

**STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS
PUBLIC UTILITIES COMMISSION**

IN RE: SOLICITATIONS OF LONG-TERM) CONTRACTS FOR RENEWABLE ENERGY) AND RENEWABLE ENERGY CERTIFICATES) (RECS), PURSUANT TO R.I. GEN. LAWS) §39-26.1-1 ET SEQ.)	Docket 4822
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**VINEYARD WIND LLC
REPLY COMMENTS**

Vineyard Wind, LLC (“Vineyard Wind” or the “Company”) provides these comments in response to those filed by Levitan & Associates, Inc. (“Levitan”) on behalf of the Office of Energy Resources (“OER”) and the Division of Public Utilities & Carriers (“DPUC”) on June 22, 2018. While those comments did not expressly address the concerns Vineyard Wind raised in its initial filing regarding renewable energy credit (“REC”) value projections and price, Levitan’s conclusion that the “selection criteria are consistent with the LTC standard” appears to suggest that National Grid’s draft Request for Proposals (“RFP”) is adequate on these matters. (*See* Vineyard Wind’s Initial Comments pp. 3-6; Levitan Comments p. 2.) If that is the conclusion, it warrants rebuttal.

As Vineyard Wind stated in its Initial Comments at 6, REC values should be calculated on an annual average weighted market forecast for the contract term and based on analyses conducted by national, “name brand” consultants. On pricing, OER and DPUC continue to overlook the Commission’s order in Docket 4600, which makes clear that the Benefit-Cost Framework is intended to guide the review of all future cases that affect National Grid electric rates and must be properly applied to determine if a resource is cost-effective.

Renewable Energy Credit Value

The comments filed by Levitan on behalf of OER and DPUC do not address Vineyard Wind's concerns about the methodology for projecting the value of RECs. Therefore, Vineyard Wind supplements its Initial Comments on the matter here.

Vineyard Wind's concerns with respect to REC pricing stems from its recent experience in the Connecticut clean and renewable energy request for proposals proceeding.¹ That experience indicates that National Grid's proposed consultant, Sustainable Energy Advantage (*See* RFP p. 11), forecasts REC pricing considerably higher than banks and investors will, which creates a value gap that must be accounted for with inflated bid pricing. This needlessly increases the cost of renewable energy development and undermines the objective of procuring cost-effective renewable energy resources to meet Rhode Island's renewable energy goals.

In preparing its bid for the Connecticut proceeding, Vineyard Wind engaged a nationally recognized market analyst to provide a forward price for RECs, in order to ensure that the value the Company allocated to RECs in its bid would be acceptable to lenders and other financiers. The price curve produced by the market analyst was at odds with the price curve the Connecticut bid evaluators had adopted as part of their bid evaluation process. This difference led to substantial communication between Vineyard Wind and the bid evaluators regarding the appropriateness and reliability of various REC price studies.

REC price forecasting is one issue that can be addressed and settled prior to issuing the final RFP, as it does not turn on any particular renewable energy technology or bid. Furthermore, it is an issue the Commission should have a strong interest in settling beforehand, from a process efficiency perspective, because the method used to determine REC value can have a significant impact on bid

¹ Connecticut Department of Energy & Environmental Protection, "Procurement of Clean Energy and Renewable Resources Pursuant to Public Acts 13-303, 15-107 and 17-144" (Jan. 31, 2018).

prices and the robustness of the bids. Therefore, Vineyard Wind requests the opportunity to present expert rebuttal of National Grid’s consultant’s REC value projections before they are approved by the Commission and used as part of the bidding process or, alternatively, a determination to use another procedure to forecast REC prices for the bid evaluation.

Forecasted REC prices should be set on an annual average weighted market forecast for the contract term and based on robust expert market input. Experts agree that an annual average forecast price that specifically follows market development will show a declining REC value over time. In making investment decisions, lenders and other financiers will look to these price forecasts in determining if a Power Purchase Agreement’s (“PPA”) REC price is prudent. A PPA REC price that is significantly higher than a forecast creates investor risk that can impede financing on good terms. This increases costs for a project and results either in higher bid prices or, in a worst-case scenario, the inability for a project to obtain financing.

