COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF PUBLIC UTILITIES

Petition of NSTAR Electric Company d/b/a Eversource Energy for Approval to Construct, Operate and Maintain a New 115-kV Transmission Line on an Existing Right-of-Way in Acushnet and Mattapoisett Pursuant to G.L. c. 164, § 72 and for Zoning Exemptions From the Operation of the Zoning Bylaw of the Town of Mattapoisett Pursuant to G.L. c. 40A, § 3	)	D.P.U. 24-93/24-94

PETITION OF NSTAR ELECTRIC COMPANY d/b/a EVERSOURCE ENERGY FOR APPROVAL TO CONSTRUCT, OPERATE AND MAINTAIN A NEW 115-kV TRANSMISSION LINE ON AN EXISTING RIGHT-OF-WAY IN ACUSHNET AND MATTAPOISETT PURSUANT TO G.L. c. 164, § 72 AND FOR INDIVIDUAL AND COMPREHENSIVE ZONING EXEMPTIONS FROM THE ZONING BYLAW OF THE TOWN OF MATTAPOISETT PURSUANT TO G.L. c. 40A, § 3

Now comes NSTAR Electric Company d/b/a Eversource Energy ("Eversource" or the "Company") seeking a determination from the Department of Public Utilities (the "Department") that, pursuant to G.L. c. 164, § 72 ("Section 72"), Eversource's proposal to construct, operate, and maintain an approximately three-mile extension to an existing 21-mile, 115 kilovolt ("kV") overhead transmission line (Line 112) (the "New Line Extension") along existing right-of-way ("ROW") 142 between Eversource's Mendall Road Tap in Acushnet, Massachusetts, and the Crystal Spring Substation #646 ("Crystal Spring Substation" or the "Substation") in the Town of Mattapoisett, Massachusetts is necessary, serves the public convenience and is consistent with the public interest. To accommodate the New Line Extension, the Company must expand the Crystal Spring Substation, which is located on Company-owned property at 26R Crystal Spring Road in Mattapoisett (the "Substation Site" and the "Substation Expansion"). To facilitate the Substation Expansion, Eversource seeks individual and comprehensive zoning exemptions from

the operation of the *Zoning By-Laws of the Town of Mattapoisett* ("Zoning Bylaw") pursuant to G.L. c. 40A, § 3.[1] The New Line Extension and the Substation Expansion will be constructed, owned, and operated by Eversource and are collectively referred to herein as the "Line 112 Extension Project" or the "Project."

The Project is a component of a Capital Investment Project ("CIP") proposal that the Company submitted to the Department in accordance with the Department's directives in Provisional System Planning Program, D.P.U. 20-75-B (2021) ("D.P.U. 20-75-B"); NSTAR Electric Company d/b/a Eversource Energy, D.P.U. 22-47 (2022) ("Marion-Fairhaven CIP"). In D.P.U. 20-75-B, the Department established a new, provisional framework for planning and funding upgrades to the electric power system ("EPS") to support timely and cost-effective development and interconnection of distributed generation ("DG")[2] ("Provisional Program"). The Provisional Program is designed to ensure the expeditious installation of system upgrades to provide a pathway for many solar and energy storage system projects currently in the interconnection queue that may not be able to move forward because of the high cost of interconnection.[3] D.P.U. 20-75-B at 2. The Provisional Program allows electric distribution companies, like Eversource, to file certain EPS infrastructure upgrade proposals with the Department that limit the interconnection costs of such DG facilities, D.P.U. 20-75-B at 2. Under the Provisional Program, the costs of the EPS upgrades (i.e., the CIP) may be funded by both the

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1 A certified copy of the Zoning Bylaw as of February 12, 2024 (including the Zoning Map) is provided in Attachment A.

2 Distributed generation refers to any type of facility that must submit an application under a Distribution Company's Standards for the Interconnection of Distributed Generation Tariff, regardless of whether the interconnecting facility actually generates electricity. These facilities include certain types of solar and energy storage systems. D.P.U. 20-75-B at 1.

3 The development of properly sited renewable energy facilities is vital to achieving the Commonwealth's greenhouse gas emissions targets and clean energy goals, and distribution companies play a critical role in the interconnection of DG facilities in the advancement of these policies. D.P.U. 20-75-B at 27.

interconnecting DG facilities and all ratepayers of the distribution company. The Company filed six CIP proposals with the Department pursuant to D.P.U. 20-75-B and the Department approved the first of these in the Marion-Fairhaven CIP. The Project is part of the Company's CIP proposal approved in that proceeding, leading to the instant Petition filing.

As the Department stated, "in recognition of the Distribution Companies' limitations to control certain aspects of the construction timeline, the Department directs the Distribution Companies to submit CIPs only where they can demonstrate that the aspects of the construction timeline within their control can be completed within a maximum of four years from the conclusion of the Department's adjudicatory process.. D.P.U. 20-75-B at 39. Here, the Marion-Fairhaven CIP proposal was approved on December 20, 2022, and the four-year construction window for the Project began when the Department's Order in D.P.U. 22-47 became final on January 19, 2023, and will conclude on January 19, 2027. The Company has used its resources efficiently and made all commercially reasonable efforts to avoid undue delays in designing the Project, and preparing and filing this Petition, all of which have occurred within 16 months of the start of the construction window. As discussed in Section I.D. below, the Company estimates it will take approximately 19 months to complete construction of both the New Line Extension and the Substation Expansion once construction commences. This provides a window of approximately 13 months to obtain all permits and approvals needed for the start of construction (including the Department's approval under Section 72 and the grant of the zoning exemptions requested herein) and complete the procurement process. Accordingly, the Company respectfully requests that the Department expeditiously review and approve the Project under Section 72 and grant the requested zoning exemptions under G.L. c. 40A to support completion of the Project within the construction window established in D.P.U. 20-75-B.

I. PROJECT DESCRIPTION

A. New Line Extension

1. Line 112 is a 21-mile, 115-kV transmission line located in ROWs 140, 141, 142, and 143 that currently connects Eversource's Tremont Substation in Wareham and Acushnet Substation in Acushnet. There are tap lines from Line 112 that extend to the Rochester Substation in Rochester, Industrial Park Substation in New Bedford, Wing Lane Substation in Acushnet and Arsene Street Substation in Fairhaven. The New Line Extension will tap Line 112 at the Mendall Road Tap and extend three miles to the Crystal Spring Substation on ROW 142. The New Line Extension will be a single circuit installed on approximately 26 new weathering steel structures consisting of 21 H-frame structures, four 3-pole structures and one monopole structure.[4] For its entire length, the New Line Extension will parallel Line 114, an existing 115-kV transmission line located on ROW 142. A USGS map delineating ROW 142 between the Mendall Road Tap and the Crystal Spring Substation is provided as Attachment B. An aerial map showing the entire length of Line 112, including the New Line Extension, is provided as Attachment C.

2. As more fully described in Section VI, the construction of the New Line Extension will include selective tree and vegetation removal in discrete locations, generally along the northerly edge of the ROW, improvements to existing gravel access roads, and the installation of work and pull pads. Temporary construction matting will be utilized in sensitive areas (mapped rare species habitat and wetland resource areas) to avoid and minimize environmental impacts.

[4] Two new structures to direct Line 114 into its new termination point at the expanded Crystal Spring Substation will replace the existing structures outside of the Substation. The H-frame structures will be replaced with a three-pole structure and a single monopole.

B. Crystal Spring Substation Expansion

3. The fenced area of the Crystal Spring Substation is 8,300 square feet. To accommodate the New Line Extension, the Substation will be expanded by approximately 36,700 square feet, resulting in a Substation footprint of approximately 45,000 square feet. Most of the expansion will be to the northeast and southeast of the Substation. The Substation Expansion will be conducted in phases so that the Substation will not be taken out of service. After the new equipment is installed, all existing foundations, equipment, and enclosures will be removed as part of the Project. The Company will acquire approximately 3.1 acres of additional land from an adjacent landowner to accommodate the Substation Expansion.

4. The area around the Substation will be graded to support the expansion, and approximately 0.69 acres of trees will be removed as part of the site preparation and grading work. The Substation Expansion will create approximately 0.1 acres of new impervious surface. To collect and treat runoff from the new impervious surfaces, a new stormwater basin will be installed in the southeast corner of the site. A figure that identifies the general location, layout, and configuration of the existing and proposed substation is provided as Attachment D.

5. The following equipment will be installed inside the expanded fence line of the Substation:

- Two 115-kV dead-end A-frame structures (one structure for Line 112 and one structure for Line 114), 65 feet high by 13 feet wide by 42 feet long;
- Six 115-kV capacitor-coupled voltage transformers mounted within A-frame structures;
- One 115-kV bus section;
- Galvanized chain-link mesh fence of similar height to existing fence (eight feet high plus one foot of barbed wire);
- Control cable, grounding, 115-kV leads and taps;
- Two 115-kV circuit switchers;
- Two 37/50/62.5 MVA, 115/13.2-kV transformers (one of which replaces the existing transformer);
- Two enclosed 13.2-kV series reactors;

- Two 150-kVA station service transformers;
- Underground connections for connections to the new distribution switchgear;
- One Medium Voltage Switchgear enclosure;
- One 115-kV disconnect switch and two 115-kV line disconnect switches;
- Two 13.2-kV capacitor banks; and
- Four shielding masts, 65 feet in height.

As noted above, all existing equipment will be removed once the new equipment is in place and in operation.

C. Mendall Road Tap

6. Work at the Mendall Road Tap is limited to the replacement of the three-pole dead-end structure with a similar three-pole dead-end steel structure in the same location that will be approximately ten feet higher than the existing structure.

D. Project Construction Schedule and Cost

7. The Company estimates that it will take approximately 19 months to complete construction of the New Line Extension and the Substation Expansion once construction commences. The New Line Extension work will take approximately five months. The Substation Expansion work will take approximately 12 to 19 months. The Company's objective is to complete the Project no later than December 2026 to meet the four-year construction window established in D.P.U. 20-75-B and D.P.U. 22-47.

8. The Project is estimated to cost $78.4 million, based on a planning grade estimate with an anticipated level of accuracy of +25/-25 percent for the New Line Extension and a conceptual grade estimate with an anticipated level of accuracy of +50/-25 percent for the Substation Expansion. The estimated costs of the New Line Extension and Substation Expansion are $18.9 million and $59.5 million, respectively, which include costs for engineering, project management, siting, permitting, materials, construction, and testing.

II. STANDARD OF REVIEW

A. G.L. c. 164, § 72

9. Pursuant to G.L. c. 164, § 72, an electric company seeking approval to construct a transmission line must file a petition with the Department for:

> [A]uthority to construct and use or to continue to use as constructed or with altered construction a line for the transmission of electricity for distribution in some definite area or for supplying electricity to itself or to another electric company or to a municipal lighting plant for distribution and sale . . . and shall represent that such line will or does serve the public convenience and is consistent with the public interest . . . The department, after notice and a public hearing in one or more of the towns affected, may determine that said line is necessary for the purpose alleged, and will serve the public convenience and is consistent with the public interest.

10. In making a determination under G.L. c. 164, § 72, the Department considers all aspects of the public interest. Boston Edison Company v. Town of Sudbury, 356 Mass. 406, 419 (1969); NSTAR Electric Company d/b/a Eversource Energy, D.P.U. 19-80, at 6 (2020) ("Eversource Barnstable"). All factors affecting any phase of the analyses performed by a company in connection with the public interest and public convenience are weighed fairly by the Department in a determination under G.L. c. 164, § 72. Town of Sudbury v. Department of Public Utilities, 343 Mass. 428, 430 (1962); Eversource Barnstable at 6; NSTAR Electric Company d/b/a Eversource Energy, D.P.U. 19-46, at 5 (2020) ("Eversource Dartmouth").

11. In evaluating petitions filed under G.L. c. 164, § 72, the Department examines: (1) the need for, or public benefits of, the present or proposed use; (2) the environmental impacts or any other impacts of the present or proposed use; and (3) the present or proposed use and any alternatives identified. Eversource Barnstable at 7; Eversource Dartmouth at 34. In determining whether a proposed project is reasonably necessary for the public convenience or welfare, the Department balances the interests of the general public against the local interests and determines whether the line is necessary for the purpose alleged and will serve the public convenience and is

consistent with the public interest. Id.; see Save the Bay, Inc. v. Department of Public Utilities, 266 Mass. 667, 680 (1975); Town of Truro v. Department of Public Utilities, 365 Mass. 407 (1974). The Department undertakes "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 that might be affected." New York Central Railroad v. Department of Public Utilities, 347 Mass. 586, 592 (1964).

B. G.L. c. 40A, § 3

12. 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 [Department] 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.

