The Commonwealth of Massachusetts

DEPARTMENT OF PUBLIC UTILITIES

D.P.U. 18-76 April 12, 2019

Petition of NSTAR Electric Company, d/b/a Eversource Energy for approval by the Department of Public Utilities of two long-term contracts for procurement of Offshore Wind Energy Generation, pursuant to Section 83C of An Act Relative to Green Communities, St. 2008, c. 169, as amended by St. 2016, c. 188, § 12.

D.P.U. 18-77

Petition of Massachusetts Electric Company and Nantucket Electric Company, each d/b/a National Grid for approval by the Department of Public Utilities of two long-term contracts for procurement of Offshore Wind Energy Generation, pursuant to Section 83C of An Act Relative to Green Communities, St. 2008, c. 169, as amended by St. 2016, c. 188, § 12.

D.P.U. 18-78

Petition of Fitchburg Gas and Electric Light Company, d/b/a Unitil for approval by the Department of Public Utilities of two long-term contracts for procurement of Offshore Wind Energy Generation, pursuant to Section 83C of An Act Relative to Green Communities, St. 2008, c. 169, as amended by St. 2016, c. 188, § 12.

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I. INTRODUCTION

On July 31, 2018, NSTAR Electric Company d/b/a Eversource Energy ("Eversource"), Massachusetts Electric Company and Nantucket Electric Company, each d/b/a National Grid ("National Grid"), and Fitchburg Gas and Electric Light Company d/b/a Unitil ("Unitil") (collectively, "Companies") each filed a petition with the Department of Public Utilities ("Department"), pursuant to the Green Communities Act, St. 2008, c. 169, § 83C ("Section 83C")[1] and 220 CMR 23.00, for approval of two long-term contracts to purchase offshore wind energy generation[2] and associated renewable energy certificates ("RECs").[3] The Department docketed the Eversource petition as D.P.U. 18-76, the National Grid petition as D.P.U. 18-77, and the Unitil petition as D.P.U. 18-78.

Section 83C requires each electric distribution company to jointly and competitively solicit proposals for offshore wind energy generation no later than June, 30, 2017, and, provided that reasonable proposals have been received, enter into cost-effective long-term contracts to facilitate the financing of offshore wind energy generation resources. St. 2008,

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1 Section 83C was added to the Green Communities Act by an Act Relative to Promote Energy Diversity, St. 2016, c. 188, § 12.

2 Section 83C defines "offshore wind energy generation" as offshore electric generating resources derived from wind that: (1) are Class I renewable energy generating sources, as defined in section 11F of chapter 25A of the General Laws ("RPS Class I"); (2) have a commercial operations date on or after January 1, 2018, that has been verified by the Department of Energy Resources; and (3) operate in a designated wind energy area for which an initial federal lease was issued on a competitive basis after January 1, 2012.

3 On October 2, 2018, the Companies filed joint supplemental testimony and exhibits.

c. 169, § 83C; 220 CMR 23.00. The Department must approve a long-term contract before it can become effective. St. 2008, c. 169, § 83C; 220 CMR 23.03(2).

On August 28, 2018, the Department held a joint public hearing and procedural conference in the three dockets.[4] The Attorney General of the Commonwealth of Massachusetts ("Attorney General") filed a Notice of Intervention in each proceeding pursuant to G.L. c. 12, § 11E(a). The Department granted petitions to intervene in each proceeding filed by the Department of Energy Resources ("DOER"), Bay State Wind LLC ("Bay State Wind"), Conservation Law Foundation ("CLF"), Low-Income Weatherization and Fuel Assistance Program Network ("LEAN"), PowerOptions, Inc. ("PowerOptions"), and Vineyard Wind LLC ("Vineyard Wind"). The Department granted limited participant status in each proceeding to Associated Industries of Massachusetts ("AIM") and Anbaric Development Partners ("Anbaric"), and the Department granted limited participant status in D.P.U. 18-76 to The Energy Consortium ("TEC") and the Western Massachusetts Industrial Group ("WMIG").

Pursuant to Section 83C and 220 CMR 23.04(6), DOER and the Attorney General jointly selected Peregrine Energy Group, Inc. as the Independent Evaluator to provide a report analyzing the solicitation and bid selection processes in a fair and unbiased manner. On August 3, 2018, the Independent Evaluator submitted its report ("IE Report") describing

[4] The Department held a joint public hearing in each docket. These cases, however, are not consolidated and remain separate proceedings.

the solicitation, evaluation, bid selection and contract negotiation process.[5] On September 14, 2018, the Attorney General submitted her recommendations to the Department regarding the long-term contracts.[6]

On January 7 and 10, 2019, the Department held joint evidentiary hearings. In each of the proceedings, the Companies sponsored the testimony of the following witnesses: (1) Jeffrey S. Waltman, Manager, Planning and Power Supply, Massachusetts regulated operating companies of Eversource; (2) Timothy J. Brennan, Director in Regulatory Strategy and Integrated Analytics, National Grid USA Service Company, Inc.; (3) Lisa S. Glover, Senior Energy Analyst, Unitil Service Corp.; (4) Parker Littlehale, Lead Energy Supply Analyst, Massachusetts regulated operating companies of Eversource; (5) Robert B. Hevert, Partner, ScottMadden, Inc.; and (6) John M. Moreira, Senior Vice President, Finance and Regulatory, and Treasurer, Eversource. In each of the proceedings, the Attorney General sponsored the testimony of: (1) Dean M. Murphy, Principal, The Brattle Group; and (2) Vincent Musco, Managing Director, Bates White Economic Consulting. Finally, in each of the proceedings, DOER sponsored the testimony of: (1) Joanne Morin, Deputy

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5 The Department moved the IE Report into the records in these proceedings. Long-Term Contracts for the Vineyard Wind Offshore Wind Energy Project, D.P.U. 18-76, D.P.U. 18-77, D.P.U. 18-78, Hearing Officer Memorandum at 2 (September 6, 2018).

6 Pursuant to Section 83C and 220 CMR 23.05(2), the Attorney General shall, within 45 days following the filing of the proposed contracts, submit her recommendations to the Department for its consideration.

Commissioner, DOER; and (2) Joanna Troy, Manager of Policy Initiatives, DOER's Policy, Planning and Analysis Division.

On January 30, 2019, the Companies (jointly), the Attorney General, DOER, CLF, PowerOptions, Vineyard Wind, TEC, and WMIG submitted initial briefs. On February 13, 2019, the Companies (jointly),[7] the Attorney General, DOER, PowerOptions, Vineyard Wind, and TEC submitted reply briefs. The record in each docket includes 382 exhibits, including responses to 318 information requests and seven record requests.

II. DESCRIPTION OF PROJECT

As described in Section V, below, the Companies solicited bids for up to 1,600 megawatts ("MW") of offshore wind energy generation.[8] As a result of this solicitation process, the Companies each seek Department approval of two power purchase agreements ("PPAs") for energy and associated RECs from the Vineyard Wind 800 MW offshore wind energy generation project ("Project").

The Project features two separate 400 MW phases, both located on the Outer Continental Shelf in the Bureau of Ocean Energy Management Lease OCS-A 0501 area

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[7] On this same date, National Grid submitted an individual supplement and Unitil and Eversource submitted a joint supplement to the Companies' Reply Brief.

[8] On June 21, 2017, the Department approved the timetable and method of solicitation in Long-Term Contracts for Offshore Wind Energy Projects Request for Proposals, D.P.U. 17-103 (2017).

(Exh. JU-1, at 6).[9] The first phase of the project ("Phase 1") has a nameplate capacity of 400 MW and has a commercial operation date ("COD") of January 15, 2022 (Exh. JU-1, at 27). The second phase of the project ("Phase 2") has a nameplate capacity of 400 MW and has a COD of January 15, 2023 (Exh. JU-1, at 27).[10] Together, both phases total 800 MW of offshore wind energy generation nameplate capacity (Exh. JU-1, at 27). The Companies have agreed to purchase 100 percent of the energy and RECs generated and delivered by the Project over a 20-year term (Exh. JU-1, at 27-28).

III. DESCRIPTION OF PROPOSED CONTRACTS

A. Introduction

The Companies jointly conducted negotiations with Vineyard Wind resulting in a total of six PPAs (Exh. JU-1, at 6-7).[11] Principal contract terms, including price and contract duration, do not vary among the PPAs (Exh. JU-1, at 12, 28) .[12] However, the quantities of

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9 Vineyard Wind requested that the Project be split into two 400 MW PPAs in order to increase the Project's attractiveness to investors and to be able to obtain two different tax equity investors for the Project (Exh. JU-1, at 27).

10 Through amendments to the PPAs, Vineyard Wind accelerated its Phase 2 COD to May 31, 2022, contingent upon its receipt of a capacity supply obligation for both phases of the Project in a specified forward capacity market auction (Exh. JU-10).

11 Each electric distribution company entered into a PPA for each of the two Vineyard Wind 400 MW facilities (Exh. JU-1, at 6-7).

12 Due to accounting rules in the United Kingdom where National Grid's parent is headquartered, the breakdown in the bundled price for energy and RECs in each National Grid PPA differs from the breakdown for Eversource and Unitil, but the total bundled price for energy and RECs is the same in each contract (Exh. JU-1, at 12). The National Grid PPAs also include a "Biennial Delivery Requirement" whereby Vineyard Wind is obligated to deliver at least 50 percent of the energy and associated RECs set forth in the expected delivery schedule, measured over two

energy and RECs vary based on each electric distribution company's apportioned share of the Project output (Exh. JU-1, at 12).[13]

B. Products and Pricing Structure

Under the proposed contracts, the Companies will purchase, for a term of 20 years from the CODs, the energy and RECs associated with the output of the Project, at the onshore delivery point defined in the PPAs (Exhs. JU-1, at 28-29; JU-3, at exh. A).[14] The combined price for energy and RECs begins at $74 per megawatt hour ("MWh") for Phase 1 and $65 per MWh for Phase 2, and increases by 2.5 percent for each year of the contract term (Exh. JU-1, at 29). The 20-year average nominal cost of the two PPAs is $89 per MWh (Exh. JU-1, at 29).

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consecutive contract years. Failure to satisfy the Biennial Delivery Requirement will obligate Vineyard Wind to pay liquidated damages for the shortfall (Exh. JU-1, at 12).

13 Section 83C(g) provides that each company's apportioned share of the products being purchased from the Project shall be based upon the total energy demand from all distribution customers in its service territory. Pursuant to Section 83C(g), each company's apportioned share of the Project is as follows: (1) Eversource – 52.85 percent; (2) National Grid - 46.16 percent; and (3) Unitil – 0.99 percent (Exhs. JU-3-A at 2; JU-3-C at 2; JU-3-E at 2).

14 The delivery point is to be determined by ISO New England Inc. ("ISO-NE") after the establishment of the pool transmission facility node at the existing Barnstable 115kV substation (Exh. JU-3).

IV. DEPARTMENT REVIEW UNDER SECTION 83C

Pursuant to Section 83C, the Companies must jointly and competitively solicit proposals for offshore wind energy generation.[15] St. 2008, c. 169, § 83C; 220 CMR 23.03. The Department will review the competitive solicitation process to determine whether it was open, fair, and transparent. In addition, the Department will consider whether the Companies evaluated and selected winning bids in a reasonable manner. See e.g., Three State RFP, D.P.U. 17-117 through D.P.U. 17-120, at 24-27 (2018).

Provided that reasonable proposals have been received, the Companies must enter into cost-effective long-term contracts to facilitate the financing of eligible offshore wind energy generation. St. 2008, c. 169, § 83C; 220 CMR 23.03. Therefore, the Department must determine whether each electric distribution company has demonstrated that the proposed contracts are (1) with an eligible offshore wind energy generating resource and (2) facilitate the financing of that offshore wind energy generating resource.

In addition, Section 83C and the Department's regulations, 220 CMR 23.00, set forth specific findings that the Department must make in order to approve a long-term contract for offshore wind energy generation. In particular, the Department must determine that the offshore wind energy generating resource (1) provides enhanced electricity reliability; (2) contributes to reducing winter electricity price spikes; (3) avoids line loss and mitigates

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[15] Section 83C and the Department's regulations require the Department to consider the recommendations of the Attorney General and the findings of the Independent Evaluator in its review of the contracts. St. 2008, c. 169, § 83C; 220 CMR 23.05(1). The Department incorporates its consideration of the Attorney General's recommendations and the findings of the Independent Evaluator throughout this Order.

transmission costs to the extent possible, while ensuring that transmission cost overruns, if any, are not borne by ratepayers; (4) adequately demonstrates project viability in a commercially reasonable timeframe; (5) allows offshore wind energy generation resources to be paired with energy storage systems; (6) mitigates environmental impacts, where possible; and (7) where feasible, creates and fosters employment and economic development in Massachusetts. St. 2008, c. 169, § 83C; 220 CMR 23.05(1).

The Department must review the potential costs and benefits of such contracts and approve a contract only upon a finding that it is a cost-effective mechanism for procuring reliable renewable energy on a long-term basis, taking into account the factors outlined in Section 83C. St. 2008, c. 169, § 83C; 220 CMR 23.05(1). As part of this analysis, the Department will consider the difference between the contract costs and the market value of the products, as well as other potential economic and environmental benefits to ratepayers. St. 2008, c. 169, § 83C; 220 CMR 23.05(1).

In our review of a long-term contract for offshore wind energy generation under Section 83C, the Department will also consider whether the contract is in the public interest.[16] D.P.U. 17-117 through D.P.U. 17-120, at 14; Long-Term Contracts for

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16 Pursuant to G.L. c. 164, § 94A ("Section 94A"), an electric or gas distribution company must obtain Department approval to enter into a contract for the purchase of electricity or gas covering a period in excess of one year. The Department has construed our approval under Section 94A to require a determination that the contract is consistent with the public interest. See, e.g., NSTAR Electric Company, D.P.U. 07-64-A at 58 (2008); New England Electric System/Nantucket Electric Company, D.P.U. 95-67, at 21-22 (1995), citing New England Power Company, D.P.U. 1204 (1982). The Department's public interest review in this proceeding will, therefore, satisfy the review otherwise performed under Section 94A.

Renewable Energy, D.P.U. 13-147 through D.P.U. 13-149, at 9 (2013). Further, the Department will consider whether the associated cost recovery method is in the public interest and will result in just and reasonable rates pursuant to G.L. c. 164, § 94. Massachusetts Electric Company and Nantucket Electric Company, each d/b/a National Grid, D.P.U. 09-138, at 12 (2009); see also 438 Mass. at 264 n.13; Boston Edison Company/ComEnergy Merger, D.T.E. 99-19, at 8 (1999), citing Mass. Oilheat Council v. Dep't of Pub. Utils., 418 Mass. 798, 804 (1994); Boston Real Estate Bd. v. Dep't of Pub. Utils., 334 Mass. 477, 495 (1956).

V. SOLICITATION PROCESS

A. Introduction

Section 83C requires the Companies and DOER to jointly solicit proposals using a competitive bidding process. St. 2008, c. 169, § 83C(b). The Companies and DOER developed a Request for Proposals ("RFP") in consultation with the Attorney General. D.P.U. 17-103, at 5-6. On April 28, 2017, the Companies submitted the proposed timetable and method for solicitation and execution of the long-term contracts contained in the RFP for Department review. D.P.U. 17-103, at 13. The Department approved the proposed timetable and method for solicitation and execution of long-term contracts on June 21, 2017. D.P.U. 17-103, at 62.

On June 29, 2017, the Companies and DOER issued the RFP to approximately 600 potential bidders, based on a list of entities with an interest in developing renewable energy projects compiled by the Companies and DOER (Exhs. JU-1, at 17;

WP Support Tab A). As part of its proposal to deliver energy and RECs, each bidder was required to submit the following: (1) at least one proposal with a nameplate capacity of 400 MW, with the option to submit alternative proposals from 200 to 800 MW; (2) a proposal for delivery facilities comprising generator lead line ("GLL") and all associated facilities required for the delivery of energy from the project directly to the onshore pool transmission facilities; and (3) a proposal for nondiscriminatory access to offshore delivery facilities that are part of an expandable transmission network ("ETN") sized to accommodate the interconnection of 1,600 MW of aggregate nameplate offshore wind energy capacity, with the option to submit additional bids for ETN facilities of other sizes (Exh. JU-2, at 19-24). Proposals were also required to allow for the pairing of offshore wind energy generation with energy storage systems (Exh. JU-2, at 20).

