

referred to as the “Beverly Regional Transmission Reliability Project” or the “Project. In support of this Petition, NEP respectfully represents as follows:

1. NEP, a Massachusetts corporation, is an “electric company” as defined by G.L. c. 164, § 69G and is subject to the provisions of G.L. c. 164, §§ 69H-69R. New England Power Company d/b/a National Grid, EFSB 12-1/D.P.U. 12-46/47 (2014) (“NEP IRP”); New England Power Company d/b/a National Grid, EFSB 13-2/D.P.U. 13-151/152 (2014) (“NEP Salem”).

2. NEP is represented by Mark R. Rielly, Esq., Director & Acting Asst. General Counsel, National Grid, 40 Sylvan Road, Waltham, Massachusetts 02451 and by Catherine J. Keuthen, Esq. and Cheryl A. Blaine, Esq., both of Keegan Werlin LLP, 99 High Street, Suite 2900, Boston, Massachusetts 02110.

3. Pursuant to G.L. c. 164, § 69J, an electric company seeking to construct a “facility” must obtain approval from the Siting Board. Pursuant to G.L. c. 164, § 69G, a jurisdictional facility is defined as a “a new electric transmission line having a design rating of 69 kilovolts or more and which is one mile or more in length on a new transmission corridor” and any “ancillary structure which is an integral part of the operation of any transmission line which is a facility.” The proposed New Cable is approximately 3.7 miles in length, has a design rating of 115 kV, and will be located between the proposed Waite Street #594 Switching Station in the City of Salem and the Beverly #12 and the East Beverly #51 Substations in the City of Beverly. Accordingly, the Project is subject to the Siting Board’s jurisdiction under Section 69J.

4. Simultaneously herewith, NEP is filing with the Department of Public Utilities (the “Department”): (1) a petition requesting approval of the New Cable in accordance with G.L. c. 164, § 72 (the “Section 72 Petition”) (D.P.U. 19-77); (2) a petition pursuant to G.L. c. 40A, § 3 (the “Zoning Petition”) (D.P.U. 19-78), for a determination that certain requested zoning

exemptions in connection with the construction of a new switching station in Salem and modifications of an existing NEP-owned substation in Beverly are “reasonably necessary for the convenience or welfare of the public;” and (3) motions with the Department and the Siting Board requesting the consolidation of these related petitions into one proceeding and the referral of such petitions to the Siting Board for consolidated review. G.L. c. 25, § 4; G.L. c. 164, § 69H; NEP IRP at 3; NEP Salem at 3.

5. The Company incorporates by reference the Section 72 Petition and Zoning Petition, including all attachments thereto, into this Section 69J Petition.

II. PROJECT DESCRIPTION

6. The Beverly Regional Transmission Reliability Project includes the following components:

- The installation of the New Cable in a new manhole and duct bank system underneath the Veterans Memorial Bridge across the Danvers River and underneath existing roadways;
- The construction of the Waite Street #594 Switching Station;
- Improvements at the Beverly #12 and the East Beverly #51 Substations in Beverly; and
- The removal of the existing N-192 Cable, consisting of 0.5-miles of direct buried armored submarine cable, and 3.1-miles of land cable which runs along an active railroad right-of-way (“ROW”) owned by the Massachusetts Bay Transportation Authority (“MBTA”) and related equipment.¹

7. The new Waite Street #594 Switching Station will include the installation of equipment and related work, as follows:

- Installation of a 14’x14’ control house, elevated 6’ above grade;

¹ While NEP does not concede that the removal of the existing N-192 Cable meets the “facility” definition under G.L. c. 164, § 69G(2), the Company wishes to facilitate the review of the Siting Board and demonstrate its willingness to undergo a rigorous review of the Project. Accordingly, the Company has prepared this Petition on an integrated and consolidated basis, addressing all related impacts, costs and other topics and requesting all approvals which the Siting Board may view as applicable to the Project.

