

**COMMONWEALTH OF MASSACHUSETTS  
ENERGY FACILITIES SITING BOARD**

---

Petition of NSTAR Electric Company	)	
d/b/a Eversource Energy for Zoning Exemptions	)	EFSB 25-06
Pursuant to G.L. c. 40A, § 3 from the Operation	)	
of the Zoning Bylaw of the Town of Dartmouth	)	

---

**BRIEF OF  
NSTAR ELECTRIC COMPANY d/b/a EVERSOURCE ENERGY**

Submitted by:

Catherine J. Keuthen, Esq.  
Cheryl A. Blaine, Esq.  
Keegan Werlin LLP  
One Cranberry Hill, Suite 304  
Lexington, MA 02421  
(617) 951-1400

Dated: May 5, 2026

**TABLE OF CONTENTS**

- I. INTRODUCTION..... 1**
- II. Procedural History..... 3**
  - A. Public Notice Requirements ..... 3
  - B. Site Visit and Public Comment Hearing..... 4
  - C. Intervention and Participation..... 4
  - D. Evidentiary Hearing and Evidentiary Record ..... 4
- III. Project Summary ..... 4**
  - A. Fisher Road Substation Expansion ..... 4
  - B. The Company’s Robust Agency and Community Outreach Fosters Public Input . 5
  - C. Project Construction Schedule and Costs ..... 8
- IV. Standard of Review for the Grant of Zoning Exemptions ..... 9**
- V. Eversource Satisfies the Criteria for the Grant of Zoning Exemptions ..... 10**
  - A. Eversource Is a Public Service Corporation. .... 10
  - B. The Company Has Established that the Substation Expansion Is Reasonably Necessary for the Public Convenience and Welfare..... 10
  - C. The Project Best Meets the Identified Need Compared to a Range of Possible Alternatives. .... 25
  - D. The Company Has Appropriately Avoided or Minimized Environmental Impacts and Proposed Appropriate Measures to Mitigate Unavoidable Environmental Impacts ..... 29
  - E. The Substation Expansion Requires Individual and Comprehensive Zoning Exemptions. .... 47
- VI. The Project Meets All Standards in G.L. c. 164, § 69H..... 66**
  - A. The Project Provides a Reliable, Resilient and Clean Supply of Energy Consistent with the Commonwealth's Climate Change and Greenhouse Gas Reduction Policies and Requirements..... 66
  - B. The Project Has Been Designed to Avoid, Minimize or Mitigate Environmental Impacts and Negative Health Impacts to the Extent Practicable. .... 68
  - C. The Project Complies with Energy, Environmental, Land Use, Labor, Economic Justice, Environmental Justice and Equity and Public Health and Safety Policies of the Commonwealth, Its Subdivisions and Its Municipalities. .... 69

D.	The Project Will Be Constructed in a Manner that Avoids or Minimizes Costs..	71
E.	The Company Duly Considered the Findings and Recommendations of Local Governments. ....	71
F.	The Company Duly Considered Advanced Conductors, Advanced Transmission Technologies, Grid Enhancement Technologies, Non-Wire or Non-Pipeline Alternatives and Other Alternatives to Avoid or Minimize Expenditures. ....	72
G.	The Project Will Increase the Capacity of the System to Interconnect Large Electricity Customers, Electric Vehicle Supply Equipment, Clean Energy Generation, Clean Energy Storage or Other Clean Energy Generation Sources or Will Facilitate the Electrification of the Building and Transportation Sectors. ...	72
H.	The Company Duly Considered any Cumulative Burdens on the Host Community and Efforts that Must Be Taken to Avoid or Minimize or, if Impacts Cannot Be Avoided or Minimized, Effort to Mitigate Such Burdens. ....	72
<b>VII.</b>	<b>Conclusion</b> .....	<b>73</b>

## I. INTRODUCTION

On March 12, 2025, NSTAR Electric Company d/b/a Eversource Energy (“Eversource” or the “Company”) filed a petition with the Energy Facilities Siting Board (the “Siting Board”) pursuant to the provisions of G.L. c. 40A, § 3 requesting that it grant individual and comprehensive zoning exemptions from the operation of the *Town of Dartmouth Zoning By-law* (“Zoning Bylaw”) in connection with the expansion of Eversource’s Fisher Road Substation #657 (“Fisher Road Substation” or “Substation”) located at 630 Fisher Road in Dartmouth (“Substation Site”) (“Substation Expansion” or “Project”). Exh. EV-1.

The Project is a component of Eversource’s Capital Investment Project (“CIP”) that was submitted to the Department of Public Utilities (“Department”) for review in accordance with its directives in the Order on Provisional System Planning Program, D.P.U. 20-75-B (2021) (“Provisional Program”). Exh. EV-1, at 2. The goal of the Provisional Program is to ensure the expeditious installation of electric power system (“EPS”) upgrades to enable the construction of solar and energy storage system projects (i.e., distributed generation or “DG” facilities) currently in the interconnection queue that have not been able to move forward because of the high cost of interconnection.<sup>1</sup> Order on Provisional System Planning Program, D.P.U. 20-75-B at 2.

Pursuant to the Provisional Program, Eversource filed a petition with the Department on April 29, 2022, seeking approval of a CIP proposal to enable new DG resources to interconnect to the Company’s transmission and distribution system in the Dartmouth-Westport area (“Dartmouth-Westport CIP”), docketed as D.P.U. 22-53. Exh. EV-1, at 2. The Dartmouth-

---

<sup>1</sup> DG resources, also known as distributed energy resources (“DER”), are facilities that must apply under a Distribution Company’s Standards for the Interconnection of Distributed Generation Tariff, regardless of whether the interconnection facility actually generates electricity, including certain types of solar and energy storage systems. Order on Provisional System Planning Program, D.P.U. 20-75-B at 1. DER and DG are used interchangeably herein.

Westport Group CIP identified various upgrades and additions, including the Substation Expansion, which are necessary to safely interconnect DG resources to the Company’s EPS in the Dartmouth-Westport area (“Dartmouth-Westport Group Upgrades”). *Id.* The Department approved the Dartmouth-Westport CIP, subject to certain modifications, in NSTAR Electric Company d/b/a Eversource Energy, D.P.U. 22-54 (2024) (the “Dartmouth-Westport Order”).

To ensure expeditious implementation of upgrades proposed and approved in CIPs, the Department imposed a four-year deadline within which transmission companies must permit, construct and bring into operation approved upgrades.<sup>2</sup> Order on Provisional System Planning Program, D.P.U. 20-75-B at 39. For the Dartmouth-Westport Group Upgrades, including the Fisher Road Substation Expansion, that four-year deadline concludes on June 24, 2028.<sup>3</sup> Exh. EV-1, at 4. The Company has used its resources efficiently and made all commercially reasonable efforts to avoid undue delays in designing the Substation Expansion and preparing and filing the Petition, all of which occurred within nine months of the start of the four-year period (“construction window”). *Id.* The Company estimates it will take approximately 18 months to complete construction of the Fisher Road Substation Expansion once construction commences, which left, at the time of the filing, approximately 21 months to obtain all permits and approvals needed for

---

<sup>2</sup> Another looming deadline for the expeditious construction of the Substation Expansion is that DG applicants are relying on investment tax credits that will be phased out because of recent legislation at the Federal level. Most of the construction (*i.e.*, one transformer, all the bus work and distribution upgrades) must be completed so that DG applicants can interconnect by the end of 2027. Exh. EFSB -Z-7; Tr. 1, at 13-14.

<sup>3</sup> In D.P.U. 20-75-B, the Department stated: “For these purposes, the Department’s adjudicatory process includes completion of the adjudicatory proceeding, issuance of a final Order, ruling on any post-Order motions, and ruling on any judicial appeal.” Order on Provisional System Planning Program, D.P.U. 20-75-B, at 39, n.41. The Department approved the Dartmouth-Westport Group CIP with the issuance of a Final Order on June 4, 2024. G.L. c. 25, § 5 provides a 20-day window to file a petition for appeal with the Department. No petitions for appeal were filed with the Department and, accordingly, the Dartmouth-Westport Order became final at the conclusion of the 20-day appeal period, on June 24, 2024. Four years from that date establishes the required end date of the construction window – June 24, 2028.

the start of construction (including the Siting Board’s grant of the zoning exemptions requested herein) and to complete the procurement process. Id.

The Project satisfies the standards for the grant of exemptions pursuant to G.L. c. 40A, § 3 because the Project is needed immediately and will serve the public interest by: (1) maintaining a reliable electric system; (2) enabling distributed generation facilities currently seeking interconnection to safely and reliably interconnect and operate; (3) enabling future distributed generation applicants to interconnect; and (4) facilitating future load growth due to electrification. Accordingly, the Company respectfully requests expeditious review of the Project and the grant of the requested zoning exemptions under G.L. c. 40A, § 3 to support timely completion of the Project within the four-year construction window established in D.P.U. 20-75-B. The Project also meets the standards for Siting Board approval pursuant to G.L. c. 164, § 69H.

## **II. Procedural History**

### **A. Public Notice Requirements**

On October 24, 2025, the Siting Board issued a Notice of Adjudication/Notice of Public Comment Hearings (the “Notice”) with an accompanying letter prescribing mailing, posting and publication requirements for the Notice (the “Publication Letter”). The Notice established: (1) a date of November 19, 2025, for a hybrid public comment hearing at the University of Massachusetts-Dartmouth; and (2) a deadline of December 8, 2025, for filing petitions for leave to intervene and for limited-participant status in the proceeding, and for written comments. The Company complied with all the publication, posting, and service requirements set forth in the Publication Letter and subsequent instructions from the Presiding Officer. Exh. EV-15.

## **B. Site Visit and Public Comment Hearing**

The Siting Board conducted a site visit at the Fisher Road Substation on November 19, 2025. The public comment hearing was held in person and virtually on November 19, 2025, at 6:30 p.m. at the University of Massachusetts-Dartmouth.

## **C. Intervention and Participation**

No petitions to intervene or to participate in the evidentiary hearing were filed.

## **D. Evidentiary Hearing and Evidentiary Record**

The Siting Board conducted the evidentiary hearing on April 7, 2026. The Company presented a total of nine witnesses for cross examination by Siting Board staff:

- Christopher Lombardi, Eversource Project Director
- Keith Jones, Eversource Principal Engineer, Distribution System Planning
- John Zicko, Eversource Director of Capital Projects Engineering
- Nicholas Forzono, Eversource Lead Engineer
- James Clancy, Eversource Senior Environmental Specialist
- Moesha Outar, Associate Specialist, Project Engagement
- Anthony Veilleux, Eversource Community Relations Specialist, Southeast Region
- Giuliana Marchetti, Burns & McDonnell, Assistant Project Manager
- Christopher Bajdek, VHB, Director of Noise and Vibration

Approximately 95 exhibits were entered into the evidentiary record, including the Petition and its attachments, responses to information and record requests, and hearing exhibits.

## **III. Project Summary**

### **A. Fisher Road Substation Expansion**

The Fisher Road Substation Site is approximately 4.5 acres in size, and the existing fenced yard is approximately 0.30 acres. Exh. EV-1, at 5. To accommodate the new and upgraded equipment, the fenced yard will be expanded to approximately one acre in size, which will require installation of a new perimeter fence. Id. Most of the expansion will be to the north of the existing Substation yard. Id. The Substation Expansion will be conducted in phases so that the Substation

will not be taken out of service during construction. Id. After the new equipment is installed, all existing foundations, equipment, and enclosures for the replaced equipment will be removed. Id. The area surrounding the existing Substation will be graded to support the expansion, and approximately 0.5 acres of trees will be removed as part of the site preparation and grading work. Id. The minimal tree removal will not appreciably decrease the tree buffer between the Substation Site and the nearest abutting properties, which are located approximately 140 feet southwest of the Substation Site and approximately 400 feet to the east of the access driveway. Exh. EV-1, at 5, 31.

In designing the Substation Expansion, the Company considered the equipment that must be installed to meet the Project need, the working space needed around each piece of equipment and construction sequence. Exh. EV-1, at 5. The expansion is required to accommodate the safe installation of the new equipment, while continuing to provide a reliable source of electric energy to Eversource customers during the construction. Id. Consistent with the Dartmouth-Westport Order, the scope of work for the Fisher Road Substation Expansion includes the following:

- Replace two existing 20 megavolt-amperes (“MVA”) transformers with two 62.5 MVA transformers, each with secondary containment systems.
- Install two 15 kV air-cooled series reactors.
- Construct new foundations and trenching and install new conduits.
- Install new 15 kV switchgear enclosure.
- Install new stormwater drainage system, as appropriate.
- Install galvanized chain link mesh fence of similar height to existing fence around the expanded substation.

Exhs. EV-1, at 5-6 and EV-3.

#### **B. The Company’s Robust Agency and Community Outreach Fosters Public Input**

The Company is committed to working closely with municipal officials in Dartmouth and with abutters to the Fisher Road Substation to provide transparent, proactive communications during permitting, construction and operation of the substation. Exh. EV-1, at 6.

The Company's initial outreach efforts were aimed at briefing local officials on the need for the Substation Expansion, the anticipated schedule, potential impacts, and the permitting and siting processes, including opportunities for public input. Exh. EV-1, at 7; Tr. 1, at 18-20. The Company met with Town of Dartmouth ("Town") municipal officials on January 14, 2025, including the Director and Assistant Director of Planning, the District 2 Fire Chief, and officials from the Department of Public Works and Public Safety. Id. The Company presented an overview of the work to be performed at the Fisher Road Substation and explicitly discussed its plan to seek individual and comprehensive exemptions pursuant to G.L. c. 40A, § 3 in lieu of seeking local zoning relief. Id. and Exh. EV-5. The Company provided a summary of the process, including notice, posting and publication of the public comment hearing and the opportunity for the Town and abutters to participate or intervene in the evidentiary proceeding. Id. The presentation included a list of zoning relief that would be needed for the Substation Expansion. Id. No municipal officials expressed concerns. Exh. EV-1, at 7.

Eversource has a detailed outreach plan specific to the Fisher Road Substation Expansion that is designed to engage the community, foster public participation, and solicit feedback from stakeholders. Exh. EV-16. As it does with all its projects, the Company took a community-based approach to its outreach efforts in Dartmouth by evaluating how the potential benefits and impacts of the work to be done would affect that community. Exh. EFSB-G-2. Information from publicly available data resources and conversations with community members and other stakeholders informed outreach efforts on the Fisher Road Substation Expansion. Id.

The Company performed initial door-to-door field outreach in February 2025. Exh. EFSB-G-2; Tr. 1, at 21-22. Feedback from Dartmouth residents living near the Substation during initial outreach efforts was limited to questions and concerns about noise impacts related to construction

and operation. Id. The Company used this feedback from residents to inform its approach for its open house, which included bringing a subject matter expert who could speak about noise concerns related to equipment operations. Exh. EFSB-G-2; Tr. 1, at 22. The Company held the open house on May 27, 2025, at the Dartmouth Public Library, Southworth Branch. Id. The Company sent postcards to residents within a quarter mile of the Substation. Id. The Company brought informational handouts provided by the Eversource Billing Assistance and Energy Efficiency teams to provide to any open-house attendees who were interested in receiving more information about available services to support bill help or energy efficiency in their homes. Id.

As part of its standard process for planning project outreach and engagement efforts, the Company used the “Languages Spoken in Massachusetts” tool (Environmental Justice Populations in Massachusetts) from the Executive Office of Energy and Environmental Affairs to determine if the Project is located within a census tract containing a limited English proficiency population based on 2015 American Community Survey data. Exh. EFSB-G-2. The Project is not located in a census tract that meets this threshold; however, data from the Massachusetts Department of Elementary and Secondary Education indicated that 1.6% of households in the North Dartmouth area code speak Portuguese at home. Id. Using this data, the Company included a Portuguese tagline with information about how to contact the Project team to ask questions or request full translation of documents on the fact sheet it left with Project neighbors during its initial door-to-door outreach efforts with nearby residents. Id.; Tr. 1, at 26.

The Company will continue its outreach in Dartmouth during the permitting and siting process and will maintain a focused communication program throughout construction, including outreach to municipal officials and abutters regarding construction staging, laydown and traffic management plans, as such details become available. Exh. EV-1, at 8. To facilitate communication,

in all its outreach materials, including mailings, the website, and at all community events for the Project, Eversource has included and will include its toll-free number and an email address for Massachusetts Projects. Id.