An evaluation team, made up of employees of the Companies and DOER ("Evaluation Team"), received and evaluated the submitted bids (Exh. JU-2, at 10). Prior to bid submission, prospective bidders were allowed to submit written questions pertaining to the RFP (Exh. JU-1, at 18).[17] A total of 18 bids (with 27 pricing variations) were submitted by three separate developers (Exh. JU-1, at 18).

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17 The Evaluation Team responded in writing to approximately 54 questions submitted by bidders (Exh. JU-1, at 18).

B. Bid Evaluation Process

1. Overview

The RFP specified a three-stage bid evaluation process (Exh. JU-2, at 11). The first stage ("Stage One") of the process consisted of a review of each proposal's compliance with eligibility and threshold requirements contained in the RFP (Exh. JU-1, at 19-20; JU-2, at 11). The second stage ("Stage Two") of the process consisted of numerical scoring of the quantitative and qualitative factors of each proposal that passed the Stage One review (Exh. JU-1, at 20). As specified in the RFP, eligible proposals were evaluated on a 100-point scale, with a maximum of 75 points for quantitative factors and 25 points for qualitative factors (Exhs. JU-1, at 20, 24; JU-2, at 39). The third stage ("Stage Three") of the process consisted of further evaluation of the proposals to ensure the selection of viable, cost-effective, risk-limited offshore wind energy generation (Exh. JU-1, at 19). In Stage Three, the Evaluation Team also considered whether proposals for more than 400 MW of offshore wind energy generation were (1) superior to other proposals and (2) likely to produce significantly more economic net benefits to ratepayers compared to the alternative of procuring additional MWs in a future solicitation (Exhs. JU-1, at 25-26; JU-2, at 44-45).

The Evaluation Team retained two separate consultants to (1) develop and run a simulation model used to quantify estimated benefits and assist in the development of quantitative scores and rankings of bids[18] and (2) analyze the reasonableness of cost estimates

[18] The process used by the consultant to develop and run the simulation model is described in Exhibit JU-4.

in relation to the transmission portion of the bids (Exh. JU-1, at 19). In addition, DOER retained a third consultant to assist with the bid evaluation (Exh. JU-1, at 19).

The Evaluation Team disqualified three bids during Stage One, two bids because they contained non-conforming pricing and one bid because it contained a contingency that had not yet been satisfied (Exh. JU-1, at 20). During Stage Two and Stage Three, the Evaluation Team evaluated all bids that advanced from Stage One based on factors identified in the RFP (Exh. JU-1, at 21, 25-26).

2. Quantitative Evaluation

As part of the Stage Two quantitative analysis, the Evaluation Team calculated each proposal's costs, direct benefits, and indirect benefits to ratepayers (Exh. JU-1, at 21-22). The Evaluation Team compared bids using the core measurement of levelized net benefit-per MWh of each proposal, expressed in 2017 dollars (Exh. JU-1, at 20-21).

The Evaluation Team compared the costs and benefits of the proposals using a simulation model (Exh. JU-1, at 21). The Evaluation Team used the model to simulate the operation of New England wholesale markets for energy and ancillary services, forward capacity, and RECs for both a base case and for each proposal (Exh. JU-4, at 9).[19] The Evaluation Team then ran the simulation model to estimate the incremental costs and benefits of each bid relative to the base case (Exh. JU-4, at 4, 88).

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19 The base case represents a forecast of the New England energy grid without any of the offshore wind projects (Exh. JU-4, at 8, App. 5). The base case is inclusive of all statutory requirements and regulations in effect as of August 11, 2017 (Exh. JU-4, at 88).

In response to the RFP, bidders proposed to sell energy and RECs in submissions ranging from 200 MW to 800 MW (Exh. JU-2, at 19). Proposals also differed with respect to the type of transmission facilities (i.e., GLL or ETN) and the size of the ETN proposals (800 MW and 1,600 MW) (Ex. JU-4, at 5-6). The Evaluation Team states that it encountered two key bid evaluation challenges: (1) how to evaluate bids of different sizes; and (2) how to evaluate bids with different transmission configurations (i.e., GLL bids versus ETN bids) (Exh JU-4, at 5-6).

To evaluate bids of different sizes, the Evaluation Team identified four 400 MW tranches of offshore wind generation capacity, to model up to a total of 1600 MW of offshore wind generation capacity (Exh. JU-4, at 5-6). Each tranche represented either an as-bid block in a specific proposal or a 400 MW proxy bid as defined by the Evaluation Team.[20] The Evaluation Team then created two levels by which it could compare different sized bids: (1) an 800 MW transmission capacity build-out level inclusive of the first two tranches; and (2) a 1600 MW transmission capacity build-out level inclusive of all four tranches (Exh. JU-4, at 5-6). Use of this method allowed the Evaluation Team to evaluate ETN bids

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[20] Tranche One was the proposal as bid, between 400 MW and 800 MW (Exh. JU-4, at 5-6). If the bid was below 800 MW, the Evaluation Team modeled Tranche Two as the supplemental capacity necessary to bring the bid to a total of 800 MW, based on the most favorable tranche in any proposal, adjusted for future cost and performance estimates (Exh. JU-4, at 30). The Evaluation Team modeled proxy bids for Tranche Three and Tranche Four based upon an additional 800 MW of generic offshore wind energy resources to be procured through future Section 83C solicitation(s), consistent across all bid proposals (Exh. JU-4, at 32). For an ETN proposal below 1600 MW, the Evaluation Team included the cost of a GLL for any supplemental capacity up to 1600 MW (Exh. JU-4, at 35).

with 1600 MW of transmission capacity with smaller bid proposals on a comparable basis (Exh. JU-4, at 31-33).

In order to evaluate bids with different transmission configurations (i.e. GLL bids and ETN bids), the Evaluation Team evaluated the stranded cost risk of each ETN proposal under three scenarios to account for the possibility that spare transmission capacity could be built but not used in future offshore wind energy procurements (Exh. JU-4, at 5-6).[21] Use of this method allowed the Evaluation to reasonably compare GLL and ETN bid configuration with different stranded cost risk profiles.[22]

The Evaluation Team estimated the cost of each proposal using the price inputs for energy, RECs, and transmission, adjusted for estimated projections of the additional transmission and interconnection costs required to conform each proposal to an 800 MW or 1600 MW build-out (Exh. JU-4, at 4, 32). The Evaluation Team assessed the reasonableness of each proposal's bid transmission costs and provided its own transmission cost estimates, where necessary (Exh. JU-4, at 34-35).

The direct benefits of each proposal include the direct benefits of energy, RECs and Clean Energy Certificates ("CECs") (Exh. JU-1, at 22). To calculate the direct benefit of

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21 The Evaluation Team used the following three scenarios: (1) the proposal case (i.e., best case) where all expanded transmission is fully utilized; (2) the stranded cost case (i.e., worst case) where expanded transmission is built but not utilized; and (3) the stranded cost-adjusted net benefit case (i.e., middle case) which uses the difference between the cost of ETN capacity and the cost of a GLL (Exh. JU-4, at 6).

22 The Evaluation Team based its Stage Two and Stage Three ETN rankings on the stranded-cost adjusted net benefit case (Exh. JU-4, at 17).

energy, the Evaluation Team used the simulation model to generate the locational marginal price ("LMP") at each bid's delivery node. The Evaluation Team then estimated the annual market value of energy for each bid on a mark-to-market basis by estimating the revenues generated from the bid after selling the energy on the wholesale market over the contract period (Exh. JU-4, at 33-34). To calculate the direct benefit of RECs, the Evaluation Team calculated the outstanding Class I REC and CEC compliance requirements for each year and then estimated the direct annual benefit as the avoided cost of RECs and CECs retained for compliance plus the annual benefit of any excess RECs and CECs sold at market price (Exh. JU-4, at 34).[23] The Evaluation Team then calculated the levelized unit net direct benefit for each proposal by calculating the present value of the total direct energy and REC/CEC benefits, minus the present value of the total direct contract costs, divided by the present value of the annual energy deliveries, expressed in 2017 dollars (Exh. JU-1, at 22).

The Evaluation Team calculated the indirect benefit of each proposal as the sum of the estimates of the indirect benefits of energy, RECs/CECs, Global Warming Solutions Act ("GWSA") compliance,[24] and winter price mitigation. The indirect benefit of energy was based on changes to wholesale energy market costs as a result of adding a bid's energy

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23 The REC price forecast for New England was developed using a capacity expansion module subject to environmental constraints, including each New England state's year-by-year RPS Class I requirements (Exh. JU-4, at 90, 94-95).

24 St. 2008, c. 298.

output to the market (Exh. JU-1, at 22-23).[25] The indirect benefits of RECs and CECs were calculated as changes to the costs for Class I RECs and CECs as a result of adding a bid's REC and CEC contributions to the market (Exh. JU-1, at 22-23).[26] The indirect GWSA benefit for each bid was calculated as the incremental value of emissions reductions not yet accounted for through RPS and Clean Energy Standard ("CES") compliance (Exh. JU-1, at 23).[27] Finally, the indirect benefit of winter price mitigation was estimated as the reduction in customers' exposure to extreme winter energy prices with a proposal in service (Exh. JU-1, at 23).[28] The Evaluation Team calculated the levelized unit net indirect benefit

[25] The Evaluation Team calculated changes to wholesale energy market costs as the change in LMP-based total costs to customers between the proposal case and the base case (Exh. JU-4, at 36). LMP-based total costs were calculated as the annual sum of hourly LMPs multiplied by load in each load zone in Massachusetts, adjusted by the proportion of distribution service retail load to total load in each load zone (Exh. JU-4, at 36).

[26] The Evaluation Team calculated the cost changes as the annual quantity of Class I RECs to be acquired to meet RPS standards in excess of the quantity supplied by the bid (the benefits of which are captured in the direct benefits) multiplied by the estimated change in REC price in dollars per MWh between the proposal and the base case (Exh. JU-4, at 36).

[27] The Evaluation Team calculated GWSA benefit as a project's incremental greenhouse gas ("GHG") reduction minus total RECs/CECs produced, multiplied by a GHG compliance value (Exh. JU-4, at 36-37). The calculation method and compliance value used in the GWSA benefit calculations were developed by DOER (Exh. JU-1, at 23). Although Eversource and Unitil accept DOER's method, National Grid maintains that the estimated GHG emission reduction should be treated as a separate metric from the quantity of RECs/CECs produced (Exh. JU-1, at 23; National Grid Supplement to Companies Reply Brief at 2-3).

[28] The Evaluation Team calculated a bid's winter price mitigation benefit as the annual change in a proposal's market value of energy in a year with extreme winter prices

by calculating the present value of the total indirect benefits divided by the present value of the annual energy deliveries, expressed in 2017 dollars (Exh. JU-1, at 23).

The Evaluation Team then calculated each bid's total levelized unit net benefit, expressed in 2017 dollars per MWh, as the sum of its levelized unit net direct benefit and its levelized unit net indirect benefit (Exh. JU-1, at 23). The Evaluation Team ranked the bids based on their total levelized unit net benefit, with the highest total levelized unit net benefit bid receiving the maximum quantitative score of 75 points (Exh. JU-1, at 23). Finally, the Evaluation Team determined the quantitative score for each remaining bid by (1) calculating the ratio of each bid's levelized unit net benefit to the levelized unit net benefit of the highest ranked bid and (2) multiplying the ratio by 75 (Exh. JU-1, at 23).

3. Qualitative Evaluation

As part of Stage Two, the Evaluation Team performed a qualitative analysis of each proposal (Exh. JU-1, at 24). The Evaluation Team considered statutory and regulatory requirements to identify the projects that were likely to be constructed and provide benefits, while also supplying a cost-effective means of delivering offshore wind energy generation (Exh. JU-1, at 24).

(Exh. JU-4, at 37). Extreme winter-month spot gas price variation was derived using data from 2002 through 2017, based on an assumption that an extreme winter price scenario would occur once in 15 years (Exhs. JU-3, at 37; DPU 3-6).

In the qualitative evaluation the Evaluation Team awarded bids a maximum of 25 points based on five primary evaluation factors: (1) siting, permitting and project schedule;[29] (2) reliability benefits; (3) benefits, costs, and contract risk; (4) environmental impacts from siting; and (5) economic benefits to the Commonwealth (Exhs. JU-1, at 24; JU-2, at 42-44). The Evaluation Team further broke down each factor to assess specific progress commitments and to advance projects that minimized risk and maximized value to customers (Exh. JU-1, at 24). To support the scoring, the Evaluation Team developed a qualitative bid evaluation protocol,[30] which identified the criteria used to evaluate the qualitative bid factors and determine the qualitative score and ranking (Exhs. DPU 5-17; WP Support Tab D; WP Support Tab E).

4. Bid Selection

The Evaluation Team added a proposal's quantitative and qualitative points and ranked the proposals from high to low according to a bid's total score (Exhs. JU-1, at 25; JU-4, at 17). The Evaluation Team then determined which proposals would proceed to the Stage Three evaluations based on their rank order, cost effectiveness, and total MW procurement target (Exhs. JU-1, at 26; WP Support Tab F). In Stage Three, the Evaluation Team assessed potential portfolio effects and impacts on the estimated backend transmission and

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29 This factor assessed project feasibility and the ability to obtain financing in order to achieve the COD (Exh. JU-1, at 24).

30 A sub-committee of the Evaluation Team developed the factors included in the qualitative evaluation protocol (Exh. JU-1, at 24). The Evaluation Team and the Independent Evaluator developed the point values for the qualitative scoring process (Exh. AG 3-24).

network upgrade costs associated with the third and fourth capacity tranches, as well as certain other considerations per its discretion within the RFP (Exhs. JU-2, at 44-45; IE Report at 24).

Next, a selection team, comprised of representatives from the three Companies, selected a proposal or portfolio based on the Stage Three bid rankings (Exh. JU-1, at 25-26). National Grid and Unitil preferred the Vineyard Wind 800 MW GLL proposal, while Eversource preferred the Vineyard Wind 400 MW GLL proposal (Exh. JU-1, at 26-27).[31] The Companies notified DOER that they were unable to reach consensus agreement, and each electric distribution company separately furnished a selection letter summarizing the reasoning for its selection (Exhs. JU-1, at 27; JU-6-A; JU-6-B; JU-6-C). Because the Companies were unable to agree on a single proposal, DOER, in consultation with the Independent Evaluator, issued a final binding determination selecting the Vineyard Wind 800 MW GLL project as the winning bid (Exhs. JU1, at 27; JU-7).

C. Independent Evaluator Report

Pursuant to Section 83C(f), the Independent Evaluator is tasked with conducting a review to ensure a fair and transparent solicitation and bid selection process that is not unduly influenced by an affiliated company. The IE Report describes the Independent Evaluator's involvement in the Section 83C process through the execution of the Section 83C PPAs for the Project in late July 2018 (Exh. IE Report at 1, 4).

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[31] The Vineyard Wind 800 MW GLL was the top ranked project in both the Stage Two and Stage Three evaluations (Exh. IE Report at 25).

The Independent Evaluator concluded that all bids were evaluated in a fair and objective manner through an open, fair, and transparent solicitation and bid selection process that was not unduly influenced by an affiliated company (Exh. IE Report at 41-42). The Independent Evaluator also concluded that the Vineyard Wind 800 MW GLL proposal was the highest-ranking bid in the Stage Two and Stage Three evaluations and was fairly selected as the winning bid (Exh. IE Report at 41-42).

D. Positions of Parties

1. Attorney General

The Attorney General argues that the Companies appropriately conducted the solicitation process to procure offshore wind energy (Attorney General Brief at 9). In particular, the Attorney General contends that the solicitation process resulted in a variety of competitive bids, despite the limited number of offshore wind energy developers available to participate in the process (Attorney General Brief at 9).

2. DOER

Based on its oversight of the evaluation of bids, its advisory role in bid selection, and its monitoring of contract negotiations, DOER argues that the Companies properly followed the bid evaluation process set forth in the RFP (DOER Brief at 4). DOER further maintains that the Companies properly applied the bid criteria, resulting in a solicitation process that was fair and transparent (DOER Brief at 4).

3. Companies

The Companies maintain that the PPAs are the result of an open and robust solicitation process (Companies Brief at 16). The Companies further maintain that they carefully evaluated the bids as part of the solicitation process (Companies Brief at 16).

