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For a thriving New England

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Massachusetts Department of Energy Resources
Massachusetts Office of the Attorney General
Fitchburg Gas & Electric Light Company d/b/a Unitil
Massachusetts Electric Company and Nantucket Electric Company d/b/a National Grid
NSTAR Electric Company and Western Massachusetts Electric Company d/b/a Eversource

Via electronic mail: marfp83C@gmail.com

Re: Solicitation of Stakeholder Comments Regarding the Offshore Wind RFP

Dear Soliciting Parties:

Conservation Law Foundation ("CLF") appreciates this opportunity to comment on the forthcoming offshore wind request for proposals ("RFP") pursuant to Section 83C of Chapter 169 of the Acts 2008, as amended by Chapter 188 of the Acts of 2016, *An Act to Promote Energy Diversity* ("Section 83C").

CLF is a nonprofit, member-supported advocacy organization that works to solve the environmental problems that threaten the people, natural resources, and communities of New England. CLF has a decades-long record of advocacy in support of ocean conservation and clean and efficient energy production in New England. CLF's advocates have deep expertise in renewable energy law and policy as well as mitigation of the environmental impacts of renewable energy development. CLF participated extensively in the legislative process giving rise to Section 83C.

The RFP will be the first-ever competitive solicitation for commercial-scale offshore wind in the United States, and undoubtedly will serve as a model for future solicitations of this valuable energy resource in New England and other regions. The RFP will also play a key role in achieving the greenhouse-gas-reduction requirements of the Global Warming Solutions Act of 2008 ("GWSA") as well as the Commonwealth's Renewable Portfolio Standard. Furthermore, a well-designed RFP has the capacity to cultivate stakeholder support and send the necessary market signals to kick-start a sustained and vibrant U.S. offshore wind industry, which in turn has the potential to generate continuing economic and environmental benefits for Massachusetts.

Therefore, it is critical that the RFP results in the fair and transparent selection and timely implementation of a commercial-scale project that brings clean energy to Massachusetts consumers as cost-effectively as possible while also minimizing adverse impacts to the ocean environment and ocean stakeholders. A successful, well-designed initial project is essential to catalyze the regional offshore wind market, meet Massachusetts' climate and clean energy mandates, and fulfill the intent of Section 83C; at the same time, an unsuccessful RFP (whether due to the failure of the soliciting parties[1] to timely approve a commercial-scale project, unacceptable project costs or delays that burden ratepayers, a resulting project that endangers marine wildlife or alienates stakeholders, or other reasons) could imperil future offshore wind development.

These overarching considerations inform CLF's responses to the *Issues for Stakeholder Comment* offered by the soliciting parties. The following specific comments respond to Questions 2–4, 6, 7, 11, & 12.

Question 2: Timetable for Solicitation; Procurement Schedule

CLF urges the soliciting parties to set a schedule for solicitation and procurement that ensures expeditious project development.

Timetable for Solicitation

CLF notes that there is a limited pool of potential bidders who are already well aware of the pending RFP and the requirements of Section 83C, and are thus well positioned to respond quickly upon the announcement of the RFP. Additionally, the fact that all project proponents will be proposing similar-in-kind offshore wind projects means that the bid evaluation process should proceed more swiftly than for the solicitation of clean energy under Section 83D of Chapter 169 of the Acts 2008, as amended by Chapter 188 of the Acts of 2016 ("Section 83D"). An expeditious solicitation process is in the interests of all stakeholders; it will reduce costs and risks, and allow project proponents to promptly respond to any regulatory or market developments.

