Brazil turns up heat

Full steam ahead for first live projects by decade end as developers and investors give thumbs up to new government regulations, writes **Daniel Dawson**

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Developers are preparing for the first offshore wind seabed lease auction in Brazil next year after authorities made progress on key regulatory moves in a market that has attracted 170GW of early-stage proposals and become the hottest ticket in South America.

In September the government opened consultations on two critical regulations giving force to an earlier decree to clear the way for wind farm construction: one to establish the criteria for acreage bidding, the other to streamline permitting.

The former, known locally as the Assignment of Use of Offshore Wind Area executive decree, will see developers either propose projects or bid for sites in plan-led zones.

Observers of Brazil's offshore wind sector believe the government will go with the developer-led process to get the sector up and running quickly.

There are already 66 projects totalling 170GW along the coast that are registered with the Brazilian Institute for the Environment and Renewable Natural Resources (Ibama).

Developers Equinor and Shell both have separate 10GW-plus early-stage portfolios. TotalEnergies is working on 9GW of wind farms, while other names registered with Ibama include floating wind developer Bluefloat and a number of locally-owned development companies.

The second regulation, known as the Single Portal for Management of the Use of Offshore Areas for Energy Generation, is an attempt to streamline Brazil's complicated bureaucracy. It aims to concentrate in one place all the steps needed to obtain the necessary paperwork from the nine different authorities.

SATISFIED STAKEHOLDERS: Elbia Gannoum Photo: ABEEólica

Brazilian Wind Energy Association (ABEEólica) chief executive Elbia Gannoum told reNEWS that the decree and regulations were well-received by developers and potential investors.

"The stakeholders like the regulatory framework," she said. "We believe the decree is good

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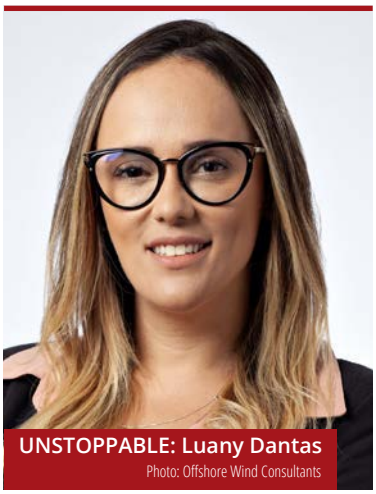
BRAZILIAN EARLY-STAGE MELTING POT

Project	MW	Developer	Turbine*
Água Marinha	1700	Bluefloat Energy do Brasil	tbc
Águas Claras	3000	Neoenergia Renováveis	tbc
Alisios Potiguares	1845	Bosford Participações	Vestas 15MW
Alpha	6000	Alpha Wind Morro Branco Projeto	Vestas 15MW
Amazonita	3000	Bluefloat Energy do Brasil	tbc
Aracatu	3840	Equinor Brasil Energia	tbc
Araras Geração Eólica Offshore	3000	Shizen Energia do Brasil	Vestas 15MW
Asa Branca I	1080	Eólica Brasil	Vestas 15MW
Asa Branca II	1080	Eólica Brasil	Vestas 15MW
Asa Branca III	4320	Eólica Brasil	Vestas 15MW
Asa Branca IV	4320	Eólica Brasil	Vestas 15MW
Barra do Chuí Geração Eólica Offshore	3000	Shizen Energia do Brasil	Vestas 15MW
Beta	3000	Beta Wind Energias	Vestas 15MW
Bravo Vento	1155	SPE Bravo Vento	Vestas 15MW
Bromélia	1700	Bluefloat Energy do Brasil	tbc
Camocim	1200	Camocim Eirelli	GE 12MW
Cassino Offshore	1920	Geradora Eólica Brigadeiro IV	Vestas 15MW
Cattleya	1180	Bluefloat Energy do Brasil	tbc
Caucaia	576	B.I. Energia	GE 12MW
Costa Nordeste	3840	Geradora Eólica Brigadeiro I	Vestas 15MW
Dragão do Mar	1216	Qair Marine	Vestas V174
Farol de Mostardas Geração Eólica Offshore	3000	Shizen Energia do Brasil	Vestas 15MW
Farol Wind Power	5700	SPE Bravo Vento	Vestas 15MW
Guarita Offshore	1680	Geradora Eólica Brigadeiro III	Vestas 15MW
H2GPCEA	3000	H2 Green Power Ltd	Siemens Gamesa 14MW
Jangada	3000	Neoenergia Renováveis	tbc
Maral	2011	Ventos do Atlântico	tbc
Maravilha	3000	Neoenergia Renováveis	Vestas 15MW
Marine Vortice WOS	5220	SPE Bravo Vento	Vestas 15MW
Palmas do Mar	1395	Bosford Participações	Vestas 15MW
Pedra Grande	624	Pedra Grande	GE 12MW
Península Wind Offshore	2700	SPE Bravo Vento	Vestas 15MW
Projeto Açu	3010	Shell Brasil Petróleo	Siemens Gamesa 14MW
Projeto Atobá	2490	Equinor Brasil Energia	tbc
Projecto Botucatu	2010	Equinor Brasil Energia	tbc

