

Senate delays stall Brazilian dreams

Major players lobby lawmakers after legislation derailed by amendments, writes

Daniel Dawson

The wind has come out of the sails of Brazil's offshore ambitions as the legislation set to govern the sector has stalled in the Senate.

After the Chamber of Deputies approved PL 576/2021 at the end of 2023, many developers and officials expected the Senate to vote on the bill in the first half of 2024.

However, the addition of several amendments, including subsidies for coal and natural gas-fired power plants, has derailed the process.

"These amendments to the bill of law are clearly a handicap," said Global Wind Energy Council Latin America president Ramón Fiestas. "The government is keen to adopt the offshore wind bill without them."

Nevertheless, offshore wind retains cross-party support in Brazil, which boasts 700GW of technical potential for fixed-bottom turbines. Furthermore, an analysis from GWEC found that every 1GW developed could generate \$2.5bn in investment and 17,000 supply chain jobs.

Everyone in the sector anticipates the bill will be signed into law by the end of 2024.

According to Ibama, Brazil's environmental agency, 31 developers

have submitted licence applications to develop 97 projects totaling 235GW, although not all will be approved.

"Once the speculators are gone, there will be strong competition among serious companies because there are many overlapping projects," Fiestas said.

Offshore Wind Consultants' Brazil country manager Luany Dantas said that Corio Generation, EDF Renewables, Iberdrola (via Neoenergia Renováveis) and Ocean Winds are the four leading renewable-focused developers working in Brazil and have been lobbying the country's lawmakers to pass the bill.

Oil and gas companies, including Equinor, Petrobras, Shell and TotalEnergies, are also seen as strong auction contenders.

Once the bill is passed by the Senate and signed by President Luiz Inácio Lula da Silva the executive branch will have 270 days to create the regulatory framework and announce the deadline for tenders for the first seabed lease auction.

Since the part of the bill dealing specifically with offshore wind is already defined, most people in the sector do not anticipate any significant changes.

Restless developers cut costs

The Senate delays have concerned some developers and investors, many of whom were told since 2022 that an auction date would be set for the following year.

"Developers are a little restless, but I still think the interest will be there when the legislation is passed," Aegir's Sørensen said.

Indeed, Edisiene Correia (pictured), the Brazil-based business developer of the Shizen Energy Group,

which has filed

paperwork to

develop six

projects totaling

15GW, said

the company

would not hire any more consultants or contractors to prepare for the tenders until the bill is passed.

"If we compare it to the scenario of offshore wind around the world, (the delay has been) a problem because



it is taking a long time to get the final regulation," she said. "Some investors are waiting for this to put money in Brazil because they are interested in the market."

In the north-east of the country BI Energia, which hopes to develop a 576MW project and sell power to the grid at auction, said the delays have caused them to cut costs. "We had to dismiss people and suspend all the contracts we had signed," confirmed chief executive Lúcio Bonfim.

He worries that the delays will cause international developers to pause investments in Brazil and possibly look elsewhere. Dantas shares these concerns.

"Developers need the approval of the regulatory framework before they spend real money," she said. "Some companies have budgets approved for Brazil, but the worry is if the process takes much longer, they will move money to somewhere else."



FRAMEWORK PREP:
ABEEólica chief executive
Elbia Gannoum Photo: ABEEólica

"The government is working with an inter-ministerial working group to align all competent bodies," said Brazilian wind energy association (ABEEólica) head of offshore wind energy Matheus Noronha.

ABEEólica chief executive Elbia Gannoum confirmed that the Ministry of Mines and Energy has already started preparing the regulatory framework.

"They want to get up and running because the Ministry and President Lula want to attract investment," she told reNEWS, noting that the executive branch is eager for the first seabed lease auction to coincide with Brazil hosting COP30 in late 2025.

Developers will begin the necessary studies to obtain the environmental licence after the auction and confirm a route to market by 2028. Gannoum anticipates the first wind turbines could be operational by 2031.

Fiestas said the route to market will be critical for developers' success, demonstrating the profitability of their projects to lenders and investors. Many projects will sell electricity to the grid, with others planning partnerships to produce green hydrogen.

While the criteria for the auctions are still being drafted and will not be made public until the regulations are published, there will likely be a local content requirement.

Some developers do not anticipate this to be a significant concern since Brazil already has well-developed onshore wind and offshore oil and gas sectors, with the possibility to adapt some segments of these supply chains for offshore wind.

However, some analysts worry it will be an extra hurdle for developers to overcome in a new market.

"The flexibility to choose where your supply comes from is always preferable," said Signe Sørensen, senior Americas market analyst at consultancy Aegir Insights. "If there is a very limited local supply chain, (local content requirements) pose an extra challenge."

Developers are also not overly concerned about having the

infrastructure to bring offshore wind power onto the grid.