13. 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. Dep't of Pub. Utils., 366 Mass. 667 (1975) ("Save the Bay"); 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 4 (2019) ("Eversource Westfield"); NSTAR Electric Company, D.P.U. 13-64, at 4 (2014) ("NSTAR Electric Hyannis Junction"). Second, the petitioner must establish that it requires the requested zoning exemption from the zoning ordinance or bylaw. Eversource Oak Bluffs at 11; Eversource Westfield at 6-7; NSTAR Electric Hyannis Junction at 4; Tennessee Gas Pipeline Company, D.T.E. 01-57, at 3-4 (2002). Third, 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 Westfield at 5-6; NSTAR Electric Hyannis Junction at 4; Boston Gas Company, D.T.E. 00-24, at 3 (2001)

("Boston Gas 2001").

14. In determining whether a petitioner qualifies as a "public service corporation," the Supreme Judicial Court (the "SJC") has stated:

> [A]mong the pertinent considerations are whether the corporation is organized pursuant to an appropriate franchise from the State to provide for a necessity or convenience to the general public which could not be furnished through the ordinary channels of private business; whether the corporation is subject to the requisite degree of governmental control and regulation; and the nature of the public benefit to be derived from the service provided.

Save the Bay, 366 Mass. At 680. See also Eversource Oak Bluffs at 11-12; NSTAR Electric Hyannis Junction, at 5; NSTAR Electric, D.P.U. 08-1, at 3 (2009); Boston Gas 2001, at 3-4; Berkshire Power Development, Inc., D.P.U. 96-104, at 26-36 (1997) ("Berkshire Power").

15. Eversource has its principal place of business at 800 Boylston Street, 17th Floor, in the City of Boston, Massachusetts 02199. Eversource is an electric company as defined in G.L. c. 164, § 1 and, therefore, is a public service corporation authorized by the Commonwealth to transmit and distribute electricity. See NSTAR Electric Company d/b/a Eversource Energy, EFSB 19-03/D.P.U. 19-15, at 104-05 (2021) ("Eversource Andrew Square"); NSTAR Electric Company d/b/a Eversource Energy, EFSB 17-02/D.P.U. 17-82/17-83, at 221 (2019) ("Eversource Sudbury-Hudson"); NSTAR Electric Company d/b/a Eversource Energy, EFSB 16-02/D.P.U. 16-77, at 77-78 (2018) ("Eversource West Roxbury-Needham"). As an electric company and a public service corporation in the Commonwealth, Eversource is entitled to seek zoning exemptions pursuant to G.L. c. 40A, § 3. Save the Bay, 360 Mass. At 680; Eversource Oak Bluffs at 14; Eversource Hopkinton at 6-7.

16. The Department's well-established precedent provides that the public interest analysis required by G.L. c. 164, § 72 is analogous to the Department's analysis for the "reasonably necessary for the convenience or the welfare of the public" standard under G.L. c. 40A, § 3. Boston

Edison Company, EFSB 04-1/D.T.E. 04-5/04-7, at 163 (2005); New England Power Company, D.P.U. 89-163, at 6 (1993); New England Power Company, D.P.U. 91-117/118, at 4 (1991); Massachusetts Electric Company, D.P.U. 89-135/136/137, at 8 (1990). Accordingly, to the extent that the Company has demonstrated that the Project has satisfied the statutory requirements of G.L. c. 164, § 72, so too has it demonstrated that the Project has satisfied the "convenience or welfare of the public" standard under G.L. c. 40A, § 3.

III. COMMUNITY AND MUNICIPAL OUTREACH

17. The Company is committed to working closely with municipal officials and abutters to the Project to provide transparent, proactive communications throughout the life of the Project. The Company's initial outreach efforts were aimed at briefing local officials and other stakeholders on the project need, the anticipated schedule, potential impacts, and the permitting and siting processes, including opportunities for public input.

18. The Company will continue these efforts during the permitting and siting process and will maintain a focused communication program throughout construction, including outreach to municipal officials and abutters along the route with regards to construction staging and laydown and traffic management plans, as such details become available. This outreach program is designed to engage the community, foster public participation, and solicit feedback from stakeholders.

19. Company representatives met with Mattapoisett officials, including the Mattapoisett Building Inspector, on March 18, 2024, to discuss and solicit input on zoning. At this meeting, the Company expressed its intent to request both individual and comprehensive zoning exemptions from the operation of the Zoning Bylaw; notably, municipal officials did not indicate any opposition to the Company seeking zoning exemptions for the Substation Expansion. The Company will continue to solicit feedback, consider community concerns, and develop an

effective communication strategy to support understanding of the Project.

20. The Company hosted three open houses to introduce the Project to the Community, to provide information about the distributed energy resources ("DER") program,[5] the need for and benefits of the Project, the proposed design of the transmission line and the Substation Expansion, environmental considerations, and an overview of the siting process, schedule, and construction activities (see Attachment E for a copy of the materials presented at the open houses). They also provided the public with an opportunity to meet with the Company's subject matter experts to ask questions and discuss concerns. An open house was held on April 11, 2024, at the Mattapoisett Fire Station in Mattapoisett. It was followed by a virtual open house on April 16, 2024 and an open house on April 18, 2024 at the American Legion Post 265 in Acushnet. Notice of the open houses was provided as follows: (a) on March 27, 2024, the Company mailed open house invitations to abutters located within 300 feet of the Project route, within a quarter mile of the Crystal Spring Substation and the Mendall Road Tap, and to municipal officials in each town; (b) advertisements of the open houses were published in the *Mattapoisett Wanderer* on April 4, 11, 18, 2024 and the *New Bedford Times* on April 7 and 14, 2024; and (c) door-to-door outreach was conducted on April 3, 2024, with direct abutters of Crystal Spring Road at the request of the Town of Mattapoisett to personally invite those residents to the open houses and brief them on the Project. Eighteen residents attended the open house in Mattapoisett, four residents attended the Acushnet open house, and three attendees joined the virtual open house.

21. The main concern of attendees was the potential impact to their property. Other questions related to the reliability of the local electrical supply, the construction schedule, the location of construction work, and equipment placement and lighting. Attendees also asked about

[5] Distributed energy resources are energy resources, such as solar voltaic panels and battery storage systems, that are located near sites of electricity use. The terms DER and DG are used interchangeably in this Petition.

the possibility of placing the transmission lines underground. Company subject matter experts addressed questions during the open houses and followed up with individuals if they could not fully address questions during the open house. In addition, the Company received and replied to two emails sent to the Project hotline that requested information on landscape mitigation and equipment placement at the Crystal Spring Substation.

22. Table 1 lists the Company's communication with municipal officials and other stakeholders in the Towns of Mattapoisett and Acushnet.

Table 1: Summary of Project Outreach Communications

Date	Activity	Group	Topic
April 18, 2024	Acushnet Open House	Project abutters and municipal officials invited	Presented Project overview and gathered feedback from attendees.
April 16, 2024	Virtual Open House	Project abutters and municipal officials invited	Presented Project overview and gathered feedback from attendees.
April 11, 2024	Mattapoisett Open House	Project abutters and municipal officials invited	Presented Project overview and gathered feedback from attendees.
April 8, 2024	Meeting with Town of Acushnet officials	Town Administrator Jamie Kelley Administrative Assistant Tania Tavares Select Board Clerk Sydney Viveiros	Presented Project overview and gathered feedback from attendees.
April 7, 2024 April 14, 2024	*New Bedford Times* advertisement	Acushnet residents	Newspaper publication of advertisement for open houses.
April 4, 2024 April 11, 2024 April 18, 2024	*Mattapoisett Wanderer* advertisement	Mattapoisett residents	Newspaper publication of advertisement for open houses
April 4, 2024	Mailing	Project abutters	Provided notice of survey activity
April 3, 2024	Door-to-door outreach	Crystal Spring Road Abutters	Provided Project information and invitation to open house

Date	Activity	Group	Topic
March 27, 2024	Mailing	Project abutters and Mattapoisett and Acushnet municipal officials	Provided Project information and invitation to open house
March 18, 2024	Meeting with Town of Mattapoisett officials	Town Administrator Mike Lorenco Assistant Town Administrator Katie Stephanian Fire Chief Andrew Murray Police Chief Jake King Traffic Police Jason King DPW Garret Bauer Conservation Agent Brandon Faneuf Building Commissioner Chris Canney	Presented Project overview and gathered feedback from attendees.
September 26, 2023	Meeting with Town of Acushnet Select Board Chair	Kevin Gaspar Chair, Select Board	Presented Project overview and gathered feedback from attendees.
August 14, 2023	Meeting with Town of Acushnet Building Inspector	Building Inspector Andrew Bobola	Presented Project overview and gathered feedback from attendees.
May 28, 2023	Meeting with Town of Fairhaven Select Board	Select Board	Presented Project overview and gathered feedback from attendees.
April 6, 2023	Meeting with Town of Acushnet officials	Town Manager Jamie Kelley Selectboard Chair Kevin Gaspar	Presented Project overview and gathered feedback from attendees.
March 16, 2023	Meeting with Town of Mattapoisett officials	Town Administrator Mike Lorenco Assistant Town Administrator Katie Stephanian	Presented Project overview and gathered feedback from attendees.

In addition to the outreach activities outlined in Table 1, the Company has provided updates on the status of the Project by email and regular mail. The Company will continue to communicate on a regular basis with municipal officials through the Department review process and project construction.

23. Following the submittal of the Petition, and throughout the permitting and construction

of the Project, the Company will continue to work with neighboring property owners and other stakeholders, including state and local agencies, to address any concerns or issues that may arise. In addition, the Company will:

a. Provide a dedicated phone number and email for inquiries and a Project website will be developed. The Massachusetts transmission project phone number (1-833-836-0302) and email (ProjectInfoMA@eversource.com) is listed on all Project outreach materials, including fact sheets, subsequent mailings, and at all community events. Eversource is committed to responding within 24-48 hours or one business day to all inquiries.

b. Execute comprehensive community outreach to inform abutters and municipal officials of planned construction activities. and work closely with these key stakeholders to limit construction impacts. The Company will communicate the construction start date and work schedule, including hours of construction, to abutters and municipal officials prior to commencing construction and address any associated questions. The typical notification schedule is one to two weeks in advance of construction.

c. Provide translation services to abutters upon request. Although the Project is not located in an environmental justice community, an environmental justice screening identified that within a 1-mile radius of the Project, less than 2% of the residents of Acushnet and Mattapoisett, live in a limited English-speaking household.

d. Track all abutter requests, responses to requests and associated commitments.

IV. THE PROJECT IS NEEDED

24. The Project is needed for the Company to: (1) maintain a reliable electric system, (2) enable the Group Study DG facilities to safely interconnect and operate, (3) enable future DG applicants to interconnect, and (4) permit future load growth due to electrification.

A. Description of Planning and Engineering Standards

25. As a transmission provider, the Company must maintain its transmission system consistent with the 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"). These criteria are established under the purview of NERC, which sets the standards for electric power transmission for all of North America. The criteria set by NERC, NPCC and ISO-NE require transmission operators to design, test and operate their systems to withstand representative contingencies. If the Eversource transmission system does not have sufficient capability to serve forecasted load under the representative contingencies, the Company must plan and implement system additions and upgrades to address the identified inadequacies.

26. The NERC, NPCC and ISO-NE standards provide limits for voltages and loading. 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. The resulting impacts could range from unsafe conditions to equipment damage to widespread line and power outages. NERC, NPCC and ISO-NE may levy penalties and fines against the Company where voltages and loading are not within applicable limits if a solution is not implemented.

27. Crystal Spring Substation is a single transformer substation, currently fed by a single, radial 115-kV transmission line (Line 114).[6] The New Line Extension will also be a radial circuit. While NERC, NPCC, and ISO-NE transmission planning standards do not apply to the radial parts of the transmission system, the Company has developed similar planning standards that apply to the radial portions of its transmission system to ensure that the entire system is planned, designed and tested in accordance with the NERC, NPCC, and ISO-NE standards and criteria. As discussed further below, without construction of the Project, under certain N-1 contingencies (loss of a single transmission element), DG that is interconnected to the Company's

[6] Radial transmission lines are transmission lines that have only one interconnection point to the rest of the transmission system.

transmission system in the Marion-Fairhaven area would be tripped off line and remain offline until the primary transmission system and Crystal Spring Substation are restored, in violation of the Company's planning standards. Accordingly, based on the Company's planning standards, a solution must be implemented so that existing customer demand and proposed interconnecting DG demand can be served.

28. 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. The criteria and guidelines in the TSDAG are consistent with the criteria 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).

29. In addition to its obligations as a transmission operator, Eversource, as a distribution provider, must maintain and operate its bulk distribution substations and distribution system consistent with its applicable design standards and planning and performance criteria. The Company'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 the means by which these assessments are conducted. SYS-PLAN 010 is provided as Attachment F. Appendix A of Attachment F identifies the Reliability Criteria for the Planning/Design of Bulk Distribution Substation Facilities, which apply to the Project.

