



April 13, 2021

Mark D. Marini, Secretary
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D.P.U. 20-75, Attachment B-IRs to Stakeholders 2-23-2021

Pope Energy Comment Letter – D.P.U. 20-75
Submitted by Doug Pope, President

Dear Secretary Marini:

We appreciate the more collaborative process that D.P.U. continues to engage in the investigation of D.P.U. 19-55, D.P.U. 20-75 and related dockets.

The Act Creating a Next-Generation Roadmap for Massachusetts Climate Policy of 2021 (Climate Roadmap Act) joins renewable electric generation with the reduction of greenhouse gas emissions of the “transportation, building, distribution system or residential, commercial, institutional, industrial, waste management, agricultural or manufacturing process(es).” The Department is charged with “when determining cost-effectiveness, the calculation of benefits shall include calculations of the social value of greenhouse gas emissions reductions.” In so doing, the legislature has increased the beneficiaries of coincident installation of solar, storage, wind and the thermal conversion of the all building, transportation, and manufacturing/agricultural into one economy-wide sector. The old and existing concept of cost causation with cost being borne by those that initiate upgrade requirements to interconnect to the grid has been upended by the coincident and co-dependent requirements of the Climate Roadmap Act to reach net zero by 2050.

Published by EEA, the Massachusetts 2050 Decarbonization Roadmap and attendant studies and the Interim 2030 Clean Energy Climate Plan calls for the grid to accommodate 770,000 EV cars and trucks and 1,000,000 homes converted to electric heating by 2030.¹ The final 2030 CECP, after taking public comment, will be revised to meet the requirements of the Climate Road Map Act. The ability of the D.P.U. to forecast the coincident electrification of the transportation and building sectors and integration of solar and other interconnected DG, as well as which feeders, substations, protective equipment and transmission lines will be affected is nearly impossible. To apply the currently applied cost causation methodology is to penalize solar as a first mover. Will the transportation and building sectors be charged to interconnect to the grid with heat pumps and rechargeable batteries? Most likely not, as the public policy objective to

¹ New England Restructuring Roundtable, Kathleen Theoharides, Secretary EEA, March 26, 2021, Page 5



decarbonize takes priority. The cost to upgrade the grid because of increased beneficiaries will be rate-based. Owners that purchase and install EVs and install heat pumps will benefit from no fossil-fuel related expenses but will have a higher electricity bill. The rest of the Massachusetts economy will benefit from the “economic output that are greater than three dollars per dollar spent”² from the investment in transitioning to renewables.

Due to the coincident and co-dependent requirement to decarbonize the electrical, building, transportation, waste, manufacturing and agricultural processes sectors, we request that the Department issue a provisional ruling that immediately sets a fixed cost for interconnection, related impact and group study fees and enforceable timelines as indicated in Stakeholder 2 and other Stakeholder comments below.

Stakeholder-1 Refer to the response to EDC-1. Do you currently have a distributed generation facility in the interconnection queue within one of the groups identified by the EDCs?

Response: We have four agricultural solar projects totaling 21 MW waiting for the Agricultural Solar (ASTGU) Guidelines to be finalized by DOER and then we will finalize the designs and enter the queues for interconnection with the EDCs.

Project 1: Eversource, 5-6 MW AC, 1,800 14 kV line extension and would require 13.8 kV OH extension, plus recloser, customer owned transformer, radio telemetry and transmission level thermal study.

Project 2: National Grid, 5 MW AC We anticipate open circuit and substation.

Project 3: National Grid, 5 MW AC We anticipate ASO study as this project is behind 22,038 kW at the substation. While we need to upgrade ½ mile of feeder to a three-phase line, that feeder is full, and we will need to go several miles to get to an open feeder according to the utility hosting capacity map.

Project 4: National Grid, 4 MW AC, Project is behind a feeder with 11,065 kW on the circuit. An open circuit is over 1.5 miles away.

² Economic and Health Impacts Report, A Technical Report of the Massachusetts 2050 Decarbonization Roadmap Study, December 2020, Page 5



Stakeholder-2 Refer to the response to EDC-1. Based on the high-level planning estimates for costs and timelines provided by the EDCs, would you move forward with interconnection under the currently applied cost causation methodology?

Based upon the market signals in the GWSA, Stat 2016 c. 75 (11) and the Climate Roadmap bill recently signed by Governor Baker, and the understanding by the Department that interconnection is a critical path issue to keep solar projects progressing and solar companies in business, we are depending upon a favorable and timely provisional ruling.

We agree with National Grid's finding in their response to EDC-3 Page 2 of 3 that states that the average interconnection fee is between \$133/kW and \$226/ kW. Consistent with our advocacy in comment letters in D.P.U. 19-55 and D.P.U. 20-75 for project differentiation we propose the following interconnection fee including point of common coupling cost where the fee is cumulative based on total AC capacity size.

- 5 cents/watt for the first 60 kW AC
- 15 cents/watt for the capacity over 60 and up to 500 kW AC
- 20 cents/watt for the capacity over 500 and up to 1 MW AC
- 21 cents/watt for the capacity over 1 MW and up to 2 MW AC
- 22 cents/watt for the capacity over 2 MW and up to 3 MW AC
- 23 cents/watt for the capacity over 3 MW and up to 4 MW AC
- 24 cents/watt for the capacity over 4 MW and up to 5 MW AC

National Grid asserts that \$400/kW is often acceptable. We have sold a 3.2 AC solar project at a \$410/kW rate; we would not do it again. The project site was a rolling, fully grassed pasture with no storm water management and greatly reduced site work cost. We sold the project at break-even cost to get our investors' funds out of the fully developed project. Knowing what the cost would have been in advance, we never would have pursued the project. The one-half mile of three-phase feeder upgrade has improved the rural feeder for all residents on the road to change to EVs and heat pumps.