Project	MW	Developer	Turbine*
Projeto Colibri	2010	Equinor Brasil Energia	tbc
Projeto Galinhos	3010	Shell Brasil Petróleo	Siemens Gamesa 14MW
Projeto Ibituassu	2010	Equinor Brasil Energia	tbc
Projeto Mangará	2010	Equinor Brasil Energia	tbc
Projeto Pecém	3012	Shell Brasil Petróleo	Siemens Gamesa 14MW
Projeto Piauí	2520	Shell Brasil Petróleo	Siemens Gamesa 14MW
Projeto Ubu	2520	Shell Brasil Petróleo	Siemens Gamesa 14MW
Projeto White Shark	3010	Shell Brasil Petróleo	Siemens Gamesa 14MW
Quaresmeira	2960	Bluefloat Energy do Brasil	tbc
Querência Geração Eólica Offshore	3000	Shizen Energia do Brasil	Vestas 15MW
Quesnelia	1240	Bluefloat Energy do Brasil	tbc
Rio Grande Offshore	1200	Geradora Eólica Brigadeiro V	Vestas 15MW
Sopros do Ceará	3000	TotalEnergies Petroleo & Gas Brasil	Vestas 15MW
Sopros do Rio de Janeiro	3000	TotalEnergies Petroleo & Gas Brasil	Vestas 15MW
Sopros do Rio Grande do Sul	3000	TotalEnergies Petroleo & Gas Brasil	Vestas 15MW
Taim Geração Eólica Offshore	3000	Shizen Energia do Brasil	Vestas 15MW
Tatajuba Geração Eólica Offshore	3000	Shizen Energia do Brasil	Vestas 15MW
Tecnoluft Wind Offshore	2700	SPE Bravo Vento	Vestas 15MW
Tramandaí Offshore	702	Ventos do Atlântico	tbc
Turmalina	3180	Bluefloat Energy do Brasil	tbc
Vento Tupi	999	Ventos do Atlântico	tbc
Ventos do Açu	2160	Prumo Logistica	tbc
Ventos do Atlântico	5008	Ventos do Atlântico	tbc
Ventos do Delta	2640	Kaanda R. M. Cunha	GE 12MW
Ventos do Sul	6507	Ventos do Atlântico	tbc
Ventos dos Bandeirantes	2748	Kaanda R. M. Cunha	GE 12MW
Ventos Fluminenes	2820	Bosford Participações	Vestas 15MW
Ventos Litorâneos	1245	Bosford Participações	Vestas 15MW
Ventos Potiguar	2484	Internacional Energias	GE 12MW
Vitória Offshore	495	Geradora Eólica Brigadeiro II	Vestas 15MW
Votu Winds	1440	Votu Winds	Siemens Gamesa 10MW

Total 170GW

*referenced in early-stage planning documents



UNSTOPPABLE: Luany Dantas
Photo: Offshore Wind Consultants

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The public consultation process closed in October and the government is expected to finalise the regulations by early next year.

Insiders now believe Brazil will get steel in the water by the end of the decade, even amid a change in administration after Luiz Inacio Lula da Silva beat incumbent Jair Bolsonaro in the recent general election.

Luany Dantas, consultant engineer at Offshore Wind Consultants based in Brazil, told reNEWS nothing can stop the sector now.

"The issue of offshore wind in Brazil has become apolitical," she said, adding that all parties want to be able to take credit for giving the green light to the first developments.

Gannoum expects the government to arrange seabed leasing in the first quarter of 2023 and believes the first offshore wind developments will be online by 2029 or 2030.

Conducting environmental studies and receiving the necessary permits would take two to three years.

Following that, developers will need to secure a power purchase agreement and financing before beginning construction, which would take three to four years, she estimated.

"At the moment we see developers choosing to start with projects in the south-east because that is where we have better infrastructure and easier grid connection," Dantas added.

Improving transmission infrastructure in the south-east and building new infrastructure in the north were cited as two of the long-term challenges facing the offshore wind sector by officials at Fitch Solutions, the market research branch of the American rating agency, and ABEEólica.

"Another key component here is the port facilities," Fitch Solutions associate director of infrastructure industry research Matteo Addonizio told reNEWS.

However, some ports are already responding. The owner of the Port of Açu, near Rio de Janeiro, is investing to make sure it is ready to serve as a marshalling hub.

Rogério Zampronha, president of Prumo Logística, which owns the port and plans to build a 2,160MW offshore wind development nearby, said the supply chain opportunities present a "revolutionary" chance for local companies.

"This could be as relevant to the Brazilian economy as agribusiness is today," he said. ■

Developer cool on ambitious timetable

Building hundreds of gigawatts of offshore wind in a country with no operational capacity will be a major challenge despite the nascent market's bullishness.

"At this stage, I feel authorities are too optimistic about the potential of offshore in the country," said Thierry Dor *(pictured)*, a managing partner at Votu Winds, which has a 1.4GW offshore wind development planned.

He warned that too many stakeholders assume the offshore wind sector would enjoy the same success as onshore wind development did 20 years ago.

"Offshore wind is a different ball game," Dor said. "We need to create a favourable environment in Brazil for its development."

For Dor, this includes "an easy and flexible regulatory framework, fiscal and financial incentives, and appropriate connection to the grid".

"We hope the authorities will understand these requirements so that Brazilian projects can compete world-wide for resources and financial access," he added.

ABEEólica's Gannoum recognised concerns about ambitious timetabling, but pointed out that Brazil faced similar challenges two decades ago as it developed onshore wind.

However, she added the government would need to work with the private sector to encourage turbine manufacturing close to the appropriate ports.

"It is a complex job," she said. "We know that, and we are conscious that it is a big challenge, but this industry will be very competitive." ■