E. Analysis and Findings

In evaluating the competitiveness of a solicitation process, the Department considers whether the process was open, fair, and transparent. D.P.U. 17-117 through D.P.U. 17-120, at 24-27; D.P.U. 13-146 through D.P.U. 13-149, at 26; D.P.U. 11-05 through D.P.U. 11-07, at 40, citing New England Gas Company, D.P.U. 10-114, at 221 (2011); D.P.U. 07-64-A at 60-61 (noting the "Department's fundamental interest in open, competitive, and transparent procurement processes"); Boston Gas Company, Colonial Gas Company, and Essex Gas Company, each d/b/a KeySpan Energy Delivery New England, D.T.E. 04-9, at 10 (2004) (RFP is acceptable if the process was open, fair, and transparent), quoting Natural Gas Unbundling, D.T.E. 98-32-B at 54-55 (1999).

With regard to whether the solicitation was open, the Companies disseminated the statewide RFP to a group of approximately 600 entities with an interest in developing renewable energy projects based on a list they developed with DOER (Exhs. JU-1, at 17; WP Support Tab A). In response to the RFP, the Companies received 18 bids (with 27 pricing variations), from three offshore wind energy developers (Exh. JU-1, at 18). Given the broad dissemination of the solicitation to potential bidders and the variety of bids received, the Department finds that the solicitation was open. See D.P.U. 17-117 through D.P.U. 17-120, at 24-27, at 25.

For the Department to find that the solicitation process was fair and transparent, the Companies must demonstrate that they (1) clearly described the evaluation process to each potential bidder, (2) provided the evaluation criteria in the RFP, and (3) provided an opportunity for bidders to request clarification of the evaluation criteria and the RFP process. D.P.U. 17-117 through D.P.U. 17-120, at 27; D.P.U. 13-146 through D.P.U. 13-149, at 27; D.P.U. 11-05 through D.P.U. 11-07, at 42, citing D.P.U. 10-114, at 221; D.P.U. 07-64-A at 60-61 n.21; D.T.E. 04-9, at 10. The Department previously determined that the timetable and method of solicitation described in the RFP was consistent with Section 83C and 220 CMR 23.00. D.P.U. 17-103, at 65. The RFP clearly identified the criteria that the Companies were to use in each step of the bid evaluation process (Exhs. JU-1, at 19, JU-2). In addition to guidelines provided in the RFP, potential bidders were provided an opportunity to and did submit written questions prior to submitting bids (Exh. JU-1, at 18). Accordingly, the Department finds that the Companies have demonstrated that the solicitation process was fair and transparent. See D.P.U. 17-117 through D.P.U. 17-120, at 26.

Further, with respect to the bid evaluation process, the Department considers whether the Companies evaluated and selected winning bids in a reasonable manner, based on the criteria set forth in the RFP. D.P.U. 17-117 through D.P.U. 17-120, at 24; D.P.U. 13-146 through D.P.U. 13-149, at 26; D.P.U. 11-05 through D.P.U. 11-07, at 40, citing D.T.E. 04-9, at 10; The Berkshire Gas Company, D.T.E. 02-56, at 10 (2002). After screening projects for threshold requirements, the Evaluation Team conducted a quantitative evaluation of the bids based on the costs of each project as well as the direct and indirect benefits to customers (Exh. JU-1, at-21-25). The Evaluation Team then assigned each bid a quantitative score on a 75-point scale (Exh. JU-1, at 20). Next, the Evaluation Team assigned each bid a qualitative score on a 25-point scale, based on an assessment of which projects were most likely to be developed and were a cost-effective means of delivering offshore wind energy generation (Exhs. JU-1, at 24; WP Support Tab D). The Evaluation Team combined the quantitative and qualitative scores to rank the projects based on total points (Exh. JU-1, at 25). Finally, the Evaluation Team evaluated the ranked proposals based on whether the proposals for greater than 400 MW were likely to provide significantly more economic net benefits to ratepayers as compared with the procurement of additional offshore wind energy in a future solicitation (Exh. JU-1, at 25-26).

Based on our review, the Department finds that the quantitative and qualitative bid analyses followed the criteria provided in the RFP (Exh. JU-2, at 39-45). Accordingly, the Department finds that the Companies selected the winning bids in a reasonable manner, consistent with the criteria set forth in the RFP.

VI. SECTION 83C REQUIREMENTS

A. Introduction

Pursuant to Section 83C and 220 CMR 23.00, the Department is required to make several findings regarding proposed long-term contracts for offshore wind energy generation. As a threshold matter, the Department must find that the proposed contracts facilitate the financing of an eligible offshore wind energy generating resource. In addition, the Department must make determinations regarding the following: (1) the facility's ability to provide enhanced electric reliability; (2) the facility's contribution to reducing winter electricity price spikes; (3) the avoidance of line loss and mitigation of transmission costs and that transmission cost overruns are not borne by ratepayers; (4) the demonstration of project viability in a commercially reasonable timeframe; (5) the allowance of wind energy generation resources to be paired with energy storage systems; (6) the mitigation, where possible, of any environmental impacts; and (7) the creation and fostering of employment and economic development in the Commonwealth. St. 2008, c. 169, § 83C; 220 CMR 23.05(1). The Department addresses each of these requirements below.

B. Eligibility as Section 83C Offshore Wind Energy Generating Source

1. Introduction

In order to be an eligible offshore wind energy generation resource under Section 83C and 220 CMR 23.02, a proposal must meet the following requirements: (1) have a COD, as verified by DOER, of January 1, 2018 or later; (2) be a qualified Class I renewable energy generating source as defined in G.L. c. 25A § 11F; and (3) operate in a designated wind energy area for which an initial federal lease was issued on a competitive basis after January 1, 2012. St. 2008, c. 169, § 83C; G.L. c. 25A § 11F.

2. Positions of the Parties

The Companies maintain that the facilities have CODs after January 1, 2018 (Companies Brief at 21). In particular, the Companies assert that the Project will be completed in two phases (Companies Brief at 21). The Companies represent that Phase 1 and Phase 2 of the Project have CODs of January 15, 2022, and January 15, 2023, respectively (Companies Brief at 21, citing Exhs. JU-1, at 32; JU-10-A, B, and C; Joint Supplemental Testimony of Waltman, Brennan and Glover at 2). The Companies also maintain that if either COD is not achieved by the guaranteed dates, Vineyard Wind is subject to delay damages and potential contract termination (Companies Brief at 21, citing Exhs. JU-1, at 32; JU-10-A, B, and C; Joint Supplemental Testimony of Waltman, Brennan and Glover at 2).

The Companies maintain that Vineyard Wind is solely responsible for qualifying the facilities as RPS Class I and maintaining such qualification for the duration of the PPAs (Companies Brief at 23, citing Exh. JU-1, at 29). In this regard, the Companies assert that the Project will qualify as RPS Class I (Companies Brief at 23, citing Exhs. JU-3-A at 5; JU-3-B at 5; JU-3-C at 5; JU-3-D at 5; JU-3-E at 5; JU-3-F at 5). In addition, the Companies argue that they are only obligated under the contracts to purchase RECs (or other comparable certificate or environmental attribute) produced by or associated with the facilities if they qualify as a RPS Class I pursuant to 225 CMR 14.00 (Companies Brief at 23-24, citing Exhs. JU-3-A at 30; JU-3-B at 29; JU-3-C at 32-33; JU-3-D at 32; JU-3-E at 30; JU-3-F at 29). The Companies maintain that if at any point the facilities do not conform to the RPS Class I eligibility criteria, they are not obligated to purchase the RECs (Companies Brief at 23, citing Exhs. JU-2, at 25; JU-3-A at 30; JU-3-B at 29; JU-3-C at 32-33; JU-3-D at 32; JU-3-E at 30; JU-3-F at 29; DPU 4-1).

Finally, the Companies assert that they distributed the RFP to all eligible bidders with federal lease rights in designated wind energy areas (Companies Brief at 20, citing Exh. JU-1, at 30). The Companies confirm that Vineyard Wind will develop the facilities on the Outer Continental Shelf in Bureau of Ocean Energy Management Lease OCS-A 0501 area (Exh. JU-1, at 6). No other party commented on this issue.

3. Analysis and Findings

With respect to the adequacy of the COD, the two phases of the Project have CODs of January 15, 2022, and January 15, 2023, respectively (Exhs. JU-1, at 32; JU-10-A, B, and C; Joint Supplemental Testimony of Waltman, Brennan and Glover at 2). Pursuant to the PPAs, such CODs must be met or Vineyard Wind will be subject to certain penalties, including delay damages and the potential for contract termination (Exh. JU-1, at 32). Therefore, consistent with Section 83C and 220 CMR 23.00, the Department finds that the facilities will have CODs of January 1, 2018, or later, as verified by DOER (see Revised Joint Testimony of Morin and Troy, at 17).[32]

The Companies have provided evidence that the Project will qualify as an RPS Class I renewable energy generating source (Exhs. JU-3-A at 5; JU-3-B at 5; JU-3-C at 5; JU-3-D at 5; JU-3-E at 5; JU-3-F at 5). In addition, the proposed contracts provide that the

32 As described in n.10, above, Vineyard Wind accelerated its Phase 2 COD to May 31, 2022, contingent upon its receipt of a capacity supply obligation for both phases of the Project in a specific forward capacity auction (Exh. JU-10). The Department's findings herein are based on the initial Phase 2 COD. However, we note Phase 2 of the Project has a COD of January 1, 2018, or later with both the initial COD and the accelerated COD.

Companies are not obligated to purchase RECs if the facilities fail to qualify for RPS Class I (Exhs. JU-1, at 29; JU-2, at 25; JU-3-A at 30; JU-3-B at 29; JU-3-C at 32-33; JU-3-D at 32; JU-3-E at 30; JU-3-F at 29; DPU 4-1). Therefore, the Department finds that, prior to the delivery of any products under the contracts and for the duration of the contact terms, the facilities will meet the RPS Class I eligibility requirements as defined in G.L. c. 25A § 11F.

Finally, the Department finds that the Companies have demonstrated that the facilities will operate in a designated wind energy area for which a federal lease was issued on a competitive basis after January 1, 2012 (Exhs. JU-1, at 6, 30; WP Support Tab G-A at 51; WP Support Tab G-B at 50; WP Support Tab G-C at 58; WP Support Tab G-D at 57; WP Support Tab G-E at 51; WP Support Tab G-F at 50). Accordingly, the Department finds that the Companies have demonstrated that Phase 1 and Phase 2 of the Project each qualify as an eligible offshore wind energy generating resource under Section 83C and 220 CMR 23.02.

C. Facilitation of Financing

1. Introduction

Section 83C requires the Companies to conduct one or more competitive solicitation for long-term contracts to facilitate the financing of offshore wind energy generation. St. 2008, c. 169, § 83C; see also 220 CMR 23.01(1). To approve the contracts, the Department must find that the PPAs will facilitate the financing of offshore wind energy generation resources. St. 2008, c. 169, § 83C; D.P.U. 13-146 through D.P.U. 13-149, at 31; D.P.U. 11-05 through D.P.U. 11-07, at 14-15.

2. Positions of the Parties

The Companies maintain that the investment commitments secured by Vineyard Wind to finance the Project are predicated on Vineyard Wind first obtaining long-term contracts for the output of the Project (Companies Brief at 17, citing Exh. JU-1, at 34). The Companies assert that the Project's size and position as a first large-scale offshore wind energy generation project would likely prevent financing on a merchant basis and, therefore, approval of the PPAs is necessary for Vineyard Wind to secure financing for the Project (Companies Brief at 17-18). No other party commented on this issue.

3. Analysis and Findings

Section 83C requires an electric distribution company to demonstrate that any proposed long-term contract will facilitate the financing of an offshore wind energy generation project. To satisfy this requirement, an electric distribution company need not demonstrate that the long-term contract is necessary to secure project financing, only that it will assist in securing project financing. NSTAR Electric Company, D.P.U. 12-30, at 40 (2012); Massachusetts Electric Company and Nantucket Electric Company, D.P.U. 10-54, at 52 (2010).

The Department has found that entering into a long-term contract with a creditworthy counterparty, such as an electric distribution company, allows a developer to obtain favorable long-term financing. D.P.U. 17-117 through D.P.U. 17-120 at 30; D.P.U. 13-146 through D.P.U. 13-149, at 32; D.P.U. 11-05 through D.P.U. 11-07, at 18-19. The Companies argue that, based upon the information provided by Vineyard Wind, the PPAs would support

Vineyard Wind's ability to finance the Project (Companies Brief at 17-18). In addition, in its bid, Vineyard Wind indicated that the investment commitments it has secured to finance the Project are predicated on long-term contracts for the output of the Project and, thus, approval of the PPAs is necessary to secure financing (Exh. JU-1, at 34). Accordingly, the Department finds that the proposed contracts will facilitate the financing of the Project.

D. Enhanced Reliability

1. Introduction

Pursuant to Section 83C and 220 CMR 23.05 (1)(a)(1), the Department must find that the offshore wind energy generating resources will "provide enhanced electricity reliability." While Section 83C does not define the term "reliability," the Department has previously relied on the Northeast Power Coordinating Council/ North American Electric Reliability Council definition of reliability as the ability to contribute to system resource adequacy and system security. D.P.U. 17-117 through D.P.U. 17-120, at 32; D.P.U. 13-146 through D.P.U. 13-149, at 34; D.P.U. 11-05 through D.P.U. 11-07, at 21; D.P.U. 10-54, at 181.

2. Positions of the Parties

a. Attorney General

The Attorney General argues that the Project will enhance electric reliability by displacing conventional fossil-fired generation and diversifying the region's energy supply (Attorney General Brief at 8). The Attorney General also maintains that the Project has a relatively stable generation profile with less generation variability than other intermittent renewable sources (Attorney Brief at 8, citing Exh. WB Support Tab B).

b. DOER

DOER asserts that adding 800 MW of renewable energy generation that is geographically distinct from existing resources is a cost-effective means to enhance reliability within Massachusetts (DOER Brief at 7).

c. Vineyard Wind

Vineyard Wind maintains that there is ample evidence that the Project will enhance reliability through fuel diversification and the replacement of lost generation and capacity (Vineyard Wind Brief at 5, citing Exh. JU-1 at 29-30). Vineyard Wind further asserts that the Project is located in an area that is geographically distinct from existing New England wind resources and, therefore, the Project will improve the consistency of wind generation across New England (Vineyard Wind Brief at 5).

d. Companies

The Companies argue that adding 800 MW of offshore wind generation that is geographically distinct from New England's existing primary wind resources will provide fuel diversification and enhance the overall reliability of power generation and transmission in the region (Companies Brief at 18-19, citing Exhs. JU-1, at 29-30; WP Support Tab B).

3. Analysis and Findings

Vineyard Wind will interconnect and deliver energy into the regional transmission system at the Barnstable 115kV substation and deliver energy into the Southeastern Massachusetts ("SEMA") load zone (Exhs. JU-1, at 28-30; JU-3, at Exhibit A). Because SEMA is geographically distinct from the location of existing regional wind resources, energy deliveries at this location will provide fuel diversification and improve the consistency of wind generation across New England, thereby enhancing regional system reliability (Exhs. JU-1, at 29-30; WP Support Tab B). Further, because SEMA is part of the New England regional interconnected electric system, an improvement in reliability in this area of the system will help to bolster the reliability of the system as a whole and, thereby, contribute to system resource adequacy and system security support. D.P.U. 17-117 through D.P.U. 17-120, at 33. Accordingly, pursuant to Section 83C and 220 CMR 23.05 (1)(a)(1), the Department finds that the Project will provide enhanced electricity reliability.

E. Reduced Winter Electricity Price Spikes

1. Introduction

Pursuant to Section 83C and 220 CMR 23.05 (1)(a)(2), the Department must find that the offshore wind energy generating resources that are the subject of the proposed long-term contracts will contribute to the reduction of winter electricity price spikes.

