

## REVIEW OF ATLANTIC OFFSHORE WIND PROCUREMENT POLICY AND DEVELOPMENTS

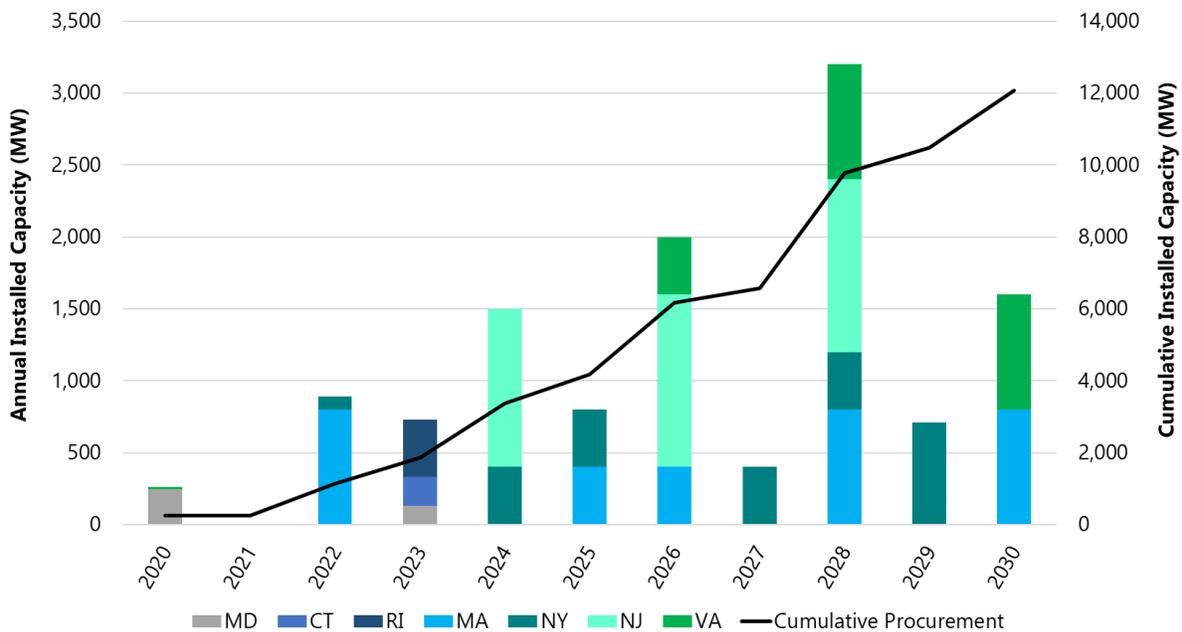
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To: Clients and Colleagues

From: John Dalton, President, Carson Robers, Consultant, Power Advisory LLC

Over the last year major commitments have been made with respect to the US offshore wind (OSW) market. From only 30 MW operating, approximately 2,000 MW has been contracted and a cumulative +10 GW of installed capacity is now expected by the early 2030s. The growing interest in OSW has been concentrated in the Atlantic, particularly the Northeast which has the strongest state policies for OSW. An indicative schedule of this development by state is presented in the figure below.<sup>1</sup> Power Advisory then provides a high-level review of the procurement processes in New England, New York, and New Jersey as the primary markets, representing about 80% of this total.



### NEW ENGLAND

As part of the *2016 Act to Promote Energy Diversity*, Massachusetts established a procurement target of 1,600 MW of offshore wind by 2030. The first solicitation for OSW proposals, referred to as the 2017

<sup>1</sup> Note the schedule represents anticipated commercial operation date versus when the capacity is expected to be solicited. For Massachusetts, Vineyard Wind was originally proposed as two 400 MW phases coming into service in late 2021 and 2022, but in its Supplemental Draft Environmental Impact Report Vineyard Wind announced that it would construct the full 800 MW simultaneously and commission the project in mid-2022.

Section 83C RFP, resulted in the selection of 800 MW from Vineyard Wind in May 2018. The contracts for this project are currently before the Massachusetts Department of Public Utilities with a real levelized price for energy and RECs of \$64.97 per MWh (2017\$).<sup>2</sup> On July 31<sup>st</sup>, *An Act to Advance Clean Energy* was passed, instructing a cost benefit analysis to be completed for an additional 1,600 MW of offshore wind by 2035 and specified that the Department of Energy Resources “may require said additional solicitation and procurements.” Governor Baker, who was recently reelected, signed a pledge to complete this study during the campaign. Given the compelling economics of the long-term contracts secured through the first Massachusetts OSW solicitation we believe that this effectively doubles the Commonwealth’s OSW goal to 3.2 GW by 2035 without the need for additional legislative authority.