- Installation of termination risers, an approximately 75-foot tall dead-end structure, and bus, current transformer, and circuit switcher supports and associated concrete foundations;
- Installation of a perimeter chain link security fence having a height of 8 feet plus 1 foot of barbed wire;
- Grading and filling of crushed stone; and
- Digging of cable trenches and installation of underground conduit.

8. As part of the Project, the following equipment will be installed and improvements will be made at the Beverly #12 Substation:²

- Installation of Substation-related equipment and facilities to accommodate the New Cable, including, but not limited to, two underground-to-overhead riser termination structures, transformer, circuit switcher, bus structures, circuit breakers, capacitor banks, voltage regulators and associated foundations;
- Expansion of the interior Substation yard by approximately 20 feet to the north and 25 feet to the west, with installation of new chain link security fencing, having a height of 8 feet, plus 1 foot of barbed wire;
- Grading and filling of crushed stone; and
- Digging of cable trenches and installation of underground conduit.

9. As part of the Project, the following equipment will be installed and improvements will be made at the Beverly #51 Substation:

- Installation of Substation-related equipment and facilities to accommodate the New Cable, including, but not limited to, an underground to overhead riser termination structure and associated foundation, as well as the replacement of an existing H-frame structure to accommodate the new disconnect switch;
- Grading and filling of crushed stone; and
- Digging of cable trenches and installation of underground conduit.

The Project is more specifically described in Section 1.0 of the *Beverly Regional Transmission Reliability Project Application* (the “Application”), provided as Attachment A hereto.

² The improvements at the Beverly #12 Substation include upgrades to MECo’s distribution system which do not meet the “facility” definition under G.L. c. 164, § 69G(2). However, in its Zoning Petition, the Company is seeking a determination that upgrades are “reasonably necessary for the convenience or welfare of the public.” Accordingly, the Company addresses the impacts and costs of the Beverly #12 Substation upgrades on a consolidated basis in this Petition.

III. STANDARD OF REVIEW

10. In accordance with Section 69J, before approving a petition to construct a proposed energy facility, the Siting Board requires an applicant to justify its proposal in four phases. First, the Siting Board requires the applicant to show that additional energy resources are needed (see Application, Section 2). Second, the Siting Board requires the applicant to establish that, on balance, its proposed project is superior to alternative approaches in terms of reliability, cost and environmental impact, and in its ability to address the identified need (see Application, Section 3). Third, the Siting Board requires the applicant to show that it has considered a reasonable range of practical facility siting alternatives and that the proposed site (or route) for the facility is superior to a noticed alternative site (or route) in terms of cost, environmental impact and reliability of supply (see Application, Sections 4 and 5). Finally, the applicant must show that its plans for construction of its new facilities are consistent with the current health, environmental protection and resource use and development policies as developed by the Commonwealth (see Application, Section 6). As demonstrated in the Application, the Project satisfies the Siting Board's standards and relevant precedent for jurisdictional facilities.

A. The Project is Needed.

11. Section 69J provides that the Siting Board should approve a petition to construct if it determines that the petition meets certain requirements, including that the plans for the construction of the applicant's facilities are consistent with the policies stated in G.L. c. 164, § 69H to provide a reliable energy supply for the Commonwealth with a minimum impact on the environment at the lowest possible cost. In carrying out its statutory mandate with respect to proposals to construct energy facilities in the Commonwealth, the Siting Board evaluates whether there is a need for additional energy resources to meet: (1) reliability objectives; (2)

economic efficiency objectives; or (3) environmental objectives. NEP IRP at 4-5; NEP Salem at 5-6. Accordingly, the need for a particular facility can be demonstrated by showing need on any (or all) of those three bases. See NEP IRP at 4-5; NEP Salem at 5-6.

12. To ensure reliability, each transmission and distribution company establishes planning criteria for construction, operation, and maintenance of its transmission and distribution system. NEP IRP at 5; NEP Salem at 6. Compliance with the applicable planning criteria can demonstrate a “reliable” system. NEP IRP at 5; NEP Salem at 6.