Procurement Schedule

Section 83C allows the use of a staggered procurement schedule with multiple solicitations that together total at least 1600 megawatts (MW) of aggregate offshore wind capacity, with each solicitation occurring within 24 months of a previous solicitation. Should the RFP solicit less than the full 1600 MW of aggregate capacity, the soliciting parties should release with the RFP a proposed procurement schedule for the remaining capacity necessary to satisfy Section 83C. The

[1] This comment letter will refer generally to the addressees as the "soliciting parties."

proposed long-term procurement schedule should not be binding; the soliciting parties can, and should, adjust the proposed schedule and procurements as necessary over time to respond to evolving market conditions and technologies (e.g., should advancing technologies and decreasing costs render prudent a larger solicitation size than previously considered). However non-binding, a long-term procurement roadmap is in the interests of all stakeholders for the following reasons:

- A procurement roadmap will allow project proponents to prepare in advance for future solicitations, which will enhance competition and permit the solicitation process to go more smoothly, thereby reducing project costs.
- A procurement roadmap will indicate Massachusetts' long-term commitment to developing a robust regional offshore wind market, sending a valuable market signal to financiers, manufacturers, the workforce, and other supply chain participants. In the long-term, a robust market is expected to reduce project risks and costs.
- A procurement roadmap will be valuable to other states in the region that are considering involvement in offshore wind solicitations, including New York, Rhode Island, and Connecticut. Solicitations will be more efficient if they are coordinated within the region.
- A procurement roadmap will better enable offshore wind and transmission developers to coordinate project design and construction to minimize environmental impacts (e.g., through a shared transmission corridor).

Question 3: Size of Initial and Any Future Solicitations

CLF's priority is ensuring the successful development of a commercial-scale offshore wind project so as to set the stage for future ocean renewable energy development in the region. Thus, the initial solicitation in the RFP should be scaled to be *no smaller than* the minimum project size necessary to ensure robust competition among a limited pool of project proponents, capitalize on economies of scale, and catalyze a vibrant offshore wind market.

In any case, Section 83C mandates that any solicitation by the soliciting parties "shall seek proposals for no less than 400MW of aggregate nameplate capacity of offshore wind energy generation resources." A selection of multiple bids with individual project sizes of less than 400 MW would violate the clear terms of the statute, which expressly require that *each proposal* be for no less than 400 MW of capacity. Multiple small bids less than 400 MW would not be commercial-scale and would be insufficient to catalyze the regional market. CLF emphasizes that the intent of Section 83C was to solicit commercial-scale project proposals—not pilot project proposals.

At maximum, the initial solicitation should not be so large as to trigger reverse economies of scale or limit the pool of potential competitive bidders. Too large of a solicitation could

unnecessarily risk the successful completion of the project, when successful implementation of the first project is of paramount importance to all stakeholders. Additionally, we note that Section 83C includes a ratchet mechanism that requires each successive solicitation to be lower-cost than the prior solicitation. Multiple procurements will thus reduce costs, which disincentivizes the soliciting parties from scaling the initial solicitation too large. Staggered solicitations also give project proponents, and soliciting parties, more time to plan for coordinated efforts, such as shared transmission development.

Question 4: Analysis of Transmission Costs, Overruns

The RFP should clearly require project proponents to provide detailed information on all aspects of transmission and itemized costs such that bids are comparable. Details will allow the bid evaluation team and stakeholders to have greater confidence in the reasonableness of the proposals and the ability of the project proponents to implement the proposals.

Question 6: Ensuring "Cost Effective" Contracts

In considering responses to the RFP, the soliciting parties should interpret the term "cost effective" within the broader context of Chapter 188 of the Acts of 2016, *An Act to Promote Energy Diversity* ("the Act").

