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Chairman Thomas Golden
Joint Committee on Telecommunication, Utilities and Energy
24 Beacon St.
Room 416
Boston, MA 02133

July 28, 2020

RE: Offshore Wind Energy Transmission under Section 21 of Chapter 227 of the Acts of 2018 (*An Act to Advance Clean Energy*)

Dear Chairman Barrett and Chairman Golden:

Thank you for your leadership and partnership in developing an offshore wind industry in Massachusetts. Since the passage of *An Act to Promote Energy Diversity* in 2016, Massachusetts has developed a template for competitively soliciting offshore wind proposals that has been replicated across the East Coast and yielded clean energy pricing that provides significant ratepayer benefits.

I am submitting this letter regarding the Department of Energy Resources' (DOER) authority granted under Section 21 of Chapter 227 of the Acts of 2018 ("An Act to Advance Clean Energy" or "Act") to require the Massachusetts distribution companies ("Distribution Companies" or "EDCs") to jointly and competitively solicit and procure proposals for offshore wind energy transmission.

Following a thorough investigation, DOER finds that the costs and risks of a solicitation for independent offshore wind energy transmission outweigh the potential benefits that could be captured by 1,600 MW of transmission capacity allowed under the Act, and therefore has decided not to require the Massachusetts EDCs to pursue such a solicitation at this time. This letter explains

the investigation DOER conducted to reach this decision and outlines DOER's recommendations for the next offshore wind solicitation and potential future coordination on regional offshore wind transmission. These recommendations revise DOER's 2019 *Offshore Wind Study*[1] recommendations for the size and timing of future offshore wind energy generation procurements.

I. Transmission Investigation Overview

In the *Offshore Wind Study* published in May 2019, DOER found that independent offshore wind energy transmission offered both potential benefits and risks and recommended conducting a technical conference to assess whether and/or how a solicitation for independent transmission should occur. On January 15, 2020, DOER issued a Request for Comment on Massachusetts Offshore Wind Transmission and Notice of Date for Technical Conference ("Notice") jointly with the Massachusetts Clean Energy Center ("MassCEC").[2] DOER and MassCEC reviewed written stakeholder comments submitted in response to the Notice and used the comments to guide preparations for the technical conference.

DOER and MassCEC hosted the technical conference on offshore wind transmission in Boston on March 3, 2020.[3] MassCEC hosted the morning session, which consisted of expert presentations regarding offshore wind transmission system design, ownership models, and technical considerations. During the afternoon session, DOER hosted a moderated discussion with parties having a potential interest in an independent offshore wind energy transmission solicitation, including offshore wind developers, transmission developers, the Massachusetts EDCs, and environmental stakeholders.

Following the technical conference, DOER issued a Second Request for Comment[4] on March 19, 2020, to allow stakeholders to respond to topics raised at the technical conference and in the first round of comments.

DOER is grateful to all the stakeholders who submitted written comments and participated in the technical conference for the detailed and thoughtful feedback regarding the benefits, costs, and risks of an independent offshore wind transmission solicitation.

II. Findings of Transmission Investigation

Based on this investigation, DOER finds that the costs and risks of conducting an independent offshore wind transmission solicitation outweigh the potential benefits.

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[1] Massachusetts Department of Energy Resources, *Offshore Wind Study*, May 2019. Available at: https://www.mass.gov/doc/offshore-wind-study/download.

[2] Massachusetts Department of Energy Resources & Massachusetts Clean Energy Center, "Request for Comment on Massachusetts Offshore Wind Transmission and Notice of Date for Technical Conference," January 15, 2020. Available at: https://www.mass.gov/doc/request-for-comment-and-notice-of-conference-on-massachusetts-offshore-wind-transmission/download

[3] Conference materials are available on DOER's *Offshore Wind Study* Webpage: https://www.mass.gov/service-details/offshore-wind-study

[4] Massachusetts Department of Energy Resources, "Massachusetts Offshore Wind Transmission: Second Request for Stakeholder Comment," March 19, 2020. Available at: https://www.mass.gov/files/documents/2020/03/19/Second_Request_for_Comment_Offshore_Transmission_031920.pdf

The Act limits the size of a potential independent offshore wind transmission solicitation to 1,600 MW and at this size, our investigation found that there would likely be similar benefits from reduced cabling and/or improved interconnection from a transmission solicitation alone as from a bundled solicitation for generation and transmission at the same capacity. There was significant stakeholder support for the potential benefits of a "networked" or "backbone" independent transmission approach at a larger capacity.[5] This type of initiative could be achieved more effectively at a larger scale of offshore wind build-out and with regional coordination among New England states, rather than through a single state procurement with limited size. A separate solicitation for 1,600 MW transmission capacity is too limiting to yield an offshore transmission grid that could be used as a platform for future offshore wind development for Massachusetts or the region. Additionally, undertaking a separate transmission solicitation would likely introduce certain risks such as: delaying upcoming offshore wind generation procurements; coordination issues between separate transmission and generation projects; and contracting and permitting hurdles that may increase costs and delay the successful development of future selected offshore wind projects.

Specifically, many stakeholders emphasized the need for long-term and large-scale planning for the transmission system in New England to accommodate a future expansion of offshore wind energy, including beyond the next 1,600 MW.[6] DOER agrees and recognizes the need for transmission upgrades and planning to accelerate clean energy goals. In April 2019, the New England States Committee on Electricity ("NESCOE") requested that ISO New England conduct an economic study regarding the impacts on the regional transmission system and wholesale market of increasing penetration of offshore wind resources and the report was released last month. Massachusetts has and will review the results of this study and other investigations into regional transmission upgrades. Massachusetts will work with other states and the ISO-New England to build on the regional study to assess cost-effective transmission upgrades that may be needed to accommodate offshore wind and other clean energy resources.