### **C. Project Construction Schedule and Costs**

The Company estimates that it will take approximately 18 months to complete construction of the Substation Expansion once construction commences. Exh. EV-1, at 6. The Company's objective is to complete construction of the Substation Expansion no later than June of 2028 to meet the four-year construction window established in D.P.U. 20-75-B and the Dartmouth-Westport Order. Based on this schedule, approval by the Siting Board is needed by December of 2026.

The Substation Expansion is estimated to cost \$51.9 million, based on a planning grade estimate with an anticipated level of accuracy of +25/-25 percent.<sup>4</sup> Exh. EV-1, at 6. The estimated cost for the Substation Expansion includes costs for engineering, project management, siting, permitting, materials, construction, and testing. Id.

The cost split of the Dartmouth-Westport upgrades is 40% for the interconnecting DER customers and 60% for native load distribution customers. Dartmouth-Westport Order, at 25, Table 3; Exh. EFSB-C-1.

The transmission assets are radial non-pool transmission facilities and will not be subject to regional recovery. Exh. EFSB-C-2. The transmission costs of the Project will be recovered via Local Service charges under Schedule 21-ES (Part B) to the ISO New England Open Access Transmission Tariff. Id. The wholesale customer that is responsible for paying for most of these costs is the Company's electric distribution company (NSTAR Electric). Id. Other NSTAR

---

<sup>4</sup> The distribution line work necessary to connect the Dartmouth-Westport Group DER will result in an additional cost of approximately \$14.2 million. Exh. EV-1, at 6, n.7.

Electric wholesale customers who take local service, including, but not limited to, Massport, Nantucket Electric Company, the Massachusetts Bay Transportation Authority, and Concord Municipal Light Plant, will also be responsible for paying a portion of these costs. Id.

#### **IV. Standard of Review for the Grant of Zoning Exemptions**

G.L. c. 40A, § 3 provides, in relevant part, that:

Land or structures used, or to be used by a public service corporation may be exempted in particular respects from the operation of a zoning ordinance or bylaw if, upon petition of the corporation, the [Siting Board] shall, after notice given pursuant to section eleven and public hearing in the town or city, determine the exemptions required and find that the present or proposed use of the land or structure is reasonably necessary for the convenience or welfare of the public.

A petitioner seeking exemption from a local zoning bylaw under G.L. c. 40A, § 3 must meet three criteria. First, the petitioner must qualify as a “public service corporation.” Save the Bay, Inc. v. Department of Public Utilities, 366 Mass. 667 (1975) (“Save the Bay”); NSTAR Electric Company d/b/a Eversource Energy, EFSB 19-06/D.P.U. 19-142/19-143, at 98 (2022) (“Eversource Mid Cape”); NSTAR Electric Company d/b/a Eversource Energy, D.P.U. 18-155, at 11 (2020) (“Eversource Oak Bluffs”); NSTAR Electric Company d/b/a Eversource Energy, D.P.U. 18-21, at 3 (2019) (“Eversource Westfield”).

Second, the petitioner must demonstrate that its present or proposed use of the land or structure is reasonably necessary for the public convenience or welfare. Eversource Mid Cape at 98; Eversource Oak Bluffs at 11; Eversource Westfield at 3.

Third, the petitioner must establish that it requires the requested zoning exemption from the zoning ordinance or bylaw. Eversource Mid Cape at 98; Eversource Oak Bluffs at 11; Eversource Westfield at 3-4.

## V. Eversource Satisfies the Criteria for the Grant of Zoning Exemptions

### A. Eversource Is a Public Service Corporation.

A “public service corporation” is defined in relevant part in G.L. c. 40A, § 1A, as amended by St. 2024, c. 239, § 36, as:

a corporation or other entity duly qualified to conduct business in the commonwealth that owns or operates or proposes to own or operate assets or facilities to provide electricity, gas, telecommunications, cable, water or other similar services of public need or convenience to the public directly or indirectly, including, but not limited to, an entity that owns or operates or proposes to own or operate electricity generation, storage, transmission or distribution facilities, or natural gas facilities including pipelines, and manufacturing and storage facilities.

Eversource is an “electric company” as defined in G.L. c. 164, § 1, meaning, it is “a corporation organized under the laws of the commonwealth for the purpose of . . . selling, transmitting, distributing, transmitting and selling, or distributing and selling, electricity within the commonwealth.” As such, because Eversource is an electric company that owns and operates facilities to provide electric service, Eversource qualifies as a public service corporation for the purposes of G.L. c. 40A, § 3 and, therefore, is entitled to seek zoning exemptions pursuant to G.L. c. 40A, § 3. See Eversource Mid Cape at 100; see also NSTAR Electric Company d/b/a Eversource Energy, EFSB 17-02/D.P.U. 17-82/17-83, at 194 (2019) (“Eversource Sudbury-Hudson”).

### B. The Company Has Established that the Substation Expansion Is Reasonably Necessary for the Public Convenience and Welfare.

#### 1. Standard of Review

In determining whether the present or proposed use is reasonably necessary for the public convenience or welfare, the Siting Board must balance the interests of the general public against the local interest. See Save the Bay, 366 Mass. at 685; see also Town of Truro v. Department of Public Utilities, 365 Mass. 407, 410-11 (1974). Specifically, the Siting Board is empowered and required to undertake “a broad and balanced consideration of all aspects of the general public

interest and welfare and not merely [make an] examination of the local and individual interests which might be affected.” New York Central Railroad v. Department of Public Utilities, 347 Mass. 586, 592 (1964) (“NY Central Railroad”). When reviewing a petition for a zoning exemption under G.L. c. 40A, § 3, the Siting Board is empowered and required to consider the public effects of the requested exemption in the State as a whole and upon the territory served by the applicant. See Save the Bay, 366 Mass. at 685; see also NY Central Railroad, 347 Mass. at 592.

Therefore, when making a determination as to whether a petitioner’s present or proposed use is reasonably necessary for the public convenience or welfare, the Siting Board examines: (1) the need for, or public benefits of, the present or proposed use; (2) the present or proposed use and any alternatives or alternative sites identified; and (3) the environmental impacts or any other impacts of the present or proposed use. The Siting Board then balances the interests of the general public against the local interest and determines whether the present or proposed use of the land or structures is reasonably necessary for the convenience or welfare of the public. Eversource Mid Cape at 100-01; Eversource Oak Bluffs at 13; Eversource Westfield at 6.

When demonstrating the need for a proposed transmission facility based on reliability considerations, a petitioner applies its established planning criteria for construction, operation, and maintenance of its transmission and distribution system. NSTAR Electric Company d/b/a Eversource Energy, EFSB 22-03/D.P.U. 22-21, at 15 (2024) (“Eversource Cambridge”); Eversource Mid Cape at 10; Eversource Sudbury Hudson at 15. Compliance with the applicable planning criteria can demonstrate a “reliable” system. Eversource Cambridge at 15; Eversource

Mid Cape at 10; New England Power Company d/b/a National Grid, EFSB 19-04/D.P.U. 19-77/19-78, at 10 (2021) (“NEP Beverly Salem”).

To determine whether new electric infrastructure is needed, the Siting Board: (1) examines the reasonableness of the Company’s system reliability planning criteria; (2) evaluates 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 certain contingencies, given existing and projected loads. Eversource Cambridge at 16; Eversource Mid Cape at 10; NEP Beverly Salem at 10; see also Town of Sudbury v. Energy Facilities Siting Board, 487 Mass. 737, 748-749 (2021) (“Town of Sudbury”).

When a petitioner’s analysis of system reliability and facility requirements is driven, at least in part, by load projections, the Siting Board reviews the underlying load forecast. Eversource Cambridge at 16; Eversource Mid Cape at 10; Eversource Sudbury Hudson at 15. The Siting Board requires that forecasts be based on substantially accurate historical information and reasonable statistical projection methods that include an adequate consideration of conservation and load management. Eversource Cambridge at 16; Eversource Mid Cape at 10; Eversource Sudbury Hudson at 15. To ensure that this standard has been met, the Siting Board requires that forecasts be reviewable, appropriate, and reliable. Eversource Cambridge at 16; Eversource Mid Cape at 10; Eversource Sudbury Hudson at 15. A forecast is reviewable if it contains enough information to allow a full understanding of the forecast method; a forecast is appropriate if the method used to produce the forecast is technically suitable to the size and nature of the company to which it applies; and a forecast is considered reliable if its data, assumptions and judgments provide a

measure of confidence in what is most likely to occur. Eversource Cambridge at 16; Eversource Mid Cape at 10-11; Eversource Sudbury Hudson at 15.

In making its need determination, the Siting Board is also guided by precedent from the Supreme Judicial Court (the “SJC”), which underscores the importance of the Siting Board’s statutory mandate to ensure a reliable supply of electricity:

State law makes it clear that the residents of the Commonwealth simply cannot be exposed to foreseeable and avoidable power outages. See St. 1997, c. 164, § 1 (h) (Electric Utility Restructuring Act) (“reliable electric service is of utmost importance to the safety, health, and welfare of the commonwealth’s citizens and economy”). See also St.1997, c. 164, § 1 (a) (“electricity service is essential to the health and well-being of all residents of the commonwealth, to public safety, and to orderly and sustainable economic development”). If government and industry fail to properly plan and act to timely address our energy needs, enormous suffering can result.

Town of Sudbury, 487 Mass. at 749.

As described in the following sections, the Company amply demonstrates a clear and compelling need for the Substation Expansion to address system reliability, including for the interconnection of DG, in accordance with well-established standards and precedent. Because the record shows that need for the Project on balance outweighs identifiable adverse local impacts associated with its construction and operation, the Project is reasonably necessary for the convenience or welfare of the public.

2. The Project Is Needed to Comply with Applicable National, Regional, and Company Reliability Standards and Criteria for Transmission and Distribution System Planning.

The Company must operate its transmission and distribution systems in compliance with the following planning and engineering standards.

Reliability standards and criteria developed by the North American Electric Reliability Corporation (“NERC”), the Northeast Power Coordinating Council (“NPCC”) and the Independent System Operator-New England (“ISO-NE”) require that transmission operators

design, test and operate their systems to withstand representative contingencies and plan and implement system additions and upgrades to address the identified inadequacies. Exh. EV-1, at 16-17. These standards provide limits for voltages and loading and if identified criteria violations are not addressed, there is a risk that transmission equipment could become overloaded and voltage levels could be outside of acceptable operating ranges under certain system conditions. Id.

Eversource's Transmission System Design and Analysis Guideline ("TSDAG") describes the current standards, criteria, and assumptions used for planning the Eversource transmission system in New England, which are consistent with those established for the interconnected bulk power system by the Federal Energy Regulation Commission, NERC, NPCC, and ISO-NE, all requiring that the transmission system be designed with sufficient transmission capacity to serve area loads in the event of an N-1 contingency or an N-1-1 contingency (a second contingency following an initial contingency).<sup>5</sup> Exh. EV-1, at 16-17.

Eversource's Bulk Distribution Substation Assessment Procedure, known as SYS-PLAN 010, establishes the guidelines for the planning and design of the Company's bulk substation and distribution facilities, and sets forth reliability criteria by which the capacity and reliability performance of the Company's supply systems is gauged, and how these assessments are conducted. Exh. EV-1, at 17; Exh. EV-7.

Eversource's Distribution System Planning Guide ("DSPG") outlines the planning criteria, design and analysis methods and engineering rationale for effectively expanding the distribution system to meet demand and sets forth standards for distribution system design and system studies including loading criteria, equipment ratings, system voltages, power quality, reliability, standard

---

<sup>5</sup> "N-1" refers to loss of a single transmission element and is a contingency planning standard that requires, for situations in which Company EPS equipment is out of service, that customers do not lose electric service. N-1-1 refers to a second contingency following an initial contingency.

substation designs, secondary network criteria, evaluation of the interconnection of DER, system modeling criteria, load forecasting, system study methodologies, and modeling assumptions. Exh. EV-1, at 17-18. The DSPG includes procedures for evaluating N-1 contingencies applied to bulk substation equipment and substation distribution tie-lines to assure that in the event of the loss of any one of the applicable EPS equipment components, customers would not lose electric service. Id. at 18.

The Eversource tariff, “Standards for Interconnection of Distributed Generation” M.D.P.U. No. 55A (“DG Interconnection Tariff”), sets forth the process and requirements for the interconnection of DER into Eversource’s electric power grid. In accordance with the DG Interconnection Tariff, the Company performs system impact studies to ensure the safe and reliable interconnection of DG resources to Eversource’s EPS. Exh. EV-1, at 18-19.

The Eversource Distributed Energy Resources Planning Guide (“DERPG”) describes the planning criteria and analyses that are used to study the impacts of DG seeking to interconnect to the Company’s EPS to ensure that DG does not degrade the safety, performance or reliability of the EPS. Exh. EV-1, at 18-19 and Exh. EV-8.

3. The Project Is Needed to Maintain a Reliable Energy Supply in the Dartmouth-Westport Area.

a. The Existing Transmission and Distribution System

Fisher Road Substation and Cross Road Substation #651 (“Cross Road Substation”) are the two substations in the Dartmouth-Westport area that were the subject of the Dartmouth-Westport CIP and upgrades to these two substations were approved in the Dartmouth-Westport Order. Exh. EV-1, at 13. The two substations collectively supply approximately 16,800 customers in Dartmouth, Westport, and New Bedford. Id. Fisher Road Substation has two 115/13.2-kV

transformers, each with a maximum capacity of 22.4 MVA,<sup>6</sup> and five 13.2-kV feeders serving Dartmouth and a portion of Westport. Id. at 13-14. Transformer #1 is connected through a circuit switcher to Line #109 and Transformer #2 is connected through a circuit switcher to Line #111, both 115-kV overhead transmission lines. Id. at 14.

Cross Road Substation, also located in Dartmouth, was substantially upgraded in the 2011/2012 timeframe with two new 115/13.2-kV transformers, each with a maximum capacity of 62.5 MVA. Exh. EV-1, at 14. There are five 13.2-kV feeders serving portions of Dartmouth and Westport, as well as a portion of the City of New Bedford. Id.

The Cross Road and Fisher Road Substations and the interconnecting distribution/feeder line system are inter-dependent and rely on each other during emergencies and day-to-day operations. Exh. EV-1, at 14. The two substations tie into each other at the 13.2 kV distribution level and provide distribution backup in the event of contingencies. Both have heavy penetrations of existing online DG and large queues of DG applicants. Id. The backup substations for the Fisher Road Substation at the 13.2 kV distribution level are the Cross Road Substation in Dartmouth and the Pine Street Substation in New Bedford, and the backup substations for the Cross Road Substation at the 13.2 kV distribution level are the Fisher Road and Pine Street Substations, and Industrial Park Substation in New Bedford. Exh. EV-1, at 14.

The Cross Road and Fisher Road Substations collectively serve approximately 64 MW of native customer peak load.<sup>7</sup> Dartmouth-Westport Order at 17. Currently, there is a total of 72 MW

---

<sup>6</sup> Load and DG nameplate capacity are provided in megawatts (“MW”). Equipment ratings are provided in MVA.

<sup>7</sup> Native customer load is used herein to identify wholesale and retail power customers as distinguished from interconnecting distributed generation facilities.

of installed DG, which includes 61 MW of installed ground-mounted large DG (i.e., facilities larger than 15 kW) and 11 MW of rooftop (small) DG. Id.

Currently, Fisher Road Substation has a total capacity of 44.8 MVA, firm capability of 22 MVA (N-1 scenario for loss of one transformer), and load carrying capacity (“LCC”) of 28 MVA (which is the station’s firm capability of 22 MVA plus 6 MVA transfer capability). Exh. EV-1, at 15.

The actual peak load at Fisher Road Substation in 2024 was 23.7 MVA, which is 108% of the station’s total firm capability and 85% of the LCC. Exh. EV-1, at 15. The actual peak load at Cross Road Substation in 2024 was 32.1 MVA, which is 43% of the firm capacity of 75 MVA and 36% of the substation’s LCC of 90 MVA. Id. However, this forecast does not reflect an anticipated 10 MW load increase in the area. Exh. EFSB-Z-7; Tr. 1 at 36-38. Eversource performed an impact study on its electric power system out of Fisher Road and Cross Road Substations, which indicated that the Company must complete the Fisher Road Substation Expansion as planned to meet this load addition target, regardless of whether the interconnection of additional DER materializes in the quantities studied. Id.