2. Positions of the Parties

a. Attorney General

The Attorney General asserts that the Project will generate significantly more power in the winter months, which will help to mitigate winter price spikes (Attorney General Brief at 8).

b. DOER

DOER argues that the PPAs will add critical diversity to the Commonwealth's energy portfolio, particularly in the winter months because offshore wind generation has a relatively high production during this period (DOER Brief at 6). Therefore, DOER asserts that offshore wind generation during the winter months will contribute to reducing winter electricity price spikes (DOER Brief at 6). In addition, DOER maintains that securing offshore wind resources that can provide energy in the winter will reduce the region's dependence on natural gas and, therefore, can reduce the costs associated with natural gas constraints (DOER Brief at 6).

c. Vineyard Wind

Vineyard Wind argues that the Project will address demand spikes by boosting energy production levels during the winter peak period (Vineyard Wind Brief at 6). As an example, Vineyard Wind asserts that if an operational 800 MW wind project existed during the January 2018 winter storm, the project would have reduced fossil fuel use and sharply reduced wholesale electricity prices during that period (Vineyard Wind Brief at 6).

d. Companies

The Companies claim that the Project will add offshore wind generation with a high and stable winter capacity factor to the region, thereby reducing winter electricity price spikes. In addition, the Companies argue that the Project will increase the resources available to address demand spikes, reduce reliance on fossil fuel generation, and will be unaffected by the risk of fossil fuel shortages (Companies Brief at 19, citing Exh. JU-1, at 30).

3. Analysis and Findings

To determine whether a renewable energy resource will reduce winter electricity price spikes, the Department considers a project's output and capacity factor at the electric system's peak. D.P.U. 17-117 through D.P.U. 17-120, at 33; D.P.U. 10-54, at 198. The Evaluation Team calculated the reduction in exposure to extreme energy prices when the Project is in service (Exh. JU-4 at 7-8). Based on our review of the Project's generation characteristics, the Department finds that it is likely to produce power during winter peak times (Exhs. JU-1, at 30; JU-4, at 5). Accordingly, pursuant to Section 83C and 220 CMR 23.05 (1)(a)(2), the Department finds that the Project will contribute to the reduction of winter electricity price spikes.

F. Avoided Line Loss, Mitigated Transmission Costs, Protection from Transmission Cost Overruns

1. Introduction

Pursuant to Section 83C, the Department must find that the offshore wind energy resource under a long-term contract will avoid line loss, mitigate transmission costs, and ensure that transmission cost overruns are not borne by ratepayers.

See also 220 CMR 23.05(1)(a)(4).

2. Positions of the Parties

a. Attorney General

The Attorney General asserts that the Project limits transmission costs by interconnecting in Barnstable, Massachusetts, where there is capacity to accept significant new generation due to the retirement of several large generation facilities (Attorney General Brief at 8-9).

b. DOER

DOER maintains that because the PPAs are for a fixed price, the risk of additional transmission costs is borne by Vineyard Wind (DOER Brief at 7, citing Exhs. JU-1, at 31; JU-3).

c. Vineyard Wind

Vineyard Wind asserts that a fixed cost for the quantity of energy and associated RECs, as measured at the onshore delivery point, ensures that line loss risk, costs associated with the GLL, and costs associated with interconnection are borne by Vineyard Wind (Vineyard Wind Brief at 8, citing Exh. JU-1, at 31-32). Vineyard Wind further argues that the Project reduces line loss and mitigates transmission cost overruns through its transmission design, onshore substation configuration, and the transmission system point of interconnection at the Barnstable 115kV substation (Vineyard Wind Brief at 8, citing Exh. JU-1, at 31-32).

d. Companies

The Companies maintain that line loss risks, costs associated with the delivery of energy and costs for interconnection to the delivery point are all borne by Vineyard Wind because the PPAs provide for a fixed cost for the quantity of energy and RECs as measured at the delivery point onshore (Companies Brief at 21, citing Exhs. JU-1, at 31-32; DPU 4-8).

3. Analysis and Findings

The PPAs provide for Vineyard Wind to deliver and sell energy and RECs on a fixed price schedule as measured at the onshore delivery point (Exhs. JU-1, at 31-32). The Department finds that the structure of the PPAs ensure line loss risk and transmission costs are borne by Vineyard Wind and any transmission cost overruns will not be borne by ratepayers (Exhs. JU-1, at 31-32).

G. Project Viability in a Commercially Reasonable Timeframe

1. Introduction

Pursuant to Section 83C, the Department must determine whether the offshore wind energy generating resource under a long-term contract adequately demonstrates project viability in a commercially reasonable timeframe. See also 220 CMR 23.05 (1)(a)(5).

2. Positions of the Parties

a. DOER

DOER argues that the PPAs contain a set of milestones that ensure the Project will be completed in a commercially reasonable timeframe and that Vineyard Wind must post financial security to ensure agreed upon delivery of energy and RECs (DOER Brief at 7-8).

b. Vineyard Wind

Vineyard Wind argues that timely-completion incentives, project milestones, and required posting of financial security ensure the achievement of guaranteed CODs and the delivery of energy and RECs throughout the term of the PPAs (Vineyard Wind Brief at 8). Vineyard Wind further asserts that the Project's schedule is based on the schedules of similar projects completed in Europe, and it is validated by Vineyard Wind's progress in securing permits and its engagement with supply chain companies involved in Project delivery (Vineyard Wind Brief at 9).

c. Companies

The Companies maintain that the PPAs set forth a series of critical milestones to measure progress towards the achievement of the CODs and the failure to achieve those CODs would subject Vineyard Wind to delay damages and potential contract termination (Companies Brief at 21-22, citing Exhs. JU-1, at 32; JU-10). The Companies further argue that Vineyard Wind is obligated to post financial security in order to secure its obligations to develop the Project and deliver energy and RECs throughout the term of the PPAs (Companies Brief at 21-22, citing Exhs. JU-1, at 32; JU-10).

3. Analysis and Findings

The Companies have demonstrated that (1) the PPAs contain critical milestones to support the achievement of the Phase 1 and Phase 2 CODs and (2) Vineyard Wind is obligated to post financial security related to its obligations to deliver energy and RECs throughout the term of the PPAs (Exhs. JU-1, at 32; JU-10). Accordingly, consistent with Section 83C and 220 CMR 23.05 (1)(a)(5), the Department finds that the Companies have adequately demonstrated Project viability in a commercially reasonable timeframe.

H. Allowance of Wind Energy Generation to be Paired with Energy Storage

1. Introduction

Pursuant to Section 83C, the Department must determine whether the offshore wind energy generating resource under a long-term contract allows for the pairing of energy storage systems. See also 220 CMR 23.05 (1)(a)(6).

2. Positions of the Parties

a. DOER

DOER asserts that Vineyard Wind has agreed to contribute $15 million over 15 years to establish a fund that will, in part, support community battery energy storage projects designed to benefit communities hosting the Project (DOER Brief at 7, citing Exh. JU-1, at 32).

b. Vineyard Wind

Vineyard Wind maintains that it will contribute $15 million to a fund, over 15 years, in order to enable investments in projects designed to promote the use of distributed battery storage in low-income communities (Vineyard Wind Brief at 9). Vineyard Wind further asserts that the Project's interconnection point will allow the energy that is delivered to the Companies subsequently to be delivered to an appropriate energy storage provider if one is available and wishes to provide this service (Vineyard Wind Brief at 10).

c. Companies

The Companies maintain that, while the PPAs do not include paired energy storage systems, the fund to be established by Vineyard Wind will invest in storage projects designed to enhance system reliability and resiliency (Companies Brief at 22, citing Exh. JU-1, at 33). In addition, the Companies argue that the energy generated by the Project and delivered to the Companies subsequently could be delivered for storage (Companies Brief at 22, citing Exhs. DPU-3-2; DPU-5-7; Tr. 1, at 156-157).

3. Analysis and Findings

The solicitation process allowed for the pairing of energy storage systems with offshore wind energy generation resources (Exh. JU-2, at 13). Although the Companies state that the PPAs do not allow for the Project developer itself to store energy, the energy from the Project may be stored subsequent to its delivery onshore (Exh. JU-1, at 33-34; Tr. 1, at 156-157). Accordingly, the Department finds that the PPAs allow for the offshore wind energy generating resource to be paired with energy storage systems as required under Section 83C.

The Department recognizes that the fund to be established by Vineyard Wind may provide value to the communities hosting the Project in terms of supporting battery storage in low-income communities. Nonetheless, the establishment of the fund is not germane to the Section 83C requirement that the PPAs allow for the offshore wind energy generating resource to be paired with energy storage systems and, therefore, the Department did not consider the fund in its finding above.[33]

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[33] The Department notes that, to the extent this fund is used to enable investments in projects designed to promote the use of storage in low-income communities, it supports DOER's obligation under Section 83C(d) to give preference to proposals that "demonstrate a benefit to low-income ratepayers . . . without adding costs to the [P]roject."

I. Mitigation of Environmental Impacts

1. Introduction

Pursuant to Section 83C, the Department must determine whether the offshore wind energy genearting resource under a long-term contract mitigates any environmental impacts, where possible. See also 220 CMR 23.05(1)(a)(7).

2. Positions of the Parties

a. Attorney General

The Attorney General asserts that the Companies have provided sufficient evidence that the Project meets the environmental impact criteria set forth in Section 83C (Attorney General Brief at 8).

b. Vineyard Wind

Vineyard Wind maintains that it has worked to mitigate the environmental impacts of the Project, including air, noise, wetlands, water quality, visual, traffic, navigation, and fishing impacts (Vineyard Wind Brief at 10). In addition, Vineyard Wind argues that it has worked to mitigate Project impacts on sensitive land uses, historic and archeological resources, and rare, threatened or endangered species (Vineyard Wind Brief at 10). In this regard, Vineyard Wind maintains that it has engaged in outreach with federal, state and local agencies, as well as stakeholders (Vineyard Wind Brief at 10).

c. Companies

The Companies argue that Vineyard Wind conducted significant Project mitigation-related outreach with relevant federal, state and local agencies and a wide range of stakeholders (Companies Brief at 22). The Companies maintain that these activities included commencing environmental and zoning permitting efforts, conducting outreach on visual impacts, and working with fisheries stakeholders (Company Brief at 22, citing Exhs. JU-1, at 33; WP Support Tab B). The Companies maintain that Vineyard Wind identified its plans to avoid, minimize, or mitigate environmental impacts in its proposal and has received letters of support from the seven towns closest to the proposed turbine area (Company Brief at 22, citing Exh. WP Support Tab B).

3. Analysis and Findings

Vineyard Wind has identified the Project's effects on major environmental area categories and has described its mitigation strategy for each category, including environmental and zoning permitting efforts, outreach on visual impacts, and working with fisheries stakeholders (Exh. JU-1 at 33; Exh. WP Support Tab B). The Department finds that Vineyard Wind has (1) commenced efforts to obtain required federal, state and local permits; (2) undertaken required environmental assessments; (3) identified potential environmental impacts and presented a plan to mitigate potential impacts imposed by Project development; and (4) engaged a wide variety of local stakeholders and received support from the communities and stakeholders directly impacted by the Project (Exh. JU-1 at 33; WP Support Tab B). Accordingly, consistent with Section 83C and 220 CMR 23.05(1)(a)(7), the Department finds that the Project mitigates any environmental impacts, where possible.

J. Employment Benefits and Economic Development

1. Introduction

Pursuant to Section 83C, the Department must determine whether the offshore wind energy resource under a long-term contract will create and foster employment and economic development, where feasible. See also 220 CMR 23.05 (1)(a)(8).

2. Positions of the Parties

a. Attorney General

The Attorney General contends that while the Companies provided sufficient evidence that the Vineyard Wind Project meets the criteria set forth in Section 83C regarding employment and economic development, the Vineyard Wind RFP response did not provide sufficient details on the estimated economic impacts including the identification of assumptions about local spending that support the estimated economic impacts (Attorney General Brief at 8, 25). The Attorney General argues that the Evaluation Team did not attempt to verify the economic impacts reported by Vineyard Wind and did not complete any additional analysis to confirm the estimated economic benefits provided by the bidder (Attorney General Brief at 25, citing Exhs. AG 3-33; AG 3-35).

b. Companies

The Companies maintain that the Project will support over 3,600 full-time equivalent jobs in Massachusetts over its life (Companies Brief at 23, citing Exh. JU-1, at 32). Further, the Companies argue that Vineyard Wind has committed to a $15 million investment in the Massachusetts Offshore Wind Accelerator Program to support the offshore wind industry in Massachusetts (Companies Brief at 23, citing Exh. JU-1, at 32).

3. Analysis and Findings

The Department has recognized that estimates of employment potential contain uncertainties and actual benefits could be different from projections. D.P.U. 17-117 through D.P.U. 17-120, at 35. Nevertheless, there is no dispute that the construction and operational phases of the Project will result in additional employment (Exhs. JU-1, at 32; WP Support Tab B, Att. 14.1-1). See D.P.U. 17-117 through D.P.U. 17-120, at 35.

As with additional employment, any measures of financial benefit to the economy are only estimates. D.P.U. 17-117 through D.P.U. 17-120, at 35. The construction and long-term operation of the Project will, however, undoubtedly result in economic benefit for the region (Exh. JU-1, at 32). Accordingly, consistent with Section 83C and 220 CMR 23.05 (1)(a)(8), the Department finds that the Project will create and foster employment and economic development in the regional economy.[34]

VII. COST EFFECTIVENESS

A. Introduction

The Department must take into consideration both the potential costs and benefits of the PPAs and approve a long-term contract under Section 83C only upon finding that it is a cost-effective mechanism for procuring reliable renewable energy on a long-term basis. St. 2008, c. 169, § 83C; 220 CMR 23.05(1). In D.P.U. 10-54, the Department first considered an appropriate standard for evaluating the cost effectiveness of a long-term

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[34] The Attorney General's arguments regarding the lack of verification of economic impacts and the need for additional analysis to confirm the estimated economic benefits are addressed in Section XII, below.

contract for renewable energy pursuant to St. 2008, c. 169, § 83 ("Section 83"). The Department determined that it would:

> consider in our cost-effectiveness analysis all costs and benefits associated with [a proposed contract], including the non-price benefits that are difficult to quantify, and including costs and benefits of complying with existing and reasonably anticipated future federal and state environmental requirements. . . . In reviewing [the] benefits and costs of [a proposed contract]. . . our focus is on the benefits and costs that accrue to [the company proposing the contract] and its customers.

D.P.U. 10-54, at 71. Likewise, Section 83C requires the Department to ensure that long-term contracts are cost effective to electric ratepayers over the term of the contract, taking into consideration the potential economic and environmental benefits to ratepayers. St. 2008, c. 169, § 83C(d)(iii), (e); 220 CMR 23.05(1). Accordingly, the Department will evaluate the cost effectiveness of each PPA based on the costs and benefits (both quantitative and qualitative) that such PPAs provide.

A. Positions of the Parties

1. Attorney General

The Attorney General argues that the PPAs are a cost-effective mechanism for procuring reliable renewable energy on a long-term basis (Attorney General Brief at 7). The Attorney General asserts that the PPAs provide Class I renewable generation at below-market costs (Attorney General Brief at 7, citing Exh. JU-1, at 31). The Attorney General further maintains that over the 20-year life of the PPAs, the direct cost of energy and RECs is below the projected cost of acquiring comparable products at market prices (Attorney General Brief at 7-8). As support, the Attorney General cites the Companies' testimony that the winning project had a levelized positive net direct benefit of $14.70 per MWh (Attorney General Brief at 8, citing Exh. JU-4, at 20). Lastly, the Attorney General argues that, as compared to the other proposals, Vineyard Wind attained the highest ranking in the quantitative evaluation and had the highest levelized unit net benefit (Attorney General Brief at 7-8).

2. DOER

DOER argues that the PPAs are a cost-effective method of procuring reliable renewable energy on a long-term basis (DOER Brief at 4). DOER maintains that the forecasted benefits of each contract exceed its forecasted costs and that, over the term of the contracts, ratepayers will receive an average of 1.4 cents per kilowatt-hour ("kWh") in direct savings (DOER Brief at 5). DOER further maintains that, when indirect benefits are included, the contracts will result in 3.5 cents per kWh or approximately $1.4 billion in total net benefits (DOER Brief at 5). DOER recognizes that any long-term contracts present inherent risks but asserts that the PPAs will reduce price volatility given that they represent a 20-year fixed price agreement (DOER Brief at 5).

3. Vineyard Wind

Vineyard Wind argues that the contracts were the result of an open and competitive solicitation process and that the Companies selected the most cost-effective bid (Vineyard Wind Brief at 7). Vineyard Wind asserts that its proposal received the highest score and ranking in the quantitative evaluation and that such assessment compared all proposals against a common market price forecast and accounted for direct costs of each bid and the direct and indirect benefits to ratepayers (Vineyard Wind Brief at 12). Further, Vineyard Wind estimates that the PPAs will be $1.289 billion below market (Vineyard Wind Brief at 7). Finally, Vineyard Wind asserts that ratepayers will experience $152 million to $224 million in emissions reduction savings as a result of the PPAs (Vineyard Wind Brief at 7).

