SIEMENS Gamesa
RENEWABLE ENERGY

March 1, 2019

Eric Steltzer
Massachusetts Department of Energy Resources
100 Cambridge Street
Suite 1020
Boston, MA 02114

Re: DOER Request for Stakeholder Comment – Offshore Wind Additional Procurement Study

Dear Mr. Steltzer,

Please accept these comments on behalf of Siemens Gamesa Renewable Energy, Inc. (SGRE). Siemens Gamesa is the world's leading manufacturer of utility-scale offshore wind turbines. With a total capacity of approximately 11 gigawatts installed offshore and six times that amount of installed onshore capacity, in over 90 countries across 5 continents, SGRE has the longest track record of all wind turbine suppliers in the offshore industry. The Commonwealth of Massachusetts represents an important market to our future business operations and the Baker Administration has demonstrated substantial leadership in helping to bring the offshore wind energy industry to American shores.

SGRE applauds the efforts of the MA DOER in undertaking a considered approach to establishing a successful offshore wind energy industry in the Commonwealth.

Given SGRE's substantial experience with the development of new offshore wind markets, please consider the following suggestions to produce the most successful outcome for the development of a sustainable, long term market opportunity for the Commonwealth of Massachusetts:

Stakeholder Questions

3. Are additional OSW procurements for long-term Power Purchase Agreements that are above and beyond those authorized by Section 83C necessary to support the development of OSW?

b) Are there advantages or disadvantages in soliciting OSW in a stand-alone procurement – or could it compete in a broader renewable or clean energy procurement?

The establishment of a sustainable and robust supply chain requires two things: large initial volumes in the early years necessary to make the investment decision to establish facilities, and a steady and predictable pace of subsequent procurements to sustain the facilities. The offshore wind industry is currently in the initial stage of establishing the volume required for supply chain localization. It is more likely that significant supply chain investments will be made in the Commonwealth of Massachusetts if there is significant market volume certainty provided by additional offshore wind-specific procurements because of the potential to aggregate volumes for suppliers.

10. Is an additional 1600MW of solicitation(s) the appropriate target? Why or why not?

We are grateful the Commonwealth's vision in studying the benefits of an additional 1,600 MW of off shore wind, and we applaud the strong and demonstrated support that the Baker administration and legislature have shown for this emerging industry. Given the competitive landscape between states in the early days of the US offshore wind industry and the opportunity to secure a significant portion of the high-quality jobs this new industry will create, we hope that the Commonwealth continues to grow its ambitions on pace with other states in the region, even beyond this additional 1,6000 MW solicitation.

11. What are the advantages and disadvantages of requiring a coordinated OSW transmission network?

While the specifics of transmission development are outside the scope of SGRE's services, there is broad recognition that onshore transmission constraints and distance to new lease areas could create new obstacles as the installed capacity of offshore wind grows. Given the Commonwealth of Massachusetts' ambitious climate change and clean energy goals, SGRE believes that the Commonwealth must consider the need for potential transmission investments. Large transmission projects require substantial planning and execution timelines and the Commonwealth should take lessons learned from the onshore wind industry, whose growth is now being constrained in some areas by lack of transmission, and undertake a comprehensive planning effort to address these future challenges as it relates to offshore wind development.

13. What is the potential for advancement of technological improvements in offshore wind sector to affect pricing for any additional OSW procurement(s)?

Siemens Gamesa, as the world's leading manufacturer of offshore wind turbines, is very proud of its proven track record of reducing Levelized Cost of Energy (LCOE) through technology improvements. Our work to increase Annual Energy Production (AEP) and minimize Balance of Plant (BOP) and Operations and Maintenance (O&M) costs through the steady scale-up of turbine size is delivering significant cost savings to the global offshore wind industry. We are continuously working to produce even more cost-effective clean energy solutions beyond our recently-announced 10 MW offshore wind turbine platform, and actively collaborate with industry partners on cutting edge R&D efforts to reduce the cost of installation beyond turbine design. SGRE believes continued technological improvements across the entire offshore wind value chain will benefit MA electric customers, but it should be noted that the technology that will be available through 2025 is already being offered, and the Commonwealth should capitalize on its early mover advantages rather than waiting for future technology improvements.

16. Will requiring the Distribution Companies to undertake an additional OSW solicitation of up to 1600 MW impact the development of offshore wind supply chain services in the Commonwealth? If so, what potential economic benefits to the Commonwealth may result if OSW supply chain services are located in MA?

The Commonwealth of Massachusetts will likely attract a greater share of offshore wind supply chain jobs by proceeding with the additional 1600 MW solicitation, due to the opportunity for supply chain companies to aggregate larger volumes in a single geographic area. Many aspects of the offshore wind supply chain must be concentrated near a port facility and there are many advantages to proximity to the lease areas due to the high cost of short-sea freight. The larger market volume off the coast of MA will increase the likelihood that MA-based supply chain companies will stand a greater chance of being competitive to serve this market.

18. Are there actions, outside of additional OSW procurement(s), that the Commonwealth should consider to secure OSW supply chain services are located in MA? Please explain.

A major concern surrounding most of the ports and harbors in the entire Northeast is a lack of space surrounding the port facilities in order to support various space-intensive aspects of the offshore wind supply chain. Support from the Commonwealth in the form of infrastructure investment bonds, tax credits, or public-private partnerships to help facilitate the expansion and improvement of port facilities will give MA a significant competitive advantage in attracting supply chain activities relative to other states.

19. Should Massachusetts coordinate with other states in any future solicitations of OSW?

There is a concern among the offshore wind industry that overlapping construction deadlines based on state procurement rules could pose challenges due to constrained supply of manpower, vessels, or other logistics bottlenecks. The Commonwealth of Massachusetts must of course attend to its best interests, however SGRE recommends that sufficient flexibility be granted to allow bidders to manage this complexity rather than states seeking to mitigate such concerns via staggered solicitations. Bidders will take different approaches to managing supply chain logistics and have better visibility to the various factors and potential solutions that will allow them to deliver successful projects.

Offshore wind is poised to become a major economic driver for US, thanks in large part to rapidly declining costs, advantageous wind speeds and construction conditions, and significant localized demand for clean electricity.

Accordingly, we respectfully request that the MA DOER consider our comments above in order to support the continued growth of this industry.

Respectfully submitted,

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