- b. The Dartmouth-Westport Group Study Demonstrated that the Existing Transmission System is Insufficient to Safely and Reliably Interconnect DG to the Company’s Transmission System.

The Company analyzed system constraints in the Dartmouth-Westport Area (“Dartmouth-Westport Group Study”) because the addition of DG to or between the Cross Road and Fisher Road Substations could affect other parts of the EPS in the Dartmouth-Westport Area. Exhs. EV-1, at 20; EFSB-PA-1(1). The primary focus was to evaluate the expected impacts of Group Study DG on the system’s steady state voltage and loading, voltage flicker, fault current contribution, and interaction with voltage control equipment, and to assess the risk of potential problems for

loss of mains detection in the event of islanding conditions.<sup>8</sup> Id.

The Fisher Road Substation is highly saturated with existing DG and has zero MW of available bulk substation hosting capacity.<sup>9</sup> Exhs. EV-1, at 21; EFSB-N-2. Approximately 32.8 MW of ground-mounted and behind-the-meter DG is currently connected to Fisher Road Substation. Id. Additional DG cannot be connected to Fisher Road Substation because the existing connected DG already exceeds the capacity of the station (24 MVA). Id. Under current conditions, DG already connected to the Company's EPS would be lost under certain contingencies. Id. Thus, the Project is needed not only to enable future interconnection of DG, but to maintain the reliability of the electric grid for DG already connected to the system. Id.

c. Transmission and Distribution Systems Are Not Sufficient to Interconnect DG Resources.

The Dartmouth-Westport Group Study identified multiple 23 kV distribution capacity and voltage issues, which demonstrate that under specific N-1 contingencies, the Company cannot connect the in-queue Group Study DG because of insufficient transformer capacity, excessive fault current, thermal overloads on distribution line feeders, and other system limitations.<sup>10</sup> Exh. EV-1, at 25. This would violate SYS-PLAN 010 criteria, which require that: (1) the transmission system supplying distribution bulk substations be designed such that that no single transmission contingency event results in loss of customer load; and (2) when individual transmission lines

---

<sup>8</sup> The term "islanding" refers to the situation where an outage occurs on the distribution system, and DG is disconnected from the bulk power system but continues to serve a portion of the distribution system. Islanding causes safety and reliability issues. Exh. EV-1, at 20. A transient over-voltage can result from islanding when an upstream breaker or protective device opens due to a fault, in which event, customers on the un-faulted phases may experience momentary excessive voltages that may damage appliances and equipment. Id.

<sup>9</sup> Bulk station hosting capacity is the amount of distributed generation a substation can accommodate, assuming one of the transformers at the substation is off-line (either for service or repair). Exh. EV-1, at 21. Location hosting capacity is the amount of distributed energy a circuit can accommodate, which cannot exceed the bulk substation hosting capacity of the circuit's substation. Id.

<sup>10</sup> The results of the Dartmouth-Westport Group Study are summarized in the Dartmouth-Westport Interconnection Impact Study, dated May 20, 2022. Exh. EV-1, at 22.

provide the supply to more than one bulk transformer, all customer load shall be served in the event of the coincident loss of transformers, after operation of automatic restoral systems or the use of distribution automation capabilities. Id. In addition, the loss of both existing and anticipated DG during specific single contingencies also would violate Section 3.5 of the TSDAG, *Consequential Load Loss Guidelines*, which has a 0 MW threshold for residual load loss resulting from the loss of a radial, single element serving load.<sup>11</sup> Id.

Considering existing and Group Study DG, the existing Fisher Road Transformer #1 would be loaded to 53% of its nameplate rating under normal N-0 conditions and at 180% of its nameplate rating under emergency N-1 conditions. Exh. EV-1, at 22. Similarly, the existing Transformer #2 would be loaded at 127% of its nameplate rating under normal N-0 conditions and at 180% of its nameplate rating under N-1 conditions. Id. With the existing and Group Study DG, the Fisher Road Substation transformers would be thermally overloaded under N-0 (Transformer #2 only) and N-1 (both Transformer #1 and #2) contingency scenarios. Id.; Exh. EFSB-N-2. This would violate Eversource SYS PLAN 010, Section 4.11.3 *Contingency Conditions, Loss of a Bulk Distribution Supply Transformer* and DSPG criteria, which states that a single contingency at a station should not lead to permanent loss of service to a distribution customer and/or a DER customer. Exh. EV-1, at 22. In addition, overloads at this level would likely seriously damage the transformers. Exh. EFSB-N-2.

For certain contingencies, the existing 24 MW summer peak and forecasted native load served out of the Substation could be carried in part by a single transformer and in-part could be transferred via 13.2 kV ties to the Cross Road and Pine Street Substations . Exh. EV-1, at 22-23. However, in the event of such contingencies, all existing DG on the 13.2 kV tie lines would be

---

<sup>11</sup> Residual load loss refers to all gross load that is no longer served after the operation of all existing automatic load restoration schemes. Exh. EV-1, at 25.

tripped offline. Id. Existing and proposed DER cannot be backed up by Cross Road Substation, which also has substantial online and Group Study DG, because there would be a potential for mutual thermal, steady state voltage, voltage flicker, islanding, and transient overvoltage constraints that could lead to unreliable or unsafe operation of the electric power system. Id.

The Dartmouth-Westport Group Study identified additional system limitations caused or aggravated by Group Study DG interconnections, including:

(1) Thermal overloads on distribution feeders connected to Fisher and Cross Road Substations under normal conditions would be in violation of DSPG, Section 2.3.1, *Loading Limits for Conductors used in the Distribution System* and in the event of an N-1 contingency, the existing conductor on the feeders would be thermally overloaded based on their current conductor size in violation of Section 3.5, *Consequential Load Loss Guidelines*. Exh. EV-1, at 23-24; Exh. EV-8. The existing distribution feeders are so highly saturated with existing DER that to interconnect additional DER applicants, nearly 6.9 miles of distribution conductor would need to be upgraded to larger conductor sizes. Additionally, two new 13.2 kV distribution feeders out of Fisher Road Substation, totaling approximately 5.7 miles, would be required. Exh. EFSB-N-2. Without attendant distribution upgrades to accommodate the Group Study DER applicant interconnections, circuits would either trip or burn, causing a safety issue, and area outages. Id.

(2) DER facilities would send power back to substation transformers (reverse flow) where adequate ground fault overvoltage protection is not available. Exh. EV-1, at 24.

(3) Thermal capacity constraints or voltages would be more than the maximum allowable, which can cause damage to utility and/or customer equipment. Exh. EV-1, at 24.

(4) There would be a potential risk of islanding or transient over voltages, voltage flicker (rapid changes in system voltages which affects the quality of power for customers) violations and

excessive load tap operations.<sup>12</sup> Exh. EV-1, at 24; Exh. EFSB-N-2. These limitations constitute violations of various sections of the Eversource DERPG, including: (a) Section 6.1, *Steady-State Thermal And Voltage Criteria*; (b) Section 6.3, *Rapid Voltage Change and Voltage Flicker*; (c) Section 6.4, *Transient Overvoltage (TOV) and Transient Analysis*; (d) Section 6.5, *Transformer Power Capability*; (e) Section 6.6, *3V0 Assessment (Transmission Ground Fault Protection)*; and (f) Section 6.10, *Short Circuit Evaluations*. Exh. EV-1, at 24; Exh. EV-8.

d. Recent Developments Do Not Diminish the Need for the Project.

Following the issuance of the Dartmouth-Westport Order, there have been changes in the interconnection request queues, including the total number of requests and the requested capacity, for both the Fisher Road and Cross Road Substations. Exhs. EV-1, at 21-22; EFSB-N-3. The Dartmouth-Westport Group Study analyzed the connection of Group Study DG, which initially contained six proposed facilities totaling 16 MW of DG capacity when the Group was formed. Two projects totaling approximately two MW withdrew prior to the Department's Final Order in the Dartmouth-Westport CIP. Dartmouth-Westport Order at 13. When the Petition was filed in March of 2025, 11 MW of Group Study DER projects remained active, with three projects connecting to the Fisher Road Substation and none connecting to the Cross Road Substation. Exh. EFSB-N-3. In September 2025, one of the remaining projects withdrew, leaving two Fisher Road Substation DER projects totaling approximately 8 MW. Id.; Tr. 1, at 30.

However, the attrition in interconnection applications does not diminish the need for the Substation Expansion because the interconnection conditions are unchanged. Exh. EFSB-N-3. Even without the approximately 8 MW of projects requesting interconnection, the approximately

---

<sup>12</sup> Excessive tap operations occur when a high number of tap operations on the transformer's load tap changer are required to maintain acceptable system voltages. Exh. EV-1, at 24. This can lead to load tap changer maintenance issues or premature failure of the load tap changer. Id.

32.8 MW of DER facilities currently connected to Fisher Road Substation already far exceeds the Substation's firm capacity of only 22.4 MVA. Exhs. EV-1, at 21; EFSB-N-2. In addition, as noted above, a large electrification is anticipated to add load to the system in this area. Exh. EFSB-Z-7; Tr. 1, at 38.

e. The Substation Expansion Is Needed for the Safe and Reliable Operation of the Transmission System.

If Eversource does not address the impacts of interconnecting additional DG to interconnected substations in high DG saturated areas, it would result in degradation in service quality for all customers and prolonged outages for DGs in the area, which would undermine the Commonwealth's plans for the short and long-term reduction of greenhouse gas emissions through development of solar capacity. Exhs. EV-1, at 23; EFSB-N-2. In addition, without construction of the Project and other required system improvements described below, the interconnection of Group Study DG would result in violations of Eversource planning standards under certain N-1 contingencies. Exh. EV-1, at 23. DG that is interconnected to the Company's EPS in the Dartmouth-Westport area would be tripped offline and remain offline until the primary transmission system is restored, in violation of the Company's planning standards. Id. Depending on the contingency event, DER outages could range from several hours to a month or more. Exh. EFSB-N-2.

To avoid thermal overloads and the loss of load and DG under N-1 contingencies, the Company identified various upgrades and additions that are necessary to safely interconnect the Group Study DG (i.e., the Dartmouth-Westport Group Upgrades). Exh. EV-1, at 25. Using Eversource Distribution Planning Criteria, other internal guides and standards for system design and equipment application, and industry standards, the Company identified the following EPS upgrade projects needed to interconnect the Group Study DG:

- Upgrade two existing substation transformers, switchgear, duct bank, and getaway cables at Fisher Road Substation.
- Install two three-phase series reactors at both Fisher Road and Cross Road Substation.
- Upgrade distribution lines (overhead and underground conductors) on each of the Cross Road Substation and Fisher Road Substation distribution systems.<sup>13</sup>

Dartmouth-Westport Order at 18. This Petition relates only to the work at Fisher Road Substation because zoning exemptions are not needed for the upgrades proposed at the Cross Road Substation.<sup>14</sup> Exh. EV-1, at 25-26. The D-W Group Upgrades identified above are needed to enable DG facilities to safely interconnect and operate and for the Company to maintain a reliable EPS. Id. The D-W Group Upgrades provide for the interconnection of proposed Group Study DG projects, as well as additional large DG capacity. Id.

The Department approved the Dartmouth-Westport CIP (including the Fisher Road Substation Expansion) and found that the D-W Group Upgrades are reasonably based on the EPS upgrades identified in the Dartmouth-Westport Group Study and that the proposed EPS upgrades and cost estimates are reasonable. Dartmouth-Westport Order, at 101-102.

Construction of the Project, as well as completion of the complete package of distribution upgrades identified in the Dartmouth-Westport Group Study, will maintain and improve distribution reliability and service quality for native load and DER customers in the Dartmouth, Westport, and New Bedford areas. Exh. EFSB-2. The Substation Expansion addresses the potential for thermal overloads and voltage concerns following certain contingencies when DG is connected

---

<sup>13</sup> Three additional overhead distribution feeders are necessary to interconnect the 60 MW of fully enabled capacity for future Large DG facilities beyond the Dartmouth-Westport Group Study. Dartmouth-Westport Order at 18. Connection of the Dartmouth-Westport Group Study DG also will require certain transformer replacements that qualify as transmission upgrades. Id.

<sup>14</sup> In its D-W CIP proposal, the Company did not seek approval for the two three-phase series reactors that were identified in the Group Study as needed at Cross Road Substation to interconnect DER because this work had been previously identified as needed to address a pre-existing safety and reliability issue relating to high fault current. Exh. EFSB-N-5.

to the Company's transmission system. Exh. EV-1, at 25-26. This system reliability need is immediate, and a solution must be implemented so that the Company can fulfill its obligation to interconnect DG while maintaining reliability for its existing customers. Id.

f. The Substation Expansions Will Result in Additional Benefits

In addition to the ability to safely interconnect DER to the Eversource EPS, the D-W Group Upgrades, including the Project, will also benefit distribution customers by improving reliability and enabling future electrification that is needed to meet the Commonwealth's 2050 Decarbonization Goals. Exh. EV-1, at 26. The D-W Group Upgrades are expected to improve the reliability of all customers (new and existing). Id.; see also Exh. EFSB-N-2. For example, new distribution lines proposed under this solution can be used to create new distribution circuit ties with the overall goal of reducing customer count by zones, which reduces the number of customers affected by feeder or line outages. Exh. EV-1, at 26. Furthermore, additional capacity that is needed to accommodate the Group Study DG also provides additional distribution load capacity for customers. Id. at 26-27.

The D-W Group Upgrades also will result in electric system reliability improvements for several environmental justice ("EJ") communities in the Dartmouth-Westport Group Study area. Exhs. EV-1, at 27; EFSB-N-5. The D-W Group Upgrades will result in an approximately 197% increase in annual energy served from renewable sources in the electric system, supplying approximately 76,200 EJ population customers. Exh. EV-1, at 27. Currently, approximately 103 GWh of energy in the Dartmouth-Westport Group Study area is supplied from renewable resources on an annual basis, while after the upgrades are constructed, approximately 204 GWh of energy will be generated from renewable resources. Dartmouth-Westport Order, at 143.

g. Conclusion on Need

Based on the above, the Project is vitally needed so that existing customer demand and proposed interconnecting DG demand can be served. Exh. EV-1, at 26. By facilitating the interconnection of distributed generation facilities that help meet the Commonwealth's clean energy goals, the Project furthers the state's critical objectives of having a reliable and resilient electric supply, at a reasonable cost to customers and distributed generation developers and promoting the development of energy resources that are consistent with emission reduction goals. Exh. EFSB-G-7. The Project will not only interconnect DG, but will also enable electrification of heating and transportation, both of which support the Commonwealth's decarbonization objectives. Id. Timely achievement of these energy policies is entirely consistent with the statutory standard of public convenience and the public interest. Id. By addressing imminent DG interconnection cost allocation concerns, the Project is reasonably necessary for the benefit of the public convenience and welfare. Id.

**C. The Project Best Meets the Identified Need Compared to a Range of Possible Alternatives.**

Eversource considered several solutions to resolve the above-discussed reliability needs to determine the approach that best balances reliability, cost, and environmental impact. Exh. EV-1, at 27. The evaluation involved a combination of engineering judgment, modeling, and simulation to iteratively determine appropriate design changes, and technology and equipment application that would enable safe, reliable interconnection. Id. Solutions that were more costly, unproven or not technically viable were rejected in favor of solutions that could be counted on to reliably integrate as much DG as possible in a cost-effective manner. Id.

1. No Build Alternative

A no-build approach would have no direct environmental or cost implications; however, it

would also not increase hosting capacity for the Dartmouth-Westport Group Substations and, therefore, would not result in the ability to connect DG nor enable the Company to reliably meet demand in the event of certain contingencies. Exh. EV-1, at 28. Accordingly, this approach was dismissed from further consideration. Id.

## 2. The Preferred Alternative (the Project)

To address the potential for thermal loading violations on substation transformers and distribution circuits, Eversource proposes to upgrade and add new facilities (described in detail above) to the Fisher Road Substation (“Preferred Alternative”). Exh. EV-1, at 28. The Preferred Alternative also entails the installation of two three-phase series reactors at Cross Road Substation. Id. The new facilities and upgrades will allow the Group Study DG to connect and operate under both normal and emergency (N-1) conditions and create additional headroom for future DER due to the use of standard equipment sizes. Id. Eversource determined that the Dartmouth-Westport Upgrades would enable 14 MVA of proposed Group Study DG projects, as well as 44 MW of additional large DG capacity, for a total of 58 MW. Id.