In May, Rhode Island selected 400 MW from Deepwater Wind’s Revolution Wind Project.<sup>3</sup> Deepwater Wind has entered into contract negotiations with National Grid. An executed contract for energy and RECs is expected to be filed with the Rhode Island Public Utilities Commission by the end the year.

Connecticut also selected 200 MW from Deepwater Wind’s Revolution Wind Project. The wind farm will be part of the same project selected by Rhode Island, but will deliver electricity directly to the state via a separate export cable. On September 14<sup>th</sup>, Connecticut closed an RFP for 12 TWh of zero-carbon energy which is said to have received offshore wind proposals. The evaluation phase will be completed in Q4 2018/Q1 2019. Additional opportunities for OSW contracts from Connecticut are uncertain.

The southern New England states have each approached OSW with long-term contracts for bundled energy and RECs, consistent with contracting practice for other clean energy resources in the region. The retention of capacity value by developers provides an incentive for suppliers to maximize that value through efficient operating practices. The PPA requires the seller to participate in the Forward Capacity Market so that this value can be considered by ISO-NE and ultimately realized by customers.

Evaluation of OSW proposals in New England has focused on economic benefits. For example, the evaluation procedure used in the 2017 Section 83C RFP was based on a 75/25 split between economic benefits and qualitative considerations. Direct economic benefits were assessed based on comparing the proposal price and any required transmission upgrade costs with its direct economic benefits as measured on the basis of the net present value of energy (by LMP) and the value of Class I RECs. Four indirect proposal benefits of wholesale energy price savings, RPS compliance cost savings, incremental greenhouse gas reduction compliance savings, and economic impact of resource winter firmness were also considered. Qualitative considerations included: (1) siting, permitting, and project schedule risks;

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<sup>2</sup> This price escalates at 2.5% per annum and the project owner retains revenues from ISO-NE’s Forward Capacity market.

<sup>3</sup> On October 8<sup>th</sup> Ørsted announced that it was acquiring Deepwater Wind and its portfolio of 5 PPAs representing 810 MW for \$510 million.

(2) reliability benefits; (3) other benefits, costs and project risks; (4) environmental impacts from siting; and (5) economic development benefits to the state.

## **NEW YORK**

Governor Cuomo established a goal of 2,400 MW of OSW by 2030 in 2017. Offshore wind is a key component of the state's Clean Energy Standard (CES) of 50% clean energy by 2030. The Long Island Power Authority (LIPA) *2015 South Fork RFP* that was open to all resources resulted in the selection of Deepwater's 97 MW South Fork Wind Farm. This project is expected to come online in 2022 and counts towards the state's 2.4 GW goal.

NYSERDA released a final RFP to solicit 800 MW or more of offshore wind today (November 8, 2018). Bids are due February 14, 2019. The remainder of the 2,400 MW goal (Phase II) will be procured at a later date. New York has also begun securing stakeholder input on the appropriate transmission development framework for Phase II.

NYSERDA is employing a scoring system that considers price and non-price factors, with each project scored according to a 100-point scale based on three criteria:

1. Project Viability: 10 points – Non-Price Evaluation
2. New York Economic Benefits: 20 points – Non-Price Evaluation
3. Offer Strike Prices: 70 points – Price Evaluation

Project viability is assessed in terms of whether the proposed project can reasonably be expected to be in service on or before the proposed Commercial Operation Date. To maximize the score received, proposers must demonstrate that project development plans are mature, and technically and logistically feasible, that they have sufficient experience, expertise, and financial resources to execute the development plans in a commercially reasonable and timely manner. New York Economic Benefits are measured in terms of three considerations: (1) project-specific spending and job creation in New York State; (2) investment in offshore wind-related supply chain and infrastructure development in New York State; and (3) activities that provide opportunities for the New York offshore wind supply chain, workforce, and research and development.

Offer strike prices are assessed in terms of a: (1) an Index OREC price and; (2) a Fixed OREC price. The Index OREC price will vary monthly based on the value of Index OREC Strike Price specified minus the monthly Reference Energy Price and the monthly Reference Capacity Price. The Fixed OREC price is based on the fixed price specified by the proposer. In essence, the Index OREC price is a contract for difference that considers relevant energy and capacity prices, thereby providing a market price hedge

that should support more attractive financing terms than the Fixed OREC.<sup>4</sup> The Index OREC price will be given a weight of 0.9 and the fixed OREC price a weight of 0.1 to establish the weighted strike price for each proposal. Either OREC strike price option can be chosen at NYSERDA's discretion. NYSERDA's decision will be based upon its projection of the relative costs of the Fixed ORECs and Index ORECs compared to the relative price risks of the Fixed ORECs and Index ORECs over the life of the contract.