4. Companies

The Companies assert that, over the term of the contracts, an estimated $1.289 billion in net benefits will accrue to electric ratepayers when accounting for the projected levelized nominal contract costs and the projected levelized nominal benefits (Companies Brief at 20). Further, the Companies claim that when accounting for remuneration, estimated net benefits remain positive at an estimated $1.132 billion over the term of the contracts (Companies Brief at 20). Finally, the Companies argue that the proposed PPAs will exert downward pressure on prices for future Section 83C offshore wind projects (Companies Brief at 20-21).

B. Analysis and Findings

As described in Section V, above, the Companies retained a consultant to evaluate the costs and benefits of the proposals received in response to the offshore wind RFP to develop net benefits estimates (Exh. JU-4, at 3). The consultant employed a computer model to forecast the value of energy and environmental attributes under the Section 83C base case for each proposal and for several portfolio cases (Exh. JU-4, at 9). These forecasts form the basis for the Evaluation Team's assessment of the benefits associated with the individual proposals and the portfolio cases. Therefore, in order to determine whether the Companies' estimates of quantifiable net benefits are reasonable, the Department must evaluate whether the price forecast and the market revenue estimates derived from the forecast are reasonable. See D.P.U. 10-54, at 108. To do so, the Department must determine whether the forecast is a reasonable projection of energy and REC prices. See D.P.U. 10-54, at 108.

The Companies applied an energy market production cost and system expansion optimization model to develop their market forecast of energy and REC prices, including analysis of (1) demand requirements, (2) capacity expansion, (3) pricing for fuel, emissions, and RECs, (4) transmission topology, and (5) load forecasts (Exhs. JU-4, at 9-14).[35] As the Department has found previously, this type of analysis is valid for evaluating the benefits of energy from PPAs for renewable generation. D.P.U. 17-117 through D.P.U. 17-120, at 44; D.P.U. 12-30, at 61. In addition, this method is consistent with the approach described in the RFP and employed in previous reviews of long-term contracts (Exh. JU-2, at 8-12). D.P.U. 17-103, at 33-34; D.P.U. 17-117 through D.P.U. 17-120, at 44. Accordingly, because the energy and REC market price forecasts used by the Companies to evaluate the proposals rely upon well-established and appropriate methods, the Department finds that such forecasts result in reasonable market revenue estimates for these products.

In order for the Department to determine whether the PPAs are cost-effective over the life of the proposed contracts, the Department must compare the estimated costs and benefits

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35 The computer model contained assumptions about various energy market factors, including (1) generating unit capacity additions, (2) transmission, (3) load forecast; (4) installed capacity requirements, (5) RPS requirements, (6) CES and carbon emissions caps, (7) emissions allowance prices, (8) generating unit retirements, (9) generating unit operational characteristics, and (10) fuel prices (Exh. JU-4, at 9-14). The Department has reviewed the various assumptions underlying the model and finds them to be reasonable.

of the PPAs. D.P.U. 17-117 through D.P.U. 17-120, at 45; D.P.U. 13-146 through D.P.U. 13-149, at 40; D.P.U. 11-05 through D.P.U. 11-07, at 28, citing D.P.U. 10-54, at 79. The Companies estimate the cost of energy and RECs under each contract by multiplying the projected quantity of delivered products by the contractually specified schedule of energy and REC prices, taking into consideration that the PPAs provide for annual escalating energy prices over the contract terms (Exhs. JU-1, at 22; JU-4, at 6-7). Based on the forecasted market prices of energy and RECs and estimated production of the facilities, the Companies estimate that the total cost of the PPAs will be below the market value of energy and RECs over the term of the contracts by a value of $1.289 billion (nominal) (Exh. JU-1, at 31).

In order to determine whether a contract is a cost-effective mechanism for procuring reliable renewable energy on a long-term basis, the Department also considers whether additional qualitative benefits will accrue to the Companies' ratepayers over the term of each PPA. D.P.U. 17-117 through D.P.U. 17-120, at 46; D.P.U. 13-146 through D.P.U. 13-149, at 39. As described in Section V, above, a number of qualitative benefits have been identified as accruing to ratepayers over the term of the proposed contracts, including benefits related to reliability, environmental impacts, employment, and economic development (Exh. JU-2, at 42-44). The Vineyard Wind proposal received the third highest qualitative score (Exh. JU-4, App. 1 at 21).[36]

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[36] As discussed in Section V, above, when accounting for the combined quantitative and qualitative score, the selected proposal ranked highest among all proposals (Exh. JU-4, App. 1, at 21).

Based on the discussion above, the Department finds that the Companies have demonstrated there are significant net benefits to ratepayers associated with PPAs (i.e., the Companies have shown that the Project will produce benefits to ratepayers that will exceed the costs of the contracts) (Exh. JU-1, at 31). In particular, the Companies have shown that the aggregate cost for energy and RECs under the PPAs are less than the forecasted market prices for energy and RECs by $1.289 billion (nominal) over the life of the contracts (Exh. JU-1, at 20, 31). The Department further finds that significant qualitative benefits will flow to ratepayers under the PPAs in the areas of reliability, mitigated environmental impacts, and economic development (Exh. JU-1, at 29-30, 32-33). Accordingly, after taking into consideration both the potential costs and benefits of the PPAs, the Department finds that the contracts are a cost-effective mechanism for procuring reliable[37] renewable energy on a long-term basis. St. 2008, c. 169, § 83C; 220 CMR 23.05(1).

VIII. PUBLIC INTEREST

A. Introduction

In Section VII, above, the Department found that the proposed contracts will be cost effective to ratepayers over their terms. However, a finding that the PPAs will be cost-effective does not necessarily mean that the proposed contracts are in the best interest of ratepayers and, therefore, in the public interest. See, e.g., D.P.U. 17-117 through D.P.U. 17-120, at 50; D.P.U. 13-146 through D.P.U. 13-149, at 57; D.P.U. 12-98, at 24; D.P.U. 11-05 through D.P.U. 11-07, at 39, citing D.P.U. 10-54, at 65. The Department

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[37] In Section VI, above, the Department found that, pursuant to Section 83C and 220 CMR 23.05 (1)(a)(1), the Project will provide enhanced electricity reliability.

reviews the public interest of long-term contracts for renewable energy based on the specific facts and circumstances relevant to each proposed contract. D.P.U. 17-117 through D.P.U. 17-120, at 50; D.P.U. 13-146 through D.P.U. 13-149, at 57; D.P.U. 12-98, at 24; D.P.U. 11-05 through D.P.U. 11-07, at 39; D.P.U. 10-54, at 65-66.

Here, as part of our evaluation of whether the PPAs are in the public interest, the Department will consider whether the pricing terms in the contracts are reasonable for offshore wind energy generation resources. See D.P.U. 17-117 through D.P.U. 17-120, at 50; D.P.U. 13-146 through D.P.U. 13-149, at 57; D.P.U. 12-98, at 25; D.P.U. 11-05 through D.P.U. 11-07, at 39; D.P.U. 10-54, at 217. The Department will also consider whether other, lower cost Section 83C-eligible resources were available to the Companies and, if so, whether the benefits of the proposed contracts justify any higher costs. See D.P.U. 17-117 through D.P.U. 17-120, at 50; D.P.U. 13-146 through D.P.U. 13-149, at 57; D.P.U. 11-05 through D.P.U. 11-07, at 39; D.P.U. 10-54, at 217.

In addition, to determine whether the PPAs are in the public interest, the Department will assess the reasonableness of the Companies' decision to enter into contracts of the given size. See, e.g., D.P.U. 17-117 through D.P.U. 17-120, at 50-51; D.P.U. 13-146 through D.P.U. 13-149, at 57-58; D.P.U. 12-98, at 25; D.P.U. 11-05 through D.P.U. 11-07, at 39; D.P.U. 10-54, at 217. Finally, the Department will consider whether the bill impacts of the PPAs are reasonable in light of the benefits of the contracts. See, e.g., D.P.U. 17-117 through D.P.U. 17-120, at 50-51; D.P.U. 13-146 through D.P.U. 13-149, at 57-58; D.P.U. 12-98, at 25; D.P.U. 11-05 through D.P.U. 11-07, at 39; D.P.U. 10-54, at 217.

B. Positions of the Parties

1. Attorney General

The Attorney General contends that the Project is in the public interest because it meets the requirements of Section 83C and the pricing terms are favorable (Attorney General Brief at 9). In particular, the Attorney General contends that the PPAs are the result of an analysis of the appropriate method to procure offshore wind and argues that the pricing terms of the PPAs are reasonable when compared with (1) market analyses, (2) the costs of previous renewable energy procurements, and (3) other bids that participated in the RFP process (Attorney General Brief at 9). The Attorney General argues that the PPAs are below market and will enable the Companies to procure Class I renewable resources at one-third of the price from previous solicitations (Attorney General Brief at 7, citing Exhs. JU-1, at 31; JU-4, at 19; D.P.U. 10-54, at 14; Tr. 1, at 66). Moreover, the Attorney General argues that the Vineyard Wind bid has a levelized positive net direct benefit of $14.70 per MWh and had the highest rank of all proposals submitted in response to the RFP (Attorney General Brief at 8, citing Exh. JU-4, at 17, 20-21). Finally, while the Attorney General recognizes that there will be bill impacts as a result of the PPAs, she acknowledges that the procurement is required by statute and that the Project will ultimately benefit ratepayers (Attorney General Brief at 9).

2. DOER

DOER maintains the PPAs are in the public interest and that the Department should approve them because they are a low-cost and reasonable method to procure renewable energy (DOER Brief at 5). In particular, DOER contends that the Companies will purchase energy and RECs at 6.5 cents per kWh under the PPAs, as compared with a projected market cost for the same products at 7.9 cents per kWh (i.e., a 1.4 cents per kWh direct savings) (DOER Brief at 5). In addition, DOER argues that ratepayers will experience a total of 3.5 cents per kWh in direct and indirect benefits as a result of the PPAs (DOER Brief at 5). Further, DOER argues that the PPAs will provide long-term price certainty for 20 years (DOER Brief at 5).

DOER maintains that the evaluation of bids was fair, transparent, and objective and notes that no party objected to the selection of Vineyard Wind (DOER Brief at 8, 10-11, citing Exh. IE Report at 41). DOER argues that the bid associated with the Project ranked the highest of all 27 responses to the RFP (DOER Brief at 4-5, 8). Further, DOER asserts that the Project was the lowest cost compared with all other proposals (DOER Brief at 9-10).

Finally, DOER maintains that the PPAs will result in reasonable bill impacts for customers (DOER Brief at 4). In particular, because the PPAs will provide 1.4 cents per KWh of direct savings, DOER argues that ratepayers will experience bill reductions (as compared to an at market procurement of resources) over the life of the PPAs (DOER Brief at 11-12).

3. Companies

The Companies argue that the PPAs are in the public interest because the RFP process was robust, highly competitive, and resulted in the selection of the most competitively priced project (Companies Brief at 16).

C. Analysis and Findings

As described above, in order to determine whether the PPAs are in the public interest, the Department will consider: (1) whether the pricing terms in the contracts are reasonable for offshore wind generation resources; (2) whether other, lower cost Section 83C-eligible resources were available to the Companies and, if so, whether the benefits of the proposed contracts justify any higher costs; (3) the reasonableness of the Companies' decision to enter into contracts of the given size; and (4) whether the bill impacts of the contracts are reasonable in light of the benefits of the contracts. See, e.g., D.P.U. 17-117 through D.P.U. 17-120, at 50-51, 56-60; D.P.U. 13-146 through D.P.U. 13-149, at 57-58; D.P.U. 12-98, at 25; D.P.U. 12-30, at 167; D.P.U. 11-05 through D.P.U. 11-07, at 39; D.P.U. 10-54, at 217, 265, 274. No party disputes that the PPAs are in the public interest. The parties generally agree that the PPAs represent a reasonable method for procuring the renewable energy resource required by Section 83C (Attorney General Brief at 9; DOER Brief at 4; Companies Brief at 16). The parties further concur that the competitive solicitation resulted in PPAs that are low-cost, with reasonable prices (Attorney General Brief at 7, 9; DOER Brief at 5; Companies Brief at 19-20). Finally, the parties agree that the bill impacts of the proposed PPAs are reasonable (Attorney General Brief at 9; DOER Brief at 4, 11-12).

As described in Section V, above, the Companies procured the PPAs through a competitive solicitation process (Exh. JU-1, at 34). The Department has determined that a properly conducted competitive solicitation provides a direct comparison of the costs and benefits of alternative resources, as well as some assurance that the price is not too high for a given resource. D.P.U. 17-117 through D.P.U. 17-120, at 56; D.P.U. 13-146 through D.P.U. 13-149, at 58, citing D.P.U. 12-98, at 25, D.P.U. 11-05 through D.P.U. 11-07, at 39, citing D.P.U. 10-54, at 66-67. The Department has further found that a competitive bidding and qualification process provides an objective benchmark for analyzing the reasonableness of price. See D.P.U. 10-114, at 221, citing Bay State Gas Company, D.P.U. 09-30, at 228-229 (2009); Fitchburg Gas and Electric Light Company, d/b/a Unitil, D.P.U. 07-71, at 101 (2008); Boston Gas Company, d/b/a KeySpan Energy Delivery New England, D.T.E. 03-40, at 152 (2003).

In Section V, the Department found that the Companies conducted an open, fair, and transparent competitive solicitation that was consistent with the requirements of Section 83C and the method approved by the Department in D.P.U. 17-103. Through this solicitation process, the Companies entered into PPAs with the proposal that received the highest score and rank among all proposals evaluated (Exh. JU-4, at 17, 21). Relying on the objective benchmark provided by the properly conducted competitive solicitation process, the Department finds that the pricing terms in the PPAs are reasonable for offshore wind energy generation resources. See D.P.U. 17-117 through D.P.U. 17-120, at 50; D.P.U. 13-146 through D.P.U. 13-149, at 57; D.P.U. 12-98, at 25; D.P.U. 11-05 through D.P.U. 11-07, at 39; D.P.U. 10-54, at 217.

In addition, the Companies selected the proposal that scored highest on price factors (Exh. JU-4, at 23-25; Tr. 2, at 66). Therefore, the Department finds that there were no lower cost Section 83C-eligible resources available to the Companies. See D.P.U. 17-117 through D.P.U. 17-120, at 50; D.P.U. 13-146 through D.P.U. 13-149, at 57; D.P.U. 11-05 through D.P.U. 11-07, at 39; D.P.U. 10-54, at 217.

With regard to the reasonableness of the Companies' decision to enter into contracts of the given size, Section 83C requires the Companies to (1) jointly solicit proposals for offshore wind energy generation for no less than 400 MW of nameplate capacity not later than June 30, 2017 and (2) enter into cost-effective long-term contracts equal to approximately 1600 MW of aggregate nameplate capacity not later than June 30, 2027. St. 2008, c. 169, § 83C; 220 CMR 23.04(5). The Companies may consider proposals for more than 400 MW, and up to approximately 800 MW, but may select a proposal larger than 400 MW in a single solicitation only if a larger proposal is superior to other proposals and is likely to produce significantly more economic net benefits for ratepayers. D.P.U. 17-103, at 50.

The Companies, in conjunction with DOER, issued the RFP prior to the deadline established in Section 83C (Exh. JU-1, at 6). The Companies unanimously selected Vineyard Wind as the winning developer but were in disagreement as to which Vineyard Wind proposal should be selected (Exhs. JU-1, at 11; JU-6-A at 4; JU-6-B at 5; JU-6-C at 4).[38] Consistent with the procedure established in Section 83C when the distribution companies are

[38] As described in Section V, above, National Grid and Unitil supported the selection of the Vineyard Wind 800 MW GLL Project, while Eversource supported the selection of the smaller Vineyard Wind 400 MW GLL project (Exhs. JU-6-A at 3; JU-6-B at 5; JU-6-C at 4).

unable to reach agreement, DOER (in consultation with the Independent Evaluator) selected the Vineyard Wind 800 MW GLL Project as the winning bid (Exhs. JU-1, at 12; JU-7, at 2). DOER determined that selection of this Project was appropriate because (1) it was the top-ranking proposal at the conclusion of the Stage 3 quantitative evaluation as described in Section V, above; (2) it will produce significantly more economic net benefits for ratepayers relative to other proposals; and (3) it may exert greater downward pressure on prices of offshore wind energy generation projects in the future (Exhs. JU-1, at 31; JU-6-B at 3, 5; JU-6-C at 2; JU-7, at 2).