30. Building upon these guidelines, the Eversource 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. It sets forth standards for distribution system design and system studies including loading criteria, equipment ratings, system voltages, power quality, reliability, standard substation designs, secondary network criteria, evaluation of the interconnection of DER, system modeling criteria, load forecasting, system study methodologies, and modeling assumptions.

31. In addition to the above-described reliability standards, the Company also must comply with its tariff, "Standards for Interconnection of Distributed Generation" M.D.P.U. No. 55A, ("DG Interconnection Tariff"), which 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. The Company also follows its Distributed Energy Resources Planning Guide ("DERPG"), which was developed to describe the planning criteria and analyses used to study the impacts of DER seeking to interconnect to the Company's EPS. The planning criteria and analyses are used to ensure that DER does not degrade the safety, performance or reliability of the EPS.

B. Marion-Fairhaven Group Study

32. As noted above, the Provisional Program is a framework for planning and funding essential upgrades to the EPS to foster timely and cost-effective development and interconnection of DG. D.P.U. 20-75-B, at 2; Marion-Fairhaven CIP, at 3-4. The Provisional Program is intended to remove barriers to the Commonwealth's progress to a clean energy future. Id. To that end, the Provisional Program is a modified cost allocation and recovery methodology aimed at addressing imminent short-term DG interconnection cost concerns. Id. The program allows Eversource (and

other Massachusetts electric distribution companies) to file certain EPS infrastructure upgrade proposals with the Department that limit the interconnection costs allocated to interconnecting DG facilities. Id.

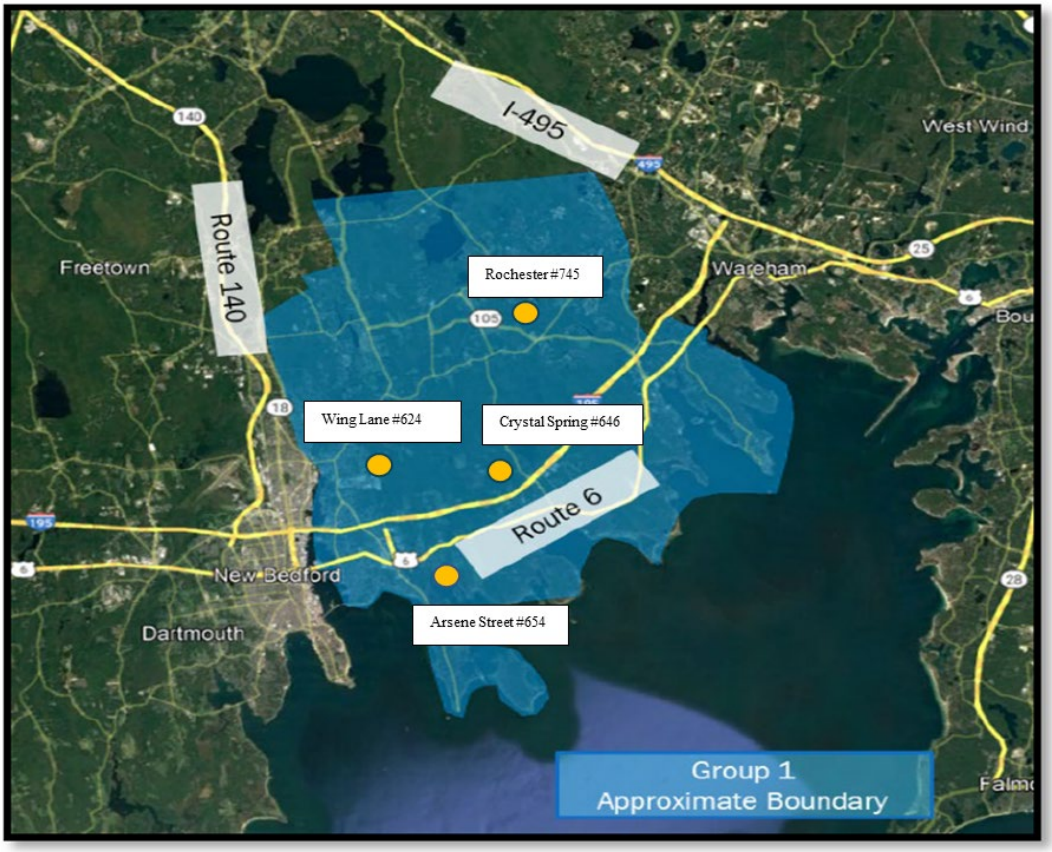
33. In accordance with the Provisional Program, in January 2021, the Company conducted a Group Study of the four Eversource substations that supply customers in the Marion-Fairhaven area: (1) Arsene Street Substation #654 in Fairhaven, (2) Crystal Spring Substation #646 in Mattapoisett, (3) Rochester Substation #745 in Rochester, and (4) Wing Lane Substation #624 in Acushnet, as well as the interconnecting distribution/feeder line system ("M-F Group" and "M-F Group Study"). A Group Study is a single system impact study that is performed at the same time for two or more interconnection applications for proposed DG facilities in a particular common geographic area to identify the scope and costs of modifications to the Company's system that would be needed to accommodate all the proposed DG facilities included in the interconnection applications. DG Interconnection Tariff, at 7-9. Here, the Group Study included 17 DG facilities totaling 48 megawatts ("MW") ("Group Study DG"). Marion Fairhaven CIP at 10.[7]

34. Three of the four M-F Group Study substations are served by Line 112 (Arsene Street Substation, Rochester Substation and Wing Lane Substation) and the fourth, Crystal Spring Substation, is served by Line 114. Crystal Spring Substation has one 24/32/40 MVA transformer that supplies four 13.2 kV distribution feeders. Rochester Substation has two 10/12.5 MVA transformers that each supply one 13.2 kV feeder. Arsene Substation has one 21/28/35 MVA transformer that has three 13.2 kV distribution feeders. Wing Lane Substation has two transformers, one 12/16/20 MVA transformer and one 24/32/40 MVA transformer, which supply

[7] Subsequent to the Department's Order in D.P.U. 22-47 and the completion of the M-F Group Study, six applicants, totaling 11 MW, withdrew from the interconnection queue.

three 13.2 kV feeders. Figure 1 below shows the approximate M-F Group Study area in blue and the four substations as yellow circles. See also Attachment C, which shows the entire length of Line 112, including the New Line Extension.

FIGURE 1



35. The four M-F Group Study substations were studied as a group because they rely on each other for day-to-day operations and under N-1 conditions. The amount of DG already connected at these substations limits the Company's ability to reconfigure the distribution system (by permanently transferring sections of a feeder to another feeder or substation) or operate the system (by temporarily transferring to another feeder or substation), which subsequently impacts the safety, flexibility, and reliability of the EPS. Because of their interdependence, the Company must coordinate analysis of system constraints and upgrades, i.e., the addition of DG to any of

these substations or between these substations.

36. The four substations collectively serve 57 MW of native customer peak load.[8] In addition, 70 MW of DG is currently connected to the four substations, consisting of 60 MW of ground mounted solar (large) DG and 10 MW of rooftop solar (small) DG. The amount of DG already connected and seeking to connect to the Eversource system in this area is substantial relative to the native customer peak load. When the Group Study DG is connected, the total DG penetration at the M-F Group Substations will be more than twice the current, native customer peak load and approximately six times higher than the current, native customer daylight minimum load. Id.

37. The M-F Group Study evaluated the existing system to determine how the interconnection of the Group Study DG facilities would affect the Company's transmission and distribution system in the M-F Group Study area and what upgrades would be necessary to enable the interconnected DG facilities to remain online under N-1 distribution and transmission contingencies, and N-1-1 transmission contingencies, including after post-contingency transfers.[9] The primary focus of the M-F Group Study was to evaluate the expected impacts of the Group Study DG facilities on the system's steady state voltage and loading, voltage flicker, fault current contribution, interaction with voltage control equipment, as well as transient overvoltage phenomena, and risk of inadvertent islanding. The objective of the M-F Group Study was to develop recommendations to ensure that all customers served by the M-F Group substations will be within the established allowable ranges for voltage, that fault protection will be sufficient, and

[8] Native customer load is used herein to identify wholesale and retail power customers as distinguished from interconnecting distributed generation facilities.

[9] Two of the Group Study DG facilities propose to connect to Crystal Spring Substation. The remaining facilities propose to connect to the Arsene Street Substation, Wing Lane Substation, or Rochester Substation.

that there will be no compromise to safety and reliability for any customers and/or equipment.

C. Marion-Fairhaven Group Study Results

38. The results of the M-F Group Study are summarized in the Marion-Fairhaven Interconnection Impact Study, dated April 14, 2022. The M-F Group Study confirmed that, given the current DG connected to the system, under specific N-1 contingencies and existing peak load and estimated light load conditions,[10] there would be residual load loss in the Marion-Fairhaven area even without the addition of the Group Study DG. Without the proposed transmission system upgrades, native customer load could be backed up via 13.2 kV switching, but even after transferring this load, both existing and anticipated DG would be tripped off and remain offline until the primary transmission system and Crystal Spring Substation are restored. This would violate SYS-PLAN 010 criteria requiring that the transmission system supplying distribution bulk substations be designed such that that no single transmission contingency event results in loss of customer load, and criteria requiring that when individual transmission lines 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. SYS-PLAN 010, Appendix A, Sections 4.11.1 and 4.11.3. 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. Moreover, without the proposed upgrades, even after transferring native customer load and DG, under a specific N-1 contingency, the Crystal Spring Substation transformer would be loaded to 107% of its long-term

[10] During daytime light load conditions, there is more DG exported to the M-F Group Substations than customer load served by those stations. Accordingly, the electric current flowing on the 115 kV system during daylight light load conditions, during periods of high solar output is greater, than during Summer peak conditions.

emergency ("LTE") rating in violation of Section 4.11.3 of SYS-PLAN 010, Section 2.3 of the DSPG, and Sections 3.0 and 6.5 of the DERPG.[11]

39. Additional system limitations identified in the M-F Group Study caused or aggravated by DER interconnections include multiple instances of: (1) DER facilities sending power back to substation transformers (reverse flow) where adequate ground fault overvoltage protection is not available; (2) thermal capacity constraints or voltages in excess of the maximum allowable, which can cause damage to utility and/or customer equipment; (3) potential risk of islanding or transient over voltages;[12] (4) excessive fault current on the distribution system, which can cause damage to utility and/or customer equipment; and (5) voltage flicker (rapid changes in system voltages which affects the quality of power for customers) violations and excessive tap operations.[13]

40. To avoid thermal overloads and the loss of load and DG under N-1 contingencies, the Company identified seven EPS upgrade projects consisting of substation, distribution line and feeder upgrades that are required to address these identified needs. Marion-Fairhaven CIP at 58. These system upgrades, which include the four that comprise the Project, are needed to enable DG

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[11] The LTE rating is the capability of a transformer, which assumes that any emergency loading affecting the transformer will last no more than 12 hours in summer and 4 hours in winter. If the loading on a transformer exceeds its LTE rating, then it represents an LTE thermal overload. Loadings greater than a transformer's LTE rating are allowed for only 30 minutes and the expected outage duration associated with the N-1 contingency would typically be greater than 30 minutes.

[12] 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. A transient over voltage can result from islanding when an upstream breaker or protective device opens due to a fault, customers on the un-faulted phases may experience momentary excessive voltages that may damage appliances and equipment.

[13] 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. This can lead to load tap changer maintenance issues or premature failure of the load tap changer.

facilities to safely interconnect and operate and for the Company to maintain a reliable EPS.[14]

41. The EPS upgrades that comprise the Project consist of the following, as identified in the M-F Group Study:

- Upgrade the existing substation transformer and switchgear at Crystal Spring Substation;
- Add a second transformer, switchgear, duct bank getaways (substation conduit outlet), and cable at Crystal Spring Substation;
- Upgrade distribution feeders at Crystal Spring Substation; and
- Extend a new lateral 115-kV transmission line off the existing overhead 115-kV Line 112 for approximately three-miles from Eversource's Mendall Road Tap to the new substation transformer at Crystal Spring Substation.

The first three upgrades comprise the Substation Expansion and related distribution upgrades and the final upgrade is the New Line Extension. The Substation Expansion will provide necessary distribution capacity under certain contingencies and the New Line Extension is needed to supply the new Crystal Spring transformer.

D. Marion-Fairhaven Capital Investment Project Proceeding

42. After completing the M-F Study and determining that various system upgrades were needed to interconnect proposed DER in the Marion Fairhaven area and to ensure that the Company's system would continue to operate safely and reliably consistent with all applicable standards and contingencies, on April 15, 2022, Eversource filed with the Department its first EPS infrastructure upgrade proposal under the Provisional Program, the Marion-Fairhaven CIP Proposal (the "M-F CIP Proposal"). Marion-Fairhaven CIP.

