

**COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF PUBLIC UTILITIES**

Investigation by the Department of Public Utilities On its Own Motion into Electric Distribution Companies' (1) Distributed Energy Resource Planning and (2) Assignment and Recovery of Costs for the Interconnection of Distributed Generation

D.P.U. 20-75

**SOLAR ENERGY BUSINESS ASSOCIATION OF NEW ENGLAND
INITIAL RESPONSE TO APRIL 23 EDC SYSTEM PLANNING ANALYSIS
PROPOSALS**

Respectfully submitted,

SOLAR ENERGY BUSINESS
ASSOCIATION OF NEW ENGLAND

Dated: May 28, 2021

Background

The Global Warming Solutions Act (“GWSA”) mandates a greenhouse gas (“GHG”) emissions reduction in Massachusetts of 80 percent below 1990 levels by 2050. In accordance with the GWSA and An Act Creating a Next Generation Roadmap for Massachusetts Climate Policy, the Massachusetts Executive Office of Energy and Environmental Affairs (“EOEEA”) is charged with creating and enabling renewable generation and reducing GHG emissions 85 percent below 1990 levels by 2050. The legislative and executive policy commitments to achieve net-zero carbon emissions by 2050 are designed to benefit all citizens of the Commonwealth. Through DPU Docket 20-75, the Department should ensure that interconnection to the grid is timely, dependable and economic so as to not delay the deployment of the renewable resources needed to meet the Commonwealth’s GHG emissions reduction mandates.

Introduction

Solar Energy Business Association of New England (“SEBANE”) appreciates the opportunity to provide initial responses to the EDC system planning analysis proposals. In general, SEBANE recommends that EDC plans should be integrated and coordinated with grid modernization and regional/local transmission planning. The substantive differences between the three EDC proposals also raise into question whether there should be three completely different approaches to system planning, or if, as SEBANE recommends, there is a need for a standardized planning methodology across all EDCs. There should be a set of planning criteria developed collaboratively by stakeholders and approved by DPU that EDCs must consider in adopting a plan, and EDCs should be required to demonstrate how each plan meets established criteria. Additionally, the current proposals do not encourage innovation, and point to the need for increased collaboration between stakeholders outside the realm of regulatory dockets.

SEBANE believes that long-term planning of the Massachusetts distribution and transmission grids is important not only for the short-term needs of integrating more distributed energy resources but also to ensure that the Commonwealth achieves its long-term and interim milestones in pursuit of its Net Zero climate goals. Recently, in certain areas of the state, the EDCs have suggested interconnection costs for larger DG projects that exceed the costs of building the solar PV facilities. As the Department and the EDCs have noted, many of the system upgrades required to interconnect the additional DG capacity will also benefit all customers, especially given the dramatic increase in electricity capacity that will be required to attain the Commonwealth’s clean energy goals, including the additional capacity required to run heat pumps and electric vehicles that are intended to substitute for current systems that combust fossil fuels. Many of the system upgrades are also long-lived assets that have expected lifetimes beyond even the long-life solar DG facilities. When an interconnection capacity limit is reached, and the next project in the queue to interconnect triggers the need for an upgrade, it is unjust to place the entire burden of a system upgrade on that next facility owner (or owners of facilities in a Group Study or Area Study). When a solar facility triggers a capacity upgrade that will likely be required by future distributed generation and load growth, it should not be penalized for being a first mover.

SEBANE's initial responses reflect on the long-term system planning proposals submitted by the EDCs that integrate both load growth and DER adoption in their distribution plans, using a rolling 10-year planning horizon. SEBANE previously submitted feedback on the Provisional Plans focused on the needs of projects currently in Group Studies. After review of both the Provisional and Long-term Planning proposed, however, SEBANE is concerned about the intermediate term.

Need for Intermediate Term Plan

In addition to the Long-Term Integrated Planning proposals and the Provisional Planning Requirements for existing Group Studies, SEBANE suggests immediately embarking on an intermediate term plan for investments to accommodate DER growth over the next several years. The intermediate term plan would both complement the proposed planning processes and be required over the next 2-5 year time horizon to ensure a smoother, more successful interconnection experience.

SEBANE notes that the Provisional Plans are focused on ensuring that projects in Group Study that are currently at risk of failing are an urgent priority for the Department and the industry. The Provisional Plans seek to avoid a catastrophic loss of projects in the interconnection queue that could set back any future development by many years. The Department also proposes a longer term, transformational approach to ensure that the traditional Load Growth, Safety and Reliability plans for local Transmission and Distribution investments is complemented by plans to interconnect a growing amount of Distributed Energy Resources. This new, collaborative approach to system planning will help to prepare the grid in advance for the interconnection of resources envisioned by the 2040 Clean Energy Climate Plan, the Decarbonization Pathways and the Next Generation Roadmap. As the Department has noted, it will be several years before the initial plans are approved, and several more years before the specified upgrades are constructed. Meanwhile, the growth in demand and requirements for clean energy distributed resources will continue and likely accelerate. Beyond the current Group and Area studies, SEBANE envisions several more years of very challenging and risky interconnection studies and delays before the longer-term investments begin to provide relief and a more predictable interconnection experience.