## 3. Non-Wire Alternatives

Non-wire alternatives (“NWAs”) may use a combination of energy efficiency and demand response programs, new DG, and new energy storage facilities to defer or avoid the underlying need for a transmission or distribution project. Exh. EV-1, at 28. NWAs may be effective when the underlying need for a project is driven by increasing customer load levels, so that the load reductions provided by the NWA allow an increasing number of electric customers to be served with the existing transmission and distribution infrastructure. Exh. EV-1, at 28-29.

Here, however, the Project is needed to reliably serve the proliferation of existing and proposed solar and battery energy storage system projects, including the Group Study DG. Exh.

EV-1, at 29. Substation and distribution upgrades, including the Fisher Road Substation Expansion, is required to interconnect the Group Study DG because the existing transmission and distribution facilities in the Dartmouth-Westport Study area do not have sufficient system hosting capacity. Id. Due to the sheer number and size of the interconnecting facilities, implementation of an NWA would not address the thermal overloads and other violations that would occur if these DG projects were connected to the existing system. Id. Accordingly, NWAs are not a solution to the identified need nor viable alternatives to the proposed Project but rather are dependent on it and therefore, were eliminated from further consideration. Id.

#### 4. Substation Alternative

The Company evaluated construction of a new 115/13.2 kV bulk distribution substation at a new, to be determined location to interconnect some of the Group Study DG; however, this alternative was deemed not viable for several reasons. Exhs. EV-1, at 29; EFSB-N-4. First, there are only two Eversource substations (Fisher Road and Cross Road) that are located near the existing and planned Dartmouth-Westport area DER facilities. Exh. EFSB-N-4. The majority of the Group Study DG is located south of Fisher Road Substation, in an area that has ties only to Fisher Road Substation distribution circuits and weak ties to Pine Street Substation, which supplies an underground 13.2 kV system. Exh. EV-1, at 29. Connecting DER facilities to a substation located further away would result in longer distribution feeders, more substantial voltage drop, potential voltage violations, lower reliability for customers, and higher interconnection costs for both DER and native load customers. Exh. EFSB-N-4. Future DER and load electrification enablement would accordingly be lower due to capacity constraints arising from these factors. Id. Second, construction of a new bulk distribution substation would involve land acquisition and, depending on the location and other site-specific conditions, additional permitting than would be

required for the Substation Expansion, which likely could not be accomplished within the four-year deadline specified in the D.P.U. 20-75-B. Exh. EV-1, at 29-30.

Even if construction of a new substation south of Fisher Road Substation were a viable alternative to the Project, Eversource does not own any land for a future substation in this area. Id. at 30. Moreover, an extension of the 115 kV system would be required for which Eversource has no existing easement rights. Id. The Company did not conduct a detailed cost estimate of building a transmission line extension or a new substation; however, given there would be land and easement acquisition costs, such an alternative would be inevitably more expensive than the Fisher Road Substation Expansion. Id. Moreover, construction of this alternative would likely have more environmental impacts because it would involve development of a new substation site rather than upgrades to, or expansion of, an existing station. Id. Finally, this alternative may require substantial additional development within and near existing EJ communities. Based on these considerations, the Substation Alternative was not further investigated. Id.

#### 5. Advanced Transmission Technologies

Although certain advanced transmission technologies will be used in conjunction with the D-W Group Upgrades, the Company determined that due to the magnitude of existing and planned DER interconnections, such technologies alone would not be sufficient to reliably operate the electric power system. Exh. EFSB- PA-2.

#### 6. Conclusion on Alternatives

Eversource's objective study process identified a technically optimal and viable solution that, given the applicable standards and criteria, would cost-effectively enable the safe, reliable interconnection of the Group Study DG and maintain quality of service for all customers, native load and DG alike. Exh. EV-1, at 30. A range of traditional and emerging solutions were tested

and recommended to resolve project needs, accounting for existing and approved DG, load impacts and system constraints. Id. The Dartmouth-Westport Group Upgrades are the only cost-effective combination of alternatives that will effectuate the substation and distribution capacity increases that are necessary to allow for the safe and reliable DG interconnections within the Dartmouth-Westport Group Study area, within the four-year implementation timeline. Id.; Exh. EFSB-N-4.

**D. The Company Has Appropriately Avoided or Minimized Environmental Impacts and Proposed Appropriate Measures to Mitigate Unavoidable Environmental Impacts**

Eversource conducted a detailed analysis of the environmental resources in the vicinity of the Fisher Road Substation Expansion and has proposed measures to minimize unavoidable impacts to these resources from the construction and operation of the Substation Expansion. Exh. EV-1, at 30. Eversource's analysis demonstrates that the Substation Expansion will achieve an appropriate balance among environmental impacts, reliability, and cost. Id.

1. Construction Activities and Methods

The Substation Expansion will be constructed in full compliance with the National Electrical Safety Code ("NESC"), standards of the Institute of Electrical and Electronic Engineers and the American Standards Institute, good utility practice, and in accordance with the Company's specifications, best management practices ("BMPs"), final engineering plans, and the conditions specified in permits and approvals obtained for the Project. Exh. EV-1, at 31. As demonstrated below, all impacts from construction will be temporary and minimized to the extent practicable. Exhs. EFSB-L-1, EFSB-L-2.

Construction Schedule and Hours - The Company anticipates it will require approximately 18 months to complete construction of the Substation Expansion. Exh. EV-1, at 31. Typical construction hours will be between 7:00 a.m. to 8:00 p.m., Monday through Friday, and from 9:00

a.m. to 5:00 p.m. on Saturdays when daylight and weather conditions allow.<sup>15</sup> Id. Per discussions with the Town of Dartmouth Building Inspector, written requests for weekend work or extended hours will be provided in advance for approval. Id. In limited circumstances, some work tasks (such as cable splicing, concrete pouring, transformer filling), once started, will require continuous operation until completion. Id. Work requiring scheduled outages and work that requires continuous operation until completion may need to be performed on a limited basis outside of normal working hours (including evenings, weekends, and holidays). Id. The Company will provide notification to the Town should the need for continuous operation and extended work hours arise. Id.

Construction Sequencing - The fenced area of the existing Substation is approximately 13,700 square feet. Exh. EV-1, at 32. As part of the Substation Expansion, the Substation fence will be expanded in all directions by approximately 26,300 square feet, resulting in a new Substation footprint of approximately 40,000 square feet. Id. Construction of the Substation Expansion will be conducted as follows so as not to disrupt substation operation: (1) site clearing and preparation including tree removal, grubbing, grading, slope stabilization measures, construction of staging and laydown areas and gravel access road construction or improvements; (2) fence expansion to accommodate new equipment; (3) installation of new transformers, circuit switchers, series reactors, and switchgear not impacting the existing Substation operation (4) cutover of existing distribution circuits to new switchgear; (5) demolition of existing Substation

---

<sup>15</sup> Chapter 250-4A of the Town of Dartmouth General Bylaws allows operation of tools and equipment in connection with construction and demolition between the hours of 7:00 a.m. and 8:00 p.m. on weekdays. Exh. EV-1, at 31. Construction activities are allowed beyond those hours if it is determined to be in the interest of public safety or welfare, and upon the issuance of and pursuant to a permit from the Building Department. Id.

equipment; and (6) site stabilization and site restoration work. Some of these activities will overlap to the extent that the site conditions allow. Id.

Mobilization and Laydown - Prior to the start of construction, Eversource's contractor will identify a marshaling/storage yard near each Substation, which is typically an existing contractor's yard or unused space at a commercial or industrial facility, for temporary offices, sanitation facilities, dumpsters, and containers specifically for collection and recycling shipping material and scrap metals. Exh. EV-1, at 32.

Erosion and Sediment Controls - Following mobilization, erosion and sediment ("E&S") controls will be installed in accordance with Eversource's BMP Manual. Exh. EV-1, at 32. Based on site-specific factors, the Company has determined that biodegradable wattle type E&S controls will be used. Id.; Tr. 1, at 57-58, 113. However, the type and location of erosion controls may change during construction based on specific Project needs or weather conditions. Exh. EFSB-CM-1; Tr. 1, at 58. In accordance with Eversource's BMP Manual, to protect wildlife, no welded plastic or mesh E&S controls will be utilized; rather, all wattles and blankets shall be constructed of biodegradable (coir or cotton) materials. Exh. EV-1, at 32.

Compliance Monitoring - During and following Project construction, environmental compliance monitoring will be conducted by qualified individuals to ensure that appropriate construction methods are employed to reduce environmental impacts and comply with applicable regulatory requirements. Exh. EV-1, at 33. Monitoring will be provided in accordance with the requirements of regulatory approvals issued for the Project, including the U.S. Environmental Protection Agency ("USEPA") Stormwater Construction General Permit, which requires the development of a Stormwater Pollution Prevention Plan for the Substation Expansion. Id.

## 2. Evaluation of Environmental Impacts

Land Use – Access to the 4.5-acre Substation Site is via an approximately 20-foot-wide, 500-foot-long driveway with frontage on Fisher Road. Exh. EV-1, at 33. Overhead distribution lines run the length of the access driveway from the Substation to Fisher Road where they interconnect with the Company’s local distribution system. Id. The Substation Site is bordered to the north and east by an approximately eight-acre, undeveloped, densely wooded parcel of land. A 150-foot-wide transmission corridor exits the Substation Site and traverses the undeveloped parcel to the northeast. Id. The parcels beyond the undeveloped parcel to the north and east are densely wooded. Id. The rear yards of two residential parcels southwest of the Substation Site, both with frontage on Fisher Road, are separated from the Substation Site by approximately 140 feet of vegetated buffer. Id. The rear yards of three residential parcels that lie to the east of the access driveway, all with frontage on Fisher Road, are separated from the Substation Site by approximately 400 feet of vegetated buffer. Id.

Approximately two acres of land within the Substation Site will be disturbed by the Substation Expansion, including approximately 0.5 acres of tree removal. Exh. EV-1, at 34. This estimate includes approximately 0.3 acres of previously developed land currently occupied by the existing Fisher Road Substation. Id. There are no anticipated permanent changes to abutting land uses associated with construction of the Substation Expansion, which is consistent with the existing and surrounding utility infrastructure and current land uses. Id.; Exh. EFSB-L-2. While construction may result in temporary impacts to abutting stakeholders, operation of the upgraded Substation will not cause significant, permanent impacts. Id.

Wetland and Water Resources – The Substation Site contains and is adjacent to Bordering Vegetated Wetlands (“BVW”), the majority of which are scrub-shrub and forested wetlands. Exh.

EV-1, at 34. No work associated with the Substation Expansion is proposed in BVW; however, approximately 1.2 acres of buffer zone to BVW will be permanently impacted by the expansion. Id. The Company will file a Notice of Intent with the Dartmouth Conservation Commission pursuant to both the state Wetlands Protection Act, G.L. c. 131, § 40 and Chapter 360 of the Town of Dartmouth General Bylaws (the local wetlands protection bylaw) for approval to work in jurisdictional areas in connection with the Substation Expansion.<sup>16</sup> Id.

During construction, oils (hydraulic oil); greases (lubricating); and construction equipment fuels (gasoline and diesel) may be used in varying quantities. Exh. EV-1, at 34. The Company and its contractors are required to always have spill kits available in the event of inadvertent release of these substances. Id. To minimize the risk of environmental impacts associated with potential spills, contractors are required to inspect vehicles and equipment daily. Id. at 35. Eversource maintains a 24-hour-per-day/7-day-a-week spill response program in the event of an inadvertent release. Id.; Exh. EFSB-S-4. Spill response will initially include assessing, controlling, and containing the spill. Spill containment for the types of materials indicated generally includes utilization of spill kit materials such as absorbent socks or booms, application of granular absorbent material and absorbent pads. Subsequent cleanup would include collection of all spill-impacted media in bags or drums for disposal in accordance with applicable regulations. Id.

The new transformers will include 110 percent passive secondary containment, which is consistent with the NESC (ANSI C2) and the Guide for Containment of Oil Spills in Substations (IEEE 980). Exh. EV-1, at 35; Exh. EFSB-W-4. The planned secondary containment will be able

---

<sup>16</sup> As noted above, the Dartmouth-Westport Group Study results indicated that distribution lines on the Fisher Road Substation distribution system need to be upgraded. Exh. EV-1, at 34. The Company will replace the existing overhead distribution lines exiting the Substation via the access driveway with underground conduits. Id. The Company will seek approval from the Dartmouth Conservation Commission for work associated with the distribution line replacement that may be located within jurisdictional wetlands. Id.

to accommodate a 24-hour, 25-year storm event, which is defined as seven inches of rainfall over a 24-hour period. Id. Oil leaks would be detected by liquid level alarms that are installed on the transformers. Tr. 1, at 68. These alarms are transmitted to the operation center, which is staffed continuously. Id.; Exh. EFSB-S-3.

Flood Zone – The Fisher Road Substation Site is not located within any mapped Flood Zone. Exh. EV-1, at 36.

Visual – The Substation Site has approximately 80 feet of frontage on Fisher Road. An approximately 20-foot wide, 500-foot-long access driveway connects Fisher Road with the Substation Site. Exh. EV-1, at 36. The Substation Expansion will be predominantly to the northeast and northwest of the existing fenced yard. Id.

The primary viewpoint from which the existing Substation and proposed Substation Expansion may be observed is from Fisher Road. From that vantage, the viewshed consists primarily of the overhead distribution lines on the access driveway (approximately 15 distribution structures approximately 45 feet in height). Exh. EV-1, at 36. As noted above, the D-W Group Upgrades include upgrade of the distribution lines on the Fisher Road Substation distribution system and, as part of those upgrades, the Company will remove the overhead distribution lines on the access driveway and place them underground in a duct bank within the access drive.<sup>17</sup> Id.; Tr. 1, at 111. Thus, there will be a substantial improvement in the viewshed from Fisher Road in that less utility structures will be visible. Exh. EV-1, at 36; Exh. EV-10; Tr. 1, at 111.

As noted above, the existing Substation yard and expansion area to the northeast and northwest on the Substation Site are largely surrounded by densely forested areas, and the rear

---

<sup>17</sup> One distribution line, which is located to the east of the access road, will remain overhead to avoid wetland impacts. Since this distribution line does not directly abut the access road and is located against a backdrop of vegetation, the improvement in the viewshed from Fisher Road will not be diminished.

yards of five residential parcels (two west of the access drive and three east of the access drive) are separated from the Substation Site by approximately 140 feet and 400 feet, respectively, of vegetated buffer. Exh. EV-1, at 36. The modest amount of vegetation removal needed for the expansion will not significantly alter this natural buffer. Id. The Substation Expansion represents a continuation and expansion of the existing Substation and overall will not significantly negatively alter the visual characteristics of the area. Id. Notwithstanding these conditions, the Company will consider the potential visual impact on affected homeowners and will work to address concerns and offer reasonable mitigation, if and where necessary. Id.; Tr. 1, at 112-13.

Noise – The Company will use construction methods and equipment, where appropriate, to reduce construction noise, including use of the quietest equipment possible to perform the work, and foundation designs that minimize the amount of excavation required and maximize preassembly of components off site. Exh. EV-1, at 37. Estimated maximum sound levels for each equipment type expected to be used during construction are between 65 and 73 dBA approximately 200 linear feet from the Substation fence, which is the approximate distance to the nearest abutter. Exh. EFSB-NO-13. Sound from outdoor construction activity, with no physical obstruction, dissipates by approximately 6 dBA for every doubling of linear distance. Id. The dissipation of overall construction sound will likely be further aided by the irregular topography on site and the vegetative buffer between the site and abutters. Id. The Company expects that construction will be conducted using a six-day per week work schedule to minimize the duration of the Project and associated construction impacts. Exh. EFSB-NO-14. Because the Project involves work on an existing power system that serves customers, there may be times that work will need to occur outside of proposed work hours. Id. To the extent such expanded hours are necessary, the Company will work with affected stakeholders to minimize impacts. Id.

Regarding operational noise, the existing Substation operates with two 20 MVA transformers, which will be replaced with two new, state-of-the-art 62.5 MVA transformers, each with a maximum design sound output of 62 dBA. Exh. EV-1, at 37. The Company conducted a sound level assessment (“Sound Study”) to determine potential sound level impacts associated with the operation of the expanded Substation with the new transformers in operation, which included measurement of ambient sound levels in the vicinity of the Substation, sound level modeling to predict impacts from the Substation Expansion, and a comparison of modeled sound levels with the applicable regulations and noise policy of Massachusetts Department of Environmental Protection (“MassDEP”).<sup>18</sup> Id.; Exh. EV-11. The monitoring duration, methodology, statistical analysis, and quality control measures of the Sound Study provide a thorough and defensible representation of long-term ambient noise conditions at the Project Site and nearby receptors.<sup>19</sup> Exh. EFSB-NO-12; Tr. 1, at 99-100.