43. The M-F CIP Proposal enables the interconnection of up to 140 MW of DG capacity in the Marion-Fairhaven area, consisting of the Group Study DG, as well as an additional

[14] This Petition relates only to the Substation Expansion and the New Line Extension. The other upgrades are as follows: (1) Arsene Substation - distribution line upgrades, (2) Rochester Substation - an upgrade to the existing transformers, switchgear and the addition of duct bank getaway cables; and (3) Wing Lane Substation – upgrades to two existing substation transformers and the addition of getaway cables. The Company will pursue any permitting required for the work at Wing Lane, Rochester and Arsene Substations separately, as needed. Siting approvals from the Department for these upgrades do not appear to be required.

92 MW of DG capacity (consisting of 32 MW from projects currently in the interconnection queue and an additional 60 MW available for future DG). Marion-Fairhaven CIP, at 63-66.

44. The Department reviewed the M-F Group Study and did not identify any analytical errors or significant concerns with the analysis. Marion-Fairhaven CIP, at 73. Accordingly, the Department found that the Marion-Fairhaven CIP Proposal (including the work that comprises the Project described herein) "is reasonably based on the EPS upgrades identified for the Marion-Fairhaven Group Study and that the proposed EPS upgrades and cost estimates are reasonable." Id. The Department approved the Marion-Fairhaven CIP Proposal, finding that it will enable the interconnection of multiple DG facilities and that it "provides system upgrades that are consistent with the Commonwealth's clean energy objectives while maintaining the safety and reliability of the EPS." Id. at 59, 95.

45. Since the issuance of the Final Order in Marion-Fairhaven CIP, and the completion of the M-F Group Study, six applicants, totaling 11 MW, withdrew from the queue to interconnect to the M-F Group Study substations. The Department previously acknowledged that until the necessary EPS upgrades are constructed, a substantial amount of DG likely will withdraw from the interconnection process due to anticipated high interconnection costs. D.P.U. 20-75-B at 27. The Company has also confirmed that due to the amount of existing and planned DG, withdrawal of these applicants does not affect the need for the Project. Even under current conditions, in the event of an N-1 contingency, existing connected DG would be lost. Any new DG project connecting at Crystal Spring, Rochester or Wing Lane Substation would lead to thermal violations under a foreseeable N-1 contingency. Marion -Fairhaven CIP, at 87.

46. The Project addresses the potential for thermal overloads and voltage concerns following certain contingencies when DG is connected to the Company's transmission system.

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.

V. THE PROJECT IS SUPERIOR TO A REASONABLE RANGE OF ALTERNATIVES

47. Eversource comprehensively identified and analyzed various alternatives to address the identified needs for the Project. In order to determine the approach that best balances reliability, cost, and environmental impact, Eversource evaluated project approach and route alternatives for their potential to address the needs identified.

A. The Preferred Alternative

48. As described above, the Company's preferred solution involves both the construction of the New Line Extension, approximately three miles of new 115-kV transmission line on existing ROW 142 between the Mendall Road Tap and Crystal Spring Substation and expansion of the existing Crystal Spring Substation to accommodate the New Line Extension. The New Line Extension extends in an easterly direction on existing Eversource ROW 142 from the Mendall Road Tap in Acushnet to the Crystal Spring Substation in Mattapoisett. It will span Mendall Road in Acushnet and the following roads in Mattapoisett: Long Plain Road, Tinkham Lane, and Crystal Spring Road. The New Line Extension will also span an access drive extending from Hereford Hill Road to a municipal pumping station in Mattapoisett.

49. The vast majority of ROW 142 from Mendall Road Tap to Crystal Spring Substation is maintained and cleared of trees for the full width of the easement. Some limited side trimming, mowing and selective tree and plant removal will be needed to accommodate the New Line Extension. The New Line Extension will be similar in height and construction to Line 114, which occupies the ROW for the length of the New Line Extension, thus incremental visual effects of the New Line Extension will be negligible. Potential impacts to wetlands and rare species habitat

will be predominantly temporary in nature resulting from the placement of matting during construction. Only four new structures (Structures 2, 4, 14, and 15) will be installed in Bordering Vegetated Wetlands and one new structure (Structure 19) will be installed in Bordering Land Subject to Flooding (100-year floodplain). Accordingly, the environmental impact of line construction will be minimal. Environmental impacts are discussed further below in Section VI.

B. No Build Alternative

50. The Company determined that, although a no-build approach would have no direct environmental or cost implications, it would also not increase hosting capacity for the substations in the group and therefore would not allow the Company to connect DG nor enable the Company to reliably meet demand in the event of certain contingencies. Accordingly, this approach was dismissed from further consideration.

C. Non-Wire Alternatives

51. 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. 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.

52. In this instance, however, the underlying Project need is to reliably serve the proliferation of existing and proposed solar and battery energy storage system projects. A substantial package of transmission, substation, and distribution upgrades, including the New Line Extension, is required to increase the system hosting capacity needed to interconnect the DG applicants because the existing transmission and distribution facilities in the M-F Group Study

area do not have sufficient capacity. 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. To accommodate the DG projects seeking interconnection, the additional hosting capacity afforded by transmission and distribution upgrades is critically needed. Accordingly, NWAs are not a solution to the identified need nor viable alternatives to the proposed Project, but rather are dependent on it. For these reasons, the Company determined that NWAs would not meet the identified resource need and eliminated them from further consideration.

D. Transmission Design and Route Alternatives

53. As part of Project planning for the New Line Extension, Eversource considered transmission design alternatives (overhead and underground) and route alternatives (using the existing ROW or other ROWs) to the Project to determine if any would potentially reduce anticipated environmental impacts, project costs, or improve Project reliability while satisfying the Project need. Given the arrangement of the existing transmission system and established Project need, any geographic alternative and technically feasible design must connect between the Mendall Road Tap and Crystal Spring Substation. Attachment G identifies the transmission routing alternatives considered by the Company. In addition to the New Line Extension on ROW 142, the Company evaluated three underground line designs (one that followed existing ROW 142 and two that followed public roads) and an overhead line design that followed another existing Eversource ROW.

54. ROW 142 Underground Alternative. Installing a new underground transmission line on ROW 142 would require extensive trenching and backfilling through significant areas of state-listed species habitat, wetland resource areas and archaeologically sensitive areas. Trenchless

construction techniques would likely be required at several wetland and waterbody and roadway crossings to avoid and minimize environmental impacts. Environmental impacts of underground line construction would be greater than the proposed overhead transmission line construction on the existing ROW (including land disturbance, wetlands, archaeological resources, and state-listed rare species). Further, unlike the overhead line design, the Company does not have contiguous rights on ROW 142 to construct and operate a new underground line. With an order of magnitude cost of between $20-$25 million per linear mile, an underground design in the existing ROW 142 would be significantly more expensive than an overhead design and, in addition, would require a shunt reactor and riser structures at the Mendall Road Tap. Due to the significantly greater environmental impacts and costs, the Company eliminated this alternative from further consideration.

55. Public Roadway Underground Alternatives. The Company also considered two underground line designs that followed public roadways (see Attachment G). Underground line construction in or along public streets generally avoids potential impacts to wetlands, rare species habitat and archaeological resources, which can occur along a cross-country ROW. However, consideration must be given to existing underground utilities, traffic management and construction scheduling with underground projects so as to avoid and minimize disruption to residences and businesses. The two underground alternatives evaluated by the Company are between 1.5 and two miles longer than the New Line Extension and would result in more construction impacts from trenching and backfilling in public roads compared to the overhead design option in the existing ROW. In addition, an underground design in public roadways would cost between $35-$50 million per linear mile and, therefore, would be significantly more expensive than an overhead design. Thus, underground line designs in public roadways were not considered further.

56. Overhead Alternative. As illustrated in Attachment G, there are few practicable transmission line routing options between the referenced station facilities. The Company evaluated an overhead design option that followed existing Eversource ROWs. This alternate overhead design option is nearly 10 miles long, more than three times as long as the New Line Extension (2.94 miles). Based on a desktop review of Massachusetts Geographic Information System ("MassGIS") mapping data, this alternative would likely result in significantly greater temporary and permanent environmental impacts to wetlands (including salt marsh habitats and other coastal resource areas associated with the Nasketucket River), mapped rare species habitat, floodplains, and other sensitive resource areas. Further, some of these ROWs are constrained by existing transmission and distribution infrastructure limiting available space in the ROWs and could require additional easement rights. Constructing a new transmission line on this alternative route would also likely impact a substantially greater number of residential and commercial abutters and would involve work in a third community (Fairhaven) compared to the Project route that is located in relatively lightly populated residential areas of Acushnet and Mattapoisett. A new overhead line on existing ROWs would, therefore, be more expensive, have additional constructability and engineering challenges, and would have greater environmental and community impacts than the New Line Extension. For these reasons, this alternative was not considered further.

E. Conclusion on Alternatives

57. In summary, constructing a new 115-kV line on the existing ROW between the Crystal Spring Substation and the Mendall Road Tap is the lowest cost solution to address the need and can be constructed and operated with fewer environmental and construction impacts when compared to other possible transmission solutions. More specifically, there are no established ROWs that would present a shorter or more direct connection between the Mendall Road Tap and

Crystal Spring Substation. Of the alternate transmission routes considered by the Company, all of them are longer and more circuitous (between 4.52 and 9.58 miles) than the New Line Extension (2.94 miles). All of these alternate routes would exceed the estimated cost of the New Line Extension ($18.9 million), be more time-consuming to construct and likely would result in greater environmental impacts and schedule implications, among other considerations as noted above. Following completion of the review of potential alternative transmission routes, the Company determined that none of the potential transmission geographic alternatives or design options were superior to the proposed Line 112 overhead design.

VI. ENVIRONMENTAL IMPACTS HAVE BEEN APPROPRIATELY MINIMIZED

58. Eversource has conducted a detailed analysis of the environmental resources in the Project area and has proposed measures to minimize unavoidable impacts to these resources from the construction and operation of the Project. Overall, Eversource's analysis demonstrates that the Project will achieve an appropriate balance among environmental impacts, reliability, and cost. Comprehensive information regarding the minimization of impacts is set forth below.

A. Description of Construction Activities and Methods

59. The Project will be constructed in full compliance with the National Electric Safety Code, 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. The following subsections provide further detail regarding procedures and methods to be used to construct the Project.

60. Construction Schedule and Hours – The Project is anticipated to require up to 19 months of construction, including line and station work. Construction work will take place between

7:00 a.m. to 7:00 p.m., Monday through Friday, and from 9:00 a.m. to 5:00 p.m. on Saturdays, when daylight and weather conditions allow. The schedule may be adjusted by written request of the Company in consultation with the Towns of Mattapoisett and Acushnet, as needed. In limited circumstances, some work tasks (such as cable splicing, concrete pouring, transformer filling), once started, will require continuous operation until completion. Work requiring scheduled outages and work that requires continuous operation until completion may need to be performed on a limited basis outside of normal work hours (including evenings, Sundays, and holidays). The Company will provide notification to the Towns should the need for continuous operation and extended work hours arise.

61. Construction Sequencing – The Company will perform work at the Crystal Spring Substation, Mendall Road Tap and along the Line Extension in tandem, potentially with several work sites active at a time.

Substation Expansion Work:

The fenced area of the existing Crystal Spring Substation is 8,300 square feet. As part of the Substation Expansion to accommodate the New Line Extension, the Substation will be expanded to the northeast and southeast by approximately 36,700 square feet, resulting in a new Substation footprint of approximately 45,000 square feet. As described below, the Expansion will be conducted in phases. All existing foundations, equipment, and enclosures will be removed as part of the Project. Materials characterized by the Massachusetts Department of Environmental Protection ("MassDEP") as waste ban materials, in accordance with 310 C.M.R. § 19.017(3), will not be disposed in landfills. Materials will be recycled to the extent practicable.

The construction process for the Substation Expansion includes the following principal phases of construction: (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) construction of new transformer and switchgear not impacting the existing Substation operation, to include below grade conduits, grounding and foundations; (3) energization of the first new transformer and switchgear using a temporary tap from the existing Line 114; (4) cutover of distribution circuits to new switchgear; (5) demolition of existing Substation, including foundations and control enclosures; (6) construction of second new transformer on area previously occupied by existing station, to include below-grade conduits, grounding and foundations; (7) installation of permanent stormwater management system; electrical wiring; (8) startup; (9) reconfiguration and construction of overhead and underground lines; and (10) site stabilization and site restoration work. Some of these activities will overlap to the extent that the site conditions allow.