Brazil's energy research office has announced plans to expand the grid over the next 10 years, while several ports would only need minor renovation to accommodate offshore wind construction.

Dantas is more worried that there will not be enough vessels to transport turbines and lay cables. The majority of these are built in China, and some consider there is now an opportunity for Brazil to begin manufacturing them too. ■

Petrobras feels squeeze as timetables slip

Since Petrobras unveiled its plans in September 2023 to develop offshore wind in Brazil, the state-owned oil and gas company's progress has mirrored that of the wider sector.

Petrobras filed paperwork with environmental regulator Ibama for 10 offshore wind developments, producing nearly 23GW.

Seven of the 10 areas are located in the north-east, where wind speeds are the highest and potential is greatest. The company is expected

to use these to produce green hydrogen.

Two other sites, located off the coast of Rio de Janeiro, are expected to power the offshore oil and gas infrastructure Petrobras plans to build in the next five years.

The Brazilian government considers offshore wind and green hydrogen as strategic sectors and wants to develop domestic competencies and supply chains, with Petrobras widely seen as the vehicle through which these ambitions would be achieved.

Indeed, former chief executive Jean Paul Prates joined Petrobras in January 2023 after resigning from the Senate, where he co-authored the pending offshore wind bill.

However, delays in the Senate's approval of that bill, economic conditions and the replacement of Prates in May 2024 have resulted in the company postponing its estimates for developments coming online.

"They used to say before 2032, but now the first project expectation is 2035," said OWC's Dantas. ■

