COMMONWEALTH OF MASSACHUSETTS
ENERGY FACILITIES SITING BOARD

Petition of New England Power Company d/b/a National Grid Pursuant to G.L. c. 164, § 69J for Approval to Construct, Operate and Maintain Overhead Transmission Lines	)	EFSB 25-01

PETITION OF NEW ENGLAND POWER COMPANY d/b/a NATIONAL GRID PURSUANT TO G.L. c. 164, § 69J FOR APPROVAL TO CONSTRUCT, OPERATE AND MAINTAIN AN OVERHEAD TRANSMISSION LINE

I. INTRODUCTION

Now comes New England Power Company d/b/a National Grid ("NEP" or the "Company") and hereby petitions the Energy Facilities Siting Board (the "Siting Board") pursuant to G.L. c. 164, § 69J for approval to construct, operate and maintain overhead transmission lines in the towns of Millbury, Auburn, Leicester, Spencer, East Brookfield, North Brookfield, West Brookfield, Ware, Belchertown, Pelham, Shutesbury, Leverett, Sunderland, Deerfield, Conway, Shelburne and Buckland ("Rebuilt Lines") and is referred to as the Central to Western Massachusetts Energy Improvement Project (the "Project"). The Project will replace the Company's existing 69 kV E5/F6 overhead transmission lines ("Existing Lines"), including three existing tap lines, in the same rights-of-way ("ROWs") and includes the removal of the existing lines and the construction, reestablishment and improvement of access routes.

The Existing Lines are approaching the end of their asset life and have intrinsic flaws in their structural configuration, which has resulted in poor reliability and the inability to integrate distributed energy resources ("DER") into the transmission grid. Even without proposed DER, equipment at multiple substations served by the Existing Lines would be subject to low voltage conditions under certain contingencies. The Rebuilt Lines will also increase fiber optic

capability, which will both protect the lines from lightning and improve telecommunications, resulting in improved reliability. Although NEP will operate the Rebuilt Lines at 69 kV, the Company proposes to construct the transmission structures to the Company's 115 kV design standards for future use, which will provide both short- and long-term reliability benefits. 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 19-04/D.P.U. 19-77/19-78, at 118 (2021) ("NEP Beverly-Salem"); 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 in this proceeding by David Waterfall, Esq., Senior Counsel, National Grid, 170 Data Drive, Waltham, Massachusetts 02451 and Catherine J. Keuthen, Esq. and Cheryl A. Blaine, Esq., 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 115 kilovolts or more which is 10 miles or more in length on an existing transmission corridor except reconductoring or rebuilding of transmission lines at the same voltage." The Rebuilt Lines will extend approximately 67 miles in Massachusetts along an existing transmission corridor and will have a design rating of 115 kV. 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") a petition requesting approval of the Project in accordance with G.L. c. 164, § 72 (the "Section 72 Petition") (D.P.U. 25-16).

5. The Company is also filing motions with the Department and the Siting Board requesting the referral of the Section 72 Petition to the Siting Board and the consolidation of these related petitions into one proceeding for the Siting Board's review. G.L. c. 25, § 4; G.L. c. 164, § 69H; NSTAR Electric Company d/b/a Eversource Energy, EFSB 22-03/D.P.U. 22-21 (2024) ("NSTAR GSEP") at 6, NEP Beverly-Salem at 6; NEP IRP at 3; NEP Salem at 3.

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

II. PROJECT DESCRIPTION

7. The Central to Western Massachusetts Energy Improvement Project includes construction of the Rebuilt Lines and the removal of the Existing Lines, all located or to be located on an existing NEP ROW that extend from NEP's Millbury #305 Substation in Millbury, Massachusetts ("Millbury Substation") to the Deerfield #4 Substation in Shelburne, Massachusetts ("Deerfield #4 Substation").[1] The Project also includes the reconstruction of three of the tap lines associated with the Existing Lines on the same ROWs as the Existing Taps: (1) the Quabbin Switch Tap Line, (2) the Shutesbury Tap Line and, (3) the Deerfield #3 Tap Line. The Project is more specifically described in Section 1.0 of *the Central to Western Massachusetts Energy Improvement Project Application* (the "Application"), provided herewith.

[1] While NEP does not concede that the removal of the Existing Lines meets the definition of "facility" under G.L. c. 164, § 69G(2), the Company wishes to facilitate the Siting Board's review 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.

III. STANDARD OF REVIEW

8. 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 to ensure that no clearly superior route, in terms of cost, environmental impact and reliability, was overlooked (see Application, Sections 4 and 5). Finally, the applicant must show that its plans for construction of 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.

9 . Section 69J provides that the Siting Board should approve a petition to construct if it determines 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. NSTAR GSEP at 15; NEP Beverly-Salem at 10; NEP IRP at 4-5; NEP Salem at 5-6. 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.