SEBANE recommends that the Department consider an intermediate plan to authorize investments required to build out the next phase of infrastructure required to accommodate the growth in DER over the next 5-7 years. These required investments might resemble a slight acceleration of the capacity required to accommodate expected load growth and the DER expected to complement it. New York recently embarked on a similar exercise pursuant to the "Accelerated Renewable Energy Growth and Community Benefit Act," which in turn was designed to support New York's "Climate Leadership and Community Protection Act (CLCPA)" that established ambitious targets for New York with respect to greenhouse gas (GHG) reductions and renewable generation resource development. It resembles the current situation in Massachusetts in several respects. Remarkably, within 7 months of being ordered to develop investment plans, the NY utilities responded with the "Utility Transmission and Distribution Investment Working Group Report." The study requirements were thorough:

1. Evaluate the Local Transmission and Distribution (LT&D) system of the individual service territories, to understand where capacity “headroom” exists on the existing system;
2. Identify existing constraints or bottlenecks that limit energy deliverability;
3. Consider synergies with traditional Capital Expenditure projects - drivers of synergies could include aging infrastructure, reliability, resilience, market efficiency, and operational flexibility;
4. Identify least cost upgrade projects to increase the capacity of the existing system;
5. Identify potential new or emerging solutions that can accompany or complement traditional upgrades;
6. Identify potential new projects which would increase capacity on the local transmission and distribution system to allow for interconnection of new renewable generation resources; and
7. Identify the possibility of fossil generation retirements and the impacts and potential availability of those interconnection points.

A similar study for Massachusetts could give the EDCs a running start on near-term investment opportunities and a baseline of investments for consideration in both Provisional and Long-term Planning processes. While DER industry participation is a necessary aspect of the long-term planning process, these intermediate term plans could be based on an extrapolation of current activity, or even better, a consensus scenario on likely DER development over the next five years. The first long-term plans could make mid-course corrections where needed.

Stakeholder Engagement

National Grid and Eversource both emphasize stakeholder involvement in their proposals, but the opportunities for stakeholders to meaningfully engage are quite limited. Eversource envisions a stakeholder process that engages DG community in DER forecasting. In addition to DER forecasting, SEBANE recommends additional stakeholder involvement in the following areas:

- Establishing the planning objective for the planning year;
- Discussion of transmission and distribution planning assumptions;
- Analysis of pre-existing system issues, such as asset health or thermal, stability, voltage issues that will need to be addressed as part of the planning cycle;
- Identify outcome of forecasts and models; and play a role in developing solutions.

Stakeholder engagement should ideally be iterative - e.g., in Stage 1, it should not be limited to initial input but also review of the forecasts and studies the utility derives using that input.

Climate Policy

The EDC proposals are vague on the details of how each plan is aligned with clean energy and climate policy. National Grid notes that they will consider the climate plan, but the Company does not explain how the policy objectives will be weighed in light of technical considerations and other factors. Resiliency needs are mentioned as one of many items to consider in area plan scoping, but should instead be framed as a key driver for assessment of current and future needs.

Third Party Facilitator and Subject Matter Expertise

SEBANE supports Eversource's proposal for a third party facilitator. A facilitator can provide additional structure by requiring EDCs to respond to suggestions/feedback from stakeholders and explain why certain recommendations were (or were not) adopted. National Grid indicates that "the Company will primarily solicit feedback regarding the forecasting review process from technical subject matter experts." It is imperative for the success of the EDC system plans that stakeholders reach consensus. The EDCs, DPU, and DOER benefit from ratepayer funded technical experts, yet the clean energy industry does not. The state's legislative and executive policy commitments are quite clear in mandating net-zero carbon emissions by 2050 for the benefit of all citizens of the Commonwealth. In order to reach these goals, SEBANE recommends a ratepayer funded DG subject matter expert to maximize the deployment of clean energy resources in EDC planning going forward.

SEBANE members represent all industry sectors, including manufacturers, distributors, developers and commercial & residential installers. The Commonwealth helped to found SEBANE, in part to create professional capacity in the solar industry, and SEBANE continues to offer programs to develop the knowledge and skills of our industry members. As a trade organization, SEBANE still takes pride in representing many small businesses serving commercial and residential customers across the state. Almost none of those businesses has expertise in distribution and transmission engineering, other than what they have needed to learn to discuss the system upgrades being requested by the EDCs. There is significant knowledge asymmetry in those conversations, and we expect that it will be hard for most of them to participate productively in many of the facilitated planning discussions envisioned by the EDCs. SEBANE still believes that it is vitally important to have the participation and representation of the market segments; they still represent 80+% of the DG systems being installed in Massachusetts, and each year, more of those systems are being required to consider significant upgrade costs in order to interconnect their customers' DG systems.