Energy Price

The Public Utilities Commission’s Guidance on Goals, Principles and Values for Matters Involving The Narragansett Electric Company d/b/a National Grid (“Guidance”) provides that,

The goals, principles, and framework will apply to all parties to cases that affect National Grid’s electric rates, not just to the utility.⁵ Any proponent of a rate, rate design, or program proposal with associated cost recovery will need to meet the same standards. As noted below, opponents should also reference the goals, principles, and framework in their opposition.²

The Guidance directs that the Benefit-Cost “Framework can now, and should be used, to provide the basis for qualitative assessments of proposals.” (Guidance p. 6). It states that,

Where the costs and benefits can be quantified, the proponent should provide such information and the basis for the conclusion reached. Where quantification is not possible or not practical, the proponent should so explain. Regardless of whether the

² Order No. 22851, “In re: Investigation into the Changing Distribution System and the Modernization of Rates in Light of the Changing Distribution System” (July 31, 2017); Guidance at p. 2.

quantification can be fully completed, a qualitative analysis should be included. Likewise, opponents to any rate design proposal should reference the framework Categories and Drivers as part of their opposition. In addition, in any case that proposes new programs or capital investment that will affect National Grid's electric distribution rates, the impact of any increased ratepayer recovery should also reference the goals, rate design principles, and Benefit-Cost Framework. (Guidance p. 6)

Some programs were expressly excluded from the application of the Guidance, but the long-term contracting program and this draft RFP are not. (Guidance pp. 9-10). National Grid's statement in response to PUC 1-26, that the Docket 4600 Framework was not meant to apply to the long-term contracting statute is unfounded and threatens to undermine the comprehensive nature of the stakeholders' intent in that docket. In section 2.3.5, the final stakeholder report notes that "A variety of resource options can be optimized, where conventional distribution projects are compared with DERs, customer-facing grid modernization projects, and grid-facing grid modernization projects. This methodology is used in integrated resource planning practices, and is being explored in several states for use in distribution system planning. It uses detailed modeling practices to optimize an entire portfolio of resources." (p. 10) The conclusion that long term contracting is not part of the is unfounded. The Framework is the means to the comprehensive value analysis contemplated in docket 4600 and will guide the Commission to its resolution of whether any proposed procurement is "commercially reasonable." How can Rhode Island realize the value it sought in Docket 4600 if the Framework is not applied consistently in Commission review of energy procurement processes?

Not only does National Grid's RFP fail to address the Docket 4600 Guidance, Levitan's comments do not seek to correct that omission. Vineyard Wind does not carry the burden of establishing an RFP process that ensures cost-effectiveness as ordered by the Guidance. Nevertheless, it is in Vineyard Wind's interest to demonstrate how the omission of a Docket 4600 analysis risks impairment of the Commission's objective to ensure the procurement of cost-effective resources in this proceeding and moving forward. Indeed, since National Grid's draft RFP allocates

the price criterion 80% of the selection weight, and the non-price criterion generally do not account for the benefits outlined in the Benefit-Cost Framework, it is clear that a number of cost benefit factors are likely to be ignored or undervalued.

Vineyard Wind discusses several of the Benefit-Cost Framework factors below to demonstrate precisely why it is so important that the draft RFP be modified so that it includes consideration of the broader set of costs and benefits of renewable energy generation rather than merely relying on below market pricing as a primary factor in determining cost-effectiveness.

1) Power System Level Impacts

- Energy Supply & Transmission Operating Value of Energy Provided or Saved (Time- & Location-specific LMP): Offshore wind can provide a reactive power source at the weak edges of the transmission system, offsetting potential instability caused by the retirement of the Brayton, Pilgrim and Canal power plants, and potentially avoiding the need for new investment.
- Forward Commitment Capacity Value: Offshore wind's production, along with certain other renewable energy resources, closely matches the regional peak demand for energy on an hourly and seasonal basis, relieving demand when supply constraints drive up prices. This generation profile can moderate system peak load requirements by delivering energy during ISO-NE's defined seasonal reliability hours.
- Electric Transmission Capacity Costs/Value: Offshore wind can contribute higher overall monthly production during the seasonal winter peak period of October to May, coinciding with peak demand for natural gas pipeline capacity. This renewable energy resources can deliver local generation during the winter in an area where the natural gas system is highly stressed, thereby reducing price volatility caused by natural gas

pipeline capacity constraints. For example, during this past winter's bomb cyclone, electricity prices spiked as natural gas fuel prices rose. Had Vineyard Wind's 800 MW offshore wind project, which is currently under development off the coast of Massachusetts, been online and producing, it would have saved consumers an estimated \$31 million dollars.³

