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May 21, 2021

Mark D. Marini, Secretary Department of Public Utilities One South Station, 5th Floor Boston, MA 02110

Re: <u>DG Interconnection</u> – D.P.U. 20-75

Dear Secretary Marini:

On behalf of NSTAR Electric Company d/b/a Eversource Energy ("Eversource"), enclosed are Eversource's responses to the questions issued by the Department of Public Utilities on May 7, 2021 addressing distributed generation interconnection cost allocation methodologies and system planning.

Thank you for your attention to this matter. Please contact me if you have any questions regarding this filing.

Sincerely,

John K. Habib

John K. Halib

Enclosures

cc: Katie Zilgme, Hearing Officer

.NSTAR Electric Company d/b/a Eversource Energy Department of Public Utilities D.P.U. 20-75

D.F.U. 20-73

Information Request: **EDC-2-1**

May 21, 2021

Person Responsible: Digaunto Chatterjee

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Information Request EDC-2-1

Eversource: Refer to response to information request EDC-1, Attachment Eversource-1(b) at "Final Station Group," cells C4 through C25 and D4 through D25. Please confirm that the totals listed reflect the current mega-volt amperes ("MVA") of distributed energy resources currently interconnected in each substation listed.

Response

Yes, Cells C4 through C25 and D4 through D25 reflects the connected mega-volt amperes "MVA" capacity of distributed energy resources interconnected in each substation as of October 2020.

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Information Request: **EDC-2-2**

May 21, 2021

Person Responsible: Brian J. Rice

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Information Request EDC-2-2

Eversource: Refer to Eversource's response to EDC-2, at 1. Please provide the following:

- (a) An updated bill impact estimate assuming all of the identified upgrades are constructed, but no distributed energy resources ultimately pay Capital Investment Project ("CIP") fees to interconnect; and
- (b) An updated bill impact estimate assuming all capacity enabled by the upgrades identified is utilized by distributed energy resources over the next ten years.

Response

- (a) Please refer to Attachment ES-EDC-2-002. The Company has estimated that approximately \$715 million may be invested in system upgrades classified as Capital Investment Projects through 2027. Under the Department's straw proposal, these expenditures would be offset by CIP fees paid by interconnecting customers to the maximum extent possible. If these costs were not offset by any CIP fees and instead recovered through the reconciling charge the resulting average annual bill impacts for residential customers would be expected to range from 0.2% to 1.0% over a 5-year period. These impacts assume invested capital would be depreciated over a 30 year period.
- (b) The bill impact estimate previously provided by Eversource in response to EDC-2 was based on only the costs of Common System Modifications and representative transmission costs. It did not include any Capital Investment Projects. As a result, the bill impact estimate assuming all capacity enabled by the upgrades identified is utilized by distributed energy resources, which pay commensurate CIP fees, is what was provided in Eversource's response to EDC-2. The resulting average annual bill impacts for residential customers would be expected to range from 0.1% to 0.4% over a 5-year period under that scenario.

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Information Request: **EDC-2-3**

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Person Responsible: Digaunto Chatterjee

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Information Request EDC-2-3

Eversource: Refer to National Grid's response to EDC-1, at 8-9. Please provide the Eversource's perspective on National Grid's proposal to allocate up to 40 percent of the distributed generation ("DG") interconnection costs as system benefits to all customers.

Response

Eversource agrees that system upgrades that may be completed to enable the interconnection of DG will have shared system uses and that mutual benefits should be reflected in the costs ultimately allocated to interconnecting DG facilities. The perspectives of Eversource and National Grid are very consistent in this respect, including a shared recognition that substation and transmission assets will likely provide progressively higher parallel benefits to the operation of the electric power system.

The main difference between the companies two proposals is that Eversource has proposed to assess shared system uses and allocate costs based upon localized system conditions and upgrades instead of applying a standard cost allocation ratio. As explained in prior comments and responses, Eversource's proposed planning process would differentiate system upgrades that address multiple system needs from those that substantially enable only the interconnection of DG within a study area. This differentiation in system upgrades would be applied to a substation or group of substations and result in variation in the share of costs allocated to DG facilities across the Company's service territory.

On average, the share of costs allocated to interconnecting DG customers under Eversource's proposal would likely be directionally comparable to the 40 percent standard proposed by National Grid. As previously indicated in Attachment Eversource 1(b), the Company estimates that DG customers could fund up to \$715 million in system upgrades through Capital Investment Project Fees. That amount includes \$403 million of distribution line costs to physically interconnect DER customers while the remaining \$312 million are estimated distribution station costs proposed to be allocated to DER customers. The remaining \$230 million of distribution station costs would be proposed as Common System Modifications for recovery through the reconciling charge. This division of distribution station costs results in a 42 percent estimated allocation to Common System Modification under Eversource's

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Information Request: **EDC-2-3**

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proposal. A ratio which is very close to National Grid's 40 percent proposal.

The Company also identified up to \$292 - \$693 million of additional transmission investment associated with parallel system upgrades proposed to be recovered through either a reconciling charge or local transmission rate as applicable. These estimates suggest, on average, 50-60 percent of total system upgrade costs could be identified for recovery through the reconciling charge under Eversource's proposal. Eversource's proposal seeks to:

- a. allocate 100% of those distribution feeder costs intended to only connect DER customers to DER customers
- b. recognizes common benefits of distribution station upgrades between system customers and DER customers through a more granular cost allocation method.
- c. recognizes the primarily broad system benefits of an interconnected Bulk electric transmission system (including transmission station upgrades) by allocating 100% of transmission costs that enable the Commonwealth's clean energy policy to all customers.

The main advantage that Eversource's proposal provides is that it preserves appropriate price signals while still mitigating barriers to the development of much of the current queue of DG facilities in Massachusetts. As suggested in Eversource's Reply Comments at 13, outliers are likely to emerge with respect to \$/kW CIP fees under the Company's proposal. A cost allocation methodology that produces outliers incentivizes efficient distribution infrastructure buildout. It provides an interconnection price signal to develop DG where infrastructure has already been built to higher capacity and can reliably integrate DG. Eversource's understanding is that National Grid's proposal would not eliminate price signals, but it could potentially reduce them. In particular, applying a standard allocation ratio to system upgrade costs risks placing other customers in a position of funding investments that do not produce mutual benefits. It also risks reducing incentives for DG facilities to locate on portions of the electric power system where infrastructure that produces parallel benefits also enables the interconnection of DG.