The new transformers will be the dominant noise sources for the expanded Substation. Exh. EFSB-NO-4; Exh. EV-11. The noise will be continuous as a steady, broadband sound with identifiable low-frequency components that will vary depending on the load. Id. As the load

---

<sup>18</sup> The sound studies did not consider the scenario where both transformers would operate at 75 MVA at the same time because that is not a potential operating condition. Exhs. EFSB-NO-2; EFSB-NO-15. The firm capacity of the Substation (the capacity with one transformer unavailable) is 62.5 MVA with 75 MVA being its long-term emergency rating. Id. If both transformers were operating at the same time, it would exceed the firm capacity of the station. Exh. EV-1(F), Section 4.6, page 8 of 26.

<sup>19</sup> The sound monitoring provides an accurate representation of long-term conditions because the measurements were performed continuously over a seven-day period (January 23-30, 2025), capturing a full range of daily and weekly operational conditions, including daytime and nighttime periods, weekday and weekend activity, and variations in traffic and community noise sources. Exh. EFSB-NO-12; Tr. 1, at 99-100. This duration is consistent with standard acoustic practice for establishing baseline ambient sound conditions and is sufficient to account for typical temporal variability in environmental noise. Id. In addition, the measurements were conducted under appropriate meteorological conditions, with no precipitation and wind speeds below 10 miles per hour, ensuring that weather-related influences on sound propagation were minimized. The use of ANSI (American National Standards Institute) Type I sound level meters, along with field and laboratory calibration traceable to NIST (National Institute of Standards and Technology) standards, further ensures the accuracy and reliability of the data. Id.

increases, the temperature of the insulating oil in the transformers increases and at certain preset temperatures, specific transformer cooling fans will turn on. Id. There will be no vibration issues to any adjacent structures. Id. The MassDEP noise policy limits source levels to a sound level increase of no more than 10 dBA over background at the property line of residences and other noise-sensitive receptors. Exh. EV-1, at 38; Exh. EV-11. The Sound Study demonstrated that, under the current design, operation of the Substation Expansion will not result in sound level increases greater than 10 dBA above ambient conditions as measured as measured at the Substation property boundary nearest the two closest residential abutters. Id.

Since the filing of the Sound Study, the Company finalized its selection of the transformers that will be installed as part of the Substation Expansion and provided its sound consultant with factory test data for an electrical and physical duplicate of those transformers with a request to update the noise prediction model and assessment against the MassDEP noise policy (DAQC Policy 90-001). Exhs. EFSB-NO-3(S); EFSB-NO-3(S)(1) (“Updated Modeling Results”). While the transformers that will be installed at the expanded Substation will be 62.5 MVA each, they can operate at 75 MVA for 12 hours during emergencies. Id. Notwithstanding that the frequency of such emergency events is very low (see Exhs. EFSB-NO-1; EFSB-NO-15), the sound consultant used the emergency condition (i.e., one transformer operating at 75 MVA) to conservatively model daytime and nighttime predicted sound. Exhs. EFSB-NO-3(S); EFSB-NO-3(S)(1). The predicted sound levels at all 20 receptor locations are consistent with the results of the Sound Study and are within the MassDEP increase criteria of 10 dBA over ambient as measured at the Substation property boundary nearest the two closest residential abutters. Exh. EFSB-NO-3(1). However, the updated modeling predicted a pure tone condition as defined by MassDEP at 10 receptor locations. Id.

Notably, as discussed above, the transformer input data for both the Sound Study and the Updated Modeling Results conservatively used an operating condition (one transformer at full load) that has an extremely low probability of occurring. Exhs. EFSB-NO-1; EFSB-NO-15. Thus, regarding the predicted pure tone conditions in the Updated Modeling Results, the input data for the transformer is a prediction based on one discrete operating point that may never occur. Exh. EFSB-NO-3(S); Tr. 1, at 76-77. Moreover, the transformer manufacturer cannot guarantee the sound level spectrum of the transformers to be installed as part of the Substation Expansion and, accordingly, there is the potential for the installed condition to vary from the prediction modeling. Exhs. EV-11; EFSB-NO-3(S); EFSB-NO-03(S)(1). Given the potential for pure tone conditions, the Company notes the following.

First, the Company proactively specifies transformers with the lowest commercially achievable sound output, which is achieved by using laser etched steel to reduce core sound and bracing the windings to reduce winding sound. Exh. RR-EFSB-2; Tr. 1, at 89-91. The transformer tank is constructed with integral sound attenuating walls to reduce both core and coil sound and multiple low speed fans are employed to reduce fan sound. Id. This important first line mitigation is incorporated into every transformer of the size used on the Project and will be incorporated on the new transformers for the Substation Expansion. Id. This first line sound reduction mitigation was used at Eversource's Chestnut Street Substation in Needham (a three-transformer substation) for a capacity increase project located in closer proximity to sensitive receptors than the Substation and no sound complaints from abutters to the Chestnut Street Substation have been received. Id.

Second, the Company will place vibration isolators under both transformers during their installation. Exhs. EFSB-NO-3(S); RR-EFSB-2; Tr. 1, at 78. Vibration isolators are specialized mats, typically made of neoprene, rubber, or cork, that are placed under transformer units to

dampen mechanical vibrations and reduce noise. Id. The Company has had considerable success with vibration isolators reducing noise impacts. Tr. 1, at 78; Exh. RR-EFSB-2. The Company has successfully used this mitigation option to reduce or eliminate the risk of pure tone conditions on similar transformers and shunt reactors at its Woburn Substation and on shunt reactors at the North Cambridge Substation. Exh. RR-EFSB-2.

Third, given that the prediction of pure tone conditions in the Updated Modeling Results were based on a single, worst case operating point that has an extremely low probability of occurring, and because the Company will specify transformers with the lowest commercially achievable sound output and install vibration isolators between the transformer bases and the foundations, the Company does not propose to implement any other mitigation before the Substation Expansion is in operation. Until it is established that there are actual pure tone conditions during operation of the expanded Substation, there is no justification to install costly sound walls or a total enclosure. Exh. RR-EFSB-2.

Finally, the Company has well-established procedures for addressing noise complaints during construction and operation. Exh. EFSB-NO-9. Eversource has established email and phone communication channels by which stakeholders can reach out to the Company with questions and concerns before and during Project construction. Id. If a stakeholder calls with a complaint about sound, the Company will gather details about the nature of the sound from the resident, investigate the complaint and offer to meet with the resident on site to better understand the nature of the sound. Id. The Company will then investigate the potential actions that could be taken to mitigate any abnormal or excessive sound. Id.; Exhs. EFSB-NO-3; EFSB-NO-5; EFSB-NO-6. Sound walls and full enclosures are costly mitigation options that the Company believes should only be

implemented if noise complaints are received after the Substation Expansion is in operation and all other mitigation options have been exhausted. Exh EFSB-RR-2.

Air Quality – The potential for air quality impacts is limited to construction activities, namely fugitive dust from disturbed soil surface areas and emissions from construction equipment and motor vehicles. Exh. EV-1, at 38. If necessary, dust generated from earthwork and other construction activities will be controlled by spraying with water and using anti-tracking pads. Id.; Tr. 1, at 60. Regular sweeping of the pavement of adjacent roadway surfaces during the construction period will minimize the potential for construction traffic to kick up dust and particulate matter. Id. Disturbed areas will be stabilized with temporary measures until permanent stabilization can be achieved (e.g., placing stone or gravel, erosion control blankets, seed covered with straw). Id.

Eversource will direct its construction contractors to retrofit any diesel-powered non-road construction equipment rated 50 horsepower or above to be used for 30 or more days over the course of the Project with USEPA-verified (or equivalent) emission control devices (e.g., oxidation catalysts or other comparable technologies). Exh. EV-1, at 38. Eversource uses ultra-low sulfur diesel (“ULSD”) fuel in its own diesel-powered construction equipment, which has a maximum sulfur content of 15 parts per million as opposed to low sulfur diesel fuel that has a maximum sulfur content of 500 parts per million. Id. at 39. By using ULSD fuel, there is a 97 percent reduction in the sulfur content as compared to low sulfur diesel fuel. Id. Finally, Eversource and its contractors will also comply with state law (G.L. c. 90, § 16A) and MassDEP regulations (310 C.M.R. 7.11(1)(b)), which limit vehicle idling to no more than five minutes with certain exceptions. Id.

There will be no air quality impacts resulting from operation of the expanded Substations. Exh. EV-1, at 38; Exh. EFSB-A-1. Notably, SF<sub>6</sub> gas is currently contained within the gas circuit switchers of the existing Substation and will be contained within the new gas circuit switchers that will be installed at the expanded Substation. Exh. EFSB-A-3. The circuit switchers are filled and sealed at the factory and are not intended to be opened once in service and typically do not need to be replaced due to gas leakage. Id. The Company provides training for SF<sub>6</sub> Gas Handling and Reclamation Cart Training, SF<sub>6</sub> Gas Management, SF<sub>6</sub> Safety, and SF<sub>6</sub> Regulatory Training. Id. SF<sub>6</sub> is shipped in cylinders approved by the United States Department of Transportation and is handled in accordance with the gas and equipment manufacturers' work practices. Id. New SF<sub>6</sub> equipment is filled by Eversource or by contractor personnel working under Eversource supervision. Eversource personnel have been trained by the equipment manufacturer and follow the equipment filling instruction guide. Id. If gas needs to be added to the equipment once in operation, trained Eversource employees perform this task following the manufacturer's instruction guide. Id. The equipment is filled during installation and is not opened until maintenance is required, at which time the SF<sub>6</sub> gas is captured into a gas cart. Id.

Construction Traffic – Ordinarily, construction vehicles will be working within the Substation Site and only limited entry and exiting of these vehicles will occur onto Fisher Road. Exh. EV-1, at 39. However, the Project will require access from local roads during construction for delivery of materials or equipment, which will be planned during off-peak traffic hours. Id.; Tr. 1, at 108-109. There may also be situations when Fisher Road must be temporarily blocked for a short time to accept supplies, move larger pieces of equipment onto the Substation site, or to facilitate underground distribution line installation across the road. Id. These situations will be infrequent and for a short duration and a police detail will be used to control traffic. Id. The

Company will coordinate with the Town of Dartmouth to ensure that construction traffic impacts are minimized. Id.; Exh. EFSB-T-1.

Waste, Debris, and Contaminated Soil – There are no mapped MassDEP Tier Classified 21E sites or properties with activity and use limitations within one-quarter mile of the Substation Site, with the nearest mapped site is approximately 1.1 miles north of the Substation Site. Exh. EV-1, at 39. In the event contaminated soil, contaminated groundwater or other regulated materials are encountered during construction, soils/groundwater will be managed pursuant to the Utility Related Abatement Measure provisions of 310 C.M.R. § 40.00 (the Massachusetts Contingency Plan, “MCP”). Id. at 39-40. Eversource will contract with a Licensed Site Professional as necessitated by conditions encountered, consistent with the requirements of the MCP. Id. at 40. Any materials to be removed from the Substation during construction of the Substation Expansion that are characterized by MassDEP as waste ban materials, in accordance with 310 C.M.R. § 19.017(3), will not be disposed in landfills. Id. Materials will be recycled to the extent practicable. Id.

EMF – The Company does not anticipate any appreciable increase in magnetic field levels at the expanded Substation fence line over what the existing Substation contributes. Exh. EV-1, at 40. This is because the dominant source of magnetic fields in the vicinity of substations is typically the transmission lines entering the substation and there will be no change to the lines entering the Fisher Road Substation resulting from the Substation Expansion. Id. In any event, magnetic fields from substation sources undergo significant attenuation at the distance to the fence line. Thus, there are presently negligible magnetic fields at the station fence line and there is no expected increase of magnetic fields at the fence line resulting from the Substation Expansion. Id.

The Company's internal analysis supports these conclusions. Exh. EFSB-EMF-1. The Company took measurements at 27 locations within three feet of the existing Substation fence. Id. All measured magnetic fields taken at these locations (ranging from 3.9 milligauss "mG" to 19.0 mG) are well below the reference levels for whole body exposure by the public to 60-Hz magnetic fields, which are: (1) 2,000 mG, the reference level established by the International Commission on Non-Ionizing Radiation Protection; and (2) 9,040 mG, the maximum permissible exposure level established by the International Committee on Electromagnetic Safety. Id. Both organizations have concluded that evidence for effects from long-term exposure to EMF is insufficient for setting exposure standards. Id.

The Company took several additional measurements at different locations to demonstrate the attenuation of fields as well as fields that occur normally away from the station. Exh. EFSB-EMF-1. The first set of additional measurements were taken at distances of twenty-five and forty feet from the southern corner of the existing fence along a line headed southeast extending parallel to the fence. Id. The measured values at these two locations, 4.3 mG and 2.6 mG, respectively, are less than the magnetic field detected at the fence line (8.8 mG), which demonstrates the attenuation of fields outside the station fence as distance from the station equipment and the concentration of overhead distribution lines diverge from the station. Id. The second additional measurement was taken at the station entrance gate located along Fisher Road approximately 440 feet from the station fence. Id. The magnetic fields at this location near the entrance gate (4.7 mG) are slightly higher than the measurement at 40 feet from the station fence (2.6 mG) because of the density of and the

height of the distribution lines exiting the station relative to ground. Id. The magnetic field levels at these additional locations are also well below the established guidelines referenced above.<sup>20</sup> Id.

Regarding electric fields, there will be no change in electric fields after the Substation Expansion because electric fields are a function of voltage and neither the voltage nor the configuration of transmission lines entering the Substation will change due to the Substation Expansion. Exh. EV-1, at 40.

Archaeological and Historical Resources – Eversource’s cultural resource consultant performed cultural resource due diligence for the Substation Expansion in December 2024. Exh. EV-1, at 40. The consultant reviewed the Massachusetts Historical Commission’s (“MHC”) Inventory of Historic and Archaeological Assets of the Commonwealth, performed a pedestrian walkover to assess archaeological sensitivity, and concluded that the Substation Site has low archeological sensitivity due to previous site development and overall disturbance from grading and filling over truncated soils. Id. at 41. The Company plans to file a Project Notification Form with the MHC and will continue to consult with the MHC and other stakeholders to identify potential significant cultural resources and to avoid, minimize, or mitigate any effects the Project may have on historic properties. Id.

Areas of Critical Environmental Concern – The Substation Site is not within or nearby any Area of Critical Environmental Concern. Exh. EV-1, at 41.

---

<sup>20</sup> The Company will replace the existing overhead distribution lines exiting the expanded Substation via the access driveway with underground conduits. Exh. EV-1, at 34, n.17. The peak in the magnetic field profile for a below ground line is directly above the duct bank. Exh. EFSB-EMF-2. The magnetic field for an underground line tends to have a more concentrated profile with more rapid attenuation. Id. Accordingly, the Company expects that the magnetic field exposure from the proposed underground conduits will be less than from the existing overhead lines. Id. As noted in footnote 17, one distribution line will remain overhead. This does not change the Company’s conclusion because the contributions of all lines affect the resultant fields. Id. While the overhead line will contribute to the magnetic field, its contribution will be a fraction of the magnetic field from the underground lines. Id. Electric fields are not present with underground conduits. Id.

Protected Open Space and Article 97 Lands – The Substation Site is not within Protected Open Space or on Article 97 lands. Exh. EV-1, at 41.

State-Listed Species and Habitat – No areas of protected habitat for state-listed species on the Substation Site were identified when using ArcGIS™ software and applying MassGIS mapping of Natural Heritage and Endangered Species Program Priority and Estimated Habitat areas. Exh. EV-1, at 41.

Safety - The Substation Expansion will be constructed in full compliance with the NESC, standards of the Institute of Electrical and Electronic Engineers and the American Standards Institute, good utility practice, and in accordance with the Company's specifications, BMPs, final engineering plans, and the conditions specified in permits and approvals obtained for the Project. Exh. EV-1, at 31.