Consistent with D.P.U. 17-103, at 50, the Companies have demonstrated that the Project, which exceeds 400 MW of offshore wind energy generation, is superior to other proposals and produces significantly more economic net benefits to ratepayers (Exhs. JU-1, at 31; JU-6-B at 3, 5; JU-6-C at 2; JU-7, at 2). Accordingly, the Department finds that the Companies' decision to enter into PPAs for 800 MW of nameplate capacity was reasonable.

Finally, the Companies provided estimated bill impacts of the PPAs, based on the current market environment (Exhs. JU-1, at 46; JU-8). In particular, the Companies provided bill impacts for each rate class and for a range of different consumption levels within each rate class (Exh. JU-8). Based on the current market environment, the Companies project that the PPAs will result in overall net bill savings for ratepayers over the life of the contracts (Exh. JU-8). After review, the Department finds that the bill impacts of the PPAs are reasonable in light of the benefits of the contracts.

In conclusion, through the use of a fair, open and transparent competitive solicitation process, the Companies have demonstrated that (1) the pricing terms in the PPAs are reasonable for offshore wind energy generation resources and (2) there were no other lower-cost Section 83C-eligible resources available to the Companies. In addition, the Department finds that it was reasonable for the Companies to contract for 800 MW of offshore wind energy generation based on the competitiveness of the bid and the level of economic net benefit to ratepayers. Finally, the Department finds that the estimated bill impacts of the PPAs are reasonable in light of the benefits of the contracts. For these reasons, the Department finds that the PPAs are in the public interest.

IX. REMUNERATION

A. Introduction

Section 83C provides that an electric distribution company may receive remuneration up to 2.75 percent of the annual payments under a long-term contract, to compensate the company for accepting the financial obligation of the long-term contract. See also 220 CMR 23.07. Each electric distribution company proposes to collect annual remuneration equal to 2.75 percent of the annual payments under the PPAs (Exh. JU-1, at 34).

B. Positions of the Parties

1. Attorney General

The Attorney General argues that Section 83C does not require the Department to set the remuneration rate at any particular level; rather, the statute obligates the Department to set an appropriate remuneration level, if any, up to 2.75 percent based upon its review of the evidence presented (Attorney General Reply Brief at 2-4). The Attorney General maintains that the Companies bear the burden to support their remuneration request (Attorney General Brief at 11). The Attorney General emphasizes that the words "up to" in Section 83C specifically obligate the Companies to provide quantitative support for their proposed remuneration rate (Attorney General Reply Brief at 2-4). The Attorney General asserts that the Companies' inappropriately attempt to shift the burden of proof to the Department with their argument that the Department may establish a remuneration rate of less than 2.75 percent only upon a finding of extenuating circumstances (Attorney General Reply Brief at 3, citing Companies Brief at 15, 35-36, 41). The Attorney General further maintains that the Department should apply a "just and reasonable" standard to its review of the proposed remuneration rate (Attorney General Brief at 6-7; Attorney General Reply Brief at 5).

The Attorney General argues that the Companies have failed to meet their burden to support their 2.75 percent remuneration requests (Attorney General Brief at 9-11, 14-15). In this regard, the Attorney General asserts that the Companies have not attempted to quantify the cost of the financial obligation arising from the PPAs (Attorney General Brief at 9-10; Attorney General Reply Brief at 8-9). The Attorney General argues that the Companies have failed to show that they will incur any incremental obligation-related costs associated with the contracts because they are assured full and timely cost recovery through the long-term renewable contract adjustment ("LTRCA") (Attorney General Brief at 11-12). As support, the Attorney General maintains that there is no evidence that the Companies have incurred any cost recovery-risk with previous long-term renewable energy contracts (Attorney General

Reply Brief at 14). The Attorney General further argues that the Companies have failed to demonstrate that these contracts will negatively impact their returns on equity or credit quality and, in particular, have provided no evidence from credit rating agencies showing that the contracts will impair their credit ratings (Attorney General Brief at 14-15; Attorney General Reply Brief at 10).[39] Finally, the Attorney General argues that the Companies have failed to support their claim that the credit rating agencies view remuneration as integral to the Commonwealth's credit-supportive regulatory environment (Attorney General Brief at 15).

The Attorney General rejects the Companies' assertion that there is no existing or accepted method for quantifying the impact of the Companies' acceptance of the financial obligations of the PPAs (Attorney General Brief at 12-14). The Attorney General cites the Standard and Poor's ("S&P") imputed debt methodology as an appropriate and accepted approach for quantifying the financial obligations of a contract (Attorney General Brief at 12-14). According to the Attorney General, the S&P imputed debt methodology calculates the net present value of the contract capacity payments and then adjusts that value by a factor tied to the risk of cost recovery (Attorney General Brief at 12). The Attorney General maintains that because the Companies are assured full and timely recovery of contract costs in rates, the risk factor in this case is close to zero (Attorney General

[39] For example, the Attorney General asserts that there is no evidence the credit rating agencies have imputed debt to the Companies' balance sheets associated with Section 83 long-term contracts (Attorney General Brief at 15).

Brief at 12; Attorney General Reply Brief at 11). On this basis, the Attorney General argues that remuneration should be minimal, if any (Attorney General Brief at 12).

The Attorney General also challenges the validity of the Companies' attempt to link their remuneration requests to an analysis of the net benefits to ratepayers from the PPAs (Attorney General Brief at 16). The Attorney General argues that an analysis of ratepayer benefits is not relevant to the legislatively-prescribed standard for setting the remuneration rate (Attorney General Brief at 16-17; Attorney General Reply Brief at 8).

The Attorney General agrees with the Companies' assertion that credit ratings take into consideration a broad range of regulatory and business considerations but she argues that the Companies have offered no evidence that remuneration, specifically, is critical to the rating agencies' assessment of the Commonwealth's supportive regulatory environment (Attorney General Brief at 15). In support of this position, the Attorney General maintains that the Companies have offered no evidence to suggest that the statutory reduction in the remuneration rate from 4.00 percent in Section 83 to 2.75 percent in St. 2008, c. 169, § 83A ("Section 83A") affected the credit rating agencies' assessment of the Commonwealth's regulatory environment (Attorney General Brief at 14-15).

2. CLF

CLF argues that the Companies have not met their burden to support their request for a remuneration rate equal to 2.75 percent (CLF Brief at 5, 8). CLF cites the downward trend in the prescribed remuneration rate (i.e., from 4.0 percent in Section 83 to 2.75 percent in Section 83A), as indicative that the Legislature intended the remuneration rate to be lower than 2.75 percent for Section 83C contracts (CLF Brief at 8). CLF also supports the use of the S&P imputed debt methodology as a reasonable proxy for the financial obligations that the Companies will incur with these contracts (CLF Brief at 10).

CLF maintains that the Companies' argument that the remuneration rate should be linked to an analysis of the net benefits to ratepayers of the contracts is flawed (CLF Brief at 11). In particular, CLF argues the Companies are required to enter into the long-term contracts pursuant to Section 83C, and that the costs of the contracts will be borne by ratepayers and not be a detriment to the Companies' balance sheets (CLF Brief at 11).

CLF challenges the Companies' position that they have the right to terminate the contracts if the Department approves a remuneration rate below 2.75 percent (CLF Brief at 14-18). In this regard, CLF argues that Section 83C specifically allows the Companies to reject a proposal if it places an unreasonable burden on their balance sheets but does not allow the Companies to reject a contract based on the Department-approved remuneration rate (CLF Brief at 15-16). CLF maintains that the Department affirmed this position when approving the timetable and method of solicitation in Long-Term Contracts for Clean Energy Request for Proposals, D.P.U. 17-32, at 91 (2017) (CLF Brief at 16-18).

3. PowerOptions

PowerOptions argues that the Companies have not met their burden to support their request for a remuneration rate equal to 2.75 percent (PowerOptions Reply Brief at 3). PowerOptions asserts that it is the Companies' responsibility to justify that 2.75 percent is the appropriate remuneration rate under Section 83C and not the Department's burden to justify a rate of less than 2.75 percent (PowerOptions Reply Brief at 8). In addition, PowerOptions maintains that the Companies' have failed to present any evidence to support their argument that the contracts will negatively impact short-term borrowing costs or reduce financial flexibility (PowerOptions Reply Brief at 4, citing Companies Brief at 47-48).

PowerOptions argues that the Companies' analysis of the net benefits to ratepayers attributable to the PPAs is not relevant to the legislatively-prescribed standard for setting the remuneration rate (PowerOptions Reply Brief at 6, n.2). PowerOptions argues that, while the contracts must provide benefits to customers to warrant Department approval under Section 83C, the Department must determine the appropriate remuneration level based solely on a consideration of the financial obligations imposed on the Companies by the contracts (PowerOptions Reply Brief at 6).

PowerOptions maintains that the reduction in the statutorily-mandated remuneration rate from 4.00 percent in Section 83 to 2.75 percent in Section 83A did not send negative signals to the financial markets and argues that, because this is the first time the Department has had the statutory discretion to set the remuneration rate at a level below 2.75 percent, doing so in this case will not by itself send a negative signal to the financial markets (PowerOptions Reply Brief at 4). In this regard, PowerOptions argues that the Department should not set the remuneration rate to zero, to avoid the signal that the Department is altering the regulatory construct supporting renewable energy development (PowerOptions Brief at 11). Instead, PowerOptions recommends that the Department should approve an initial remuneration rate and reduce that rate by 25 percent every five years because, as the number of years remaining on the contracts decreases, the total remaining financial commitment by the Companies also decreases (PowerOptions Brief at 11-12).

4. TEC

TEC argues that, pursuant to Section 83C, the Department should set the remuneration rate at a level that compensates the Companies for the actual costs attributable to the contracts (e.g., internal/external resources, working capital, any quantified cost of debt impacts) (TEC Brief at 3, 5). While TEC accepts the Companies' argument that the contracts will increase short-term debt requirements, TEC asserts that the Companies have failed to provide any supporting calculation to quantify this impact (TEC Brief at 4). Further, TEC maintains that the Companies have not identified any contract-related cost that will not be recoverable in rates (TEC Brief at 5). In addition, TEC argues that it is not appropriate to set remuneration based on estimated net benefits to ratepayers as the Companies suggest (TEC Brief at 3). Finally, to better align remuneration with the actual costs the Companies will incur associated with the financial obligations over the life of the contracts, TEC recommends that the Department adopt a mechanism to adjust the remuneration rate over the contract term based on interest rate changes that impact short-term financing costs (TEC Brief at 5).

5. Companies

The Companies argue that their proposal to apply a remuneration rate equal to 2.75 percent is consistent with the "strategic paradigm" for the Commonwealth reflected in the Green Communities Act (Companies Brief at 14-15, 27-31; Companies Reply Brief at 6, 34-35). In particular, the Companies argue that Section 83 is intended to support the development of incremental clean energy generation resources to help achieve the Commonwealth's GHG reduction goals (Companies Brief at 30). The Companies maintain that having strong credit enables them to enter into cost-effective contracts that facilitate the development of new clean energy resources (Companies Brief at 30-31). The Companies further maintain that their strong credit is secured through remuneration plus full and timely recovery of contract costs (Companies Brief at 30-31).

The Companies argue that remuneration provides the financial markets with an essential signal that the Commonwealth is committed to support clean energy generation for the long-term (Companies Brief at 27-31, 34, 55-57; Companies Reply Brief at 25). The Companies argue that regulatory consistency is of critical importance in credit rating agencies' assessment of a supportive regulatory environment (Companies Brief at 45-48). The Companies maintain that a departure from a 2.75 percent remuneration rate would send a negative signal to the financial markets that the Commonwealth's regulatory environment is weakening at the same time that the Companies' financial obligations related to long-term renewable energy contracts are growing (Companies Brief at 46; Companies Reply Brief at 29).

The Companies assert that the Legislature intended remuneration as a means to avoid potential harm to electric distribution company credit quality associated with long-term renewable energy contract obligations (Companies Brief at 41-45; Companies Reply Brief at 6-8). In this regard, the Companies argue that a one-notch decrease in credit rating can increase their borrowing costs between five and ten percent (Companies Reply Brief at 33, citing Tr. 1, at 34).[40]

In addition, the Companies assert that the financial obligations of the PPAs create considerable business and financial risks (Companies Brief at 41-45; Companies Reply Brief at 6-8). The Companies argue that the Legislature has consistently recognized that they are entitled to recover remuneration to compensate them for assuming financial obligations of long-term renewable energy contracts (Companies Brief at 27, 30-31). The Companies maintain that the Section 83C contracts represent a significant increase in the magnitude of their purchase commitments and the cumulative effect of these long-term obligations could ultimately have an adverse impact on their financial positions (Companies Brief at 29-31).

The Companies also cite contract cost recovery risk as a factor supporting their remuneration request (Companies Brief at 47-48). The Companies claim that (1) market-price risk exposure and (2) timing differences between net payments under the PPAs and the collection of contract costs from ratepayers, create working capital requirements that will require them to increase short-term borrowing (Companies Brief at 48, citing Exh. ES-RBH-1, at 48). The Companies further argue that cash flow will be an important consideration for investors when the Companies begin to incur financial obligations under the PPAs (Companies Brief at 48-49; Companies Reply Brief at 23, 29).

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40 For example, the Companies assert that it would cost ratepayers an additional $300 million in financing costs if Eversource's cost of debt increased by five percent (Companies Brief at 33).

The Companies argue that Section 83C provides the Department with discretion to determine the level of remuneration that is appropriate to compensate the Companies for the financial obligations and other risks associated with the PPAs (Companies Brief at 31, 36-39). The Companies maintain, however, that there are no extenuating circumstances sufficient to warrant a remuneration level below 2.75 percent in these cases (Companies Brief at 57).

The Companies disagree with intervenors' arguments that the words "up to" in Section 83C mandate a quantitative approach to determining remuneration level (Companies Reply Brief at 18, citing Attorney General Brief at 11). In particular, the Companies reject intervenors' arguments that Section 83C requires them to demonstrate that they experience quantified contract cost-recovery risk in order to qualify for remuneration (Companies Reply Brief at 5, 25-27, citing Attorney General Brief at 12). Further, the Companies reject the Attorney General's claim that there is a single best method for determining the financial obligation incurred by the Companies under the PPAs for the purpose of setting the remuneration rate (Companies Brief at 36, 39-40, citing Attorney General Brief at 17-28). The Companies argue that there are a number of potentially relevant considerations for determining financial obligation (Companies Brief at 43).

In this regard, the Companies argue that there is no basis for the Department to rely on S&P's imputed debt methodology to set a remuneration rate, as suggested by the Attorney General (Companies Reply Brief at 24-25, 27-32, citing Attorney General Brief at 12). The Companies maintain that it is not appropriate for the Attorney General to substitute her judgment for S&P's in determining whether and how to apply the imputed debt methodology to the specific circumstances of the PPAs (Companies Reply Brief at 15, 21-22, 30-31). Further, the Companies challenge the Attorney General's assertion that the S&P imputed debt methodology is the most accepted method by which the credit rating agencies quantify the financial obligations associated with long-term contracts (Companies Reply Brief at 27-29, citing Attorney General Brief at 12). The Companies assert that the two other major credit rating agencies (i.e., Moody's and Fitch Group) do not use the S&P imputed debt methodology and that S&P, itself, does not consider its imputed debt analysis to be an established methodology (Companies Reply Brief at 27-28, citing Tr. 2, at 292).

Finally, the Companies argue that an analysis of ratepayer net benefits associated with the contracts provides quantitative support for their remuneration request (Companies Reply Brief at 35-36). The Companies maintain that their strong balance sheets and credit ratings enable them to enter into highly cost-effective contracts, even with 2.75 percent annual remuneration. In this regard, the Companies argue that the Department could set the remuneration rate as high as 12.75 percent and the PPAs would still be cost-effective (Companies Reply Brief at 35-36).

C. Analysis and Findings

Section 83C provides for annual remuneration up to 2.75 percent of the annual payments under the contract to compensate the electric distribution company for "accepting the financial obligation of the long-term contract." See also, 220 CMR 23.07. The Companies propose to collect remuneration of 2.75 percent of the annual payments under the

PPAs, arguing that this level of remuneration is appropriate and necessary to support the development of the clean energy generation resources required to achieve the Commonwealth's GHG reduction goals (Exh. JU-1, at 34; Companies Brief at 6). The Attorney General and other intervenors maintain, however, that the Companies have failed to meet their burden to demonstrate that remuneration of 2.75 percent is reasonable (see, e.g., Attorney General Brief at 14; CLF Brief at 5; PowerOptions Brief at 10; TEC Brief at 2).