Having a provisional system planning program that would recognize capped interconnection cost would do the following:

1. Provide a dependable cost structure for solar development in a declining block SMART tariff thereby increasing the likelihood of the project securing financing.
2. Provide a cost basis upon which an Interconnection Service Agreement (ISA) is capable of being issued and places the project in a path to receive a Statement of Qualifications (SOQ) to qualify for the SMART tariff. This would provide a value to a project to wait for the transition period into the second year for utilities to catch up.
3. The rates above would protect the ratepayer by recognizing public policy of encouraging residential and smaller commercial solar systems and project differentiation while having larger solar systems pay all of the project specific cost and the average of interconnection cost based upon historical data

Timeline:

The target for the Department should be to have ISA proceeded and issued within six months. Given the system planning conditions that exist, one year should be the target for larger projects with ISAs issued, two years with notice and issued ISA with three years being the exception.

We agree with project differentiation that will provide for more timely response to smaller projects with defined fee schedule listed above:

- 0 – 60 kW: target 3 months, max 6 months
- 60 – 500 kW: target 6 months, max 1 year
- Over 500 kW: target early ISA 6 months with authorization to construct 1 year, 2 years design maximum, and 3 years being the exception.

The purpose of the Early ISA would be to achieve the SOQ designation in the SMART program. The issuance of the final ISA would signal engineering approval for the start of construction. The issue is not if the solar system would be allowed to interconnect but when.

Stakeholder-3 Refer to the response to EDC-1. If a provisional system planning program were implemented that decreased the cost to interconnect but did not alter the timeline for EPS upgrade construction, would you move forward with interconnection?

Declines in the SMART tariff, the federal ITC and the carrying cost of capital, as well as developers' overhead, makes greatly reduced ISA fees almost a requirement. Such reduction will not cover the entire cost of delay but may contribute to the success of getting the project financed.

The payment for interconnection fees needs to be rethought. No fees should be due without an ISA. Payment of the ISA fees should be in arrears to the signing. For projects with timelines of 2-3 years, the first ISA payment should not be more than five percent (5%) of the ISA fee due in 60 business days. Another five percent (5%) should be due in 12 months and the balance due 12 months before Permission to Operate is scheduled.

The fees for impact and group studies needs to be standardized, defined and capped. The current timing of fee payment is punitive, particularly when current demand for interconnection is driven by public policy. Interconnection needs to be enabled not prevented.

Stakeholder-4 Refer to the response to EDC-4, how long following submittal of a provisional system planning program proposal by the EDCs would the Department need to make a determination on the proposal for you to move forward with interconnection?

Given the fact that our projects have not entered the queue because ASTGU Guidelines' have not been finalized, and that we are operating under the assumption that the recently signed Climate Roadmap bill is directing the D.P.U. to consider larger greenhouse gas emissions responsibilities, three months would be a reasonable time frame for our company. However, if my firm were a behind the meter less than 500 kW solar contractor with staff, electricians and overhead to pay, I would need your decision in 30 days.

Due to the new provisions in the Climate Roadmap Act that allows utilities to own up to 10% of installed generation, the EDC's must not be allowed to "fast track", take higher priority or experience more favorable rates and conditions over non-monopoly solar developers.

Stakeholder-5 Are there any federal law implications that should be considered concerning sharing costs of EPS upgrades with interconnecting customers over an extended period of time and in particular after the EPS upgrade has been constructed?

Yes. The IRS and possibly President Biden.

In working with Mass Development and after speaking with Tim Roughan at National Grid, we became aware of an undersea transmission line that was funded at tax-exempt rates by Mass Development under the (IRS) Volume Cap program. In order to qualify for tax-exempt financing, there needs to be a "public good" component to the project or endeavor. As you can see, precedent has already been demonstrated by the funding of utility infrastructure, in this case a transmission line.

Paying for and reducing the cost of transitioning to renewable to meet the 2030 CECP and 2050 Roadmap greenhouse gas emissions obligations certainly meet the public purpose requirement of tax-exempt financing.

Below is the text from Mass Development:

I am familiar with financing of an electric cable in the 2000's which Mass Development did issue. To qualify for tax-exempt financing, it used the federal Volume Cap program. That program allows electric deals that meet very specific criteria to issue tax exempt bonds and it's actually quite hard to qualify for. There is a second obstacle though. Volume Cap is a very scarce commodity and the state prioritizes transactions that have job creation for manufacturing and affordable housing and as Volume Cap is oversubscribed each year, it would be difficult to access.

Both Mass Development and tax-counsel recommended by the same are unwilling to extend themselves into this tax-exempt discussion unless there are engagements by the Executive Branch of government and other stakeholders.



Given the Climate Roadmap signed into law, there will need to be massive investments made at the substation, transmission lines between substations and intrastate DG sub-transmission lines to accommodate the emission reduction obligations in law.

Paying for those long-term infrastructure assets and amortizing those assets over the 30 to 46+ year useful life at tax-exempt rates will be of great value to the ratepayer.

Eversource in their response to EDC-5 refers to a "regulatory asset" being set up to deal with FERC compliance. This regulatory asset should be considered to qualify for, receive and distribute tax-exempt funds to the EDCs for 2050 Roadmap grid asset upgrades to save ratepayers billions of dollars over 30 years until 2050.

We appreciate the effort the Department takes in reviewing these comments.

Best Regards,

A handwritten signature in black ink, appearing to read "Doug Pope", written in a cursive style.

Doug Pope