235GW BRAZILIAN LICENSING REQUEST QUEUE

Project	MW	Developer	Project	MW	Developer
Água Marinha, Rio Grande do Norte	1700	BlueFloat Energy do Brasil	Pedra Grande, Rio Grande do Norte	624	Pedra Grande
Águas Claras, Rio Grande do Sul	3000	Neoenergia Renováveis	Península Wind Offshore, Rio Grande do Sul	2700	SPE Bravo Vento
Alísios Potiguares, Rio Grande do Norte	1845	Bosford Participações	Piedade, Ceará	2268	Petrobras
Alpha, Ceará	6000	Alpha Wind Morro Branco Projeto	Prazeres, Ceará	2394	Petrobras
Amazonita, Rio Grande do Sul	3000	BlueFloat Energy do Brasil	Projeto Açu	3010	Shell Brasil Petróleo
Aracatu, Rio de Janeiro	3840	Equinor Brasil Energia	Projeto Atobá, Rio Grande do Sul	2490	Equinor Brasil Energia
Araíoses, Maranhão	2808	Petrobras	Projeto Colibri, Ceará	2010	Equinor Brasil Energia
Araras Geração, Ceará	3000	Shizen Energia do Brasil	Projeto Galinhos, Rio Grande do Norte	3010	Shell Brasil Petróleo
Asa Branca I, Ceará	1080	Eólica Brasil	Projeto Ibituassu, Rio Grande do Sul	2010	Equinor Brasil Energia
Asa Branca II, Ceará	1080	Eólica Brasil	Projeto Ibitucatu, Ceará	2010	Equinor Brasil Energia
Asa Branca III, Ceará	4320	Eólica Brasil	Projeto Mangará, Piauí	2010	Equinor Brasil Energia
Asa Branca IV, Ceará	4320	Eólica Brasil	Projeto Pecém, Ceará	3010	Shell Brasil Petróleo
Barra do Chuí, Rio Grande do Sul	3000	Shizen Energia do Brasil	Projeto Piauí, Piauí	2520	Shell Brasil Petróleo
Beta, Rio Grande do Norte	3000	Beta Wind Energias	Projeto Ubu, Espírito Santo	2520	Shell Brasil Petróleo
Bravo Vento, Rio Grande do Sul	1155	SPE Bravo Vento	Projeto White Shark, Rio Grande do Sul	3010	Shell Brasil Petróleo
Bromélia, Rio de Janeiro	1700	BlueFloat Energy do Brasil	Quaresmeira, Rio de Janeiro	2960	BlueFloat Energy do Brasil
Cabo Frio, Rio de Janeiro	3204	Petrobras	Querência, Rio Grande do Sul	3000	Shizen Energia do Brasil
Camocim, Ceará	1200	Camocim Eirelli	Quesnelia, Espírito Santo	1240	BlueFloat Energy do Brasil
Caruara I, Rio de Janeiro	2310	Eólica Offshore Caruara	Redentor dos Mares, Rio de Janeiro	1520	Acciona Energia Brasil
Caruara II, Rio de Janeiro	1113	Eólica Offshore Caruara	Rio Grande Offshore, Rio Grande do Sul	1200	Geradora Eólica Brigadeiro V
Cassino Offshore, Rio Grande do Sul	1920	Geradora Eólica Brigadeiro IV	Serra do Mar, Espírito Santo	2850	Fiabe Participações
Cattleya, Rio Grande do Norte	1180	BlueFloat Energy do Brasil	Site de Teste Porto do Açu, Rio de Janeiro	15	Secretaria Energia Economia do Mar
Caucaia, Ceará	576	BI Energia	Sítio de Testes, Rio Grande do Norte	22	SENAI/RN
Costa Branca I, Rio Grande do Norte	1458	Petrobras	Sopros do Ceará, Ceará	3000	Totalenergies Petróleo & Gas Brasil
Costa Branca II, Rio Grande do Norte	2106	Petrobras	Sopros do Piauí I, Piauí	3135	Totalenergies Petróleo & Gas Brasil
Costa Nordeste Offshore, Ceará	3840	Geradora Eólica Brigadeiro I	Sopros do Rio de Janeiro II, Rio de Janeiro	3015	Totalenergies Petróleo & Gas Brasil
Dragão do Mar, Ceará	1216	Qair Marine Brasil	Sopros do Rio de Janeiro, Rio de Janeiro	3000	Totalenergies Petróleo & Gas Brasil
Espírito Santo I, Espírito Santo	1980	Petrobras	Sopros do Rio Grande do Norte, Rio Grande do Norte	3000	Totalenergies Petróleo & Gas Brasil
Farol de Mostardas, Rio Grande do Sul	3000	Shizen Energia do Brasil	Sopros do Rio Grande do Sul II, Rio Grande do Sul	3000	Totalenergies Petróleo & Gas Brasil
Farol Wind Power, Santa Catarina	5700	SPE Bravo Vento	Sopros do Rio Grande do Sul, Rio Grande do Sul	3000	Totalenergies Petróleo & Gas Brasil
Fortaleza, Ceará	2160	Petrobras	Taim, Rio Grande do Sul	3000	Shizen Energia do Brasil
Ginga, Rio Grande do Norte	1062	Petrobras	Tatajuba, Ceará	3000	Shizen Energia do Brasil
Guarita Offshore, Rio Grande do Sul	1680	Geradora Eólica Brigadeiro III	Tecnoluft Wind Offshore, Rio Grande do Sul	2700	SPE Bravo Vento
H2GPCEA, Ceará	3000	H2 Green Power	Tramandaí Offshore, Rio Grande do Sul	702	Ventos do Atlântico
Humberto de Campos, Maranhão	720	Com. Energia Humberto de Campos	Turmalina, Rio Grande do Sul	3180	BlueFloat Energy do Brasil
Ibi Offshore, Rio Grande do Sul	1960	Chiri Renovables	Vento Tupi, Piauí	999	Ventos do Atlântico
Itapipoca, Ceará	720	Energia Itapipoca	Ventos do Açu, Rio de Janeiro	2160	Prumo Logística
Jangada, Ceará	3000	Neoenergia Renováveis	Ventos do Atalaia, Piauí	2955	Monex Geração de Energia
Mar de Minas I, Ceará	1500	CEMIG Geração e Transmissão	Ventos do Atlântico, Rio de Janeiro	5009	Ventos do Atlântico
Mar de Minas II, Ceará	3000	CEMIG Geração e Transmissão	Ventos do Caiçara, Rio Grande do Norte	1965	Monex Geração de Energia
Maral, Rio Grande do Norte	2012	Ventos do Atlântico	Ventos do Delta, Maranhão	2640	Kaanda R. M. Cunha
Maravilha, Rio de Janeiro	3000	Neoenergia Renováveis	Ventos do São Francisco, Ceará	2955	Monex Geração de Energia
Mares do Norte, Ceará	1520	Acciona Energia Brasil	Ventos do Sul, Rio Grande do Sul	6507	Ventos do Atlântico
Mares do Sul I, Rio Grande do Sul	1520	Acciona Energia Brasil	Ventos dos Bandeirantes, Ceará	2748	Kaanda R. M. Cunha
Mares do Sul II, Rio Grande do Sul	1520	Acciona Energia Brasil	Ventos Fluminenses, Rio de Janeiro	2820	Bosford Participações
Marine Vórtice WOS, Rio Grande do Sul	5220	SPE Bravo Vento	Ventos Litorâneos, Rio Grande do Sul	1245	Bosford Participações
Mostardas, Rio Grande do Sul	3510	Petrobras	Ventos Potiguar, Rio Grande do Norte	2484	Internacional Energias
Onil Offshore, Rio Grande do Sul	1400	Chiri Renovables	Vitória Offshore, Espírito Santo	1200	Geradora Eólica Brigadeiro II
Palmas do Mar, Piauí	1395	Bosford Participações	Votu Winds, Espírito Santo	1440	Votu Winds