During construction, the areas under construction but not in service and outside of the existing Substation fence will be secured by temporary fences similar to other construction sites. Exh. EFSB-S-2. The areas under construction containing in-service equipment will be secured by the existing Substation perimeter fence that meets or exceeds the requirements of the NESC and are accessible only with a qualified escort in accordance with NESC and Company procedures. Id. Once constructed, the first line security device will be the Substation perimeter fence, which will meet or exceed NESC requirements for preventing unauthorized access. Id.; Tr. 1, at 71. In addition, security cameras will be located around the Substation and cyber security measures will include card readers on doors and access points, and firewalls on communication links. Exh. EFSB-S-2.

Climate Considerations – To ensure that it safeguards its valuable assets, the Company seeks to address Project vulnerabilities to climate change through a comprehensive internal review

using the best available data on related hazards, including sea level rise, extreme weather conditions, and flooding. Exh. EFSB-G-5. The Company uses this data to inform design decisions and mitigate potential vulnerabilities to climate-related hazards at specific project locations. Id. The Company is also proactive in its engagement with local government agencies to obtain input on projects and to help ensure the Project does not exacerbate any climate-related hazards in the community. Id.; Tr. 1, at 15-20.

The Company utilized the ResilientMass Action Team Climate Resilience Design Standard Tool (“RMAT”) for the Fisher Road Substation Expansion. Exh. EFSB-G-5. The results show that the Fisher Road Substation has (1) no exposure to Sea Level Rise Storm Surge; (2) high exposure to Extreme Precipitation – Storm Water Flooding; (3) moderate exposure to Extreme Precipitation – Riverine Flooding; and (4) high exposure to Extreme Heat. Id. To mitigate any high-water conditions from extreme precipitation, Eversource has designed a stormwater management system for the Fisher Road Substation Expansion in accordance with the MassDEP Stormwater Management Standards that will minimize the impacts of stormwater flooding. Id. Eversource has not experienced any riverine flooding at the Fisher Road Substation and has deemed that the normal design practice to have equipment installed on foundations that will raise the equipment above grade will suffice in the protection of any flooding of this type. Id. To manage the impacts from extreme heat, Eversource has specified equipment that has a maximum operation temperature of +40° C (104° F) at full load. Id.

Conclusion on Environmental Impacts - The environmental impacts associated with the Project are *de minimis* and/or temporary in nature and the Company has incorporated a variety of measures to ensure that such impacts will be minimized to the maximum extent practical. Exh. EV-1, at 30-41.

**E. The Substation Expansion Requires Individual and Comprehensive Zoning Exemptions.**

1. Standard of Review

In determining whether an exemption from a particular provision of a zoning bylaw is “required,” the Siting Board looks to whether the exemption is necessary in order to allow construction or operation of the petitioner’s project as proposed. See Eversource Mid Cape at 102; Eversource Oak Bluffs at 14; Eversource Westfield at 6.

It is a petitioner’s burden to identify the individual zoning provisions applicable to the project and then to establish on the record that exemption from each of those provisions is required:

The Company is both in a better position to identify its needs, and has the responsibility to fully plead its own case . . . The Department fully expects that, henceforth, all public service corporations seeking exemptions under c. 40A, § 3 will identify fully and in a timely manner all exemptions that are necessary for the corporation to proceed with its proposed activities, so that the Department is provided ample opportunity to investigate the need for the requested exemptions.

New York Cellular Geographic Service Area, Inc., D.P.U. 94-44, at 18 (1995); Eversource Mid Cape at 102-03; Eversource Oak Bluffs at 14; Eversource Westfield at 6-7.

As described in more detail below, the construction and operation of the Substation Expansion is, or may be construed to be, inconsistent with certain provisions in the Dartmouth Zoning Bylaw, which would require local zoning relief.<sup>21</sup> However, the Substation Expansion is needed in the immediate time frame to provide reliable transmission service and to increase capacity of the electric system in the area to facilitate the interconnection of DG projects. To allow for the timely and efficient construction of the expanded Substation, Eversource is seeking both individual and comprehensive zoning exemptions from the operation of the Zoning Bylaw because

---

<sup>21</sup> There have been no amendments of the Zoning Bylaw nor any refinements of the Project design since the filing of the Petition that require updates to the individual zoning exemptions requested by the Company for the Fisher Road Substation Expansion. Exh. EFSB-Z-1.

of the uncertainty in obtaining local zoning relief and the potential for adverse interpretations, delay, burden and undue expense associated with the local permitting process and appeals therefrom.

2. The Company's Outreach with Dartmouth Zoning Officials

The Dartmouth Building Inspector did not attend the January 14, 2025, meeting that Company representatives had with municipal officials. Exh. EV-1, at 7. However, the Company sent him the PowerPoint presentation by email and alerted him that the Company intended to seek individual and comprehensive exemptions pursuant to G.L. c. 40A, § 3 rather than local zoning relief. Id.; Exh. EV-5. The PowerPoint presentation included a list of zoning relief for which the Company planned to request exemptions from the operation of the Zoning Bylaw and explained the scope of the comprehensive exemption being sought. Id. On January 30, 2025, the Building Inspector responded by email that he had reviewed the presentation and did not have any concerns or comments. Exh. EV-1, at 7.

3. Zoning Exemptions Are Needed from Specific Provisions of the Zoning Bylaw

Exemptions are needed from the following provisions of the Zoning Bylaw to ensure the efficient and timely construction of the Fisher Road Substation Expansion. Exh. EV-1, at 42-51; Exh. EV-2.

Substation Use in Single Residence B Zoning District. The Substation Site is in the Single Residence B zoning district. Section 375-8.2 of the Zoning Bylaw prescribes the uses allowed as-of-right and by special permit in that zoning district. Public utility/substation uses are not expressly allowed per Section 375-8.2 of the Zoning Bylaw. Exh. EV-1, at 43. The existing Substation was constructed in 1961, and while the Company has no records to demonstrate that it sought and received local zoning relief or zoning exemptions from the Department, that likely means that

when the existing Substation was constructed, it conformed to any then-existing zoning requirements. Exh. EV-1, at 43; Exh. RR-EFSB-3. The subsequent adoption of zoning in Dartmouth, or subsequent amendments to the Zoning Bylaw that now prohibit public utility/substation uses in the Residence B zoning district, rendered the existing Substation a preexisting nonconforming use. Exh. EV-1, at 43. The continued operation of the existing Substation is grandfathered per Section 375-6.1.A., but as a preexisting nonconforming use, the existing Substation may be changed, expanded or extended only by the grant of a special permit by the Dartmouth Board of Appeals, and only if the Board of Appeals finds that the Substation Expansion is not more detrimental to the neighborhood than the existing Substation. Exh. EV-2, Section 375-6.1.E.(2). This standard is subjective and the grant of a special permit for change/expansion/extension of a pre-existing nonconforming use is discretionary. A special permit, even if granted, could contain burdensome or restrictive conditions that could impede the Company from constructing the Substation Expansion in accordance with applicable laws, regulations and industry standards. Finally, the process of obtaining a special permit, as well as the process for an appeal of the special permit, if granted, could further delay the construction and operation of the Fisher Road Substation Expansion. Such delay would be contrary to the public interest because timely construction of the Substation Expansion is needed to provide reliable service and increase the capacity of the electric system in the area to facilitate the interconnection of DG projects in compliance with the Provisional Program. For these reasons, the Company requests an exemption from the requirement to seek a special permit pursuant to Section 375-6.1.E. of the Zoning Bylaw to expand, extend or change a preexisting non-conforming use.

If the existing Substation was not found to be a preexisting nonconforming use, then the Substation Expansion would be allowed only insofar as it would be allowed in Section 375-8.2.<sup>22</sup> That section does not expressly allow public utility/substation uses either as of right or by special permit. Accordingly, it would be considered a prohibited use in the Residence B zoning district. Prohibited uses can be authorized by the grant of a use variance, but the Zoning Bylaw at Section 375-43.3 expressly prohibits the grant of use variances in the Residence B zoning district. Because no local zoning relief would be available to the Company in that circumstance, an exemption from the prohibition of public utility/substation use of the Substation Site in the Residence B zoning district per Section 375-8.2 would be per se required and the Company seeks the exemption for the avoidance of doubt.<sup>23</sup>

Substation Use in Aquifer Protection Overlay District. The Substation Site is in the Aquifer Protection Overlay District (“APOD”), which is regulated by Article 28 of the Zoning Bylaw. Among the many prohibited uses in Section 375-28.5.B. are the following two, which the Substation Expansion will not meet:

- (8) Lot coverage above 10%, or lot coverage above 2,500 square feet of any lot, whichever is greater; and

---

<sup>22</sup> It is the applicant’s burden to demonstrate that a preexisting nonconforming use or structure was lawfully in existence or lawfully begun at the time the zoning by-law took effect, which made it nonconforming. The Company would need to make this showing in its application for a special permit to expand the existing Substation. It is likely, but not certain, that the Board of Appeals would characterize the existing Substation as a preexisting nonconforming use.

<sup>23</sup> Note that Section 375-8.2.R includes as an allowed use: “Any uses exempted from zoning by Massachusetts General Laws, Chapter 40A, Section 3, except that the development standards of this Zoning Bylaw shall apply.” The Company does not consider the Substation Expansion an “exempt use” until the Siting Board grants the Company’s requested zoning exemptions because G.L. c. 40A, § 3 does not outright exempt public utility uses from the operation of zoning enactments. Rather, it authorizes the Siting Board to do so upon petition by the public utility after meeting statutory standards. Thus, Section 375-8.2.R would apply to Substation Expansion only if the Siting Board were to grant the zoning exemptions requested herein. Because Section 375-8.2R requires the proponents of exempt uses to meet the development standards in Section 375-8.4 (e.g., dimensional requirements, off-street parking and lighting requirements, etc.), the Company seeks an exemption from any requirement to satisfy or comply with the development standards in Section 375-8.4. Exh. EV-1, at 43, n.18.

- (15) The excavation or the removal of soil, loam, sand, gravel or any other mineral substances within four feet of the historical high groundwater table elevation [as determined by a DEP approved soil evaluator in accordance with 310 CMR 15.103(3) and witnessed by the Board of Health in all non-residential projects] - unless the substances removed are re-deposited within 45 days of removal on site to achieve a final grading greater than four feet above the historical high water mark, and except for excavations for the construction of building foundations, swimming pools, roof runoff infiltration systems or the installation of utility works and approved drainage systems.

An exemption is needed from Section 375-28.5.B.(8) because the percent lot coverage of the Substation Site with the Substation Expansion will be 32% and greater than 2,500 square feet. Exh. EV-1, at 44. The intent of maximum lot coverage provisions is to limit the percentage of a lot that can be covered by impervious surfaces such as buildings and driveways to aid in stormwater infiltration and reduce flooding and erosion. Exh. RR-EFSB-5. Regardless of the amount or percentage of lot coverage of the Substation Expansion, it will not appreciably increase the amount of impervious surface on the Substation Site because the fenced open Substation yard and the new access road (i.e., the developed portion of the Substation Site) will not be covered with impervious material. Exh. RR-EFSB-5. While there will be discrete foundations for the equipment that will be installed, most of the yard will be topped with gravel, as will the new access driveway. Id. Thus, the grant of an exemption from the maximum lot coverage provision in the APOD will not negatively impact the aquifer.

An exemption is also needed from Section 375-28.5.B.(15), which prevents excavation within four feet of the historical high groundwater table. When the Company filed the Petition, geotechnical work had not advanced to definitively determine whether excavation would comply with this provision. Exh. EV-1, at 44. However, the geotechnical analysis was completed in September 2025 and shows that depth to groundwater across the Substation Site ranges from approximately 7 feet to 9.7 feet. Exh. EFSB-Z-8. Because the average major equipment foundation

depth ranges from approximately 4 feet to 15 feet, the Company will not meet the four-foot depth to groundwater requirement in the APOD and, therefore, the requested exemption is needed. Id. The Company will install a stormwater management system for the Substation Expansion in accordance with the MassDEP Stormwater Management Standards to manage stormwater runoff from the expanded footprint of the Substation Expansion and will provide passive secondary containment for the new transformers, both of which are measures protective of the groundwater. Thus, the grant of an exemption from the depth to groundwater provision will not negatively impact the aquifer. Id.; Exh. EFSB-G-5; Tr. 1, at 114-15.

The Company would need to obtain variances from the prohibitions Sections 375-28.5.B.(8) and (15) to construct the Substation Expansion. Exh. EV-1, at 44. However, as noted above, this type of zoning relief is not authorized by the Zoning Bylaw.<sup>24</sup> Accordingly, exemptions are per se required from these two prohibitions. Id. The Company notes that there are provisions of Article 28 regarding prohibited and special permit uses that could be interpreted to apply to the Project. Exh. RR-EFSB-5. Accordingly, for the avoidance of doubt and to ensure the expeditious construction of the Project to comply with the timing requirements of Provisional Program, the Company requests an exemption from the entirety of Article 28.

Structure Height and Location. Four lightning masts are proposed to be constructed in the expanded Substation yard that will be approximately 65 feet tall. Exh. EV-1, at 45. Section 375-8.4.E. of the Zoning Bylaw limits structure height to a maximum of 35 feet in the Residence B zoning district and requires that the masts be setback from all property lines at least twice the

---

<sup>24</sup> Prohibitions in overlay districts are generally regarded as use prohibitions and, thus, requiring a use variance as the form of local zoning relief. If the prohibitions in Article 28 are viewed by the Town as dimensional requirements, the Company notes that the standards for the grant of dimensional variances are the same as for use variances and, therefore, are equally difficult to meet. G.L. c. 40A, § 10 and Exh. EV-1, Section 375-43.2. Please see the discussion of the standards for a dimensional variance in the structure height section below.

height of the masts, or 130 feet. Two of the four lightning masts are also within 130 feet of the property line and must remain at these locations to protect the power transformers.<sup>25</sup> Exh. EV-1, at 44. Dimensional variances from these provisions would be required to erect the masts at their proposed height and location. To grant a variance, the Dartmouth Zoning Board of Appeals would need to find all of the following in accordance with G.L. c. 40A, § 10 and Section 375-43.2 of the Zoning Bylaw: (a) circumstances exist relating to soil conditions, shape or topography of the particular parcel or structure that do not affect generally the zoning district in which the parcel or structure is located; (b) a literal enforcement of the provisions of the bylaw would involve substantial hardship to the applicant and there is a nexus between the special circumstance and the hardship; and (c) the relief requested may be granted without substantial detriment to the public good and without nullifying or substantially derogating from the intent or purpose of the bylaw. It would be difficult, if not impossible, to demonstrate the existence of unique conditions relating to soil conditions, shape or topography of the Substation Site that generally do not affect the rest of the Single Residence B zoning district, and failure to meet even one of the criteria would doom the grant of a variance. See Kirkwood v Board of Appeals of Rockport, 17 Mass.App.Ct. 423, 428 (1984). Moreover, the courts have held that variances are to be granted sparingly and, as a result, they can be notoriously difficult to obtain. See Damaskos v. Board of Appeal of Boston, 359 Mass.

---

<sup>25</sup> The lightning masts cannot meet the maximum height requirement because they must be tall enough to increase the likelihood of intercepting lightning strikes to provide a safe, direct, and low-resistance path for the electrical current to reach the ground rather than hitting the structure they are protecting. Exh. EFSB-Z-6. Their height creates a "zone of protection" (a cone of influence) that covers buildings or equipment. Eversource has a standard design for lightning masts that is being used across the entire service territory. Id. Moreover, lightning masts need to be located close enough to the equipment they are protecting, the distance of which is determined using the rolling sphere method, which is detailed in the Institute of Electrical and Electronics Engineers ("IEEE") Standard 988 (Guide for Direct Lightning Stroke shielding of Substations). Id. Their location needs to be such that the sphere does not touch the equipment to be protected, otherwise the equipment will be in danger of being struck by lightning. Id. Here, two lightning masts must be located within the 130-foot setback to protect the two power transformers in compliance with IEEE 988. There are no alternatives to this method, as this is the IEEE standard for lightning protection. Id.

55, 61 (1971). They are a legally disfavored form of relief. See, e.g., Cornell v. Board of Appeals of Dracut, 453 Mass. 888, 895 (2009); Planning Board of Nantucket v. Board of Appeals of Nantucket, 15 Mass.App.Ct. 733, 738 (1983). Even if granted, variances are susceptible to legal challenges, and the courts undertake review of variances on a *de novo* basis and would need to make independent findings of fact. See, e.g., Kirkwood, 17 Mass.App.Ct. at 426-27.