These cases are the first instance where the Department has been required to determine the appropriate level of remuneration to compensate a company for accepting the financial obligation of a long-term contract. In contrast to the Department's prior review of long-term renewable energy contracts that involved the establishment of remuneration "equal to" a certain amount (i.e., four percent under Section 83 and 2.75 percent under Section 83A),[41] the language of Section 83C provides for annual remuneration of "up to 2.75 percent" of the annual contract payments. St. 2008, c. 169, § 83C; 220 CMR 23.07.

The Companies have the burden to demonstrate that their request for remuneration is appropriate and in the public interest. However, other than establishing a cap of 2.75 percent, Section 83C is silent with regard to the factors the Department should weigh when determining the appropriate level of remuneration. Accordingly, the Department must

41 For example, in D.P.U. 10-54, at 316-317, the Department found that Section 83 clearly provided an annual remuneration equal to four percent of the annual payments under the contract at issue and, under the rules of statutory construction, the Department had no discretion to depart from this amount. In D.P.U. 17-117 through D.P.U. 17-120, at 63, the Department made a similar finding with respect to the remuneration required under Section 83A.

exercise its judgment to determine the level of remuneration appropriate to compensate the Companies for accepting the financial obligation of the long-term contracts in these cases.[42] For the reasons discussed below, the Department finds that a remuneration rate of 2.75 percent is appropriate to compensate the Companies for accepting the financial obligation of the PPAs in these cases.

Section 83 of the Green Communities Act outlines a clear policy commitment to the development of clean energy generation resources in Massachusetts. The regulatory framework embedded throughout Section 83 (i.e., Section 83A, Section 83C, and Section 83D) establishes remuneration as a means to compensate the electric distribution companies for accepting the financial obligations of long-term renewable energy contracts. Remuneration, plus ratemaking mechanisms addressing the recovery of contract costs, ensures that the Companies are able to maintain strong credit ratings given the financial obligations and risks related to long-term renewable energy contracts. The Companies'

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42 See Alliance to Protect Nantucket Sound v. Energy Facilities Siting Bd., 457 Mass. 663, 682 (2010) (agency interpretation of a statute it is charged with enforcing entitled to deference where statutory language is unclear) (citing Alliance to Protect Nantucket Sound v. Energy Facilities Siting Bd., 448 Mass. 45, 50-51 n.6 (2006) ("[T]he substantial deference owed to an agency's interpretation of a statute it is charged to enforce includes approving an interpretation of statutory language that may be read in two ways") and Town of Middleborough v. Hous. Appeals Comm., 449 Mass. 514, 523 (2007) ("Where the statutory language is not without ambiguity . . . our deference to the agency's interpretation of the governing statute is highest")); DiCicco v. Dep't of Envtl. Prot., 64 Mass. App. Ct. 423, 427-428 (2005) (agency had discretion to resolve enforcement action with a consent order where statute did not provide a mandatory or definite standard for enforcement actions); see also Attorney General v. Dep't of Pub. Utils., 392 Mass. 262, 268 (1984) ("Where the result of employing a specific methodology in rate setting is not impermissible, the choice of the methodology is a matter committed to agency discretion . . . .").

strong credit ratings, in turn, directly support project financing of offshore wind energy generation resources.

The Companies have established that regulatory consistency is of critical importance in the rating agencies' assessment of each company's credit rating and that decisions about remuneration provide the financial markets with important signals about the regulatory commitment to support clean energy generation over the long term (Exhs. JU-1, at 36-43; ES-JMM-1, at 14-15). In prior long-term renewable energy contract proceedings under Section 83 and Section 83A, regulatory consistency with respect to remuneration was not a concern because the required remuneration percentages were fixed by statute. See D.P.U. 17-117 through D.P.U. 17-120, at 63; D.P.U. 10-54, at 316-317. However, for the first time in these cases, the Department is required to apply its discretion to determine an appropriate remuneration rate under Section 83C.

In the exercise of our discretion, the Department is mindful that establishing a remuneration rate below 2.75 percent could send a negative signal to the financial markets and credit rating agencies regarding regulatory consistency in our review of long-term renewable energy contracts. Although permitted by Section 83C, altering the existing regulatory framework for remuneration for the first time in these cases could affect the rating agencies' perception of the stability of the regulatory environment in Massachusetts (Exhs. JU-1, at 36-43; ES-JMM-1, at 14-15). Given the magnitude of the obligations created by these PPAs, such alteration could negatively impact the Companies' credit ratings and result in increased costs that would ultimately be passed on to ratepayers (Exhs. JU-1, at 36-43; ES-JMM-1 at 6).

The Department has reviewed the financial obligation to the Companies under the PPAs (See Exh. JU-1, at 36-43). Based on that review, and in consideration of the importance of regulatory consistency, as addressed above, the Department finds that the Companies' request for annual remuneration of 2.75 percent of the annual payments under the PPAs is reasonable and in the public interest.

In reaching the above determination, the Department has relied on qualitative factors, as the record lacks sufficient, reliable quantitative analysis to set a remuneration rate.[43] There are a number of potentially relevant considerations for determining financial obligation. And, contrary to the assertions of the Attorney General and other intervenors, Section 83C does not require the Companies to demonstrate that they experience a quantified level of risk from the PPAs in order to qualify for remuneration.[44] Nonetheless, the Department expects that the Companies will fully support all future remuneration requests with both quantitative

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43 The Companies provided a quantitative analysis of the net benefits that will accrue to ratepayers under these PPAs as support for their proposed remuneration rate (Companies Reply Brief at 35-36). However, as explained below, the Department finds that this analysis is not relevant for determining the financial obligation to an electric distribution company of a long-term contract under Section 83C.

44 More specifically, Section 83 does not require an electric distribution company to demonstrate that it incurs incremental risk associated with entering into a long-term contract to support a certain remuneration rate, nor does it link remuneration to any specific quantitative analysis that attempts to estimate the financial burden an electric distribution company may incur under a long-term contract.

and qualitative analyses that link the requested remuneration level to the specific risks and/or financial burden that the Companies will incur associated with the PPAs.

As a method for quantifying the financial obligation incurred by the Companies related to the PPAs, the Attorney General urges the Department to adopt the S&P imputed debt approach (Attorney General Brief at 13-14). The Department appreciates the Attorney General initiative in recommending a quantitative method to estimate the financial obligation related to the PPAs. However, imputed debt is just one element of a broader credit assessment (Tr. 2, at 344, 349-351). In addition, S&P has not previously applied the imputed debt approach to long-term renewable energy contracts procured under Section 83 and Section 83A (Tr. 2, at 369-370). The Department is not persuaded that use of the S&P imputed debt approach is appropriate to quantify the risk associated with long-term contracts when S&P itself has not done so or indicated that it will do so in the future[45] (Exh. AG 1-1; Tr. 2, at 300, 303, 309-312, 315, 369-371).

The Department recognizes that the Companies' status as credit worthy counterparties has allowed them to enter into highly cost-effective PPAs to facilitate the development of renewable energy resources under Section 83C. The Companies cite their quantitative analysis of the net benefits that will accrue to ratepayers under these PPAs as support for the reasonableness of the proposed remuneration rate and suggest that the cost-effectiveness of these contracts could support a much higher level of remuneration (Companies Brief

[45] In addition, there is no evidence to support the Attorney General's assertion that, if S&P employed an imputed debt approach, it would estimate a risk factor of close to zero (Tr. 2, at 320-321, 343).

at 51-54; Companies Reply Brief at 35-36). As discussed in Section VII, above, a favorable analysis of net benefits is essential for contract approval. However, the Department did not consider the absolute level of projected net benefits to ratepayers as a factor in determining an appropriate remuneration rate. The level of net benefit to ratepayers is not relevant for determining the financial obligation to an electric distribution company of a long-term contract under Section 83C. Further, Section 83C does not link the level of remuneration to an estimate of a project's benefits to the Commonwealth or otherwise provide that remuneration is meant to reward the Companies for the level of ratepayer benefits achieved.

Finally, PowerOptions recommends that the Department reduce the allowed remuneration percentage every five years to recognize a reduced risk to the Companies over the 20-year contract term (PowerOptions Brief at 11). Similarly, TEC recommends that the Department adopt a mechanism to adjust the remuneration percentage at specified intervals over the contract term based on any interest rate changes that impact the Companies' cost of debt (TEC Brief at 5). The record in these cases contains insufficient evidence to support a finding that the financial obligation of the PPAs and the related risk to the Companies will change over the contract term. Therefore, the Department declines to adopt PowerOptions' and TEC's recommendations.

In conclusion, for the reasons discussed above, the Department finds that the Companies' request for annual remuneration of 2.75 percent of the annual payments under the PPAs is reasonable and in the public interest. Our findings here will ensure that (1) the Companies are adequately compensated for accepting the financial obligation of the long-term contracts and (2) ratepayers are not exposed to undue risk from regulatory uncertainty. The Department emphasizes that our findings here do not preclude us from determining that a lower remuneration rate may be appropriate in a future long-term contract proceeding.

Our findings here are intended to provide some guidance regarding the factors the Department will consider in future requests for remuneration. In particular, in future long-term contract proceedings where the level of remuneration is at issue, the Department expects that the Companies will provide both comprehensive qualitative and qualitative analyses[46] to support their remuneration requests. However, the appropriate level of remuneration is case-specific and it is necessary to understand how a long-term contract of a particular size and structure could affect each contracting electric distribution company. Therefore, the Department will not provide a comprehensive list of all factors we may consider regarding remuneration in a future long-term contract proceeding.

X. COST RECOVERY

A. Introduction

Section 83C provides that an electric distribution company shall be entitled to cost recovery of payments made under a long-term contract approved under this section. Section 83C and the Department's regulations at 220 CMR 23.06 provide that a distribution company may, after purchasing renewable energy, RECs, or both, (1) sell the energy to its basic service customers and retain RECs for the purpose of meeting its annual RPS requirements or (2) sell the energy into the wholesale electricity spot market, and sell the purchased RECs to

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[46] Such analyses should include both testimony and supporting exhibits.

minimize costs to ratepayers, provided that DOER has not notified the company that the RECs should be retained to reach emission reduction targets. If an electric distribution company chooses to sell the energy and/or RECs, the electric distribution company shall (1) calculate the net cost of payments made under the long-term PPAs against the proceeds obtained from the sale of energy and RECs and (2) credit or charge all distribution customers the difference between the contract payments and proceeds through a uniform, fully-reconciling factor. St. 2008, c. 169, § 83C; 220 CMR 23.06.

Each electric distribution company has a Department-approved tariff that addresses the recovery of costs related to the long-term renewable energy contracts approved pursuant to Section 83 and Section 83A.[47] Under these tariffs, the Companies compare the actual payments under the Section 83 and Section 83A contracts, less actual net proceeds received from the sale of energy into the wholesale electricity market and/or RECs, plus actual remuneration (i.e., 4.00 percent for Section 83 contracts and 2.75 percent for Section 83A contracts), with actual revenues billed to customers through a LTRCA factor (Exh. JU-1, at 45-46). Any over- or under-recovery is reconciled in the LTRCA factor applicable in the following year (Exh. JU-1, at 46).

The Companies propose to modify their LTRCA tariffs to include recovery of the following costs associated with long-term contracts procured pursuant to Section 83C:

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[47] The Companies' current LTCRA tariffs are as follows: (1) Unitil - M.D.P.U. No. 308; (2) National Grid - M.D.P.U. No. 1304; and (3) Eversource - M.D.P.U. No. 69. The National Grid tariff only addresses the recovery of costs under Section 83A.

(1) the net costs of the energy sold into the ISO-NE wholesale market; (2) the net costs of the RECs obtained under the long-term contracts; and (3) the remuneration associated with the electric distribution company's annual payments under the long-term contracts (i.e., 2.75 percent) (Exh. JU-1, at 45).[48,49] No party commented on this issue.

B. Analysis and Findings

The Companies propose to sell the renewable energy procured under the PPAs through the ISO-NE wholesale market and to credit or charge the difference between the wholesale market revenues and the contract costs to each company's distribution customers (Exh. JU-1, at 16). In addition, the Companies propose to use the RECs procured pursuant to the PPAs to satisfy the RPS and CES requirements associated with their basic service offerings (Exh. JU-1, at 16-17, 43-44). If RPS or CES obligations for Class I RECs fall below the aggregate level of Class I RECs already under contract, the Companies propose to sell excess RECs into the market and credit all distribution customers the difference between the PPA price and the sales price (Exh. JU-1, at 43-44). After review, the Department finds that the Companies' proposed treatment of energy and RECs to be purchased under the PPAs is consistent with Section 83C and 220 CMR 23.06.

48 The Companies seek approval of the following revised LTCRA tariffs: (1) Unitil - M.D.P.U. No. 317; (2) National Grid - M.D.P.U. No. 1361; and (3) Eversource - M.D.P.U. No. 69A.

49 Consistent with the operation of the current LTCRA tariffs, the Companies propose to calculate the net cost of energy and RECs based on the actual contract prices, projected market prices, and the estimated kWh generated and purchased under the contracts (Exh. JU-1, at 45).

Consistent with Section 83C(g), the Department finds that the Companies have appropriately allocated the Project's output based on total energy demand from all distribution customers (Exhs. JU-3-A at 6; JU-3-C at 6; JU-3-E at 6). Accordingly, each company's apportioned share is as follows: (1) Eversource - 52.85 percent; (2) National Grid - 46.16 percent; and (3) Unitil – 0.99 percent (Exhs. JU-3-A at 6; JU-3-C at 6; JU-3-E at 6).

Further, the Department finds that the Companies' proposed method to recover costs related to the PPAs is consistent with Section 83C and will result in just and reasonable rates pursuant to G.L. c. 164, § 94. Under the PPAs, the Companies will incur the same types of costs as those incurred for Section 83 and Section 83A contracts (Exh. JU-1, at 45). Therefore, the Department finds that it is appropriate for the Companies to amend their existing LTRCA tariffs to include the recovery of the costs associated with long-term contracts procured pursuant to Section 83C. Within seven days of the date of this Order, each company shall file a revised LTRCA tariff for effect June 1, 2019, consistent with the directives contained herein.[50]

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[50] In order to increase administrative efficiency, each company shall refer to the factor in its revised tariff as the "Long-Term Renewable Energy Contract Adjustment" or "LTRCA."

XI. OTHER ISSUES

A. Debt Refinancing and Contract Extension

1. Positions of the Parties

TEC argues that the Department should retain the flexibility to require the refinancing of debt associated with the Project if the relative spread between contract price and markets prices warrants such refinancing (TEC Brief at 6). TEC contends that, as currently structured, the PPAs lock ratepayers into a 20-year financial obligation that could ultimately be at a significant market price premium (TEC Brief at 6). TEC argues that by requiring debt refinancing, the Department could allow ratepayers to extend the deliveries of offshore wind, where appropriate, beyond the initial 20-year term and lower the cost for ratepayers by providing for Project debt to be amortized over a greater period of time (TEC Brief at 6).

The Companies argue that the Department must reject TEC's proposal as it is beyond Department's authority to require an unregulated generator not subject to its jurisdiction to refinance its debt (Companies Reply Brief at 54). In addition, the Companies argue that TEC's proposal is not supported by the clear language of Section 83C, was not specified in the RFP, and was not contemplated in contract negotiations (Companies Reply Brief at 55). Finally, the Companies argue that TEC's proposal would undermine bidder confidence in the current Section 83C procurement as well as future solicitations and introduce a degree of uncertainty in the investment markets, negatively affecting Vineyard Wind's ability to secure favorable financing terms (Companies Reply Brief at 54-56).

2. Analysis and Findings

TEC has offered no legal authority to support its proposal to restructure the PPAs to allow the Department to require refinancing of Project debt. TEC's proposal is not contemplated by the language of Section 83C. Further, the Department agrees with the Companies that the proposal, if allowed, would introduce a great degree of uncertainty into the financial markets and could jeopardize Vineyard Wind's ability to finance the Project.

The Department found in Section VIII, above, that the PPAs, as currently structured, are in the public interest. For the reasons discussed above, we decline to adopt TEC's proposal.

