

March 12, 2019 Report #9 – Year 3

M&A – Key Transactions

Chinese CGN Energy International Holdings Co. close a 540 MW deal with Enel Green Power Brasil. (Jan-19)

Enel Green Power Brasil signed a agreements with Chinese company CGNEI for the sale of 100% of three fully operational renewable plants.

CGNEI paid the Italian company amounts approximately to BRL 2.9 B although the deal was closed in euros(EUR 700 MM).

This transaction adds 540 MW into CGNEI portfolio and expends the Chinese presence in Brazil.

Norway's Statkraft to acquire 8 hydropower plants in Brazil. (Oct-18)

Starkraft, A European company of renewable energy acquired eight operational hydropower plants in located on the southern region of the State of Espírito Santo.

The acquisition raise the Norwegian's portfolio up to 450 MW in Brazilian soil and intensify Statkraft presence.

Statkraft paid BRL 704MM to purchase the eight SPP's (PCH's).

Omega Geração acquire the Complexo de Assurá for BRL 1.9 B. (Dec-18)

The Assurá Complex is comprised of 13 wind farms that won the 2013 and 2014 auctions and started to operate in 2016 and 2018 respectively.

Adding to the Omega's portfolio the 330MW from Assurá Complex, the company will be responsible for more than 1 GW of installed power.

Votorantim Energia and a Canadian retirement fund (CPPIB) acquired CESP. (Oct-18)

The 50-50 joint venture has acquired the controlling stake in Brazilian hydraulic generation company, Companhia Energética de São Paulo (CESP). The JV offered BRL 1.7 B for the government share (40,56%) and 59,44% will submitted through IPO.

Equinor&Scatec Solar complete 162 MW in Brazil. (Nov-18)

Norwegian energy companies Equinor and Scatec Solar announced that they had completed the 162 megawatt (MW) Apodi Solar plant in Brazil, the first step into the solar industry in the country. The project signed a 20-year Power Purchase Agreement (PPA) with CCEE.

Coprel and Ceriluz start to build a 4.85 MW CGH in Rio Grande do Sul.

(Nov-18)

Both companies signed a agreement to buy turbines that generate 4.85MW. The initial investment is around BRL 30 MM.

Indices

Energy Price Indices					
2.1161.87 1.1166 1.1161.666	Center-West	Southeast	South	Northeast	North
Fev PLD* (USD/MWh)	127	127	127	44	11
Jan PLD* (USD/MWh)	37	37	37	28	28
Hydro Reservoir Level –February/19**	27%	27%	39%	43%	40%

Economic Indices

Brazilian Treasury Bonds – NTNB 2045***	4.48% + IPCA per annum
Brazilian CPI – IPCA – YTD	3.85%
Brazilian CPI – IPCA – 12M	3.78%
Average FX Rate LTM (BRL/USD)	3.81

^{*} PLD: Average Spot Market Energy price

Sources: ANEEL, ONS, EPE, CCEE, CTEE, Valor, Canal Energia, Reuters.





^{**} Hydro Reservoir Level: used to calculate the PLD and to determine when thermal plants must be turned on to provide security to the system.

^{***} Brazilian Treasury Bonds NTNB 2045: indexed to IPCA (Brazilian CPI – Central Bank inflation guidance)



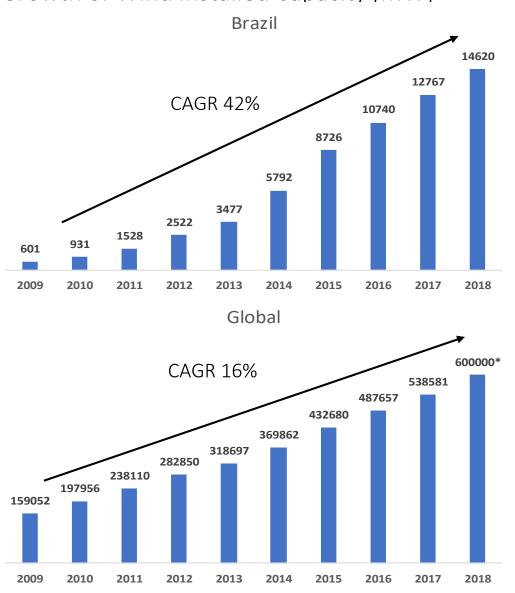
March 12, 2019 Report #9- Year 3

Outlook: Wind Power Generation in Brazil

Wind Installed Capacity and Wind Farms per State

State	Installed Capacity (MW)	Farms
RN	3,980	150
ВА	3,547	139
CE	2,050	80
RS	1,832	80
PI	1,638	60
PE	782	34
SC	239	14
MA	329	12
РВ	157	15
SE	35	1
RJ	28	1
PR	3	1
Total	14,620	587

Growth of Wind Installed Capacity [MW]





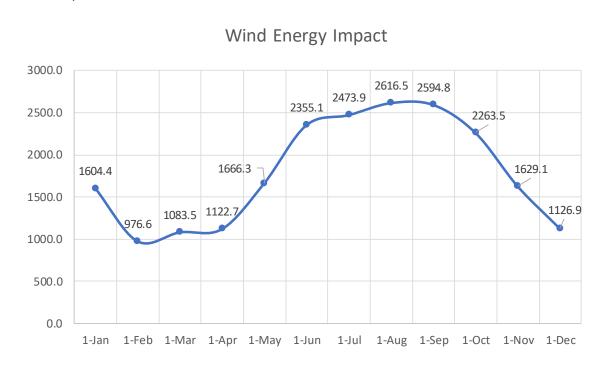
Wind in Brazil in Numbers

Up to mid-February, the power under construction in in Brazil is about 4.59GW, which represents about 31% of the operational wind farms.

In 2018, wind farms represented 7.7% of all the energy produced.

Wind Energy Footprint

In 2018, wind power plants averted an estimated 21.5 million tons of carbon dioxide pollution only in Brazil and corresponds to the equivalent annual emission of about 17 million cars.



^{*} According to preliminary statistics published by WWEA. Sources: ABEEÓLICA, GWEC.





Follow us on

@ItaCapital

Renewable Energy Report



March 12, 2019 Report #9 – Year 3

Brazilian Energy Auction Calendar

The Minister of Mines and Energy, Bento Albuquerque, participated last Wednesday (02/27) in an event at BTG Pactual, in São Paulo. Bento Albuquerque opened the "Energy Sector: Challenges and Opportunities" panel, which was hosted by MME Secretary of Energy, Ricardo Cyrino.

At the time, the minister confirmed the calendar of power generation and transmission auctions that will take place in 2019. The A-4 generation auction is expected to be held in June and the A-6 is expected to take place in September. With investments of around BRL 4 billion, the transmission auction is planned for December, which will offer investors 15 lots of projects and the construction of 1,700 kilometers of lines.

In the table below we find all the information regarding the exact dates of the auctions until 2021.

	2019	2020	2021
A1	December 6	December 4	December 3
A2	December 6	December 4	December 3
A4	June 27	April 23	April 29
A6	September 26	September 24	September 30

Source: mme.gov.br.

ITA Capital

ITA Capital is your partner on the ground in Brazil to help navigate the local cultural and political landscape and to assist on regulatory and tax issues for renewable energy infrastructure assets at all stages of development. Our team has developed a strong expertise with over 15 years of investment advisory in Brazil and abroad. Please feel free to contact us if you need a local partner or advisor in this unique and complex market.