New Line Extension Work:

The Company will construct the new overhead facilities in several stages, some of which will overlap. The following summarizes the typical sequence of construction activities:

- Survey and stake the ROW boundaries (where necessary), and new structure locations;
- Mark the boundaries of previously delineated wetlands and water courses;
- Establish construction field offices and laydown yards and prepare storage and staging areas to support the line construction effort;
- Install erosion and sediment controls;
- Perform selective tree and vegetation removal, including installation of temporary construction matting and mowing work zones as necessary;
- Improve existing gravel access roads and/or construct new temporary and permanent gravel access roads as necessary;
- Construct work pads and pull pads;
- Relocate the existing 13-kV overhead distribution line near the Crystal Spring Substation to underground distribution lines on the existing ROW;[15]

[15] While distribution lines are not jurisdictional to the Department's (or the Energy Facilities Siting Board's) review under G.L. c. 164, § 69J or § 72, the Company is nevertheless including information in this Petition about planned modifications to the electric distribution system. More specifically, as is depicted in Attachment D and on the map set provided in Attachment H, the existing 13-kV overhead distribution

- Erect/assemble new transmission line structures;
- Install structure grounding systems, including counterpoise (where needed);
- Install conductor and shield wire;
- Remove construction matting, construction debris and restore disturbed sites; and
- Maintain temporary erosion and sediment controls until vegetation is re-established or disturbed areas are otherwise stabilized. Upon completion of sufficient revegetation and site stabilization, temporary erosion and sediment controls will be removed. Some of these activities will overlap to the extent that the site conditions and crew availability allow.

Mendall Road Tap Work:

The Company will install the new three-pole dead-end steel structure at the Mendall Road Tap in several stages, similar to the Line Extension work described above. The following summarizes the typical sequence of construction activities:

- Mow and remove vegetation within the ROW;
- Install erosion and sediment controls;
- Improve existing gravel access roads and/or construct new temporary and permanent gravel access roads as necessary;
- Construct work pads and pull pads;
- Erect/assemble new transmission line structure;
- Install structure grounding systems, including counterpoise (if needed);
- Install conductor and shield wire;
- Remove existing three-pole dead-end structure, construction debris and restore disturbed area; and
- Maintain temporary erosion and sediment controls until vegetation is re-established or disturbed areas are otherwise stabilized. Upon completion of sufficient revegetation and site stabilization, temporary erosion and sediment controls will be removed.

62. Mobilization and Laydown - Prior to the start of construction, Eversource's contractor will identify a marshaling/storage yard near the Project. This area is typically an existing contractor's yard or unused space at a commercial or industrial facility. The staging area(s) will have temporary offices, sanitation facilities, dumpsters, and containers specifically for collection

infrastructure that is generally located between existing solar facilities east and west of the Crystal Spring Substation will be removed to create space for the new transmission and substation infrastructure. The 13-kV distribution lines will be re-installed in underground duct banks for short distances prior to transitioning back to an overhead line design via new riser structures. A total of six distribution riser structures and approximately 1,700 linear feet of 13-kV underground distribution duct banks will be installed by the Company.

and recycling of shipping material and scrap metals.

63. Erosion and Sediment Controls - Following mobilization, erosion and sediment ("E&S") controls will be installed in accordance with Eversource's BMP Manual. Depending on site specific factors, E&S controls could include straw bales, silt fence, compost filter tubes and/or straw wattles or other measures prescribed in accordance with applicable environmental permit requirements. In accordance with Eversource's BMP Manual, to protect wildlife, no welded plastic, or mesh E&S controls will be utilized, and all wattles and blankets shall be constructed of biodegradable (coir or cotton) materials. The locations of the E&S controls are depicted on the map set provided as Attachment H.

64. ROW Preparation and Vegetation Removal – Construction will require selective side trimming of vegetation and removal of trees and ornamental vegetation in discrete locations, primarily along the northerly edge of the ROW. The side trimming and vegetation removal is necessary to comply with applicable standards for the safe and reliable operation of the new line. A total of approximately 1.87 acres of vegetation will be trimmed or removed to facilitate construction of the Project (approximately 1.45 acres in Mattapoisett for the New Line Extension and substation construction and approximately 0.42 acres in Acushnet for the New Line Extension). Please refer to the map set provided in Attachment H for the location of tree removal activities, including the placement of temporary construction matting. Generally, trees to be removed will be cut close to the ground, leaving the stumps and roots in place, except where grading is required for access improvements or at sites of structure installation where grubbing may be required; however, no grading is proposed in wetlands as the work will be performed on timber construction mats as described below. Small trees and shrubs within the ROW will be mowed as necessary to preserve roots and low-growing vegetation. Brush, limbs, and cleared trees

will either be chipped and removed off-site or left in place. Depending on the extent of vegetation growth at the time of construction, it will likely be necessary to mow lower growing woody vegetation and brush from the uplands to facilitate construction access, installation of work pads and pull pads, installation of the foundations, and stringing of the wires. Regardless, the existing understory within the ROW will remain substantially intact, thus contributing to the natural regeneration of compatible low-growing, early successional woody vegetation that will not affect the safe and reliable operation of the transmission line.

65. Timber Construction Matting - Timber construction mats will be used to support construction equipment when removing vegetation from within wetlands (as well as for transmission structure work pads located in wetlands and construction access in select locations). The use of construction mats avoids the need to remove vegetation beneath access ways while supporting equipment movement and staging within wetlands. Construction mats also minimize the amount of rutting in wetland soils by distributing loads over a broad surface area. The approximately 16-foot-wide timber construction mats will be composed of heavy timbers joined together to form stable platforms installed over the surface of wetlands. The mats will be placed in the wetland from the upland or from equipment operating on construction mats if working within the wetland. Dragging mats will be prohibited.

66. Gravel Access Roads and Spur Roads – Most of the existing gravel access roads that run the length of the ROW are well maintained and in good condition. Some widening, grading, straightening, and top-dressing (placement of additional gravel, smoothing of ruts, back-blading, etc.) of access roads will be required to support the heavy equipment that is necessary to install the transmission line. Proposed access routes to each of the new structure locations are depicted on the map set provided in Attachment H. Many of these access points purposefully take

advantage of existing gravel access roads. Short spur roads from these primary gravel access roads will be added as necessary in select locations to safely access the work site, which may include minor grading, mowing of brush and placement of gravel. Where gravel access roads are proposed to be constructed or improved, the travel width will not exceed 16 feet. Ancillary soil disturbance resulting from road or BMP construction will be stabilized. Timber construction mats will be used in select locations on narrower sections of existing gravel roads to minimize impacts to adjacent wetlands located on either side of these roads. These locations are depicted on the map set provided in Attachment H.

67. Temporary Work Pads, Pull Pads, and Splice Pads – At each proposed structure location, a safe and level work area is required for construction equipment to install transmission line foundations and assemble the structures. Work pads of approximately 100-feet by 100-feet are required and will be created by mowing low growing woody vegetation and brush followed by grading, if necessary, to create the level workspace. Gravel will be used in other upland locations. Work pads in wetland resource areas and buffer zones and state-listed species habitat will be comprised of timber matting. The size of the work pads will depend on terrain, equipment, and overall site conditions at each structure location. The locations of the proposed transmission line work pads are depicted on the map set provided in Attachment H.

68. Pull pads are typically required for straight wire pull lengths between three and four miles. The transmission line pull pads are approximately 150-feet by 100-feet and will be comprised of gravel. Gravel pull pads are anticipated between Structures 0 and 1 at the northerly end of the ROW near Mendall Road Tap and at the southerly end of the ROW at Structure 25 near the Crystal Spring Substation. A 100-foot x 50-foot gravel splice pad is also proposed between Structures 12 and 13. Neither the pull pads nor splice pad will be placed in wetland resource areas,

wetland buffer zones, or state-listed species habitat. The locations of the proposed transmission line pull pads and splice pad are depicted on the map set provided in Attachment H.

69. Following construction, these areas will be substantially restored to their preexisting condition. Stockpiled soil will be used to restore the contours of graded areas within work pads and the areas will be stabilized with an appropriate seed mix containing native herbaceous species. Biodegradable erosion control netting, and biodegradable sedimentation barriers will be installed at intervals parallel to the contours of the slope and secured with wooden stakes, as necessary.

70. Structure Installation – All of the proposed H-frames will be directly embedded into the ground (no concrete foundations). The holes will be excavated using standard auguring or excavating equipment. After the structures are installed, the holes will be backfilled with the specified material. The three structures outside of Crystal Spring Substation (Line 112 monopole and Line 114 monopole and three-pole dead-end structures) will be installed on concrete foundations. Supporting guy wires and anchors will be installed as necessary. The excavated soil will be spread out evenly around the structures, at an appropriate location elsewhere on the ROW, or disposed of off-site in accordance with standard Eversource specifications and applicable regulatory requirements.

71. Counterpoise Installation - To maintain system reliability during lightning storms, all transmission line structures will be grounded by installing an equipotential loop around each structure base and a series of short (approximately 50-feet) grounding leads connected to ground rods. The site contractor typically installs the counterpoise within the work pad footprint. The counterpoise wire is buried using a small excavator or standard trenching equipment. Counterpoise and ground leads are copper wire buried between 18-inches and 24-inches below grade. Following

installation, the trench will be backfilled and stabilized with a native seed mix, as previously noted.

72. Conductor and Shield Wire Installation – Following the erection of the transmission structures, conductors and shield wire will be installed using either helicopters or ground-based pulling and tensioning trucks and equipment. The conductors will be pulled under tension and, to maintain clearance at road and other crossings during the conductor and shield wire installation, temporary guard structures or boom trucks will be positioned beneath the lines, adjacent to the crossings. Eversource will coordinate with local authorities, as appropriate, regarding traffic control during pulling operations across roads. The insulators, hardware and wires will then be installed and sagged in accordance with industry standards and design specifications.

73. ROW Restoration and Demobilization – Following completion of construction, or alternately between phases of work in areas where all work is complete, portions of ROW 142 that were disturbed during construction will be restored to reflect their original condition. In most cases, this will involve smoothing of ruts, application of a native seed mix, and application of mulch. In select areas, backfill or topsoil may be needed to re-establish pre-construction grades prior to seeding and mulching. In areas that are outside of wetlands, the Company may retain small 50-foot x 50-foot permanent work pads around the new structures to facilitate access for maintenance, as necessary and in accordance with environmental permits and approvals.

74. 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 ensure compliance with applicable regulatory requirements. 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 ("CGP"),

which requires the development of a Stormwater Pollution Prevention Plan for the Project. Monitoring will continue until all elements of the Project are complete, and land areas altered by construction activities are stabilized.

B. Evaluation of Environmental Impacts

75. Attachment I depicts environmental constraints within the general Project area including wetlands, groundwater protection districts, flood zones, mapped habitat, historic resources, and protected open space. To the extent these resource areas overlay the Project ROW, they are discussed in further detail below.

76. Land Use – There are several land uses within and adjacent to the Project ROW, Mendall Road Tap, and Crystal Spring Substation. Based on MassGIS mapping classifications, these include: (1) Grassland associated with the maintained overhead transmission line ROWs leading to the Mendall Road Tap and Crystal Spring Substation as well as some associated access roads adjacent to these facilities, (2) Palustrine emergent wetlands associated with wetland areas along the ROW and adjacent to the Mendall Road Tap and Crystal Spring Substation, (3) Bare Land and Industrial, associated with the Mendall Road Tap and Crystal Spring Substation, and (4) small areas of Developed Open Space and Impervious, associated with residential yards and access road segments, respectively. There will be no appreciable change in the total area of Grassland or Palustrine Emergent Wetlands because of the Project. In total, approximately 2.4 acres of land will be disturbed by the proposed Crystal Spring Substation work, including approximately 0.69 acres of tree removal. This estimate includes approximately 0.2 acres of previously developed land occupied by the existing Crystal Spring Substation facility. The balance of the land in this location is generally occupied by gravel access roads. An additional approximately 1.18 acres of trees and vegetation will be selectively removed or trimmed along the

northerly ROW edge in Mattapoisett and Acushnet to facilitate construction and operation of the New Line Extension.

77. Wetland and Water Resources - ROW 142 and the Crystal Spring Substation parcel contain or are adjacent to freshwater wetlands and waterways, the majority of which are Palustrine scrub-shrub and emergent wetlands[16] and have been previously altered through construction and operation of the existing overhead electric transmission and distribution lines, as well as approved ROW maintenance and vegetation management activities. The map set provided in Attachment H depicts the field delineation limits of wetlands and waterways as well as floodplains on the ROW and sensitive habitat areas (including potential vernal pool habitat) and identifies areas of temporary alteration and land disturbance within wetlands from construction mat placement and transmission structure installations. In addition to freshwater wetlands, an unnamed stream and the Mattapoisett River bisect the ROW, neither of which will be affected by construction or operation of the Project. Limited unavoidable impacts to wetland resource areas are associated with structure installation (Structures 3, 4, 14, 15, and 19), use of temporary construction matting and selective removal of trees and vegetation. Work in wetlands has been reduced to the extent practical. Construction mats are a U.S. Army Corps of Engineers and industry standard BMP that are specifically used to minimize wetland impacts by supporting construction equipment when operating in wetlands.[17] The use of construction mats will allow for equipment movement and staging within wetlands without the need to substantially remove vegetation beneath access ways and other work areas. Construction mats also will minimize the amount of rutting in wetland soils

[16] Cowardin, L.M., Carter, V. and Golet, F.C. (1979) Classification of Wetlands and Deepwater Habitats of the United States. FWS/OBS79/31. USDI, US Fish and Wildlife Service, Office of Biological Service.