- Greenhouse gas compliance costs: All renewable energy projects proposed in response to this RFP will provide substantial locational marginal price benefit for the contracted period as a result of changed economic dispatch with the current generating fleet based on greenhouse gas emission caps. Respondents should be allowed to calculate such benefits and include them as part of the value proposition for their proposals pursuant to this cost benefit factor specified in Docket 4600. Recent and planned retirements of zero emission nuclear power stations means that renewable energy resources are the only new source of emission-free electricity generation. The drive to electrify transportation and heating demand to further reduce greenhouse gas emissions will only increase demand for electricity and underscores the urgent need for new renewable energy capacity in the region.
- Net risk benefits to utility system operations (generation, transmission, distribution): For example, delivery of a renewable resource with a significant amount of energy at the edge of the ISO region's 345kV system during high demand periods will reduce energy line losses during peak hours when they are greatest. Line losses during peak periods contribute to peak load requirements, so offshore wind projects can moderate peak load requirements, to the extent dependent on interconnection location.

³ See Vineyard Wind Study: "Massachusetts Offshore Wind Farm Would Have Substantially Curtailed Environmental and Grid Impacts Credited by 'Bomb Cyclone.'" (Jan. 29, 2018). Available at: <https://www.vineyardwind.com/news-and-updates/2018/1/29/bombcyclone>.

- Option value of individual resources: Offshore wind is geographically distant from the region's primary wind generating capacity in northern New England, so it provides more consistent generation as weather conditions vary across the region. Offshore wind has the highest capacity factor of variable generation and a different production profile than solar and on-shore wind thus contributing to energy security and reliability through diversification. The installation of a large and reliable source of fuel source diversification near a load center, provides significant power and reactive power in a region facing generation retirement.

2) *Customer Level Impacts*

- Participant non-energy costs/benefits: Oil, Gas, Water, Waste Water: National Grid's response to PUC data request 1-25 indicates that the Company will not consider capacity market benefits of responding projects because "capacity is not being procured as part of this solicitation, and, in any case, the addition of renewable resources to the system, while expected to lower energy prices, is not expected to lower capacity market prices over the long run." That approach neglects substantial customer level capacity market benefits from these projects. Large offshore wind projects promise to significantly reduce winter electricity price spikes by providing high and stable winter capacity factor generation unaffected by risk of fossil fuel shortages. Daymark analyzed the impact of Vineyard Wind projects 1 and 2 (800MW) on the forward capacity market and resulting ratepayer benefits. Assuming the qualification of 192 MW in forward capacity auction 13, Vineyard Wind 1 and 2 were found to provide capacity price benefits for ratepayers from a reduction in capacity prices of approximately \$159 million net present value.

3) Societal Level Impacts

- Greenhouse gas externality costs: Renewable energy projects of this scale promise to displace very large amounts of carbon dioxide, bringing substantial societal value per the Docket 4600 Framework.

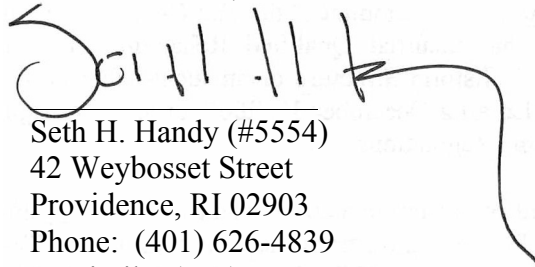
As the above demonstrates, the draft RFP proposed price structure, which limits eligibility to pricing that is below the forecasted market for energy and RECs, and does not fully account for the host of cost-savings and benefits that renewable energy resources like offshore wind can deliver to Rhode Island and the regional electricity grid, improperly neglects the value analysis that the Commission required in Docket 4600. What's more, the narrow view of cost-effectiveness outlined in the draft RFP will prohibit vibrant market competition in this proceeding because the broad range of benefits that renewable energy can provide to the system, ratepayers and society are what makes many potential renewable energy projects commercially reasonable.

Vineyard Wind respectfully requests the Commission ensure that the terms of the draft RFP are modified to provide for fairness and cost-effectiveness, taking into consideration the requirements outlined in Docket 4600.

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By its attorneys,

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