



Written by:  
[Michael Place](#)

# Brazil's grid expansion balancing act

Published: 09/30/2020

[Offshore Wind](#) [Combined cycle](#) [Photovoltaic](#) [Natural gas](#) [Transmission Lines](#) [Hydro Dam](#) [Transmission](#)



Brazil will need to expand its power transmission network by almost a third over the next decade despite booming investments in micro-generation and smart grids, according to state-run energy research agency [EPE](#).

Speaking during the [Institute of the Americas' Madrid Energy Virtual Conference](#) on Wednesday, EPE president Thiago Barral affirmed that centralized

utility-scale plants and distributed generation initiatives would play equally important roles in the country's energy expansion.

"In Brazil, transmission was once a bottleneck, but we have seen that it's possible to connect huge amounts of renewable energy because of large-scale transmission investments," Barral said.

"We see a need to increase the transmission grid by 30% over the next 10 years in Brazil," he added.

Figures published this week by power sector regulator [Aneel](#) show that Brazil's transmission network currently spans 158,387km with 383GVA of transformation capacity.

The government is preparing to hold its [next auction](#) for new transmission projects on December 17, offering [1,958km of new lines](#) and 6,420MVA of capacity across nine states in 11 separate lots.

Investments in the projects are expected to total 7.4bn reais (US\$1.37bn).

## DISTRIBUTED GENERATION

EPE's latest long-term plan forecasts growth in utility scale projects of 59GW over the next decade. An estimated 40GW will come from non-conventional renewables and 19GW from conventional plants – mainly gas-fired thermoelectric projects.

Barral said distributed generation capacity over the period could reach 30GW – up from 3.5GW today – requiring investments of US\$10bn.

"We have seen huge growth in distributed generation, especially solar, mainly because of the regulatory framework, which incentivizes new investments," he said.

Both Barral and Carlos Andrade, the business strategy and development head of [EDP Brasil](#), agreed that equality was one of the biggest challenges facing distributed generation.

"We need to work on social inequality and affordability of new technology for the entire population, and look for alternatives," Andrade said during the same discussion panel.

"Only rich people can afford to install a solar panel on their roof, but we can work on investments in electric buses and trucks to make [mobility] cheaper and cleaner for customers. Brazil clearly has a worldwide competitive advantage in solar energy because of the high levels of irradiation and the amount of land available. We need to take advantage of that."

Andrade said EDP Brasil would focus solely on non-conventional renewables – specifically solar power – in its local capacity expansion plans.

The company will also invest heavily in distributed generation, according to Andrade, to capitalize on regulatory changes that he says will "reshape" the industry.

"Consumers will soon be free from captivity," he said, alluding to new rules that provide customers with more freedom of choice. "Distribution is where the customers are. That's where we're betting and where we're going to invest," he added.

[Works on US\\$270mn Pará thermal plant to start this year](#)

Published 4 hours ago

[Brazil: Rio Alto seeks investment for solar energy expansion plan](#)

Published 2 days ago

[Danish fund to up investments in Brazil renewable projects](#)

Published 2 days ago

[Enel Américas triplicará el tamaño en Brasil si logra fusión con Enel Green Power](#)

Published 2 days ago

[Brazil's Chesf to invest USD 16m in hybrid renewables project](#)

Published 3 days ago

[Latin America's LNG to Power Push](#)

Published 2 months ago

[Operator Series: Bolivian state power company Ende's oversupply conundrum](#)

Published 7 months ago

[Data Report: The Owners of Latin America's Energy](#)

Published 7 months ago

[Water in Latin America: Keeping It Clean and Flowing for All](#)

Published 8 months ago

[Political Risk: The Year of Living Dangerously](#)

Published a year ago

[Agência Nacional de Energia Elétrica](#)

Updated 4 months ago

[Empresa de Pesquisa Energética](#)

Updated 9 months ago

[EDP - Energias do Brasil S.A.](#)  
Updated 10 months ago

[Institute of the Americas](#)  
Updated 2 years ago

[Michael Place](#)  
Updated a year ago

[Maximum demand. Monthly data](#)  
Updated 2 days ago

[Electricity generation. Monthly data](#)  
Updated 2 days ago

[Installed capacity of Electric power generation by source](#)  
Updated 2 days ago

[Monthly power fees: Brazil](#)  
Updated 21 days ago

[Brazil installed capacity](#)  
Updated a year ago

The information in this document is for personal use. It is strictly forbidden to share any part of this document with any third, without a written consent of Business News Americas. Copyright 1996-2019 All rights reserved.

**Need help?**

Email: [info@bnamericas.com](mailto:info@bnamericas.com)

Phone: [+56 \(2\) 2232 0302](tel:+56(2)22320302)

Account manager: Ricardo Lillo ([ricardo.lillo@bnamericas.com](mailto:ricardo.lillo@bnamericas.com))