13. To determine whether system improvements are needed, the Siting Board: (1) examines the reasonableness of the Company’s system reliability planning criteria; (2) determines whether the Company uses reviewable and appropriate methods for assessing system reliability over time based on system modeling analyses or other valid reliability indicators; (3) determines whether the relevant transmission and distribution system meets these reliability criteria over time under normal conditions and under reasonable contingencies, given existing and projected loads; and (4) determines whether acceleration of conservation and load management programs, and pursuant to c. 249 of the Acts of 2004, the use of other alternatives to the facility, including other methods of transmitting or storing energy, might eliminate or slow the need for such additional energy resources.³ NEP IRP at 5; NEP Salem at 6-7.

14. The Company has determined that the Project is needed to (1) maintain the integrity of NEP’s electric system by replacing the existing N-192 Cable, which has reached the end of its useful life; and (2) improve the reliability of the electric system reliability for Beverly and the Cape Ann area (Beverly, Essex, Gloucester, Hamilton, Manchester-by-the-Sea, Rockport

³ Pursuant to c. 249 of the Acts of 2004, applicants proposing a new transmission line are required to provide “. . . (3) a description of alternatives to the facility, such as other methods of transmitting or storing energy . . . or a reduction of requirements through load management . . .” In addition, applicants are required to demonstrate that “projections of the demand for electric power . . . include an adequate consideration of conservation and load management.” G.L. c. 164, § 69J.

and Wenham) by introducing a second source of power to the Beverly #12 Substation. The Project will address existing distribution planning criteria violations and the potential for thermal overloads on Substation equipment. The need for the Project is more specifically described in Section 2 of the Application.

B. The Company Considered Alternatives to the Project.

15. Section 69J requires a proposed project proponent to present alternatives to the proposed facility, which may include: (a) other methods of transmitting or storing energy; (b) other sources of electrical power or natural gas; or (c) a reduction of requirements through load management. NEP IRP at 25-26; NEP Salem at 17-18.

16. In implementing its statutory mandate, the Siting Board requires a petitioner to show that, on balance, its proposed project is superior to alternative approaches in terms of reliability, cost, environmental impact, and ability to meet a previously identified need. NEP IRP at 25-26; NEP Salem at 17-18. In addition, the Siting Board requires a petitioner to consider reliability of supply as part of its showing that the proposed project is superior to alternative project approaches. NEP IRP at 25-26; NEP Salem at 17-18.

17. The Company comprehensively identified and analyzed various Project alternatives to address the established need for an additional energy resource, including: (1) a no-build alternative; (2) non-wires alternatives; (3) underground transmission solutions; (4) overhead and hybrid transmission alternatives; and (5) transmission alternatives using the MBTA ROW. The Company's proposed Project best meets the needs identified in Section 2 of the Application while balancing reliability, cost, and environmental considerations. The Company's analysis of Project alternatives is described in Section 3 of the Application.

C. The Company Properly Evaluated Alternative Routes.

18. Section 69J requires the Siting Board to review alternatives to planned projects, including “other site locations.” In implementing this statutory mandate, the Siting Board requires a petitioner to demonstrate that it has considered a reasonable range of practical siting alternatives and that the proposed facilities are sited at locations that minimize costs and environmental impacts while ensuring supply reliability. NEP IRP at 41-42; NEP Salem at 34-35. To do so, an applicant must satisfy a two-pronged test: (1) the applicant must first establish that it developed and applied a reasonable set of criteria for identifying and evaluating alternative routes in a manner that ensures that it has not overlooked or eliminated any routes that, on balance, are clearly superior to the proposed route; and (2) the applicant must establish that it identified at least two noticed sites or routes with some measure of geographic diversity. NEP IRP at 41-42; NEP Salem at 34-35.