III. DOER Recommendations for Next Solicitation

DOER's investigation into independent offshore wind transmission generated stakeholder recommendations for future solicitations for offshore wind generation. In the 2019 *Offshore Wind Study*, DOER proposed continuing with a staggered schedule of generation solicitations, each for up to 800 MW of offshore wind generation to fulfill the 1,600 MW target from *An Act to Advance Clean Energy*. Based on the information gathered during this investigation into offshore wind transmission, DOER is revising its recommendations for the next offshore wind solicitation that it plans to present and discuss with the Request for Proposals ("RFP") drafting team. The process of drafting RFPs for offshore wind generation under Section 83C of Chapter 169 of the Acts of 2008, as inserted by Chapter 188 of the Acts of 2016 ("Section 83C") is a collaborative effort among the Massachusetts Distribution Companies, DOER, the Attorney General's Office, and an

[5] See First Round of Stakeholder Comments on Massachusetts Offshore Wind Transmission, received February 19, 2020 (https://www.mass.gov/doc/offshore-wind-transmission-stakeholder-comments-2-19-20/download) and Second Round of Stakeholder Comments on Massachusetts Offshore Wind Transmission, received April 22, 2020 (https://www.mass.gov/doc/offshore-wind-comments-transmission-second-round-comments-04-22-20/download)
[6] See stakeholder comments referenced in Footnote 5.

Independent Evaluator. DOER provides these recommendations now, while acknowledging that the decision to adopt or not adopt any or all of them would be made jointly by the RFP drafting team. Further, under Section 83C the Massachusetts Department of Public Utilities must review and approve the timetable and method of all future solicitations as contained in the jointly proposed RFP.

Based on stakeholder feedback and discussion during DOER's transmission investigation, DOER believes that potential benefits of 1,600 MW of independent transmission, including reducing cabling and using onshore interconnection points efficiently, can be captured by soliciting for a similar capacity of bundled generation and transmission. In the 2019 *Offshore Wind Study*, DOER originally recommended the next Section 83C solicitation be for up to 800 MW of generation. A larger solicitation for bids up to the full 1,600 MW currently authorized under the *Act to Advance Clean Energy*, however, would allow developers greater flexibility in project design in ways that could be beneficial to the Commonwealth. First, a larger solicitation would allow developers the option of using of high voltage direct current ("HVDC") cables, a technology which is preferable for transmitting larger volumes of energy over longer distances. Current HVDC technology for offshore wind can transmit up to 1,400 MW on a single cable; high voltage alternating current (HVAC) cables for offshore wind have 400 MW capacity. Second, a larger solicitation for up to 1,600 MW would also allow developers the option to interconnect onshore at the maximum capacity allowed by ISO New England (1,200 MW single contingency limit), which could help ensure the limited number of onshore interconnection points in Massachusetts are used to their maximum potential. In sum, a larger solicitation would give developers maximum flexibility to use transmission infrastructure efficiently, thereby helping ensure the Commonwealth receives the best possible suite of bids that minimize the environmental and socioeconomic impacts of siting offshore wind structures in the ocean and on land and achieve many of the potential benefits of the independent transmission solicitation without the added costs and risks. Increasing the size of the solicitation also provides flexibility to the Selection Team to select a project larger than 800 MW that shows the most effective use of interconnection points and cabling. DOER, in its role as provided by Section 83C, will recommend that the next offshore wind solicitation allow for bids up to 1,600 MW—the full target amount under the *Act to Advance Clean Energy*—while allowing bids of smaller capacity to evaluate the optimal project capacity that maximizes cabling and interconnection efficiency.

Regarding the timing of the next offshore wind generation solicitation, DOER further recommends that the RFP drafting team, consisting of DOER, the Distribution Companies, the Attorney General's Office and an Independent Evaluator, begin drafting the next RFP in 2020 and plan for selection of a project or projects in 2022. Many stakeholders emphasized the need for Massachusetts to continue with timely solicitations for offshore wind given the increasing pace of solicitations by neighboring states and the finite capacity of the current lease areas.[7] During DOER's transmission investigation, offshore wind developers did not express a need for extended time to develop proposals or create project portfolios.[8] Starting the next offshore wind solicitation in 2020 will also allow for incorporation of findings from ongoing transmission-related efforts like the ISO economic studies. DOER also recommends that this schedule include time for public comment on the draft RFP, allowing for stakeholders and potential bidders to provide feedback

[7] See stakeholder comments referenced in Footnote 5.
[8] See stakeholder comments referenced in Footnote 5.

and request clarity on bid requirements. Public comment on a proposed RFP will result in a refined bidding process and potentially result in bid proposals that better reflect the Commonwealth's policy goals.

DOER will also encourage the RFP drafting team to consider whether allowing contingent bids could offer benefits, for example by allowing developers to create cross-state portfolios that leverage economies of scale or other efficiencies. DOER will work with neighboring state agencies to evaluate the costs and benefits of coordinating on solicitation timing to enable contingent bids.

Additionally, DOER will work with the RFP drafting team to determine whether criteria regarding cabling and interconnection points should be evaluated as threshold criteria for bids in order to encourage efficient use of infrastructure by bidders. Finally, to gather data and better understand transmission costs for future solicitations and transmission planning efforts, DOER will encourage the RFP drafting team to consider mechanisms to benchmark or audit the transmission price component of bids for bundled transmission and generation in the next solicitation.

Sincerely,

Patrick C. Woodcock
Commissioner