[17] See U.S. Army Corps of Engineers Construction Mat Best Management Practices (https://www.nae.usace.army.mil/Missions/Regulatory/State-General-Permits/Permit-Resources).

by distributing loads over a broad surface area.

78. Table 2 below provides a summary of all wetland resource area impacts associated by Town and total wetland resource area impacts for the Project**.** The Project will not impact any wetland resource area not identified on this table (e.g., Inland Bank, Land Under Water, Isolated Land Subject to Flooding, etc.). Compensatory flood storage for permanent impacts to Bordering Land Subject to Flooding and wetland replication for permanent impacts to Bordering Vegetated Wetlands will be provided if required by the Conservation Commissions during their review of the Notice of Intent filings.

Table 2: Wetland Resource Areas

	Acushnet		**Mattapoisett**		**Project Totals**	
Wetland Resource Areas	**Approximate Temporary Impacts (square feet)**	**Approximate Permanent Impacts (square feet)**	**Approximate Temporary Impacts (square feet)**	**Approximate Permanent Impacts (square feet)**	**Approximate Temporary Impacts (square feet)**	**Approximate Permanent Impacts (square feet)**
Bordering Vegetated Wetlands	52,600 (matting) 12,000 (vegetation removal)	100 (Strs. 3 4)	65,600 (matting) 11,400 (vegetation removal)	100 (Strs. 14, 15)	141,600	200
Riverfront Area	0	0	13,600 (matting) 900 (vegetation removal)	50 (Str. 19)	14,500	50
Bordering Land Subject to Flooding	5,400 (matting) 200 (vegetation removal)	0	11,300 (matting) 400 (vegetation removal)	50 (Str. 19)	17,300	50

79. A portion of ROW 142 is located within a MassDEP Zone II Wellhead Protection Area[18] and proximate to municipal groundwater supplies in Mattapoisett (see Attachment I). Water

[18] Zone II is a wellhead protection area that has been determined by hydro-geologic modeling and approved by MassDEP. It is an area of an aquifer that contributes water to a well under the most severe pumping and

supply protection overlay districts are regions that are important to the recharge of local water supply sources. In addition to use of construction matting and other BMPs to avoid and minimize impacts to wetlands and waterways during construction, regulated materials that are used and stored at Crystal Spring Substation will be managed in accordance with applicable laws and regulations. This will include 110% passive secondary containment structures for the proposed transformers that employ dielectric fluid, and appropriate storage of all regulated materials stored and used at the Crystal Spring Substation. During construction, the following materials may be used in varying quantities: oils (hydraulic oil); greases (lubricating); and construction equipment fuels (gasoline and diesel). The Company and its contractors are required to have spill kits available at all times in the event of a release of these substances. To minimize the risk of environmental impacts associated with potential spills, contractors are required to inspect vehicles and equipment on a daily basis and to refuel a minimum of 100-feet away from any wetland or waterbody, with the exception of equipment that cannot be feasibly moved from its working location (e.g., drilling equipment, dewatering pumps, large cranes, etc.). In the unlikely event that one of these substances is released to the environment, spill response will be activated immediately, and the spilled material and any contaminated material will be contained, cleaned and disposed of properly. Eversource maintains a 24-hour-per-day/7-day-a-week spill response program. 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.

recharge conditions that can be realistically anticipated (180 days of pumping at approved yield, with no recharge from precipitation).

80. Flood Zone - In two locations, waterways cross the ROW (Mattapoisett Brook in Mattapoisett and an unnamed stream tributary to Tinkham Pond in Acushnet), and each waterway is in a Federal Energy Management Agency mapped 100-year floodplain (see Attachment H). The total length of the floodplains on the ROW is approximately 1,250 linear feet. The existing access roads on the ROW include culverted crossings of the two waterways. As described above, limited fill in floodplains (50 square feet) is associated with installation of one transmission structure foundation (Structure 19). Compensatory flood storage will be provided if required by the Mattapoisett Conservation Commission during its review of the Notice of Intent.

81. Visual – Attachment J includes photo-simulations of the Substation Expansion and transmission structures. The primary viewpoints from which the proposed Substation work and new structures may be observed is from Crystal Spring Road, Tinkham Lane, and Long Plain Road in Mattapoisett, and Mendall Road in Acushnet. As depicted in the photo-simulations, the proposed Substation Expansion and ancillary facilities represent a continuation and expansion of an existing use, and overall do not significantly alter the visual characteristics of the area. The photo-simulations further demonstrate that, where visible, the Crystal Spring Substation and transmission structures and overhead wires within the ROW are highly dominant and visually complex groupings of utility scale infrastructure. Construction of the Project will introduce similar transmission structures and substation equipment into the same viewsheds, consistent in scale and character with similar equipment already in view. Overall, the Project will result in modest alteration of existing views. Nevertheless, the Company will work with affected homeowners to address concerns and, where appropriate, offer reasonable mitigation.

82. Noise – The Company will use construction methods and equipment, where appropriate, to reduce construction noise. These will include use of the quietest equipment possible

to perform the work, foundation designs that minimize the amount of excavation required and maximizing preassembly of components off site. As noted above, the Company expects that construction will be conducted using a six-day per week work schedule, generally during the hours of 7:00 a.m. to 7:00 p.m. Monday through Friday and from 9:00 a.m. to 5:00 p.m. on Saturdays to minimize the duration of the Project and associated construction impacts. 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. In addition, there are certain operations that, due to their nature or scope, must be accomplished in part outside the specified working hours. Such work generally consists of activities that must occur continuously, such as cable splicing, once begun. To the extent such expanded hours are necessary, the Company will work with affected stakeholders to minimize impacts.

83. New sources of sound associated with the operation of the expanded Substation are the two new transformers (one of which is replacing the existing transformer), both rated at 62.5 MVA with a maximum design sound output of 64 dBA. On behalf of the Company, Epsilon Associates, Inc. ("Epsilon") conducted a sound level assessment to determine potential sound level impacts associated with the operation of the Crystal Spring Substation (see Attachment K). The assessment included a sound monitoring program to measure 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 noise policy of MassDEP. 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. Potential sound level impacts from the Substation have been evaluated against this limit and the 'pure tone' criteria using ambient sound levels and the modeled sound levels referenced in the report. As described in

further detail in the report, modeling indicates the Substation Expansion will comply with the MassDEP Noise Policy at the property line of all noise-sensitive receptors and the nearest residential property line. In addition, the operation of the new transformers is not expected to cause a pure tone condition. Therefore, modeling indicates that the Substation Expansion will comply with the MassDEP noise policy.

84. Air Quality – Air quality impacts are temporary and limited to the fugitive dust from disturbed soil surface areas and emissions from construction equipment and motor vehicles. If necessary, dust generated from earthwork and other construction activities will be controlled by spraying with water. Anti-tracking pads and 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. Anti-tracking pads are typically installed at all points of egress to public roads from the ROW.

85. Eversource will direct its 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). Eversource uses ultra-low sulfur diesel ("ULSD") fuel in its own diesel-powered construction equipment. ULSD has a maximum sulfur content of 15 parts per million as opposed to low sulfur diesel fuel, which has a maximum sulfur content of 500 parts per million. By using ULSD fuel, there is a 97 percent reduction in the sulfur content as compared to low sulfur diesel fuel.

86. 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. There are exceptions for vehicles being serviced, vehicles making deliveries that need to

keep their engines running and vehicles that need to run their engines to operate accessory equipment. There may be other times when idling is permitted if idling is necessary (e.g., as a matter of safety).

87. Construction Traffic – The Project will require access from local roads during construction. To the extent practicable, delivery of materials or equipment will be planned during off-peak traffic hours. The transmission line aerial crossings of Crystal Spring Road, Tinkham Lane, and Long Plain Road in Mattapoisett, and Mendall Road in Acushnet will require short-term closures when stringing the wires over the roadway. This work will occur during off-peak commuter hours with police details, as directed by local officials. During construction, there may also be situations when Crystal Spring Road must be temporarily blocked for a short duration to accept supplies, move larger pieces of equipment onto the Substation site, or to facilitate underground distribution line installation across the road. These situations will be infrequent and of short duration. In cases where traffic must be temporarily delayed, a police detail will be used to control traffic. Ordinarily, construction vehicles will be working within the Project site and only limited entry and exiting of these vehicles will occur onto Crystal Spring Road. The Company will coordinate with the Towns of Mattapoisett and Acushnet to ensure that construction traffic impacts are minimized.

88. Waste, Debris, and Contaminated Soil – There are no mapped MassDEP Tier Classified 21E sites or properties with activity and use limitations within one mile of the ROW or Stations. The nearest MassDEP mapped site is approximately 7,300 feet southeast of the Substation in Mattapoisett. In the event contaminated soil, contaminated groundwater or other regulated materials are encountered along the route, soils/groundwater will be managed pursuant to the Utility Related Abatement Measure provisions of the Massachusetts Contingency Plan

("MCP"). Eversource will contract with a Licensed Site Professional as necessitated by conditions encountered along the Project alignment, consistent with the requirements of the MCP at 310 C.M.R. 40.0460 et seq.

89. Electric and Magnetic Fields ("EMF") – The Company modeled EMF levels associated with the proposed transmission facilities under peak and minimum annual loading conditions. Existing and proposed levels of EMF were calculated using equations from the *Electric Power Research Institute AC Transmission Line Reference Book – 200kV and Above (3rd Edition)* ("EPRI"). This method has been shown to accurately predict EMF levels measured near transmission lines. The EMF levels were calculated at one meter (3.28 feet) above ground, consistent with the published EPRI protocol. Eversource obtained base-case system power-flow models from the ISO-NE 2022 Case Library Rev. 2 representing the expected New England transmission topology for the year 2027, with all lines in service. These base cases include transmission system changes that already have been approved by ISO-NE and are in their system models. The results of the modeling along the Line 112 ROW are presented in the tables below:

Table 3: Calculated Electric Field Levels (kV/m)

Section	Configuration	Electric Field (-) Edge of ROW	Electric Field Max on ROW	Electric Field (+) Edge of ROW
Crystal Spring Substation to Mendall Road Tap	Existing: Proposed:	0.46 0.52	0.92 1.33	0.06 0.74

Table 4: Calculated Magnetic Field Levels at Summer Peak Loads with no Distributed Generation Export (mG)

Section	Configuration	Magnetic Field (-) Edge of ROW	Magnetic Field Max on ROW	Magnetic Field (+) Edge of ROW
Crystal Spring Substation to Mendall Road Tap	Existing: Proposed:	3.6 1.8	11.4 8.5	0.8 3.3

Table 5: Calculated Magnetic Field Levels at Minimum Loads with Full Distributed Generation Export (mG)

Section	Configuration	Magnetic Field (-) Edge of ROW	Magnetic Field Max on ROW	Magnetic Field (+) Edge of ROW
Crystal Spring Substation to Mendall Road Tap	Existing: Proposed:	9.6 10.4	30.7 34.6	2.2 1.6

The reference levels for whole body exposure by the general public to 60-Hz fields is summarized in the Table 6.[19]

[19] Both organizations concluded that evidence for effects from long-term exposure was insufficient for setting exposure standards.

Table 6: Reference Levels for whole body exposure by the general public to 60-Hz fields

Organization, recommended limit	Magnetic fields	Electric fields
International Commission on Non-Ionizing Radiation Protection, reference level[20]	2,000 mG	4.2 kV/m
International Committee on Electromagnetic Safety, maximum permissible exposure[21]	9,040 mG	5 kV/m[22] 10 kV/m[23]

The calculated EMF levels after construction of the Project are significantly lower than published international guidelines. In most locations, exposure to magnetic fields will be similar to existing levels. Overall, the Project will not result in a significant change in EMF as it pertains to exposure levels to the public.

