CONNECTICUT LEAGUE OF CONSERVATION VOTERS EDUCATION FUND

Offshore Wind

OFFSHORE WIND POWER: CRITICAL TO CLIMATE GOALS

There is growing agreement that we must decarbonize by 2050 for New England (NE) to do its part in meeting global climate goals to avoid the worst impacts to people and nature. Because of its enormous potential, Offshore Wind (OSW) can play a very large role in meeting that goal by electrifying and decarbonizing multiple sectors of the economy. It is recognized as a very significant renewable: the 2022 ISO-NE "Pathways Study" showed that NE states will need 35 GW of electricity by 2040 with about half (46%) coming from OSW. The other half (54%) is from solar, onshore wind, nuclear, hydro, biomass and geothermal.

According to various studies, NE states will need at least 30-45 GW of OSW to reach climate goals by 2050. With its large GW potential along with an ability to be deployed at pace and scale, OSW can enable us to meet ambitious climate goals – but will we?

URGENT CHALLENGES FOR OSW

Economic, political, and technical challenges threaten the potential of OSW. These challenges can and must be addressed:

Economic
Very recently, existing OSW contracts and bid processes in the NE which totaled over 9,000 MW, ran into trouble including contract reversals. The drivers include skyrocketing inflation, supply chain issues and the cost of financing, among others. This has slowed progress and raised concerns about financial feasibility in the short term. Sustaining confidence and taking action is key and to that end, states and Congressional leaders have worked to improve key federal tax credits for OSW. MA, CT and RI have joined in a collaborative "economy of scale" bid process and RFP's are out now to re-bid many of the stalled projects. Additional measures have been taken, economic strains should improve and some projects (e.g. Vineyard Wind 1) are under construction.

Photo Credited to Department of Energy

Political (Weak Narrative)
Despite its importance for climate, its stimulation of economic growth and job-creation and its role in improving public health, OSW does not enjoy the political support and public attention it deserves. This derives in part from a general lack of awareness about OSW's importance along with false claims about OSW spread by NIMBY groups and funded by fossil fuel interests. These efforts associate whale deaths with OSW surveys despite clarification by experts that there is no connection. The result is a weak OSW narrative that breeds costly lawsuits, slows permitting, and makes policy action for OSW tentative.

Technical (Transmission constraints)
The land-based transmission grid is fundamentally limited in how much electricity it can receive from offshore. ISO-NE, the NE grid operator, anticipates that the existing on-shore system can only absorb 5.8 GW. The process for upgrading on-shore transmission is very slow, politically fraught, poses significant environmental disruption and has high cost. A new transmission solution is needed if we are to meet the imperative to deploy OSW at the pace and scale needed to meet climate goals.

TRANSMISSION SOLUTIONS

The "NE Regional Transmission Initiative" (RTI) was launched in 2022 to address the OSW transmission challenge. It is a cooperative effort among the 6 NE states with leadership from CT DEEP to develop a *shared transmission grid that would be built offshore*. Instead of relying on the inadequate ISO-NE grid development process, the states are taking the initiative toward creation of an offshore grid. The proposed system would enable transmission interconnections to be located where needed at high load centers such as Boston. It would allow wind developers to "hook-in" to the system rather than competing for scarce shore-side interconnections. Planned, regional offshore-based transmission has the potential to solve the grid log jam, improve system reliability and avoid very costly upgrades to the landside grid. It would be better environmentally in minimizing the footprint of cables and dramatically reducing disturbance to land-side environments.

The RTI continues to progress and is being complemented by new regional and national initiatives for transmission that address OSW transmission. These include:

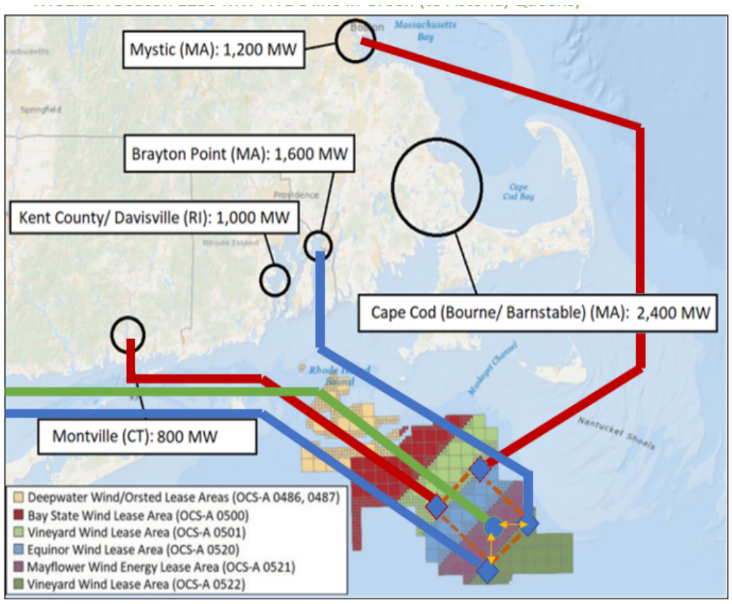
- Northeast States Collaborative on Interregional Transmission (NESCOIT); seeking DOE funding for grid planning through the Grid Deployment Office of $100M.
- An Action Plan for Offshore Wind Transmission Development in the US Atlantic Region (aka Biden plan for OSW transmission backbone), 2023
- Through the Inflation Reduction Act (IRA), the Grid Deployment Office (GDO) has ~$3B in financing and facilitation tools to support the build out of transmission.

ACTION NEEDED

- We need to speak out about the very large role OSW can play in tackling climate change in the NE including the urgency to deploy OSW at pace and scale.
- The multiple benefits of OSW need communicating and false claims by opponents should be called out in policy circles, the media and communities potentially affected and benefited . . . we need a stronger "OSW narrative."
- When advocating for environmental protection in association with OSW development, we also need to advocate for OSW itself as critical for protecting ocean biodiversity by being essential to avoiding the worst impacts of climate change.
- We need to advocate for strong state and federal policy to increase development of OSW along with bold, coordinated efforts to resolve the transmission challenge.

MORE INFORMATION

Nathan Frohling
The Nature Conservancy in CT
nfrohling@tnc.org



Conceptual model of an offshore transition grid.
Photo Credited to CT DEEP