If the Fixed OREC price option is chosen, the OREC price will remain for the entirety of the contract length, 20 to 25 years. If the Index OREC is chosen, the OREC will remain for the entirety of the contract unless the Index OREC price is invalidated.

## **NEW JERSEY**

The *Offshore Wind Economic Development Act* authorized the New Jersey Board of Public Utilities (BPU) to establish an OREC program in 2010. After almost eight years of stalled implementation and development under the previous administration, newly sworn in Governor Murphy signed Executive Order #8 (EO8) on January 31st, 2018. EO8 directed all New Jersey agencies with responsibilities under the OWEDA to fully implement it in order to meet a goal of obtaining 3,500 MW from OSW by 2030.

On September 20, 2018 New Jersey opened its first "application" for 1,100 MW of OSW. This will be the nation's largest OSW solicitation to date. The application window will close on December 28, 2018, with the BPU required to act on the proposals by July 1<sup>st</sup>, 2019. The goal of the compressed procurement timeline is to maximize the ability of developers to capture the expiring federal ITC and increase the attendant economic benefits that can be realized by the state from the development of the regional industry. Governor Murphy has also directed a target of 2020 and 2022 for two additional BPU solicitations of 1,200 MW to reach the overall goal of 3,500 MW. Identifying these second and third large, near-term procurements is also intended to induce the OSW supply chain to locate in New Jersey.

Separately, EDF Renewables and Fisherman's Energy have submitted an OREC application to the BPU for approval of the 24 MW Nautilus OSW farm with a planned COD in 2020.

The OREC structure in New Jersey differs from the typical Renewable Portfolio Standard (RPS) programs (ex. RECs, SRECs), which provide an additional source of revenue beyond energy and capacity. The BPU's OREC Funding Mechanism is largely based on the procurement of a bundled energy, environmental

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<sup>4</sup> An assumption must be made regarding the UCAP Production Factor so that the project nameplate capacity can be converted to UCAP. NYSERDA allows a proponent to use a default UCAP Production Factor of 38% consistent with the NYISO's Installed Capacity Manual or to specify a project-specific value. These values will be constant throughout the contract term. The ability to specify an alternative UCAP Production Factor presents an opportunity for proponents to change the risk/reward profile and as such warrants analysis.

attribute and capacity product. The use of an OREC ultimately adds complexity with respect to the administration of the ORECs and risk to OSW developers (e.g., variances between actual and forecast OSW output) and in Power Advisory's opinion could be more simply administered with stronger performance incentives with a PPA that procured energy and environmental attributes. However, this is the framework that was legislatively directed and is expected to be used for all three upcoming procurements.

Rather than issue a formal request for proposals the New Jersey BPU issued Guidelines for applications for the sale of ORECs.<sup>5</sup> These guidelines identify the requirements for applications and outline the six criteria that the BPU will use to rank proposals. These six criteria are:

- (1) OREC Purchase Price, which can be fixed or escalating;
- (2) Economic impacts, which includes, the number of jobs created, increases in wages, taxes receipts and state gross product for each MW of capacity constructed;
- (3) Ratepayer impacts, which considers the average increase in residential and commercial customer bills along with the timing of any rate impacts;
- (4) Environmental impacts, which includes the net reductions of pollutants for each MWh generated and the feasibility and strength of the applicant's plan to minimize environmental impacts created by project construction and operation;
- (5) The strength of guarantees for economic impacts, which considers all measures proposed to assure that claimed benefits will materialize as well as plans for maximizing revenue from the sales of energy, capacity and ancillary services; and
- (6) Likelihood of successful commercial operation, which includes feasibility of project timelines, permitting plans, equipment and labor supply plans and the current progress displayed in achieving these plans.

There's very little transparency regarding the evaluation process and how tradeoffs regarding these six criteria will be assessed. The Guidelines indicate that "ranking and weighting of the six criteria by the BPU will reflect the goals of the solicitation especially as stated in the Governor's Executive Order No. 8." Based on our experience we believe that this lack of detail regarding how these criteria as well as tradeoffs among these criteria will be assessed, may hamper the ability of proponents to craft proposals that best satisfy New Jersey's objectives.

*Power Advisory would welcome the opportunity to assist clients in understanding the opportunities presented by the emerging US offshore wind industry.*

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<sup>5</sup> Guidelines for Application Submission for Proposed Offshore Wind Facilities