Because of the legal uncertainty in obtaining variances, and the potential for adverse interpretations, delay, burden and undue expense associated with the permitting process and appeals therefrom, the Company seeks an exemption from the maximum height and setback requirements in Section 375-8.4.E.

Lighting. Section 375-8.4.H. of the Zoning Bylaw limits lighting to a height of 14 feet and requires that lights do not contribute to light pollution nor create a nuisance resulting from glare onto streets or abutting property. Outdoor lighting will be installed as part of the Substation Expansion for safety and security purposes. Exh. EV-1, at 46; Exh. RR-EFSB-5. The lighting design will be based on requirements in the National Electrical Safety Code and will comply with night sky lighting standards to the extent practicable. Id. However, the lighting design is not yet complete so it is not yet known whether lighting will be installed higher than 14 feet. Id.

Most of the outdoor lights would only be used in limited situations and will be predominantly downward facing. Exhs. EV-1, at 46; RR-EFSB-5. Moreover, there is a significant tree buffer between the Substation and abutting properties, and the Substation Site is set back at least 500 feet from Fisher Road. Exhs. EV-1, at 33; Exh. RR-EFSB-5. The Company has not received any complaints from abutters about light spillover onto their properties from the outdoor lighting at the existing Substation. Exh. RR-EFSB-5.

Notwithstanding the Company's intent to limit light pollution and glare, the standard in Section 375-8.4.H. that the lighting does not contribute to light pollution nor create a nuisance is subjective. To the extent that the Company's proposed lighting does not comply with this standard, and because it is not yet known if the outdoor lighting will comply with the 14-foot maximum height, variances from the lighting restrictions would be required. Id. Because of the legal uncertainty in obtaining variances, and the potential for adverse interpretations, delay, burden and undue expense associated with the permitting process and appeals therefrom, the Company seeks an exemption from the lighting requirements in Section 375-8.4.H.

Signs. The Company will construct a fence around the perimeter of the expanded Substation, and the following signs will be posted on the perimeter fence and/or site access points as follows:

- No Trespassing Signs (approximate size: 12" x 9")
- Contact Information Signs (approximate size: 14" x 10")
- Danger Signs (approximate size: 14" x 10")

Exh. EV-1, at 47. The "No Trespassing" and "Danger" signs will be located along the perimeter fence and access points and the "Contact Information" signs that identify the Company as the owner and provides emergency contact information will be placed at facility access points. Id.; Exh. RR-EFSB-5.

Article 25 of the Zoning Bylaw regulates signs. Section 375-25.2.A.(1) provides: "The following signs are entirely exempt from the provisions of Article 25: (1) signs that are required to be erected or maintained *pursuant to Federal, State, or local law*, such as, not limited to, notices related to the public health and safety and other traffic signs related or by local law, regulation, or bylaw" (italics added).

The Company requests an exemption from the requirements in Article 25 regarding its signs because the placement and number of signs posted on substation fences and access points is guided by industry standards and not by federal, state or local law.

The Occupational Safety and Health Agency (“OSHA”) has federal workplace regulations that apply to substations, but the OSHA regulations do not provide specific warning sign requirements for substation fences and access points, including placement and number of signs. Rather, the Company is guided by the NESC published by the IEEE, which is the definitive American National Standard (ANSI C2) used by electric utilities to safeguard workers and the public during the installation, operation, and maintenance of electric supply and communication lines, including substations. NESC requires safety/warning/danger signs at each entrance and on each side of a fenced substation, which serves as a minimum standard. NESC is not a federal, state or local law. Notably, industry practices often exceed NESC requirements by placing more than one sign along each side of a substation fence. The Company will place warning signs at intervals along each side of the expanded Substation fence, likely at 10-foot intervals.

Given the above, the Company is seeking an exemption for its signs for the avoidance of doubt as to whether the signs are in fact exempted by the Zoning Bylaw or whether the sign provisions apply to the Project.

Site Plan Approval. Article 24 of the Zoning Bylaw governs site plan review and approval. Per Section 375-24.1.C.(1)(a), the requirements of Article 24 apply to “projects in the following zoning districts and uses (a) .... any nonconforming uses in any zoning district requiring five or more stalls under [Section] 375-24.3.A.” As described above, the existing Substation is a nonconforming use in the Residence B zoning district. Per Section 375-24.1.C.(2)(a), “the requirements of Article 24 shall apply to the following types of projects for the zoning districts

and uses defined above . . . (a) construction of a new structure . . . .” The Substation Expansion involves construction of new structures.

Section 375-24.3.A. includes a Table of Off-Street Parking that provides the number of parking spaces required for certain enumerated uses; however, the table does not provide a ratio for public utility/substation use, likely because such use is not expressly allowed either as-of-right or by special permit.<sup>26</sup> Thus, even though the Project would involve expansion of a nonconforming use and the construction of new structures, it is not known how many off-street parking spaces the Town would require for the Substation Expansion and, thus, whether site plan review would be triggered by the need for five off-street parking spaces. Exh. RR-EFSB-5.

To the extent that site plan review is required, a goal of Dartmouth’s site plan review process is to ensure that the location of buildings, uses and other site development are properly located on a site and that significant natural features on a site are preserved as much as possible. Exh. EV-2, § 375-24.2. Generally, site plan review establishes criteria for the layout, scale, appearance, safety and environmental impacts of commercial or industrial development to ensure that such development is compatible with the existing surroundings. Exh. EV-1, at 48. Article 24 sets forth the conditions for approval of a site plan, among which is a requirement that “the protection of the public, the environment and any abutting premises from dangerous, offensive or nuisance activities, uses or conditions on the property, including during any construction pursuant to the site plan” has been met. Exh. EV-2, § 375-24.8. Notwithstanding the goals of local site plan

---

<sup>26</sup> Off-street parking is also regulated as part of the development standards in Section 375-8.4.G. That section also contains a table of off-street parking ratios. While public utility/substation use is not enumerated in that table, it contains a use that could be interpreted to apply to the Project: (1) a category “Exempt Uses” provides “Number of spaces per uses above or Article 24 as applicable.” The Company does not consider the Project an exempt use until the Siting Board issues a Final Order in this proceeding granting the Company’s requested exemptions. Exh. EV-1, at 43, n. 18. At such time, however, the development standards would apply to the Project. Thus, the Company’s Petition includes a request from any requirement to satisfy or comply with the development standards in Section 375-8.4. Exh. EV-1, at 43, n.18.

review, the Company must have the discretion to design the Substation Expansion layout in a manner that is consistent with established utility standards to ensure its reliable operation. Exh. EV-1, at 49. Such technical engineering and electrical issues are typically beyond the general scope of local site plan review. Id. The Project has been designed to be consistent with established utility, state and federal standards to ensure the reliable operation of the infrastructure. Id. The Company has designed the Substation Expansion to meet as many of the requirements of the Zoning Bylaw as practical while ensuring that the Substation layout meets the applicable industry standards. Id.

To the extent that site plan review is required, the Project will not meet the subjective criteria for site plan approval, and because the Substation layout and technical criteria are likely different from the typical development projects for which site plan review is usually required, the Company requires an exemption from the entirety of Article 24. Exhs. EV-1, at 49; RR-EFSB-5.

An exemption from the entirety of Article 24 would include the parking requirements in Section 375-24.3 (which include not only the number of off-street parking spaces required by the Town which shall be allocated for every employee determined by the largest shift at any one time, but also other requirements for required off-street parking areas, including location, size and various design standards). Section 375-24.3 is inconsistent with the Project because the expanded Substation will be unmanned and not open to the public. Exhs. EV-1, at 49; RR-EFSB-5. The parking of Company vehicles on the Substation Site will only be needed for periodic inspections and maintenance. Id. While there will be no delineated parking spaces within the Substation yard, there is adequate space at the Substation Site to accommodate off-street parking for Eversource employees for all inspections and maintenance at the Substation. Id. Thus, an exemption from the parking requirements is warranted.

To avoid ambiguities in the interpretation of the Dartmouth Zoning Bylaw and the need to seek local zoning relief, the Company seeks the following exemptions from the provisions of the Zoning Bylaw:

<b>Bylaw Provision</b>	<b>Local Zoning Relief</b>	<b>Why Exemption is Needed</b>
<p><u>Section 375-6.1.E.</u></p> <p>Expansion, extension or change of a preexisting nonconforming use</p>	<p><b>Special permit</b></p> <p>The existing Substation is likely a preexisting nonconforming use and a special permit will be needed to expand that use by constructing the Substation Expansion.</p>	<p>To grant the special permit, the Board of Appeals must find that the Substation Expansion is not more detrimental to the neighborhood than the existing Substation. This standard is subjective, the grant of a special permit is discretionary, a special permit could contain burdensome or restrictive conditions that could impede the construction of the Substation Expansion, and there is the possibility of delay and the burden and undue expense associated with the local permitting process and appeals therefrom. Accordingly, the Company seeks an exemption from the special permit requirements of Section 375-6.1E.</p>
<p><u>Section 375-8.2</u></p> <p>Public utility/substation use is not expressly allowed in a Single Residence B zoning district</p>	<p>There is no local zoning relief available.</p>	<p>If the existing Substation is found not to be a preexisting nonconforming use, then the Substation Expansion would be allowed only insofar as provided in Section 374-8.2. That section does not expressly allow public utility/substation use as-of-right or by special permit and, therefore, it is prohibited.</p> <p>Only a use variance could authorize a prohibited use, but the Zoning Bylaw expressly prohibits the grant of use variances in the Residence B district. Accordingly, the Company seeks an exemption from any prohibitions or other requirements applicable to the Project in Section 375-8.2.</p> <p>This exemption request includes an exemption from the requirements of Section 375-8.2.R., which allows exempt uses as-of-right but requires them to meet the development standards in Section 375-8.4. If the Siting Board were to grant the Company's requested zoning exemptions, the Substation Expansion would then be</p>

Bylaw Provision	Local Zoning Relief	Why Exemption is Needed
		<p>characterized as an exempt use and would be required to meet the development standards in Section 375-8.4. As described below, the Company requests an exemption from the development standards in Section 375-8.4.</p>
<p>Article 28 Aquifer Protection Overlay District</p>	<p>The Project will not meet two of the prohibited uses in Article 28, namely Sections 375-28.5.B.(8) and (15) regarding lot coverage and depth to groundwater, respectively.</p> <p>In addition, there are other prohibited uses and special permit uses that could be interpreted to apply to the Project. There is no zoning relief available for prohibited uses.</p>	<p>There is no local zoning relief available for any prohibited use (at a minimum, the lot coverage and depth to groundwater prohibitions in Sections 375-28.5.B.(8) and (15), respectively), because the Board of Appeals is not authorized to grant use variances in the Single Residence B zoning district.</p> <p>Should any of the other prohibited or special permit uses be interpreted to apply to the Project, the Company would need to seek more zoning exemptions for the prohibited uses, or local special permits. As these processes would delay the permitting, and could result in possible appeals, the construction of the Project would be delayed. For these reasons, the Company seeks an exemption from the entirety of Article 28 for the avoidance of doubt.</p>
<p>Section 375-8.4. Development Standards</p> <p>Section 375-8.4.E. Structure Height and Setbacks</p> <p>Section 375-8.4.H. Lighting</p>	<p><b>Variances</b></p>	<p><u>Structure Height and Setbacks</u> Height variances are needed for four lightning masts that exceed the maximum height requirement and setback variances are needed because the location of two of the lightning masts does not meet the maximum setbacks.</p> <p><u>Lighting</u> The lighting design is not yet complete, and it is not known whether the outdoor lighting will meet the 14-foot maximum height limit. Also, notwithstanding the Company's intent to limit light pollution and glare, the standards in Section 375-8.4.H. that require that the lighting does not contribute to light pollution nor create a nuisance is subjective.</p>

Bylaw Provision	Local Zoning Relief	Why Exemption is Needed
		<p><u>Miscellaneous</u></p> <p>As noted above, if the Siting Board grants the Company’s requested exemptions, the Expanded Substation will be an exempt use subject to the provisions of Section 375-8.2.R., which requires exempt uses to meet the development standards in Section 375-8.4. To avoid the need to obtain additional zoning relief or zoning exemptions to comply with Section 375-8.2R, the Company requests an exemption from the entirety of Section 375-8.4.</p> <p>For all the above, it would be difficult to meet the statutory requirements for the grant of the variances. Because of the legal uncertainty in obtaining variances, and the potential for adverse interpretations, delay, burden and undue expense associated with the permitting process and appeals therefrom, the Company seeks an exemption from the maximum height and setback requirement and the need to seek variances per Section 375-8.4.E., the lighting requirements in Section 375-8.4.H., or the entirety of Section 375-8.4, encompassing all of the development standards.</p>
<p>Article 25 Signs</p>	<p><b>Variances</b></p>	<p>The danger, warning and identification signs that the Company affixes to the substation yard fence and station entrance may not be exempt from the sign regulations in Article 25. To ensure the Company’s use of the signs, variances would be required. It would be difficult to meet the statutory requirements for the grant of a variance. Because of the legal uncertainty in obtaining variances, and the potential for adverse interpretations, delay, burden and undue expense associated with the permitting process and appeals therefrom, the Company seeks an exemption from any prohibition on the signs in Article 25.</p>

Bylaw Provision	Local Zoning Relief	Why Exemption is Needed
<p>Article 24 Site plan review</p>	<p><b>Site plan approval</b></p>	<p>Parking ratios are not provided for public utility substation use; however, the Town could still impose off-street parking requirements that would trigger site plan review.</p> <p>The purpose and goals of site plan review in Dartmouth are not consistent with the need for the Company to design the Substation Expansion consistent with established utility standards. Moreover, site plan approval may be conditioned in a manner that would prohibit or restrict the construction and operation of the Substation Expansion. In addition, the Company must have the discretion to design the Substation Expansion consistent with utility standards and the technical and engineering issues involved are beyond the scope of typical site plan review.</p> <p>To the extent site plan review is required, the Company seeks an exemption from all of Article 24. Such an exemption would include the parking requirements in Section 375-24.3, which are inconsistent with the Project. The expanded Substation will be unmanned and not open to the public. The parking of Company vehicles on the Substation Site will only be needed for periodic inspections and maintenance. While there will be no delineated parking spaces within the Substation yard, there is adequate space at the Substation Site to accommodate off-street parking for Eversource employees for all inspections and maintenance at the Substation. Thus, an exemption from the parking requirements is warranted.</p>

5. The Substation Expansion Requires Comprehensive Zoning Exemptions to Avoid Substantial Public Harm

The Company respectfully requests a comprehensive exemption from the operation of the Zoning Bylaw with respect to the construction of the Substation Expansion. The grant of a

comprehensive zoning exemption is based on the specifics of each case. Eversource Mid Cape at 109; NEP Beverly Salem at 126-27; Eversource Sudbury-Hudson at 215. The Siting Board will consider a request for comprehensive zoning relief when issuance of a comprehensive exemption is imminently needed to avoid substantial public harm. Id.

The grant of a comprehensive zoning exemption is necessary even where individual zoning exemptions are granted, as the two types of zoning exemptions serve distinct needs. First, because zoning bylaws and ordinances are rarely written with unique energy infrastructure facilities in mind, many zoning bylaws and ordinances lack clearly defined and specific regulation of electric infrastructure, and the sometimes vague and subjective terms and provisions in zoning bylaws and ordinances result in imprecise, at best, application of the zoning provisions to electric infrastructure. The Company interprets the provisions of zoning ordinances and bylaws conservatively, in the hope that it is requesting individual zoning exemptions for all the provisions that could conceivably be said to apply to a project; however, the grant of a comprehensive exemption removes any reasonable doubt as to the ability of a project to move forward without violating any current terms of the zoning bylaws and ordinances. In addition, individual zoning exemptions relate to specific provisions in the zoning enactments currently in effect that have the potential to conflict or be inconsistent with, prevent, delay or obstruct the construction or operation of an infrastructure project. A comprehensive zoning exemption goes beyond the provisions in the current zoning bylaws (from which an individual zoning exemption may be granted), to exempt the proposed project from any future zoning enactment that comes into effect that has the potential to jeopardize its construction. In this manner, the two types of zoning exemptions work in tandem to ensure that meritorious energy facilities like the Substation Expansion are constructed as approved by the Siting Board without undue delay.