Section 83C requires projects to be "cost effective to electric ratepayers . . . over the term of the contract." Section 83C does not further define the term "cost effective," but the statutory context provides important indications of the General Court's intent. The Act mandates two separate clean energy solicitations: Section 83D calls for proposals for clean energy generation—including, e.g., hydroelectric generation and utility-scale wind generation, while Section 83C separately and specifically calls for proposals for offshore wind energy generation. Both Section 83D and Section 83C require projects to be "cost effective." The fact that the Act mandates these two separate solicitation processes despite the fact that all eligible 83C resources would also be eligible for the 83D procurement reflects the General Court's appreciation that offshore wind may be more costly—at least initially—than other forms of clean energy. Section 83C signals Massachusetts' commitment to developing the offshore wind market nonetheless, recognizing the considerable public benefits of commercial offshore wind development, including economic and environmental benefits. Therefore, the term "cost effective" as used in Section 83C should be applied within the context of offshore wind specifically; offshore wind project proposal costs should not be compared to the costs of other clean energy generation alternatives for the purposes of assessing a proposal's cost effectiveness. The aforementioned one-way cost ratchet for successive procurements will provide a backstop for long-term cost-effectiveness to ratepayers from offshore wind, to the extent that one is needed.

Within this broader context, the RFP should solicit sufficient details about project costs to enable the bid evaluation team to adequately compare and evaluate proposals, thus ensuring electric ratepayers are indeed supporting an efficient and achievable project.

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Question 7: Transmission Portion of the RFP

In general, CLF supports further exploration of shared/planned transmission solutions, which have the potential to reduce environmental impacts and reduce project costs. CLF recognizes, however, that the short timeframe for this RFP renders exploration of such solutions largely impractical.[2] Pursuing shared transmission in the context of this initial RFP could pose an unacceptable risk to timely project implementation.

In general, CLF encourages the soliciting parties to continue to explore, facilitate, and support transmission solutions that would reduce environmental impacts and costs. As discussed above, releasing a long-term procurement roadmap with the RFP would set the stage for further discussions of shared transmission solutions (*see* response to Question 2 *supra*).

Question 11: Evaluation of Pairing with Storage

Energy storage benefits should be separately described and itemized so that the bid evaluation team can adequately compare proposals. Project proponents should specify how they will be offering additional products into the market, share expected sale prices for any ancillary services, and detail the expected impact of that product on energy deliveries. In particular, project proponents should specify if and how products are expected to contribute to lowering energy or investment costs overall and/or during winter or other peak periods. Additionally, as relevant, project proponents should describe how energy storage projects contribute to meeting state policy goals related to energy storage.

Question 12: Mitigation of Environmental Impacts

CLF enthusiastically supports commercial-scale offshore wind as a clean energy resource to reduce greenhouse gas emissions and other air pollution, and facilitate achievement of the GWSA requirements. CLF is confident that any offshore wind project implemented under the RFP can be developed in a matter that adequately protects valuable marine and coastal resources and the stakeholders who depend on them.[3]

Specifically, the RFP should require project proponents to provide a thorough environmental characterization of the proposed project site, potential environmental impacts, and a detailed plan to avoid, minimize, and mitigate impacts to the marine ecosystem and ocean stakeholders during site characterization, construction, and operation. Given the endangered status of the North

[2] Section 83C requires the initial procurement to be issued by June 30, 2017.

[3] *See* 220 CMR 23.05(1)(a) (requiring that any long-term contracts for offshore wind energy must "[m]itigate any environmental impacts, where possible").

Atlantic right whale and its presence in the New England wind energy areas, preference should be given to proposals with strong protection measures for right whales.

Environmental Assessment and Mitigation Plan

The RFP should require project proponents to provide a preliminary environmental assessment of the project area, including wind turbine areas and transmission corridors, based on the best available scientific data and drawing from data and maps contained in the Massachusetts Ocean Plan;[4] the Rhode Island Ocean Special Area Management Plan ("SAMP");[5] the Northeast Ocean Plan;[6] relevant studies conducted by the Bureau of Ocean Energy Management ("BOEM") and the Massachusetts Clean Energy Center ("MassCEC");[7] and other relevant federal and state data sources, as well as any primary data gathered by the project proponent.

