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Floating offshore wind can be a key to US decarbonization goals: DOE expert

- **Two-thirds of US has floating offshore wind opportunity**
- **Floating potential in California, Oregon, Gulf of Maine**

By Kassia Micek

Floating offshore wind resources can be a key part of the US' decarbonization efforts with the industry on the cusp of commercialization with period of a rapid growth expected around the world, a US Department of Energy expert said during a May 8 wind symposium.

State, federal and industry leaders came together in California for the "On with the Wind" symposium to advance offshore wind development off the West coast and learn about international experiences in offshore wind.

"Across all of our coastlines, we have floating offshore wind resource opportunities," said Jocelyn Brown-Saracino, the US Department of Energy's offshore wind energy lead.

Two-thirds of US coastal areas have the opportunity for floating offshore wind platforms, she said about the East, Gulf of Mexico and West coasts, adding the floating opportunities are attractive because they have proximity to coastal load zones.

"We recognize significant work needs to be done on offshore wind to unlock its full potential," Brown-Saracino said.

Floating Offshore Wind Shot

The DOE launched the Floating Offshore Wind Shot to drive US leadership to develop offshore wind design, development and manufacturing. The initiative has an ambitious goal to deploy 15 GW of floating offshore wind by 2035 along US coastlines, Brown-Saracino said. The initiative also seeks to reduce the cost of floating offshore wind energy by 70% to $45/MWh by 2035 for deep water sites far from shore.

In order to develop floating offshore wind, five major developments are needed:

- Cost reductions
- Expanded, just and sustainable deployment
- Domestic supply chains, including ports
- Transmission development
- Co-generation applications

Breakout sessions

The California Energy Commission, which hosted the May 8 symposium, and the DOE led four breakout sessions in the first half of the day focused on cost reductions; supply chain development; expanded, just and sustainable deployment; and transmission and co-generation.

The purpose of the breakout sessions was to find out from stakeholders what the needs and opportunities were to develop offshore wind resources, Brown-Saracino said. The purpose of the gathering was not to come to an agreement of a specific approach.

The cost reductions breakout group discussed holistic views to reduce costs, increased standardization and coordinated regional clusters, said Nathan McKenzie, DOE technology manager for offshore wind research and development.

The supply chain disruptions breakout group discussed workforce training, requirement infrastructure, port permitting and recycling. The expanded, just and sustainable deployment breakout group discussed a range of perspectives to achieve sustainable deployment, such as environmental research, workforce development and leasing, said Doug Boren, the regional director for the Pacific Region with the Bureau of Ocean Energy Management.

The transmission and co-generation breakout group discussed hydrogen, energy storage and transmission, including forecasting timelines and queue reform.

Floating wind potential

California, Oregon and the **Gulf of Maine** are focus areas for BOEM when it comes to floating offshore wind technology, Boren said.

In December, the first federal **offshore wind energy lease auction in the Pacific region** drew competitive bids from five companies that totaled $757.1 million, exceeding the first lease sales in the Atlantic region.

"It was a landmark moment for the West Coast," Boren said about the auction of the five lease areas. "The state of California has lofty offshore wind goals."

California has a goal of up to 5 GW of offshore wind by 2030 and 25 GW by 2045. The Biden Administration has a goal of deploying **30 GW of offshore wind energy by 2030 and 15 GW of floating offshore wind energy by 2035.**

In Oregon, two call areas have been identified totaling about 1,364 square miles, Boren said.

In the Gulf of Maine, BOEM is seeking interest or comments by June 12 for an area of 9,804,429 acres off the coasts of Massachusetts, New Hampshire and Maine, Boren said. In addition, there is a research area of 9,700 acres.