B. Required Capacity Supply Obligation

1. Positions of the Parties

PowerOptions and TEC asserts that the PPAs should be amended to require Vineyard Wind to take all commercially reasonable actions to obtain a capacity supply obligation ("CSO") in the ISO-NE forward capacity market ("FCM") for the Project each year over the contract term (PowerOptions Brief at 4; TEC Reply Brief at 1-3). PowerOptions argues that the PPAs should be structured to provide the most benefit to Massachusetts ratepayers and that, without such a requirement, the Project may not fully contribute to achieving the Commonwealth's GHG reduction goals (PowerOptions Brief at 4-7). To the extent that Vineyard Wind is allowed to withhold the Project's capacity from the wholesale market, PowerOptions and TEC argue that the Companies will be required to procure additional capacity (at ratepayer expense) to satisfy reliability requirements (PowerOptions Brief at 5-6;

TEC Reply Brief at 1-3). Finally, PowerOptions maintains that Vineyard Wind has indicated that it intends to seek a CSO and, therefore, it is not an unduly burdensome requirement for these contracts (PowerOptions Brief at 4).

Contrary to PowerOptions' and TEC's arguments, Vineyard Wind maintains that it is not necessary to amend the PPAs to require it to secure a CSO over the contract term (Vineyard Wind Reply Brief at 1-2). Vineyard Wind argues that it already has the financial incentive to pursue a CSO and notes that it has secured a CSO for the Project in a recent ISO-NE FCM auction[51] (Vineyard Wind Reply Brief at 2). Vineyard Wind argues that because the future FCM could change in unanticipated ways, a requirement to pursue a CSO would create an unreasonable burden over the term of the contract that could raise concern for Project lenders (Vineyard Wind Reply Brief at 1-3).

The Companies also argue that it is not necessary or appropriate to amend the PPAs to require Vineyard Wind to take all commercially reasonable actions to obtain a CSO (Companies Reply Brief at 49). The Companies argue that obtaining a CSO was neither identified as a requirement of the contracts in the RFP nor is it specified in Section 83C (Companies Reply Brief at 49). The Companies maintain that, absent a contract obligation, Vineyard Wind still has a sufficient financial incentive to bid Project capacity into the FCM (Companies Reply Brief at 51). Finally, the Companies assert that the PPAs require Vineyard Wind to participate in the FCM auction qualification process and that Vineyard

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[51] Vineyard Wind states that it has obtained a CSO in ISO-NE's Forward Capacity Auction No. 13 (Vineyard Wind Reply Brief at 2).

Wind has demonstrated that it is taking commercially reasonable actions to bid the Project into the FCM (Companies Reply Brief at 49-51).

2. Analysis and Findings

Section 83C and the RFP provide that the Companies are to procure energy and RECs from offshore wind resources. The PPAs incorporate this commercial structure by obligating Vineyard Wind to sell the energy and RECs produced by the Project to the Companies and allowing Vineyard Wind to retain any revenues it may secure by selling the capacity. Therefore, the Department finds that Vineyard Wind has a financial incentive to offer capacity into the wholesale market absent an explicit contract obligation to do so. Moreover, the Department finds that imposing a new contractual obligation related to obtaining a CSO exposes Vineyard Wind to potential new financing risks because the FCM may continue to change in unanticipated ways. For these reasons, the Department will not require the Companies and Vineyard Wind to amend the PPAs to require Vineyard Wind to take all commercially reasonable actions to obtain a CSO each year over the contract term.

C. Annual Reporting of Enforcement Activities

1. Positions of the Parties

PowerOptions contends that the Department should require the Companies to file an annual report describing any enforcement activities or other actions taken to ensure compliance with the PPAs (PowerOptions Brief at 12-13). PowerOptions maintains that these actions should include: (1) verification of Project output and billing; (2) collection of any delay damages; and (3) enforcing all other contract provisions (PowerOptions Brief at 13).

The Companies argue that any reporting requirements in excess of those they have already agreed to are unnecessary[52] (Companies Reply Brief at 52). In this regard, the Companies maintain that there is no language in Section 83C or the Department's regulations mandating the reporting sought by PowerOptions (Companies Reply Brief at 52). The Companies argue that this additional reporting would create administrative burdens and costs without providing any additional benefits to ratepayers (Companies Reply Brief at 53). Finally, the Companies argue that they will be required to present information regarding the PPAs and costs in the annual LTRCA filings (Companies Reply Brief at 52-53).

2. Analysis and Findings

The Companies will be required to provide information regarding Project output and costs as part of their annual cost recovery filings. The Department is not persuaded that the further reporting sought by PowerOptions will provide any benefits sufficient to justify the costs. Accordingly, the Department will not require the Companies to provide the annual contract enforcement reports sought by PowerOptions.

XII. RECOMMENDATIONS FOR FUTURE SOLICITATIONS

A. Introduction

The Attorney General and CLF recommend that the Department require several changes to the design and evaluation of future Section 83C solicitations. These parties argue that the changes are necessary in order to ensure that the RFP and bid evaluation process for

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[52] For example, the Companies will notify the Department of any exercise of critical milestone extension rights that impacts or amends the Project CODs (Companies Reply Brief at 52).

future Section 83C solicitations remains robust, transparent and competitive (see e.g., Attorney General Brief at 17-27; CLF Brief at 15-20). The recommended changes include the following: (1) transmission evaluation process improvements; (2) modifications to the bid scoring process; (3) modifications to the GWSA benefit valuation method; (4) clarification of the role of subject matter experts; and (5) verification of economic benefits.

DOER, the Companies, and Vineyard Wind dispute the necessity or appropriateness of several of these recommendations (DOER Reply Brief at 4-12; Companies Reply Brief at 43-64; Vineyard Wind Reply Brief at 1-3). In addition, DOER and the Companies argue that the Department should not make any specific changes to future solicitations as part of the instant contract review proceedings (DOER Reply Brief at 4-7; Companies Reply Brief at 44-45). Instead, DOER recommends that the Department allow the Companies, DOER, and the Attorney General to work collaboratively with other stakeholders to consider process improvements when drafting the RFP for the next Section 83C solicitation (DOER Reply Brief at 5).

B. Summary of Recommendations and Responses

1. Transmission Evaluation Process Improvements

The Attorney General recommends three changes to improve the ETN evaluation process in future solicitations (Attorney General Brief at 20-28). First, the Attorney General argues that the Evaluation Team should clearly identify the method it will use to evaluate ETN bids, including all information needed to perform the analysis (Attorney General Brief at 20-22). Second, the Attorney General argues that the Evaluation Team should calibrate the transmission qualitative scoring process to account for the size and type of different bids (Attorney General Brief at 24). Third, the Attorney General argues that the Evaluation Team should use a consistent method to estimate the cost to ratepayers of future transmission that is not captured in a bid (Attorney General Brief at 24-25).

Conversely, CLF argues that the Companies should not be permitted to include any ETN proposals in future Section 83C solicitations in order to avoid the added complexity and cost of evaluating ETN bids (CLF Brief at 18-20). In addition, CLF recommends that the Department, through its participation in New England States Committee on Electricity, explore the regionalization of the costs of offshore wind transmission (CLF Brief at 20-21).

The Companies do not address the substance of the Attorney General's or CLF's recommendations. Instead, the Companies argue that the appropriate venue to address the Attorney General's recommendations regarding the transmission evaluation process is the ongoing Section 83C RFP Steering Committee process (Companies Reply Brief at 57-59, 63-64).

2. Modifications to Bid Scoring Process

The Attorney General argues that the Evaluation Team should modify the qualitative scoring process to assign a dollar value to each qualitative score point prior to the receipt of bids (Attorney General Brief at 19). The Attorney General contends that this change would: (1) create a clear, consistent and transparent qualitative scoring approach; (2) create an explicit mechanism to value each qualitative score point; (3) send clear signals to bidders regarding the value of the qualitative score; (4) ensure project scoring is independent of the pool of bids; and (5) allow the Evaluation Team to explicitly weigh qualitative versus quantitative factors (Attorney General Brief at 19-20).

National Grid maintains that the Attorney General's recommendation warrants further discussion by the Evaluation Team during the development of the next Section 83C RFP (National Grid Supplement to Companies Reply Brief at 1, n.1). National Grid suggests that alternative changes to the qualitative scoring process may better address the Attorney General's concerns (National Grid Supplement to Distribution Company Reply Brief at 1, n.1, citing Exh. NG-TJB-1, at 2-4). Eversource and Unitil argue that the Attorney General's recommended change to the qualitative scoring process is overly simplistic and rigid, has not been fully vetted to determine its full impact, and could distort the impact of qualitative scores (Eversource and Unitil Supplement to Companies Reply Brief at 4, citing Exh. Eval-RB-1, at 7).

3. Modifications to GWSA Benefit Valuation Method

The Attorney General asserts that the GWSA metric used in the bid evaluation process should be changed because it does not accurately value the GWSA contributions of potential offshore wind energy projects (Attorney General Brief at 23). More specifically, the Attorney General argues that it is not necessary to subtract RECs when calculating the GWSA metric to avoid a double counting of GHG emissions reductions because the bid evaluation analysis already accounts for the impact of RECs (Attorney General Brief at 23-24).[53]

DOER contends that the GWSA benefit valuation method used by the Evaluation Team is consistent with method outlined in the RFP (DOER Reply Brief at 8-9). DOER argues that the Attorney General's recommended changes to the GWSA valuation method for future solicitations illustrate a fundamental misunderstanding of the method the Evaluation Team used (DOER Reply Brief at 9-11). In particular, DOER contends that the GWSA benefit calculation does not represent the total GWSA contribution to emissions reductions of a potential project but, instead, represents the contribution of those emissions reductions over and above emissions reductions accounted for through RPS and CES compliance (DOER Reply Brief at 9).

National Grid does not agree with the method currently used by the Evaluation Team to establish the dollar value of a proposal's net GWSA contribution (National Grid Supplement to Companies Reply Brief at 2). National Grid supports the Attorney General's recommendations (1) not to subtract RECs/ CECs from the GWSA benefit calculation and (2) for use of an economy-wide value of emissions reductions rather than an estimate of the cost to reduce power sector emissions to determine the economic value of each ton of GHGs reduced by a project (National Grid Supplement to Companies Reply Brief at 2-3, citing Exh. NG-TJB-1, at 6).

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53 The Attorney General acknowledges that the GWSA benefit calculation did not impact the selection of the Vineyard Wind Project in the instant solicitation (Exh. AG-DM-1, at 18).

Conversely, Eversource and Unitil contend that the Department should reject the Attorney General's recommendation to include RECs and CECs in the GWSA benefit calculation (Eversource and Unitil Supplement to Companies Reply Brief at 3). Instead, Eversource and Until support the method the Evaluation Team used to calculate the GWSA benefit in the instant solicitation, arguing that this method prevents a double counting of GWSA benefits that would inappropriately skew the evaluation of projects (Eversource and Unitil Supplement to Companies Reply Brief at 3).

4. Role of Subject Matter Experts

The Attorney General argues that, to avoid any appearance of a conflict of interest in future solicitations, the Department should require the Companies to designate separate internal Evaluation Team and bid team members, with no contact or information passing between the members of different teams outside of the established communication protocols (Attorney General Brief at 25-27). In addition, the Attorney General maintains that the actual role of the Companies' internal subject matter experts in the evaluation process is not transparent and, therefore, the Department should limit subject matter expert participation in the evaluation process to consulting with either the bidding team or the Evaluation Team and not allow consultation with both teams (Attorney General Brief at 26).

The Companies argue that the Department should not prohibit subject matter experts from consulting with both the Evaluation Team and the bid team (Companies Reply Brief at 60-62). The Companies assert that they rely on the specialized knowledge of their subject matter experts and it would be difficult to find a similar level of expertise in an independent third-party consultant (Companies Reply Brief at 62). The Companies argue that they have put into place several safeguards to ensure that their subject matter experts do not act as improper conduits for confidential information[54] (Companies Reply Brief at 61-62).

5. Verification of Economic Benefit Estimates

The Attorney General asserts that the Vineyard Wind RFP response did not provide sufficient detail regarding assumptions about local spending to support the estimated economic impacts (Attorney General Brief at 25). In addition, the Attorney General argues that the Evaluation Team did not attempt to complete any analysis to verify the estimated economic benefits (Attorney General Brief at 24-25). For future solicitations, the Attorney General recommends that all assumptions about local expenditures be made explicit in the bid and that bidders should commit to support any identified local spending if their bid is selected (Attorney General Brief at 25).

The Companies argue that the Vineyard Wind bid included appropriate estimates of the economic development and job creation attributable to the Project and that Vineyard Wind has committed to reporting annually on all economic benefit milestones achieved (Companies Reply Brief at 59-60). In addition, as part of the development of the next Section 83C solicitation, the Companies maintain that stakeholders are currently discussing a proposal to

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54 The Companies maintain that these safeguards include (1) limiting the number of subject matter experts, (2) publicly disclosing the names of subject matter experts, and (3) training and certifying each subject matter expert in proper standards of conduct (Companies Reply Brief at 61-62, n.18).

require bidders to provide additional support for any economic benefits attributed to a project (Companies Reply Brief at 60).

C. Discussion

On March 27, 2019, the Companies jointly filed a petition with the Department seeking approval of a proposed timetable and method for the second solicitation and execution of long-term contracts for offshore wind energy generation pursuant to Section 83C.[55] DOER represented that it would work collaboratively with the Companies, the Attorney General, and other stakeholders to consider process improvements when drafting the RFP for the second Section 83C solicitation (DOER Reply Brief at 5). The Department fully anticipates that the several of the recommendations described above were considered in the development of this second RFP. In addition, the Department has determined that a contract review proceeding is not the best forum to address the design and implementation of future RFPs. See e.g., D.P.U. 17-117 through D.P.U. 17-120, at 72-74. Instead, we find that the RFP drafting process (where time permits) or other non-adjudicatory proceeding is a more appropriate forum to consider process improvements, as it allows for significant stakeholder input.

For the reasons discussed above, the Department will not address any recommendations for future Section 83C solicitations in this Order. Nonetheless, the Department acknowledges the importance of stakeholder involvement in considering improvements to the solicitation and evaluation of future long-term contracts for renewable

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[55] This petition was docketed as D.P.U. 19-45.

energy. To the extent the Department determines that the process improvements raised in this proceeding were not fully considered in drafting the RFP for the second Section 83C solicitation, we will address any outstanding recommendations at a later date.

XIII. ORDER

Accordingly, after notice, hearing and due consideration, it is:

ORDERED: That the power purchase agreements between Massachusetts Electric Company and Nantucket Electric Company and Vineyard Wind LLC for offshore wind energy generation and renewable energy certificates filed on July 31, 2018, pursuant to St. 2008, c. 169, § 83C and 220 CMR 23.00, are APPROVED; and it is

FURTHER ORDERED: That the power purchase agreements between NSTAR Electric Company and Vineyard Wind LLC for offshore wind energy generation and renewable energy certificates filed on July 31, 2018, pursuant to St. 2008, c. 169, § 83C and 220 CMR 23.00, are APPROVED; and it is

FURTHER ORDERED: That the power purchase agreements between Fitchburg Gas and Electric Light Company and Vineyard Wind LLC for offshore wind energy generation and renewable energy certificates filed on July 31, 2018, pursuant to St. 2008, c. 169, § 83C and 220 CMR 23.00, are APPROVED; and it is

<u>FURTHER ORDERED</u>: That Massachusetts Electric Company and Nantucket Electric Company, NSTAR Electric Company, and Fitchburg Gas and Electric Light Company shall comply with all other directives contained in the Order.

By Order of the Department,

/s/
Matthew H. Nelson, Chair

/s/
Robert E. Hayden, Commissioner

/s/
Cecile M. Fraser, Commissioner

An appeal as to matters of law from any final decision, Order or ruling of the Commission may be taken to the Supreme Judicial Court by an aggrieved party in interest by the filing of a written petition praying that the Order of the Commission be modified or set aside in whole or in part. Such petition for appeal shall be filed with the Secretary of the Commission within twenty days after the date of service of the decision, order or ruling of the Commission, or within such further time as the Commission may allow upon request filed prior to the expiration of the twenty days after the date of service of said decision, order or ruling. Within ten days after such petition has been filed, the appealing party shall enter the appeal in the Supreme Judicial Court sitting in Suffolk County by filing a copy thereof with the Clerk of said Court. G.L. c. 25, § 5.