19. After determining that the Project was the superior alternative for meeting the identified need, the Company undertook a thorough and objective analysis to determine the least costly and most reliable routes that result in the least environmental impact with respect to the construction and operation of the Project. The Company’s analysis compared routing alternatives based upon human, environmental, constructability, cost and reliability considerations. Through this process, the Company determined that the Preferred Route is superior to other alternatives. The proposed routes studied by the Company are more particularly described in Section 4 of the Application.

D. Environmental Impacts, Cost and Reliability of the Project and the Noticed Alternative Route Have Been Appropriately Evaluated.

20. In implementing its statutory mandate to ensure a reliable energy supply for the Commonwealth with a minimum impact on the environment at the lowest possible cost, the

Siting Board requires a petitioner to show that its proposed facility is sited at a location that minimizes costs and environmental impacts while ensuring a reliable energy supply. To determine whether such a showing is made, the Siting Board requires a petitioner to demonstrate that the proposed site for the facility is superior to the noticed alternative based on a balancing of cost, environmental impact and reliability of supply. NEP IRP at 46-47; NEP Salem at 39.

21. An assessment of all impacts of a proposed facility is necessary to determine whether an appropriate balance is achieved both among conflicting environmental concerns as well as among environmental impacts, cost and reliability. A facility that achieves that appropriate balance meets the Siting Board's statutory requirement to minimize environmental impacts at the lowest possible cost. NEP IRP at 46-47; NEP Salem at 39.

22. The Siting Board first determines if the petitioner has provided sufficient information regarding environmental impacts and potential mitigation measures to enable the Siting Board to make a determination as to whether a petitioner has achieved the proper balance among various environmental impacts and among environmental impacts, cost and reliability. Similarly, the Siting Board must find that the petitioner has provided sufficient cost and reliability information in order to determine if the appropriate balance among environmental impacts, cost and reliability is achieved. NEP IRP at 73; NEP Salem at 89-90.

23. The Siting Board then examines the environmental impacts, reliability and cost of the proposed facilities along the Preferred and Noticed Alternative Routes to determine whether: (1) environmental impacts would be minimized; and (2) an appropriate balance would be achieved among conflicting environmental impacts as well as among environmental impacts, cost and reliability. In this examination, the Siting Board compares the preferred and alternative routes to determine which is superior with respect to providing a reliable energy supply for the

Commonwealth with a minimum impact to the environment at the lowest possible cost. NEP IRP at 46-73; NEP Salem at 39-90.

24. The Company conducted a comprehensive analysis of the environmental impacts of the Project and has appropriately minimized and mitigated the environmental impacts associated with the construction and operation of the Project. The Project will also achieve an appropriate balance among conflicting environmental concerns as well as among environmental impacts, reliability and cost. The cost, reliability and environmental impacts analyses are set forth in Section 5 of the Application.

E. The Project Meets the Siting Board’s Consistency Standards in Accordance with Precedent.

25. Section 69J states, inter alia, that the Siting Board shall approve a petition to construct a facility if it determines that “plans for expansion and construction of the applicant’s new facilities are consistent with current health, environmental protection, and resource use and development policies as adopted by the commonwealth.”

26. Section 6 of the Application demonstrates that the construction and operation of the Project is consistent with current health, environmental protection and resource use and development policies as adopted by the Commonwealth of Massachusetts.

WHEREFORE, the Petitioner respectfully requests that the Siting Board, pursuant to G.L. c. 164, § 69J, conduct a public hearing on this Petition (and on any matters referred to the Siting Board from the Department) and take such other action as may be necessary to: (i) grant the authority to construct the Project as more particularly described in the attached Application; (ii) find that the construction of the Project is consistent with current health, environmental, and resource use and development policies as adopted by the Commonwealth of Massachusetts and the policies stated in G.L. c. 164, § 69H; and (iii) find that such construction is required in order

to provide a necessary energy supply for the Commonwealth with a minimum impact on the environment at the lowest possible cost.

Respectfully Submitted,

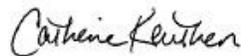
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