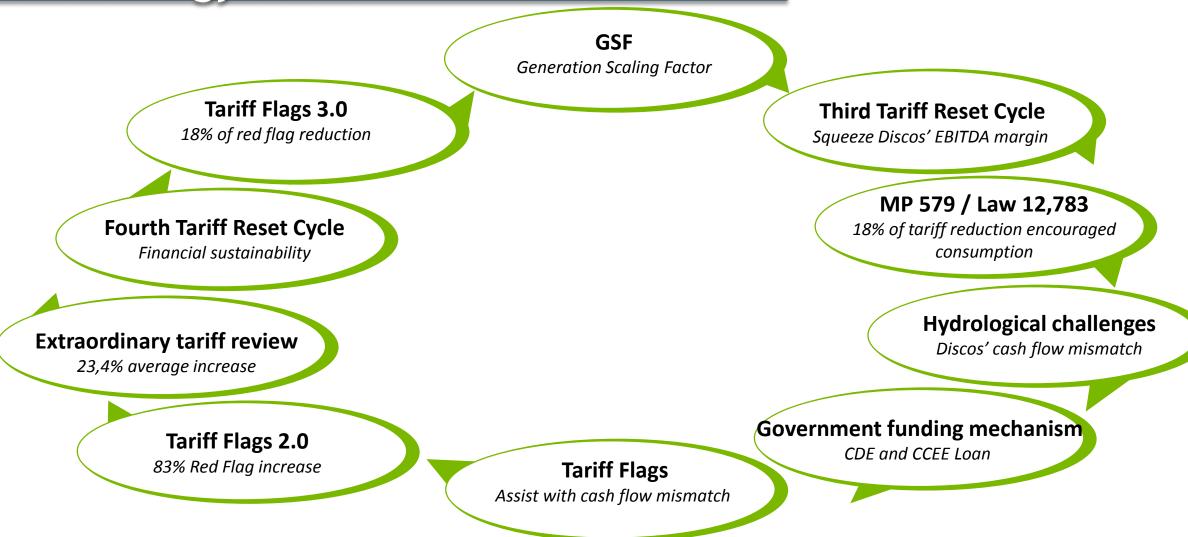




- Energy matrix based on hydropower plants
- Thermal source is responsible for system reliability
- Expansion based mainly on renewable and run-of-river hydropower plants



# Recents events and in course in the energy sector





## Appendix



## Tariff methodology for distributors

- Tariff Reset is applied each 4-5 years
- AES Eletropaulo next Tariff Reset: Jul/2019;
- AES Sul next Tariff Reset: Apr/2018
- Parcel A: costs are passed on through to the tariff
- Parcel B: costs are set by ANEEL
- Annual Tariff Adjustment
  - Parcel A: costs are passed on through to the tariff
  - Parcel B: costs are adjusted
     by IGPM +/- X Factor¹

Remuneration Asset Base X WACC

**X** Depreciation

Energy Purchase Transmission Sector Charges Parcel A Costs

- Non-manageable costs passed on through to the tariff
- Incentives to reduce costs

Regulatory Opex (PMSO)

Investment
Remuneration

Depreciation

Remuneration on Special Obligations

- Regulatory Opex
- Efficient operating cost determined by ANEEL
- Remuneration Asset Base
- Prudent investments used to calculate the investment remuneration (applying WACC) and depreciation
- Special Obligations
- Recognition of the opportunity cost of equity capital over third party investments

Regulatory Ebitda



Parcel A - Non-Manageable costs



Parcel B - Manageable costs



## X Factor methodology

X Factor	<b>=</b> Pd	+ Q -	+ T
Definition	Distribution productivity	Quality of service	Operational expenses trajectory
Objective	Capture productivity gains	Stimulate improvement of service quality	Implement operational expenses trajectory
Application	Defined at Tariff Reset, considers the average productivity of the sector adjusted by market growth and consumption variation	Defined at each Tariff Readjustment, considers variation of SAIDI and SAIFI and comparative performance of discos. Includes commercial indexes	Defined at Tariff Reset, makes the transitions to operational costs verified in the last 12 months to the one set in the benchmarking models



## 4<sup>th</sup> Tariff Reset Cycle

Parcel A + Financial Components	13.96%	R\$ 1,936m	<ul> <li>Energy CVA including FX rate variation associated with Itaipu</li> <li>CDE charge increase (loans and CDE share)</li> <li>Reduction of AES Tietê's energy participation due to end of contract in Dec/15</li> <li>Involuntary exposure in 2015</li> </ul>
Parcel B	1.27%	R\$ 176m	<ul> <li>WACC of 8.09%</li> <li>Special Obligations remuneration</li> <li>Opex adjusted to match the concession area's reality</li> </ul>
Tariff Reset Effect	15.23%	R\$ 2,112m	