90. Archaeological and Historical Resources - Transmission line construction on Eversource ROWs can potentially affect archaeological resources when earth movement disturbs subsurface artifacts, such as during grading and excavation. Accordingly, the Company's archaeology consultant, Public Archaeology Lab ("PAL") investigated the Project area to determine if it contained significant archaeological resources. The combined results of PAL's archival research, walkover survey, and subsurface testing completed as part of the survey did not identify any potentially significant archaeological resources within the Project's current Area of Potential Effect ("APE") [24]. PAL forwarded a copy of its findings under separate cover to the

[20] ICNIRP Guidelines for Limiting Exposure To Time-Varying Electric And Magnetic Fields (1Hz-100kHz) prepared by the International Council on Non-Ionizing Radiation Protection and published in Health Physics 99(6):818-836; 2010.

[21] ICNIRP Guidelines for Limiting Exposure To Time-Varying Electric And Magnetic Fields (1Hz-100kHz) prepared by the International Council on Non-Ionizing Radiation Protection and published in Health Physics 99(6):818-836; 2010.

[22] Maximum permissible exposure at and beyond the ROW edges.

[23] Maximum permissible exposure exception within the transmission ROW.

[24] If Project impacts change beyond that identified in the APE, additional surveys may be required within areas assessed as having archaeological sensitivity, in consultation with the MHC.

Massachusetts Historical Commission ("MHC") for review and comment. MHC's review of PAL's report is ongoing.

91. Areas of Critical Environmental Concern ("ACEC") – Neither the Project ROW, Mendall Road Tap, nor Crystal Spring Substation are within or nearby any Area of Critical Environmental Concern (see Attachment I).

92. Protected Open Space and Article 97 Lands – As depicted on Attachment I, a portion of ROW 142 passes through several open parcels in Acushnet and Mattapoisett. According to MassGIS™ data, several of these parcels are owned by the Buzzards Bay Coalition and are associated with the Mattapoisett River Reserve. The other parcels are owned by the Mattapoisett Land Trust, Girl Scouts of America, Town of Mattapoisett Water Department, and a sportsmen club (Fin Fur and Feather Club of Mattapoisett). Although the Eversource ROW extends through municipal lands protected for water supply purposes, construction of the overhead transmission line within the ROW does not require Article 97 approval. The existing ROW easement specifically allows construction of overhead transmission lines.

93. State-Listed Species and Habitat – Areas of protected habitat for state-listed species on the ROW were identified utilizing ArcGIS™ software and applying MassGIS mapping of Natural Heritage and Endangered Species Program ("NHESP") Priority and Estimated Habitat areas. As depicted in Attachment I mapped habitat exists along approximately 40 percent (5,145 linear feet) of the Project ROW. Neither the Substation nor the Mendall Road Tap are located in mapped habitat. The mapped habitat is associated with a turtle species. Potential impacts include direct mortality during construction, primarily from movement of construction vehicles and disturbance of vegetation. In consultation with the NHESP, the Company will develop a Turtle Protection Plan that incorporates measures to protect turtles from unintentional injury or death

during construction of the Project. For example, extra care will be used when using heavy machinery or traveling in vehicles through mapped areas, especially during the active turtle season from the first of April through the first of November. Further, in advance of construction, trained biologists will conduct turtle sweeps through work zones and any identified turtles will be removed from the proposed construction area(s). Additionally, Eversource will require that a qualified turtle ecologist (or other qualified personnel approved by NHESP) be present when conducting work in sensitive areas and to supervise and coordinate any required turtle sweeps within the work zone during the active turtle period. The Turtle Protection Plan will also include a contractor education component to explain the state-listed species occurring within each applicable work area to Project personnel. Contractor education will set expectations of responsibilities, considerations, and actions required from contractors in case of an encounter with protected species. Training will be mandatory and administered by qualified personnel prior to commencement of work. Training will cover a short introduction to species identification, key aspects of biology, relevant disturbance minimization and avoidance techniques.

94. Impacts to mapped habitat from vegetation removal during construction of the Project are limited to approximately 0.18 acres along the northerly ROW edge. The existing understory will remain substantially intact in these locations, thus contributing to the rapid and natural regeneration of low growing, early successional woody vegetation. While the conversion in cover type from a forested habitat to a scrub-shrub habitat is minimal, it will nonetheless offer potential foraging, migratory, and basking habitat for turtles following Project construction.

95. Permanent impacts to mapped habitat are limited to approximately 550 square feet and associated with transmission Structures 14 and 16 through 23.

96. Temporary impacts to mapped habitat from timber construction matting will total

approximately 2.3 acres. The construction mats will be removed as soon as practicable to minimize impacts to underlying vegetation and support revegetation. If determined to be necessary by the NHESP, the Company will also use timber construction mats at the work pad sites in lieu of permanent gravel to further minimize impacts to mapped habitat.

97. Temporary impacts to mapped habitat from underground distribution line work and temporary spur road construction are limited to approximately 0.04 and 0.1 acres, respectively. These disturbed areas will be substantially restored to their preexisting condition with loam and a native seed mix following construction.

98. Based upon the above, the environmental impacts associated with the proposed Project are minor and/or temporary in nature and will be minimized to the maximum extent practical.

VII. THE PROJECT REQUIRES ZONING EXEMPTIONS

99. As described in more detail below, the construction and operation of certain components of the Substation Expansion may be construed to be inconsistent with certain provisions in the Zoning Bylaw, which would require local zoning relief. However, the Project 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 the numerous DG projects. To allow for the timely and efficient construction of the Project, Eversource is seeking both individual and comprehensive zoning exemptions from the operation of the Zoning Bylaw because 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.

A. Individual Zoning Exemptions

100. The following paragraphs summarize the individual zoning exemptions that are required for the efficient and timely construction of the Project.

101. Substation Use in RR80 Zoning District. According to the Zoning Map, Town of Mattapoisett, Massachusetts, dated November 1, 1967, the Substation Site, located on Company-owned property at 26R Crystal Spring Road, is in the Rural Residence 80 (RR80) Zoning District and the Mattapoisett River Aquifer Protection Overlay District. Public utility/substation use is not allowed as-of-right or by special permit under current zoning in either the RR80 Zoning District or the Mattapoisett River Aquifer Protection Overlay District.

102. However, the continued use of the existing substation is likely grandfathered as a preexisting nonconforming use. Per Section 3.1 of the Zoning Bylaw, a preexisting nonconforming use is a use of property that was lawfully begun prior to the adoption of a zoning bylaw that would otherwise prohibit that use. The Substation was constructed in, and has been in operation since, 1966. The Company has no record of having obtained local zoning relief or exemptions from the operation of the Zoning Bylaw then in effect for its construction. Similarly, the Town has no record of having granted local zoning relief and the Department has no record of having granted zoning exemptions per G.L. c. 40A, Section 3. Given that no documents exist showing that zoning relief was obtained and, therefore, required for the construction of the Substation, it is reasonable to assume that the Substation was lawfully constructed in compliance with the use and dimensional requirements of the Zoning Bylaw in effect at the time.

103. The continuation of preexisting nonconforming uses is allowed under the Zoning Bylaw. Section 3.1.1 provides that any lawful use of a lot existing at the time of adoption of the Zoning Bylaw or any amendment thereof may be continued even though the use does not conform

to the provisions of the current Zoning Bylaw. However, per Sections 3.1.2 and 3.1.2.1, a special permit from the Zoning Board of Appeals is required for any substantial extension of a nonconforming use. If the Zoning Board of Appeals were to find that the Substation Expansion is substantial, it has the discretion to grant a special permit if it finds that any such extension of use shall not be substantially more detrimental than the existing nonconforming use to the neighborhood. Notably, Section 3.1 does not provide any standards to guide the Zoning Board of Appeals in making this finding. Moreover, it is not clear whether the standards in Section 7.2.2 for the general grant of special permits also apply to special permits granted pursuant to Section 3.1; however, if the standards do apply, they are subjective. For example, Section 7.2.2.2 provides that special permits shall be granted only where the Board of Appeals finds that a proposed project's benefits to the Town will outweigh any adverse effects on the Town or the vicinity in view of the particular characteristics of the site and of the proposal in relation to the site. While the Zoning Bylaw lists several factors to be considered in making this finding, there are no standards for how the Board of Appeals should weigh these factors. The Zoning Bylaw also does not define the terms "benefits" or "adverse effects." Without clear guidance, these terms are subjective, and the outcome of any review would be uncertain.

104. In sum, the grant of a special permit is discretionary, there are no standards in Section 3.1 to make the required finding and, to the extent they apply, the standards in Section 7.2.2 are subjective. Finally, a special permit, if granted, would be susceptible to appeal. Because of the uncertainty in obtaining a special permit, and the potential for adverse interpretations, delay, burden, and undue expense associated with the local permitting process and appeals therefrom, the Company seeks an exemption from the requirement in Section 3.1 from the need to obtain a special permit for extension of a preexisting nonconforming use for the Substation Expansion.

105. Alternatively, if public utility/substation use of the Site is not viewed as a pre-existing nonconforming use, the Substation Expansion likely would require a use variance to comply with the terms of the Zoning Bylaw because Section 5.7 of the Zoning Bylaw does not list public utility substation use as either allowed as-of-right or by special permit. Per Section 7.2.3, the Zoning Board of Appeals is authorized to grant use variances, but only where it specifically finds that owing to circumstances relating to the soil conditions, shape, or topography of such land and especially affecting such land but not affecting generally the zoning district in which it is located, a literal enforcement of the provisions of the Zoning Bylaw would involve substantial hardship, financial or otherwise, to the petitioner or appellant, and that desirable relief may be granted without substantial detriment to the public good and without nullifying or substantially derogating from the intent or purpose of the Zoning Bylaw. It is difficult, if not impossible, to meet these standards; in particular, the demonstration of unique conditions relating to soil conditions, shape, or topography of a particular parcel of land. Moreover, variances are a legally disfavored form of relief and, even if granted, are susceptible to appeal.[25] Because of the legal uncertainty in obtaining variances, especially use 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 need to obtain a use variance for the Substation Expansion.

106. Substation Use in Mattapoisett River Aquifer Protection Overlay District. The Substation Site is also located in the Mattapoisett River Aquifer Protection Overlay District. Per

[25] The Company characterizes variances as "legally disfavored" because the SJC has ruled that that they are to be issued sparingly and only if all of the statutory prerequisites have been met. Norcross v. Board of Appeal of the Building Department of the City of Boston, 255 Mass. 177, 185 (1926) ("[i]t is only in rare instances and under exceptional circumstances that relaxation of the general restrictions established by the statute ought to be permitted. The power granted is only for the relief of specific instances, peculiar in their nature"). This holding has been consistently reiterated in decisions of the courts regarding the issuance of variances. Guiragossian v. Board of Appeals of Watertown, 21 Mass. App. Ct. 111 (1985).

Sections 9.2 and 9.4 of Article 9 of the Zoning Bylaw, substation use is not allowed as-of-right or by special permit in the overlay district; thus, a use variance would be required for the Substation Expansion. In addition, Article 9 provides a list of explicitly prohibited uses, one of which, found in Section 9.3.16, is the rendering impervious of more than 15 percent of the size, or 2,500 square feet, whichever is greater, of any lot, unless an artificial recharge system for excess runoff, which will not degrade ground water quality, is provided. The Project will create approximately 4,278 square feet of impervious area due to construction of foundations and buildings. As discussed above, it is difficult, if not impossible, to meet the conditions for the grant of a use variance. Therefore, to avoid the uncertainty of obtaining a variance, and because of 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 need to obtain use variances to comply with the provisions in Article 9.

107. Structure Height. Four shielding masts and two line-terminal bridges needed as part of the Substation Expansion will be approximately 65 feet in height. Section 6.3.3 limits the height of structures to 35 feet. Thus, variances from the maximum height requirement will be needed to construct the six structures. As discussed above, it is difficult, if not impossible, to meet the conditions for the grant of a variance. Therefore, to avoid the uncertainty of obtaining the height variances, and because of 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 requirement in Section 6.3.3 of the Zoning Bylaw.

108. Site Plan Approval. Section 3.9 of the Zoning Bylaw provides the thresholds and requirements for projects that require site plan approval. The Substation Expansion triggers one such requirement – all new or modified nonresidential development that increases gross floor

area more than 1,000 square feet requires site plan review by the Mattapoisett Planning Board. The standard for approval of a site plan requires the Planning Board to make subjective determinations about whether a proposed project has: (1) minimized the volume of cut and fill, the number of trees removed, the length of removed stone walls, the area of wetland vegetation displaced, the extent of stormwater flow increase from the site, soil erosion, and the threat of air or water pollution; (2) maximized pedestrian and vehicular safety and convenience within the site and egressing from it; (3) minimized obstruction of scenic views; and (4) minimized visual impacts. Notwithstanding these conditions, the Company must have the discretion to design the Project and site layout in a manner that is consistent with established utility standards to ensure its reliable operation and notably, such technical engineering and electrical issues are typically beyond the general scope of site plan review.[26] Moreover, site plan approval could result in burdensome or restrictive conditions being placed on the Project. Accordingly, the Company is seeking an exemption from the requirement in Section 3.9 of the Zoning Bylaw to obtain site plan approval for the Substation Expansion.

