

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 one of the most significant renewables: 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. More recent studies that consider updated economics for OSW and seek the most affordable path to clean energy goals still show a prominent role for OSW (e.g. the EPCET report from ISO-NE, fall 2024) where 35 – 40% of clean energy will still need to come from OSW – the most from any one clean energy source.

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 and ability to be deployed at pace and scale, OSW can enable us to meet ambitious climate goals – but will we?

CRITICAL TO AFFORDABILITY

With the recent rise in OSW contract prices per kilowatt-hour (cents/kwh), many have logically but mistakenly assumed this would automatically translate into extra costs for ratepayers. With so much concern about electric rates, it is important to clarify that higher electric bills are not an automatic result with OSW. This issue needs urgent clarification. The political impact of price fear, spread by opponents, regrettably led Gov. Lamont to reject procuring OSW in partnership with MA and RI who did go forward.

It's the Electric Bill Stupid!

Recent studies, most notably by Synapse Energy Economics, have shown that OSW can actually LOWER electric bills. The more OSW, the better for keeping a lid on increasing electric bills – even with the higher prices we're seeing for OSW. Why? Because your electric bill is not just a price/kwh contract with the State, it is composed of other charges where OSW will have the effect of bringing costs down. It's complicated and related to energy markets but in short, while OSW's price/kwh may be “high,” OSW favorably affects market prices for actual daily supply purchases which brings electric bills down. Even with cost of construction considered, OSW can hold the line on electric bills if not reduce them.

Meeting Electricity Demand is Costly without OSW:

Multiple indications point to a surging need for electricity as we move to 2040 and 2050; more than double our current demand well before 2050. If we don't commit to a major contribution from OSW we'll need to pay for other sources. Without OSW there will be a need for new generation in addition to infrastructure upgrades from natural gas and/or nuclear and there is general agreement that the cost for those sources will be at least as much as OSW if not much more. Postponing a commitment to OSW does nothing to reduce electric bills – most likely just the opposite.

Winter reliability a major cost advantage for OSW:

It is common knowledge that OSW is a big plus in meeting winter peak demands that are difficult to fulfill with traditional sources like natural gas. OSW is strong and dependable in winter and can save ratepayers from paying to build out extra fossil-based capacity.

There are serious costs in NOT procuring OSW:

Have you checked your insurance rates recently? Where do the costs of increasing climate disasters get considered? The costs from increasingly severe storms to the health impacts from dirty power will get worse if we continue to rely on fossil-based energy. If we're serious about climate impacts, there is no way we'll get to essential emissions reductions without a major commitment to OSW.



Image Credit: Dept. of Energy

CRITICAL TO CT'S ECONOMY, JOBS & HUMAN HEALTH

OSW is not just about the climate crisis and the cost of electricity. CT has already invested millions in port infrastructure in New London to support this new industry. Reports such as the "Winds of Prosperity: A Climate and Jobs Strategy for Offshore Wind in Southern New England" make clear the potential to grow CT's economy and jobs with OSW. The Synapse Report found that "in 2030, 9,000 MW of offshore wind would provide \$362 million in annual public health benefits by avoiding 3,700 short tons of NOX emissions, 824 tons of SO2 emissions, and 641 tons of PM2.5 emissions each year."

CHALLENGES TO PROGRESS

There are political and technical challenges that need to be addressed if we are to realize the potential of OSW. These challenges can and must be addressed:

Political: OSW Prevailing Despite Misinformation and Federal Opposition:

Despite its importance, OSW does not enjoy the political support and public attention it deserves. Job one is addressing the fears and misunderstanding of how OSW would affect ratepayer electric bills. There is also a need to improve awareness of OSW's overall importance by standing up to 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 new Trump Administration has been vocal in opposition to OSW and could slow or halt progress. At least two strategies could be engaged (see below "Action Needed").

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.

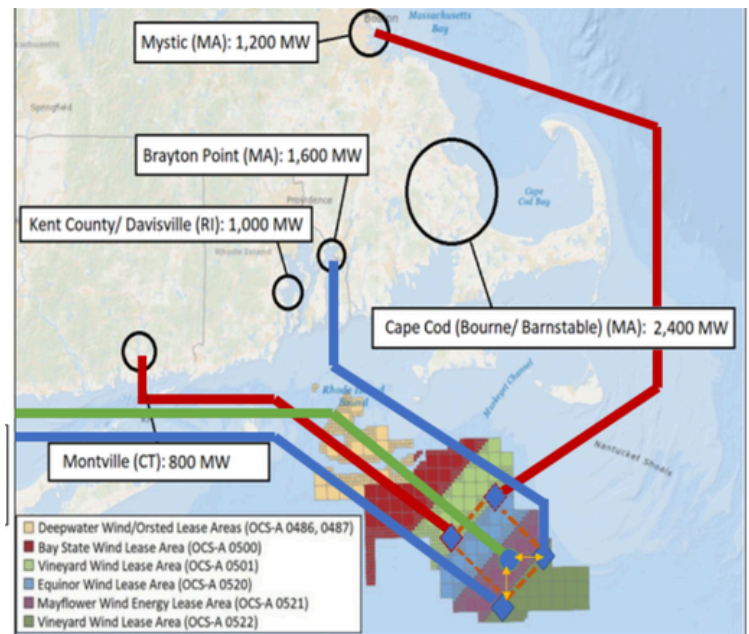
TRANSMISSION SOLUTIONS

Power Up New England is an ongoing effort by NE States to secure funding for OSW transmission infrastructure. In 2024: 3 New England States were selected to receive \$389 million in federal funding for transformational transmission and energy storage infrastructure. Power Up New England evolved from prior work on the Regional Transmission Initiative (RTI), to create a modular OSW transmission infrastructure system in the Atlantic Ocean that can solve transmission needs much more quickly and with less

cost. From Commissioner Dykes: "Power Up's transmission upgrades will lower the cost of future offshore wind projects by providing new ready-made points on the grid for these projects to plug in reliably and affordably..." There are also other efforts at the federal level to address the urgent need for greater transmission capacity.

ACTION NEEDED

- Form a partnership-based communications and public awareness campaign to address misinformation, clarify the cost and affordability issue and promote the multiple benefits of OSW to build strong political support for deploying it asap.
- Defend OSW from potential adverse federal action by
 - 1) forming OSW states into a partnership to work closely together to share legal resources and take pro-active steps to slow or mitigate potential anti-wind efforts by the new administration; and
 - 2) make OSW a successful campaign issue in elections 2 and 4 years from now.
- Pass legislation that calls for completing a CT transmission plan that addresses the need for new transmission, transmission upgrades and repair to support OSW.
- Urge Governor Lamont to act on his stated ongoing commitment to OSW by contributing to public awareness efforts and seeking new procurement.



Conceptual model of an offshore transmission grid (DEEP)

MORE INFORMATION

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