Of particular value are the comprehensive databases associated with the aforementioned ocean plans, including the Northeast Ocean Data Portal,[8] the Massachusetts Ocean Resource Information System,[9] and maps and data that informed the Rhode Island Ocean SAMP.[10] In addition, recent studies commissioned by MassCEC and BOEM, including the *Northeast Large Pelagic Survey Collaborative Aerial and Acoustic Surveys for Large Whales and Sea Turtles*[11] and *Abundance and Distribution of Seabirds off Southeastern Massachusetts, 2011-2015*,[12] provide detailed time-series data on the distribution and abundance of seabirds, marine mammals, and sea turtles in and around the Massachusetts and the Massachusetts/Rhode Island

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[4] *Available at* http://www.mass.gov/eea/waste-mgnt-recycling/coasts-and-oceans/mass-ocean-plan/2015-final-ocean-plan.html.

[5] *Available at* http://seagrant.gso.uri.edu/oceansamp/.

[6] *Available at* http://neoceanplanning.org/wp-content/uploads/2016/10/Northeast-Ocean-Plan_Full.pdf.

[7] *See, e.g.*, notes 11–12 *infra*.

[8] http://www.northeastoceandata.org/.

[9] http://www.mass.gov/eea/agencies/czm/program-areas/mapping-and-data-management/moris/.

[10] *Available at* http://www.narrbay.org/d_projects/oceansamp/.

[11] Kraus, S.D., S. Leiter, K. Stone, B. Wikgren, C. Mayo, P. Hughes, R. D. Kenney, C. W. Clark, A. N. Rice, B. Estabrook and J. Tielens. 2016. *Northeast Large Pelagic Survey Collaborative Aerial and Acoustic Surveys for Large Whales and Sea Turtles*. US Department of the Interior, Bureau of Ocean Energy Management, Sterling, Virginia. OCS Study BOEM 2016-054. 117 pp. + appendices.

[12] Veit, Richard, R., White, Timothy, P., S.A. Perkins, S. Curley. 2016. *Abundance and Distribution of Seabirds off Southeastern Massachusetts, 2011-2015*. U.S. Department of the Interior, Bureau of Ocean Energy Management, Sterling, Virginia. OCS Study BOEM 2016-067. 82 pp.

wind energy areas. Together, these data sources contain detailed and mapped information about the biological, physical, oceanographic, geological, and human-use characteristics of the northeast marine ecosystem. This data should be supplemented by any of the project proponent's own data collected through site assessment and characterization. Any relevant data gaps should be identified.

The RFP should also require project proponents to demonstrate how their project will comply with all relevant federal and state environmental laws and regulations.

North Atlantic Right Whales

The North Atlantic right whale is a critically endangered species with an estimated global population of approximately 500 individual animals, making the species one of the rarest large whales in the world, and the latest data indicate that the population is no longer increasing in abundance, but may be declining in number.[13] Significant aggregations of right whales have been observed in the Massachusetts and Massachusetts/Rhode Island wind energy areas. Concerns about potential impacts to the North Atlantic right whale population during offshore wind site assessment and construction and operation activities include vessel collisions, and harassment by noise generated from high-resolution geophysical surveying equipment and pile driving that may interrupt foraging and interfere with communication. More broadly, offshore wind development activity may result in displacement, over both the short and potentially long-term, of North Atlantic right whales into adjacent shipping lanes and other areas of suboptimal habitat. New research suggests that the chronic stress caused by the cumulative nature of these impacts, in combination with the other stressors faced by North Atlantic right whales along the U.S. east coast, may jeopardize the long-term health and reproductive output of the species.[14]

Given its endangered status and its observed distribution in the New England wind energy areas, precautionary protection measures are necessary for right whale protection. CLF recommends that the RFP specify that proposals with strong protection measures for right whales will be given preference in the bid evaluation process. Mitigation measures should be tailored to

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[13] *North Atlantic Whale Consortium 2015 Annual Report Card*. Report to the North Atlantic Right Whale Consortium, Nov. 2015, *available at* www.narwc.org/pdf/2015%20Report%20Card.pdf; Kraus SD, Kenney RD, Mayo C, McLellan WA, Moore MJ, and Nowacek DP (2016). *Letter submitted to the National Marine Fisheries Service (NMFS) Office of Protected Resources (OPR) in response to the NMFS OPR draft strategic plan*. Feb. 26, 2016; Atlantic Scientific Review Group (2016). *Letter submitted to Eileen Sobeck, Assistant Administrator for Fisheries, National Marine Fisheries Service.* Apr. 4, 2016.