The Siting Board and the Department have cited additional factors as relevant in making a determination to grant a comprehensive exemption including, but not limited to, whether: (1) the project is needed for reliability purposes; (2) the project is time sensitive; (3) there are multiple municipalities involved that could have conflicting zoning provisions that might hinder the uniform development of a large project spanning these communities; (4) the project proponent has actively engaged the communities and responsible officials to discuss the applicability of local zoning provisions and address local concerns; and (5) the communities affected by the project do not oppose the issuance of a comprehensive zoning exemption.<sup>27</sup> Eversource Mid Cape at 109-10; NEP Beverly Salem at 126-27; Eversource Sudbury-Hudson at 215.

As described herein, the Substation Expansion satisfies the standards for the grant of comprehensive zoning exemptions. First, as described in more detail herein, the Substation Expansion is needed to: (1) maintain a reliable electric system; (2) enable the Group Study DG facilities in the Dartmouth-Westport Area to safely interconnect and operate; (3) allow future DG applicants in the Dartmouth-Westport Area to interconnect to the transmission grid; and (4) accommodate future load growth due to electrification. Exh. EV-1, at 53-54. The Substation Expansion is imminently needed because DER facilities in the interconnection queue cannot currently interconnect into the existing transmission. Id.; Exh. EFSB-Z-7. It is also imminently needed to comply with the Department's decisions in D.P.U. 20-75-B and D.P.U. 22-54 as discussed herein, which established a four-year construction window for the Substation Expansion

---

<sup>27</sup> Not all factors must be met for the grant of a comprehensive exemption. See, e.g., NSTAR Electric Company d/b/a Eversource Energy, EFSB 14-04/D.P.U. 14-153/14-154, at 163 (2017), where a comprehensive exemption was granted when, as is the case here, only one municipality was involved.

that began in June 2024 and concludes in June 2028.<sup>28</sup> Id. The Company was required to demonstrate in its CIP proposal for the Dartmouth-Westport Area that the components of the construction timeline within the Company's control could be completed within this four-year window. Id. The Company has made all commercially reasonable efforts to avoid undue delays in designing the Substation Expansion, and preparing and filing this Petition, all of which have occurred within nine months of the start of the construction window. Id. Finally, the Company maintains active and productive relationships with municipal officials in Dartmouth; to date, no municipal official has expressed any objection to the Company's pursuit of zoning exemptions from the Siting Board in this proceeding relating to the Substation Expansion. Id.

In sum, a comprehensive zoning exemption from the operation of the Zoning Bylaw would ensure the timely construction of the important Substation Expansion, which will provide benefits directly to customers and the DG developers in the Dartmouth-Westport Area for whom these facilities are being constructed.

#### 6. Conclusion on Zoning Exemptions

For the foregoing reasons, the Company requests that, pursuant to G.L. c. 40A, § 3, the Siting Board determine that construction of the Substation Expansion is reasonably necessary for the convenience and welfare of the public, and that the Substation Site in Dartmouth, the uses to be made of it, and the structures to be built and maintained thereon by Eversource shall be

---

<sup>28</sup> Further, there are known load electrification projects that are dependent upon the Company's successful completion of the Fisher Road Substation Expansion. The Company has been in communication with a large customer in Dartmouth in relation to a load electrification plan. Exh. EFSB-Z-7; Tr. 1 at 36-38. The customer has plans to comply with the Commonwealth's directives regarding electric vehicle ("EV") and EV charger deployment, fossil fuel use reduction, and greenhouse gas emissions reduction targets. Exh. EFSB-Z-7. The Company's impact study indicated that Eversource must complete the Fisher Road Substation Expansion as planned to meet the customer's projected 10 MW load addition, whether or not DER materializes in the quantities studied as part of the Dartmouth-Westport Group Study. Id. Any delays in the implementation of the upgrade of Fisher Road Substation would result in the inability to service the anticipated increased load requirements.

individually and comprehensively exempted from the operation of the Zoning Bylaw, to the extent applicable.

## **VI. The Project Meets All Standards in G.L. c. 164, § 69H**

Section 69H of G.L. c. 164 (“Section 69H”) was amended in 2024 to require the Siting Board to make explicit findings that energy facilities avoid, minimize or mitigate environmental and health impacts to ensure a “reliable, resilient and clean supply of energy” that directly aligns with the Commonwealth’s 2050 net-zero carbon emission goals. The following demonstrates the Project’s compliance with the standards in Section 69H. Exh. EFSB-G-7.

### **A. The Project Provides a Reliable, Resilient and Clean Supply of Energy Consistent with the Commonwealth's Climate Change and Greenhouse Gas Reduction Policies and Requirements.**

The Project meets this standard. First, the very purpose of the Project is to ensure that the Company’s transmission system in the Dartmouth-Westport Area is robust enough to support the interconnection of DER. The Project is a component of the Company’s CIP for the Dartmouth-Westport Area that was submitted to the Department in compliance with the Provisional Program. D.P.U. 20-75-B (2021); D.P.U. 22-53; Exh. EV-1, at 2-3. The goal of the Provisional Program is to ensure the expeditious installation of electric power system upgrades to enable the construction of emissions-free solar and energy storage system projects currently in the interconnection queue that have not been able to move forward because of the high cost of interconnection. Id.

The Dartmouth-Westport Group CIP identified the Fisher Road Substation Expansion as necessary upgrade to safely interconnect DG resources (including both those currently in the interconnection queue and future DG projects) to the Company’s EPS in the Dartmouth-Westport Area. On June 4, 2024, the Department approved the Dartmouth-Westport CIP, subject to certain modifications, in D.P.U. 22-53. In addition, the Dartmouth-Westport CIP is included in the Eversource Electric Sector Modernization Plan (“ESMP”), docketed as DPU 24-10. The ESMP

has overarching goals of a clean energy transition, promoting clean energy enablement, enabling future electrification, improving resiliency in the face of climate change, and energy decarbonization. D.P.U. 24-10, Exh. ES-ESMP-1, at 161, 297 (hosting capacity), 387-388, 395 (electrification) (Jan. 2024).

Second, the Company has demonstrated that there will be no greenhouse gas or other emissions resulting from the operation of the expanded Substation. Air quality impacts during construction are modest and limited and will be mitigated. Exhs. EV-1, at 38-39; EFSB-A-1. Fugitive dust will be controlled by water spraying, using anti-tracking pads, and regular sweeping. EV-1, at 38-39. Diesel-powered non-road construction equipment (rated 50 horsepower or above to be used for 30 or more days over the course of the Project) will be retrofitted with USEPA-verified emission control devices. Id. Ultra-low sulfur diesel fuel will be used in the Company's diesel-powered construction equipment, and the anti-idling statute and regulations will be followed. Exh. EV-1, at 43. The new gas circuit switchers will be designed to have a maximum SF<sub>6</sub> leak rate of 0.1% per year; moreover, they will be filled and sealed at the factory and any refilling is performed by trained Eversource employees. Exh. EFSB-A-3; Tr. 1, at 61 (stating that no gas circuit breakers will be added as part of the Project and the new replacement SF<sub>6</sub>-filled gas circuit switchers will have the same maximum leak rate).

Third, the Company has demonstrated that the Project is consistent with the Commonwealth's climate change policies. Notably, the very purpose of the Provisional Program and the Company's Dartmouth-Westport CIP is to further the interconnection of clean renewable energy facilities. At the same time, the Company ensures that it safeguards its valuable assets by addressing Project vulnerabilities to climate change through a comprehensive internal review using the best available data on related hazards, including sea level rise, extreme weather conditions, and

flooding. Exh. EFSB-G-5. This was confirmed by the Company's use of the RMAT tool for the Substation Expansion. Id.

**B. The Project Has Been Designed to Avoid, Minimize or Mitigate Environmental Impacts and Negative Health Impacts to the Extent Practicable.**

The Petition provides a complete description of the potential for environmental impacts and the measures the Company will take to avoid, minimize or mitigate them. Exh. EV-1, at 33-41. In short, there will be no air impacts resulting from the Project. Id. There are no Areas of Critical Environmental Concern or archeological resources within the vicinity of the Substation Site, and the Substation Site is not in the floodplain. Id. Operation of the expanded Substation will meet all state noise policies and guidelines, except that the modeling predicted the potential for pure tones at 10 locations. Exh. EFSB-NO-3(S). The Company will incorporate vibration isolators under both transformers during their installation, which the Company believes will reduce or eliminate the risk of pure tone conditions at the receptors. Id. The Company will offer off-site visual mitigation to nearby property owners whose view has materially changed by the Project. Exh. EV-1, at 33-41. While there are wetlands on and adjacent to the Substation Site, no work related to the Project will be in wetland resource areas. The Company will file a Notice of Intent with the Dartmouth Conservation Commission pursuant to both the state Wetlands Protection Act, G.L. c. 131, § 40 and Chapter 360 of the Town of Dartmouth General Bylaws for approval to work in jurisdictional areas in connection with the Project. Id. Construction impacts will be minimal and mitigated to the extent practicable. Exh. EV-1, at 30-33. The Project also will not result in any negative or adverse health impacts. As the Petition and the Company's responses to information requests demonstrate, there will be no air or water quality impacts, and the Substation Expansion will not result in increased exposure to EMF. Id., at 33-41.

**C. The Project Complies with Energy, Environmental, Land Use, Labor, Economic Justice, Environmental Justice and Equity and Public Health and Safety Policies of the Commonwealth, Its Subdivisions and Its Municipalities.**

Energy policies - The Project is consistent with the Department's approval of the Dartmouth-Westport CIP, and the Petition demonstrates the need for the Project to ensure interconnection of DER. Exh. EV-1, at 2-3, 11-26.

Environmental policies - The Petition demonstrates the Project's compliance with all applicable state and local environmental statutes, regulations and policies. Exh. EV-1, at 33-41.

Land use policies - The Substation Expansion is consistent with the Company's current use of the Substation Site. The Project will not have an adverse effect on land use in the vicinity of the Substation. Exh. EV-1, at 33-34.

Labor policies - The Company will use in-house union labor to the extent practicable and will comply with all labor laws. Exh. EFSB-G-7. For activities that must be performed by outside labor, the Company's contracts will conform with all applicable labor laws. Id.

Economic justice - The Project is consistent with notions of economic justice because it ensures the provision of reliable electric service to all customers throughout the Company's electric system (including in Dartmouth), without regard to economic status and in a non-discriminatory manner. Exh. EFSB-G-7. The Company proposes new electric infrastructure where it is needed to reliability serve electric load on a non-discriminatory basis, thereby providing everyone with same opportunity to have electricity and participate in Commonwealth's clean energy goals. Id.

Environmental justice and equity - The Fisher Road Substation is in an Environmental Justice community based on minority population. Exhs. EV-1 at 8; EFSB-G-7. The purpose of the expansion project at the Fisher Road Substation is to interconnect new renewable energy resources, create future capacity to accommodate electrification, and improve reliability of the regional

transmission grid. Id. By completing this work, the Company is contributing to the provision of a clean and healthy environment for all people in the Commonwealth. Id. Additionally, Eversource's outreach efforts are focused on meaningful involvement of all stakeholders in the Project. Efforts to meaningfully involve stakeholders are characterized by Eversource's focus on outreach that enables two-way communication and collaboration with stakeholders. Id. The Company has established feedback channels, gone door-to-door to discuss the Project with nearby residents, mailed notifications to property owners within a quarter-mile of each site, and held in-person community meetings to share information and solicit feedback. Id. It will use feedback received in those forums to guide future outreach efforts and to address individual concerns and impacts. Id.

Public safety – The Substation Expansion will be constructed in full compliance with the National Electric Safety Code, good utility practice, and in accordance with the Company's specifications, BMPs, final engineering plans, and the conditions specified in permits and approvals obtained for the Substation Expansion. Exh. EV-1 at 31. During construction, areas under construction that contain in-service equipment will be secured by the existing substation perimeter fence that meets or exceeds the requirements of the NESC and are accessible only with a qualified escort. Id. During operation, the first line security device will be the Substation perimeter fences, which will meet or exceed NESC requirements. Cyber security measures will include card readers on doors and access points, and firewalls on communication links. Id. The Company's Emergency Response Plan will apply to the Substation Expansion. Id. The Company maintains a system control center that will dispatch personnel and equipment to the scene of any unplanned event to coordinate first response actions. Id. The Company makes first responder training available in all municipalities that host its substations. Id.; Exh. RR-EFSB-4.

Public health - The Company operates transmission facilities in every municipality in its service territory, in proximity to residential and nonresidential uses, and there have not been demonstrated public health impacts from these facilities. Exh. EFSB-G-7. There will be no air emissions associated with the operation of the Substation Expansion and all applicable sound policies will be met. Exhs. EV-1, at 37, EFSB-G-7; EFSB-A-1; EFSB-NO-4. Finally, because of the nature of the equipment and the layout of the facility, the electric and magnetic fields at the Substation will be attenuated to background levels at the Substation fence lines and, accordingly, there will be no public health impacts from EMF exposure. Exhs. EFSB-G-7; EFSB-EMF-1. Therefore, the Project will not result in public health impacts.

**D. The Project Will Be Constructed in a Manner that Avoids or Minimizes Costs.**

The Company proactively designs its projects to achieve an appropriate balance of environmental impacts and cost. Exh. EV-1 at 2-3, 30. All costs incurred in furtherance of the Project are subject to regulatory review to ensure that they are prudently incurred. Exh. EFSB-G-7. Upgrade costs in the CIP filing were minimized so as to remain below the \$500/kW allowable threshold per D.P.U. 22-53. Id.

**E. The Company Duly Considered the Findings and Recommendations of Local Governments.**

To date, the Town has not provided any recommendations about the Project. Exh. EFSB-G-7. The Company will continue its outreach with the Town as the Project progresses and will endeavor to consider any recommendations of Town officials. Id.; Exh. EV-1, at 7.

**F. The Company Duly Considered Advanced Conductors, Advanced Transmission Technologies, Grid Enhancement Technologies, Non-Wire or Non-Pipeline Alternatives and Other Alternatives to Avoid or Minimize Expenditures.**

The Company duly considered advanced conductors, transmission technologies and grid enhancement technologies, as well as non-wire alternatives and other alternatives to avoid or minimize expenditures. Exhs. EFSB-G-7, EFSB-PA-2; EV-1, at 27-30.

**G. The Project Will Increase the Capacity of the System to Interconnect Large Electricity Customers, Electric Vehicle Supply Equipment, Clean Energy Generation, Clean Energy Storage or Other Clean Energy Generation Sources or Will Facilitate the Electrification of the Building and Transportation Sectors.**

As a DER project, the Project inherently complies with this standard.

**H. The Company Duly Considered any Cumulative Burdens on the Host Community and Efforts that Must Be Taken to Avoid or Minimize or, if Impacts Cannot Be Avoided or Minimized, Effort to Mitigate Such Burdens.**

The Project will not result in any meaningful cumulative burdens on the Town and potential impacts have been avoided, minimized or mitigated to the extent practicable: (1) there will be no air, water quality or wetland impacts resulting from the Project; (2) there will be no change in power loads at the Substation and, accordingly, no increase in electric and magnetic fields resulting from the operation of the Substation Expansion; (3) the Substation Expansion is not within a mapped flood zone and there are no ACECs near the Substation; (4) archeological resources will not be impacted; (5) construction noise will comply with state and local standards and the Company will employ mitigation measures during installation of the transformers in an effort to mitigate potential pure tone conditions during operation; (6) the Company will work with municipal officials to minimize traffic impacts during construction; (7) the Substation Expansion is a continuation of the existing use of the Substation Site and the Company will work with abutters who experience a material adverse change to their viewshed as a result of the Project and, as

appropriate, will develop a mitigation plan and will provide reasonable and feasible screening on abutters' properties; and (8) the Project will not be a burden on the Town's infrastructure (i.e., water, sewer, etc.). Exh. EV-1, at 38-50; EFSB-NO-3(S); RR-EFSB-2; Tr. 1, at 24-25, 82.

Based on the above, the Company has demonstrated that the Project complies with the standards set forth in Section 69H.

## **VII. Conclusion**

For the foregoing reasons, Eversource respectfully requests that the Siting Board grant the requested individual and comprehensive exemptions from the operation of the Zoning Bylaw of the Town of Dartmouth pursuant to G.L. c. 40A, § 3.

Respectfully submitted,

**NSTAR ELECTRIC COMPANY d/b/a  
EVERSOURCE ENERGY**

By its attorneys,



Catherine J. Keuthen, Esq.  
Cheryl A. Blaine, Esq.  
Keegan Werlin LLP  
One Cranberry Hill, Suite 304  
Lexington, MA 02421  
(617) 951-1400

Dated: May 5, 2026