109. Signs. The Company plans to post the following signs as part of the Project: (1) at the access road gate, a 14-inch-by-10-inch station identification sign and a 14-inch-by-10-inch warning/no trespassing sign; (2) on the Substation fence, at various intervals, 14-inch-by-10-inch danger signs, 14-inch-by-10-inch hard hat area signs, and 7-inch-by-10-inch warning/no trespassing signs. Section 3.5 of the Zoning Bylaw regulates signs in residential districts and the types of signs the Company will post are not explicitly listed as allowed. To ensure compliance

[26] Section 3.9.1 of the Zoning Bylaw provides that the purpose of the site plan review procedure in Mattapoisett is to "encourage a desirable and compatible character of development within the Town of Mattapoisett and to assure safety, promote logic, imagination, and innovation in the design process while complying with all zoning requirements." While safety is of the utmost consideration to the Company when designing substations, the other characteristics of development that site plan review addresses are not applicable to electric substations and may be inconsistent with established utility standards.

with Section 3.5 of the Zoning Bylaw, the Company would need to obtain variances. As discussed above, it is difficult, if not impossible, to meet the conditions for the grant of a variance. Therefore, to avoid the uncertainty of obtaining the variances for the placement of the necessary signs, and because of 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 restrictions on signs for the Project in Section 3.5 of the Zoning Bylaw.

110. Parking. Section 3.3 of the Zoning Bylaw provides the parking requirements for allowed uses. There are no parking requirements provided for substations because substation use is not explicitly allowed in any zoning district in the Town. The Substation is an unmanned facility and will continue to be unmanned after the construction of the Project. Company vehicles will be on site sporadically, mostly for inspection and maintenance activities. Although there will be no designated parking spaces provided on the Substation Site, there will be ample room for the parking of Company vehicles. While no explicit parking requirements are provided in the Zoning Bylaw for prohibited uses, the Town could impose parking requirements for the Substation Expansion via site plan review or otherwise. To ensure that the Project complies with the Zoning Bylaw, without the need to seek a variance from any such parking requirements, the Company seeks an exemption from any parking requirements imposed on the Project. As discussed above, it is difficult, if not impossible, to meet the conditions for the grant of a variance. An exemption from Section 3.3 of the Zoning Bylaw would avoid the uncertainty of obtaining the variance from any parking requirements that may be imposed, as well as the potential for adverse interpretations, delay, burden and undue expense associated with the permitting process and appeals therefrom.

111. To avoid ambiguities in the interpretation of the Zoning Bylaw and the need to seek

special permits, use and dimensional variances and site plan approval, the Company seeks the exemptions summarized below to construct, operate and maintain the Project in Mattapoisett:

Bylaw Provision	Local Zoning Relief	Description of Zoning Relief Required
Section 3.1 Preexisting Nonconforming Use	Special Permit	A Special Permit is required in connection with the extension of a preexisting nonconforming use and the Zoning Board of Appeal's finding that the Substation Expansion would not be more detrimental to the neighborhood than the existing Substation. Special permits are discretionary and can be conditioned and appealed.
Section 5.7 Use in RR80 Zoning District	Use Variance	Section 5.7 does not list public utility or substation use as allowed as-of-right or by special permit. A use variance would be needed for the Substation Expansion if it is not considered a preexisting nonconforming use. Variance criteria are difficult if not impossible to meet, especially for use. Variances are a legally disfavored form of relief and, even if granted, are susceptible to appeal.
Article 9 Uses in Mattapoisett River Aquifer Protection Overlay District	Use Variance	The Substation Site is in the Mattapoisett River Aquifer Protection Overlay District where public utility/substation uses are not allowed. In addition, the creation of more than 2,500 square feet of impervious area is prohibited and the Project will create approximately 4,278 square feet of impervious area due to Substation foundations and buildings. Variance criteria are difficult if not impossible to meet, especially for use. Variances are a legally disfavored form of relief and, even if granted, are susceptible to appeal.
Section 6.3.3 Structure height	Variances	Six structures proposed at 65 feet in height exceed the maximum structure height of 35 feet. Variance criteria are difficult if not impossible to meet, especially for use. Variances are a legally disfavored form of relief and, even if granted, are susceptible to appeal.
Section 3.9 Site Plan Review	Site Plan Approval	The Substation Expansion will result in an increase in gross floor area of more than 1,000 square feet, triggering site plan review by the Mattapoisett Planning Board. The standards are subjective, and the Company must be free to design the substation in accordance with established utility standards to

Bylaw Provision	Local Zoning Relief	Description of Zoning Relief Required
		ensure the reliable construction and operation of the substation.
Section 3.5 Signs	Variances	The Zoning Bylaw only provides sign regulations for uses that are permitted. Because substation use is prohibited, it is unclear what sign restrictions apply to the Project. The proposed signs are identification, danger and warning signs that must be placed at the Substation. Variance criteria are difficult if not impossible to meet, especially for use. Variances are a legally disfavored form of relief and, even if granted, are susceptible to appeal.
Section 3.3 Parking	Variance	Section 3.3 provides off-street parking requirements for allowed uses. As the proposed use is preexisting nonconforming, or prohibited, it is unclear what parking standards would be applied to the Project. The Substation will be unmanned after the expansion project and there is ample space on the Site for parking Company vehicles. Variance criteria are difficult to meet, and variances are a legally disfavored form of relief and if granted are susceptible to appeal.

VIII. THE SUBSTATION EXPANSION REQUIRES A COMPREHENSIVE ZONING EXEMPTION TO AVOID SUBSTANTIAL PUBLIC HARM

112. The Company respectfully requests a comprehensive exemption from the operation of the Zoning Bylaw with respect to the Project. The grant of a comprehensive zoning exemption is based on the specifics of each case. Eversource Oak Bluffs at 67; NSTAR Electric Company d/b/a Eversource Energy and New England Power Company d/b/a National Grid, EFSB 15-04/D.P.U. 15-140/15-141, at 150 (2018) ("Eversource/NEP Woburn-Wakefield"); NSTAR Electric Hyannis Junction at 34. The Department will consider a request for comprehensive zoning relief when issuance of a comprehensive exemption is imminently needed to avoid substantial public harm. Eversource Oak Bluffs at 67; Eversource/NEP Woburn-Wakefield at 150; NSTAR Electric Hyannis Junction at 35.

113. The Department and the Energy Facilities Siting Board (the "Siting Board") 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. Eversource Oak Bluffs at 69; Eversource Woburn-Wakefield at 150.

114. 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. An individual zoning exemption relates to specific provisions in the Zoning Bylaws *currently* in effect that have the potential to conflict or be inconsistent with, prevent, delay or obstruct the construction or operation of the Project. On the other hand, 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 Project from any *future* zoning enactment that comes into effect that has the potential to jeopardize the Project (in the same manner described above for individual zoning exemptions).[27] In this manner, the two types of zoning exemptions

[27] A comprehensive zoning exemption is also necessary with regard to provisions currently in effect because zoning bylaws and ordinances are rarely written with unique energy infrastructure facilities in mind. The lack of clearly defined and specific regulation of electric infrastructure in the Zoning Bylaws, and the vague and subjective terms and provisions of the Zoning Bylaws result in an imprecise, at best, application of the zoning provisions to the Project. The Company interprets the provisions of zoning ordinances and bylaws conservatively, in the hope that it is requesting individual zoning exemptions for all of the provisions that could conceivably be said to apply to a project. The grant of a comprehensive exemption removes any reasonable doubt as to the ability of the Project to move forward without violating any current terms of the Zoning Bylaws.

work in tandem to ensure that meritorious energy facilities like the Project are constructed as approved by the Department without undue delay. The very purpose of a comprehensive zoning exemption is thus to provide a mechanism for relief from local zoning that would not be available if only individual zoning exemptions were able to be secured.

115. As described herein, the Project satisfies the Department's and the Siting Board's standards for the grant of a comprehensive zoning exemption. First, as described in more detail in Section IV, the Project is needed to: (1) maintain a reliable electric system; (2) enable the Group Study DG facilities to safely interconnect and operate; (3) allow future DG applicants to interconnect; and (4) accommodate future load growth due to electrification. The Project is imminently needed to comply with D.P.U. 20-75-B and D.P.U. 22-47, which established a four-year construction window for the Project that began in January 2023 and concludes in January 2027. The Company was required to demonstrate in its CIP proposal that the components of the construction timeline within the Company's control could be completed within this four-year window. The Company has made all commercially reasonable efforts to avoid undue delay in designing the Project, and preparing and filing this Petition, all of which have occurred within 16 months of the start of the construction window. Finally, the Company maintains active and productive relationships with municipal officials in Mattapoisett; to date, Mattapoisett officials have not expressed any objection to the Company's pursuit of zoning exemptions from the Department in this proceeding relating to the Project.

116. In sum, a comprehensive zoning exemption from the operation of the Zoning Bylaw would ensure the timely construction of this important Project, which will provide benefits directly to customers and the DG developers for whom these facilities are being constructed.

IX. PERMITS REQUIRED

117. To the extent the Department grants the Company's Section 72 and Zoning petitions, Eversource anticipates that the following additional permits or authorizations are required to construct and operate the Project.[28]

Federal, State and Local Permits and Approvals			
Agency / Regulatory Authority	**Permit / Approval**	**Applicant / Owner**	**Status**
USEPA	National Pollutant Discharge Elimination System Construction General Permit for Stormwater	Eversource	Coverage under the CGP will be obtained through the filing of a Notice of Intent ("NOI") at least 14 days prior to the start of any land disturbance activities.
U.S. Army Corps of Engineers ("USACE")	§404 Clean Water Act – General Permit	Eversource	A Self-Verification Notification Form or Pre-Construction Notification will be filed with the USACE prior to the start of construction in wetlands and other waters of the U.S.
MassDEP	§401 Clean Water Act -Individual WQC Certificate	Eversource	A 401 Water Quality Certification application will be filed with the MassDEP in parallel with the USACE §404 filing referenced above.
NHESP	Massachusetts Endangered Species Act ("MESA") Checklist	Eversource	A MESA Checklist application will be filed with the NHESP prior to conducting work in mapped habitat areas.
Executive Office of Energy and Environmental Affairs ("EEA")	Massachusetts Environmental Policy Act Review (G.L. c. 30, §§ 61-62K)	Eversource	An Environmental Notification Form ("ENF") will be filed with EEA in parallel with the filing of this petition. Draft and Final Environmental Impact Reports ("DEIR/FEIR") will be

[28] In conformance with the Department's Section 72 and Zoning Exemption checklists (which are attached as Attachment L and Attachment M, respectively), Eversource has provided a Draft Hearing Notice as Attachment N. The Company is contemporaneously filing an Environmental Notification Form with MEPA, a copy of which is included in Attachment O.

Federal, State and Local Permits and Approvals			
Agency / Regulatory Authority	**Permit / Approval**	**Applicant / Owner**	**Status**
			filed following issuance of a Certificate on the ENF and DEIR.
Town of Mattapoisett Conservation Commission	Notice of Intent pursuant to the Massachusetts Wetlands Protection Act, G.L. c. 131, § 40.	Eversource	Eversource will submit a NOI with the Conservation Commission prior to conducting work in wetland resource areas or buffer zones in Mattapoisett.
Town of Mattapoisett Soil Conservation Board	Earth Removal Permit pursuant to Article 4 of the Town of Mattapoisett General Bylaws.	Eversource	Eversource will submit an application as necessary with the Soil Conservation Board for earth removal.
Town of Mattapoisett Select Board	Grants of Location per G.L. c. 166, § 22	Eversource	Eversource will submit an application as necessary with the Planning Board for the transmission line crossing public ways.
Town of Acushnet Conservation Commission	Notice of Intent pursuant to the Massachusetts Wetlands Protection Act, G.L. c. 131, § 40	Eversource	Eversource will submit a NOI with the Conservation Commission prior to conducting work in wetland resource areas or buffer zones in Acushnet.
Town of Acushnet Select Board	Grants of Location per G.L. c. 166, § 22	Eversource	Eversource will submit an application as necessary with the Planning Board for the transmission line crossing public ways.
Federal Aviation Administration	Hazard Determinations for Transmission Structures	Eversource	Will be applied for prior to construction.

WHEREFORE, Eversource respectfully requests that the Department, after due notice and a public hearing, determine that the construction of the Project is necessary for the purposes

stated, will serve the public convenience and will be consistent with the public interest, and thus, authorize Eversource to construct and operate the Project pursuant to G.L. c. 164, § 72 and grant Eversource individual and comprehensive zoning exemptions pursuant to G.L. c. 40A, § 3.

Respectfully Submitted,

NSTAR ELECTRIC COMPANY d/b/a EVERSOURCE ENERGY

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