



February 5, 2021

Mark D. Marini, Secretary  
Department of Public Utilities  
One South Station  
Boston, MA 02110

[dpu.efiling@mass.gov](mailto:dpu.efiling@mass.gov)  
[peter.ray@mass.gov](mailto:peter.ray@mass.gov)  
[Katie.Zilgme@mass.gov](mailto:Katie.Zilgme@mass.gov)

D.P.U. 20-75

Pope Energy Reply Comments – (1) Distributed Energy Resource Planning and (2) Assignment and Recovery Cost for the Interconnection of Distributed Generation

Submitted by Doug Pope, President

Dear Secretary Marini:

We appreciate the Department of Public Utilities opening the investigations of distributed energy resource planning and recovery cost for the interconnection of distributed generation through the use of working group sessions as opposed to a litigated tariff. We believe engaging developers, utilities and public policy stakeholders in deliberative discussions of how to facilitate installation of increasing levels of distributed generation will bring a more collaborative, and ultimately faster, approach to solving the many hurdles ahead of Massachusetts in achieving its GWSA goals.

**Executive Summary:**

D.P.U. 19-55 sought short-term proposals on cost allocations for both small and large installers of distributed generations assets. The Department had determined that conditions affecting the interconnection of the prime movers such as solar generation



were not advantageous to accomplishing the goals of the Commonwealth. A short-term, easily-implementable solution was sought.

At the same time, GWSA related laws plus the Baker Administration establishment of Net Zero greenhouse gas emissions state that the Commonwealth shall in no event allow emissions levels to be greater than 85 percent below the 1990 level by 2050<sup>1</sup>.

Informed by the Massachusetts 2050 Decarbonization Roadmap:

“The process of electrification has created new connections that do not exist at a significant level in the current system (i.e., electricity in transportation), and roughly doubles the amount of final energy demand that must be supplied by electricity.<sup>2</sup>”

Without any renewable generation being connected to the grid, the thermal load on nearly all conductors, substations, voltage control and transmission systems will double in thirty years. While D.P.U. has asserted that this has been done before, it has not been done in conjunction with renewable generation being interconnected onto the grid, two-way power flows with energy storage technology and each building having a heat pump that will cause a phase shift in power during its operation.

With all of the concurrent decarbonization objectives intending to be carried on by Massachusetts by 2030, first movers such as solar generators should not be penalized by being first in line. Massachusetts intends to install 300,000 vehicles by 2025<sup>3</sup>. If a municipality or large non-profit or corporation intends to engage in a 300-car EV charging program and such installation, anticipating two-way power flow, will require the upgrading of the feeders, voltage control, transformers and perhaps other protection at the substation, will the applicant be charged for such aggregated interconnection cost? Probably not, because public policy needs to change behavior and encourage the installation and use of electric vehicles.

---

<sup>1</sup> EEA Clean Energy and Climate Plan for 2030, Interim for Public Comment, December 30, 2020 Page 4

<sup>2</sup> Energy Pathways to Deep Decarbonization, A Technical Report of the Massachusetts 2050 Decarbonization Roadmap Study, December 2020, Page 33

<sup>3</sup> Massachusetts Zero Emission Vehicle Action Plan: A Roadmap to Reach 300,000 Zero Emissions Vehicles on Massachusetts Roads by 2025.



Many aspects of the Straw Proposal we support. We believe the Straw Proposal will work well if there is a defined, not-to-exceed Common System Modification (CSM) cost structure, and if there is an annual number of megawatts that each EDC anticipates installing each year. The Common System Modification structure could vary by residential, small commercial, behind the meter and larger scale projects. A not-to-exceed CSM fee would address both the “free rider” and “first mover” concurrent development issues as we approach meeting the 2030 and 2050 emission reduction goals. The annual amount of megawatts to be interconnected on the grid per year will inform and shape the Capital Investment Projects annual rolling ten-year planning process. It has become apparent that reliability and effective grid management starts with transmission connections and capabilities between substations. Long-term planning needs to start with upgrading the transmission system to accommodate 2030 and 2050 emissions reductions.

**Tax-Exempt Financing of 2050 Renewable Infrastructure:**

Long-term assets with a 30 to 50-year useful life need to be billed to the ratepayer on that useful life schedule and financed at tax-exempt finance interest rates.

National Grid financed a sub-sea transmission line through Mass Development in the early 2000s. To qualify for tax-exempt financing, it used the federal Volume Cap program. While the Volume Cap program is limited, it does demonstrate that there has been a path to tax-exempt status to finance electrical infrastructure.

We have spoken with bond counsel in Boston and are they unwilling to take a position or become engaged until there is greater attention paid by policy making entities.

This is going to take the Governor’s office, the EDCs, D.P.U., AGO, bond counsel and people who want to push this through and establish a program, possibly a third-party structure that will meet the IRS code that would qualify the structure for tax-exempt financing. This tax-exempt structure will save the ratepayer billions of dollars in interest, stretch out the long-term payment of assets in accordance with their lifecycle, thereby lowering monthly cost for ratepayer and could very well change how the Commonwealth approaches the means, methods and pace of achieving its 2030 and 2050 emissions goals.

**Common System Modification Fee:**

Restating our response to D.P.U 20-75 on December 23, 2020

**(2) Refer to Section III, Common System Modification Fees. Please discuss the effectiveness of this proposal, specifically:**

**a. Simplified Facilities: i, ii, & iii**

**Answer:** We believe that interconnection is a real property entitlement asset and that all interconnection parties should pay a fee to interconnect. At \$0.20 per watt AC the cost for a 5 kW system would be \$1,000, at \$0.10 (\$500) and at \$0.05, (\$250), at \$0.03, (\$150). While an argument could be made that a transformer cost \$45,000 or more and that these DG systems should bear such cost, we return to our assertion that the electrification of the building and transportation sectors will require much more support. In fact, the widespread use of residential solar + storage + smart inverters providing VAR support should be encouraged and ultimately may yield tremendous grid support benefits. Our recommendation would be a flat fee of \$150 for small projects under 10 kW and \$300 for those projects 10 kW to 25 kW.

Projects between 25 kW and 60 kW would pay a flat fee of \$0.10 per watt AC.

Projects greater than 60 kW up to 500 kW would pay \$0.15 per watt AC.

**b. Expedited and Standard Facilities**

i. Is a minimum Common System Modification Fee appropriate?

**Answer:**

1. The Department could set a minimum fee of ten (\$0.10) cents for projects over 500 kW. This is a starting point to differentiate between project types to target certain sectors that interconnection policy wants to encourage. The ten (\$0.10) cent level is also consistent with the SEA Cost\_Data\_Entry\_040416 chart completed on behalf of DOER.

2. The minimum fee is an attempt to strike a balance between policy prerogatives.



A minimum fee of \$0.10 could be for one set of projects, say rooftop, less than 500 kW and another set of projects could be \$0.10 per watt AC plus the cost of transformers with another set of projects having a minimum charge of \$0.10 plus the cost of transformers and Point of Common Coupling cost. Larger projects could start out with the minimum interconnection fee of \$0.10 per watt AC plus Point of Common Coupling plus a larger system surcharge of \$0.05 to \$0.10 per watt AC depending upon system impacts.

We appreciate the effort the Department is doing to move the interconnection dockets forward and look forward to participating with the Department and stakeholders to bring this effort to fruition.

Best Regards,

A handwritten signature in black ink, appearing to read "Doug Pope", written over a light blue horizontal line.

Doug Pope  
President