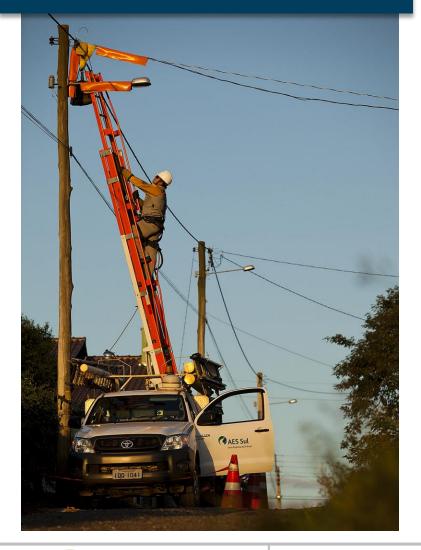


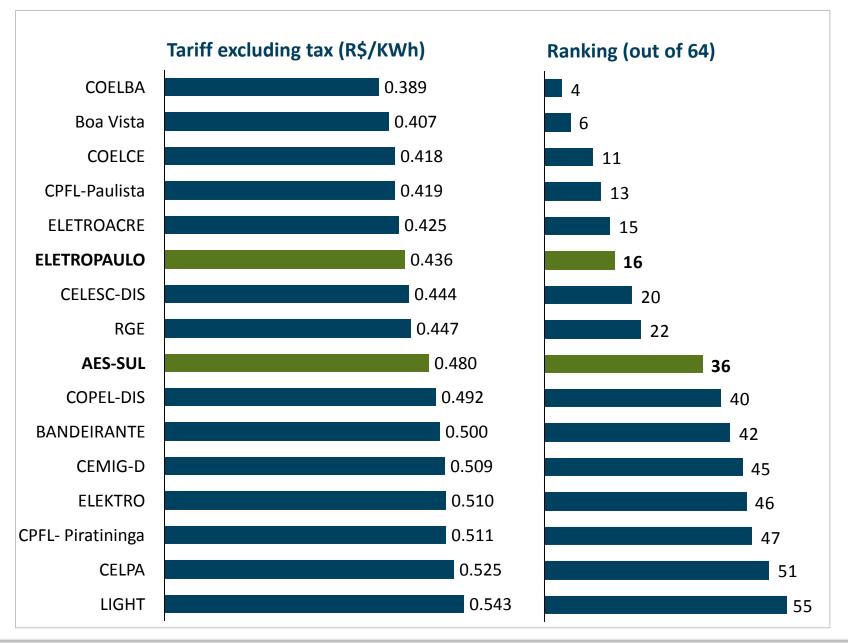
## Breaking down the Parcel B

Remuneration (RAB)	R\$ 732m	<ul><li>Net RAB of R\$ 6.0 billion</li><li>WACC of 8.09%</li></ul>
Depreciation	R\$ 458m	<ul> <li>Gross RAB of R\$ 12.2 billion</li> <li>Depreciation Rate of 3.75%</li> </ul>
Special Obligations	R\$ 39m	<ul><li>Remuneration of 3.34%</li></ul>
Annuity (Other Assets)	R\$ 134m	<ul> <li>Remuneration and depreciation of IT, vehicles and administrative assets</li> </ul>
Operational Expenses	R\$ 1,373m	<ul> <li>Xt Factor of -2.37%;</li> <li>Inclusion of labor liabilities, São Paulo salaries and underground network</li> </ul>
Bad Debt	R\$ 198m	<ul> <li>0.85% of bad debt, considering Tariff Flag revenues</li> </ul>
Other Revenues	- R\$ 88m	<ul> <li>~60% of non-distribution revenues</li> </ul>
Productivity Gains	- R\$ 33m	Xp Factor of 1.13%
Parcel B	R\$ 2,812m	



## Ranking of distribution tariffs in Brazil







## Abradee's¹ Ranking



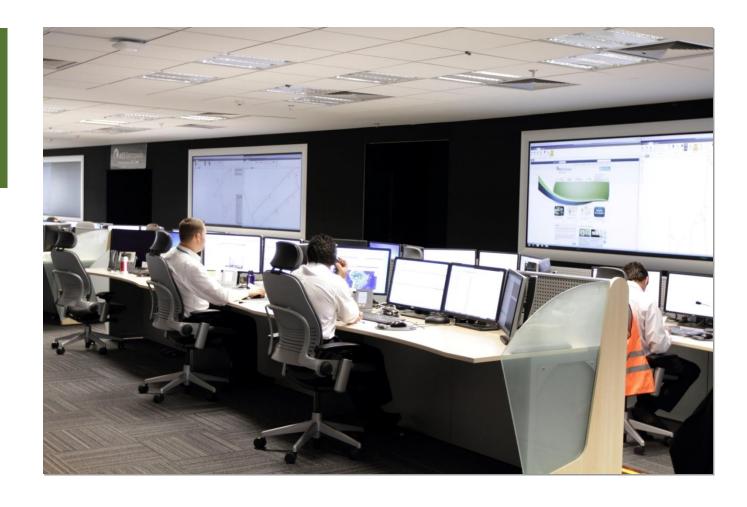




#### Latin America's most modern distribution and subtransmission operations center allows efficiency gains

Modern layout maximizes the dispatch efficiency and decision making during the outage power restoration

- Integration of DOC¹ and SOC² technicians into a modern and collaborative workplace:
  - enabling to rearrange positions at any time optimizing the use of resources
  - improving operational efficiency
  - encouraging a multifunctional profile





# Modern and integrated systems contributes to the best allocation of resources

Integrated and automated systems allow the monitoring of sub-transmission and distribution grid and the best allocation of resources for operational efficiency gains

- State of the art in technologies for management of events and teams, providing a global vision of emergency teams location throughout the concession area
- Service orders transmission through data devices, dispatching service teams that are closer to the location, minimizing attendance time
- Innovative technology for forecasting and monitoring of summer rains, strategically located in the Company's substations anticipating the resources allocation







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