[14] Rolland RM, Schick RS, Pettis HM, Knowlton AR, Hamilton PK, Clark JS, and Kraus SD (2016). Health of North Atlantic right whales *Eubalaena glacialis* over three decades: From individual health to demographic and population health trends. *Marine Ecology Progress Series*, 542, 265-282.

the specific project site and design, and be based on the best available data on right whales, including the aforementioned MassCEC and BOEM marine mammal survey study.[15] For the purposes of evaluating project proposals, an appropriate suite of mitigation measures should include:

- vessel speed restriction of 10 knots for all site characterization and construction vessels and support vessels operating in the wind energy area, and a speed restriction of 10 knots for all vessels transiting to and from the wind energy areas in areas identified as important habitat for North Atlantic right whales based on an independent review of the best available science;
- protected species observers on vessels to reduce incidence of vessel collision;
- selection of the least impactful noise-generating technology currently available, used in combination with noise attenuation and source level reduction technology;
- seasonal restrictions on sub-bottom profiling and pile driving to avoid co-occurrence of these activities with the presence of right whales;
- marine mammal exclusion zones of adequate size to protect against Level B harassment;
- real-time monitoring during sub-bottom profiling and pile driving, including a combination of shipboard protected species observers, aerial, and passive acoustic surveys; and
- visibility requirements for sub-bottom profiling and pile driving to ensure that right whales and other marine mammals can be sighted should they approach the site during sub-bottom profiling or pile driving activities.

Underwater Transmission Cables

The environmental impacts associated with the installation of underwater transmission cables include damage to seafloor habitat and marine life during the installation process, the associated impacts of noise during the installation process, and the impacts of the electro-magnetic field ("EMF") created by the cable on sensitive marine life including elasmobranchs (sharks, skates, and rays), sea turtles, marine mammals, and other species. BOEM has contracted a number of studies on the effects of EMF on marine species and there are additional studies underway.[16]

[15] *See* note 11 *supra*.

[16] *See* BOEM FACT SHEET: ENVIRONMENTAL STUDIES – ELECTROMAGNETIC FIELDS (EMF) (2016), *available at* https://www.boem.gov/OREP-Environmental-Studies-EMF-Fact-Sheet/.

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Impacts range among species and life stages and may include interference with feeding, orientation, navigation, and predator and prey detection.

Proposed projects should demonstrate consideration of EMF in project design including a discussion of cable configuration, current flow, voltage, burial depth, and cable sheathing and armoring. To the extent that there are significant noise impacts associated with cable installation, the project proponent should include mitigation measures to protect North Atlantic right whales and other marine mammals sensitive to sound. The project proponent should work with NOAA Fisheries, the New England Fishery Management Council, and fishermen to avoid important fish habitat areas. Project proponents should provide information that demonstrates that the route of any transmissions line is consistent with the following requirements: (1) Massachusetts Ocean Plan directives to avoid relevant special, sensitive, and unique marine and estuarine resources; (2) the Rhode Island Ocean SAMP directives to avoid areas of particular concern and areas for preservation; and (3) relevant federal statutes and regulations.

Stakeholder Identification and Outreach

Early and continuous engagement with stakeholders is key to project success. The RFP should require that project proponents identify all relevant stakeholders, including those who are active in the project area (e.g., commercial and recreational fishermen, shipping companies, recreational boaters, wildlife watchers, tribes, utilities, and others), those who live in adjacent communities, and any other interested parties, as well as any concerns raised by these stakeholders. Proposals should describe practical measures to mitigate any significant impacts to these stakeholders.

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Thank you for your consideration of these comments.

Respectfully submitted,

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