10. To ensure reliability, each transmission and distribution company establishes and applies planning criteria for construction, operation, and maintenance of its transmission and distribution system. NSTAR GSEP at 15; NEP Beverly-Salem at 10; NEP IRP at 5; NEP Salem at 6. Compliance with the applicable planning criteria can demonstrate a "reliable" system. Id. 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; and (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. NSTAR GSEP at 15; NEP Beverly-Salem at 10; NEP IRP at 5; NEP Salem at 6-7.

11. As discussed in Section 2 of the Application, the Existing Lines and Taps must be rebuilt because they are approaching the end of their asset life and have intrinsic flaws in their structural configuration, which has resulted in poor reliability. In addition, the Existing Lines and Taps do not have sufficient thermal capacity to support the connection of proposed and future DER to the electric grid. Even without proposed DER, equipment at multiple substations served by the Existing Lines would be subject to low voltage conditions under certain contingencies. The Rebuilt Lines will also increase fiber optic capability, which will both protect the lines from lightning and improve telecommunications, resulting in improved reliability.

B. The Company Considered Alternatives to the Project.

12. The Siting Board is required to evaluate proposed projects to ensure a reliable energy supply for the Commonwealth with a minimum impact on the environment at the lowest possible cost. See G.L. c. 164, § 69H. In addition, 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. NSTAR GSEP at 30; NEP Beverly at 17; NEP IRP at 25-26; NEP Salem at 17-18.

13. 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. NSTAR GSEP at 30; NEP Beverly at 17; 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. Id.

14. 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) two partial rebuild alternatives; and (4) a complete rebuilding of the Existing Lines. (the Project). The Company's proposed Project, rebuilding the Existing Lines, best meets the needs identified in Section 2 of the Application while balancing reliability, cost, and environmental considerations.

15. After determining that the Project was the superior alternative for meeting the identified need, NEP considered two transmission structure design alternatives: one that complies with NEP's 115 kV design standards, and a second that complies with NEP's 69 kV

design standards. The Company concluded that rebuilding the Existing Lines in the existing ROW using its 115 kV structure design would best address the identified needs at a low cost while minimizing environmental impacts. It would also provide NEP with the flexibility to adapt its transmission network to future demands without undertaking costly upgrades that result in further impacts at a later date. The Company's analysis of Project alternatives is described in Section 3 of the Application.

C. The Company Properly Evaluated Alternative Routes.

16. 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. NSTAR GSEP at 37; NEP Beverly at 29; 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. Id.

1. The Siting Board has also stated that, while it has required past applicants to provide a noticed alternative route for their proposals, the practice of doing so is not mandated by Section 69J and the Siting Board has accepted that a noticed alternative route may not be warranted in all cases. Colonial Gas Company d/b/a National Grid, EFSB 18-01/D.P.U. 18-30, at

40-41 (2019) ("National Grid Lowell"); Colonial Gas Company d/b/a National Grid, EFSB 16-01, at 28 (2016) ("National Grid Mid Cape").

18. The Company undertook a thorough and objective analysis to determine if the proposed route along the ROW for the Existing Lines best balanced considerations of reliability, and minimization of environmental impacts and costs. Any feasible alternative route must continue to serve the existing substations along the E5/F6 corridor. The Company's analysis compared potential routing alternatives and demonstrated that the ROW for the Existing Lines offers clear advantages because rebuilding a transmission line within its existing ROW generally will be more efficient, more cost-effective, and less disruptive than relocating it to a new ROW. Accordingly, the Company determined that specifying a noticed alternative route was not warranted in this instance because all of the alternative routes considered by the Company were substantially inferior from a cost and environmental impact perspective than rebuilding the Existing Lines on the same ROW. Moreover, noticing an alternative route that provides no benefit has the potential to raise unnecessary concern among a new set of abutters. As such, the Company is presenting a single route option for the Project. The routing alternatives studied by the Company are more particularly described in Section 4 of the Application.

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

19. In implementing its statutory mandate under G.L. c. 164, §§ 69H, 69J, 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. NSTAR GSEP at 102; NEP Beverly at 41; National Grid Lowell at 42; National Grid Mid Cape at 29.

20. 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. NSTAR GSEP at 103; NEP Beverly at 41-42. A facility that achieves that appropriate balance meets the Siting Board's statutory requirement to minimize environmental impacts at the lowest possible cost. NEP Beverly at 41-42; NEP IRP at 46-47; NEP Salem at 39.

21. 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 determine whether a petitioner has achieved the proper balance among various environmental impacts and among environmental impacts, cost and reliability. NSTAR GSEP at 102-103; NEP Beverly at 41-42.

22. The Siting Board then examines the environmental impacts, reliability and cost of the proposed facilities 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. NSTAR GSEP at 103; NEP Beverly at 42; NEP IRP at 73; NEP Salem at 89-90.

23. 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.

24. Section 69J states 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."

25. The Project is necessary to ensure the reliable supply of electricity to customers in thirteen communities in central Massachusetts. 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 matter 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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d/b/a NATIONAL GRID

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