SEBANE proposes that the DPU allow for the funding of a Transmission and Distribution Planning Engineering Consultant to support the needs of the residential and commercial installers in Massachusetts. The consultant would be a trusted advisor in the facilitated sessions and would allow residential and commercial installers to provide more constructive input and alternative ideas during the various stages of development of the EDC plans. Without the consultation of a power systems engineer, SEBANE is concerned that the needs of those important market segments will not be adequately represented. SEBANE does not have the budget required to support a consultant that could advise,

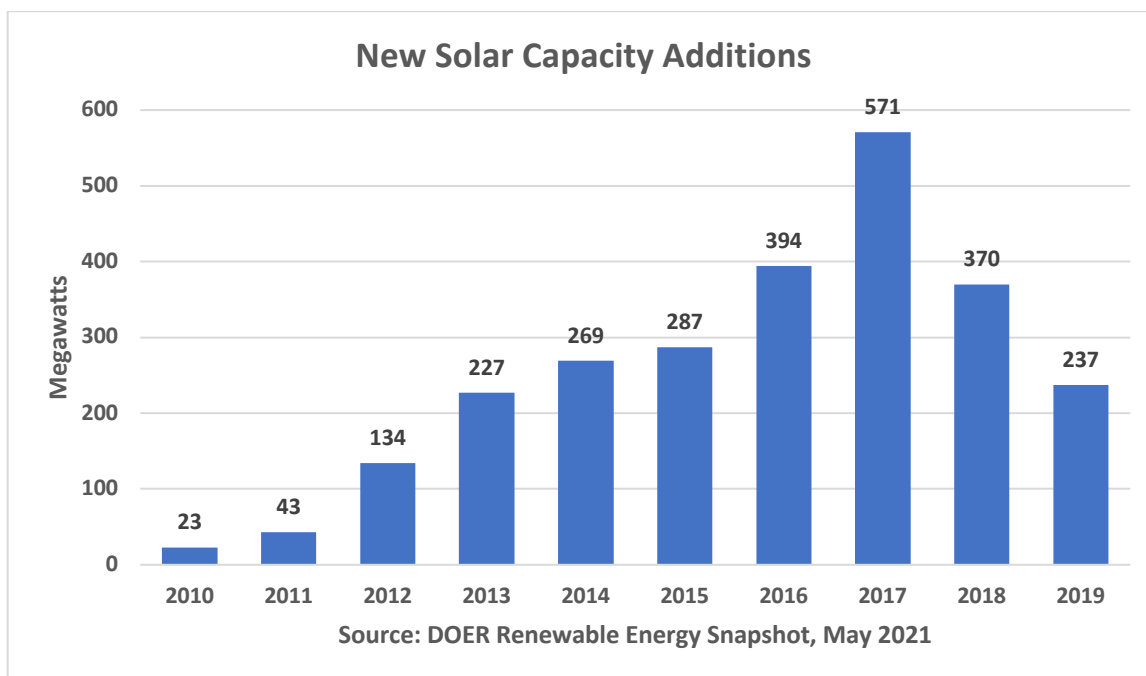
across all three EDCs, on behalf of the residential and commercial installers, but SEBANE would be willing to take the lead in coordinating the participation of those companies and helping to prepare the input, on their behalf, to ensure those market sectors are well represented in the planning processes.

DER Forecasting

SEBANE supports Eversource’s proposal to incorporate operational flexibility into the system plans to support the enablement of DER and load growth envisioned by electrification. It is critical that Eversource adopt clear forecasts for both of these electric system changes so resulting upgrades are appropriately sized and costs are appropriately allocated. SEBANE also agrees with consideration of non-wires alternatives in the Eversource proposal. One of the foundational elements of Eversource’s planning process is to plan for load and DER to N-1 levels of reliability. This is a fundamental shift for DER and the benefits of such a planning approach should be evaluated in alignment with DER and electrification forecasts and needs.

Near-term Growth of PV Capacity Additions

Massachusetts witnessed a dramatic reduction in the pace of solar installations after 2017, reducing more than half over the course of two years. The industry still employs a third fewer workers than it did at its peak; more than 5,000 jobs have been lost.



Although DOER has not reported the 2020 capacity additions, yet, it is likely somewhere between the 2018 and 2019 figures, representing growth despite the pandemic. The industry believes that it could quickly ramp to a rate in excess of 500 MW per year if the interconnection challenges could be resolved. SEBANE supports the projected growth rates included in Pope Energy’s comments, whereby the Department should plan on

capacity additions averaging 500 MW per year through 2025, growing steadily to 1 GW per year by 2030.

SEBANE thanks the Department for addressing these important issues, and for the opportunity to share initial responses to the EDC system planning analysis proposals. We also thank the EDCs for their proposals and look forward to working together to achieving the Commonwealth's legislative and executive policy commitments.

Respectfully submitted,

SOLAR ENERGY BUSINESS
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Mark Sylvia, President

Dated: May 28, 2021