

10-131/10-132, and which approval included the grant of individual and comprehensive zoning exemptions (“2012 Exemption”). More recently, Eversource received individual and comprehensive zoning exemptions from the Siting Board as part of the construction and operation of modifications to the Substation to accommodate the connection of a new 115-kilovolt (“kV”) transmission line (“New Line”) that is part of the Company’s MidCape Reliability Project (the “MidCape Project”). The MidCape Project was approved by the Siting Board in EFSB 19-06/D.P.U. 19-142/19-143 on December 16, 2022 (“2022 Exemption” or “MidCape Final Decision”).

In its Final Decision on the MidCape Project, the Siting Board approved the construction of the New Line with a design capable of operating at 345 kV in anticipation of future needs (the “Noticed Variation”). MidCape Final Decision, at 114-18. Because the Noticed Variation will be operated at 115 kV until such time as the Company seeks approval from the Siting Board to operate the MidCape Project at 345 kV, the Siting Board’s approval of the MidCape Project using the Noticed Variation did not include the additional equipment that is needed at West Barnstable Substation to operate the line at 345 kV.

The modifications at the Substation presented herein are required to operate the MidCape Project at 345 kV, consistent with the Noticed Variation approved by the Siting Board, to interconnect Park City Wind LLC’s (“PCW”) approximately 800-megawatt (“MW”) wind energy generation facility to be located in federal waters to the electrical grid in New England (the “PCW Project”).² The Massachusetts jurisdictional

² During the Siting Board’s review of Eversource’s MidCape Project, the PCW Project was referred to as “QP#700,” which was the PCW Project’s position in ISO New England Inc.’s (“ISO-NE”) interconnection queue.

components of the PCW Project, including two approximately 3,900-foot 345-kV transmission lines constructed underground within Eversource’s ROW 345 between PCW’s proposed new onshore substation in Barnstable and Eversource’s West Barnstable Substation (the “Grid Interconnection”), are under review and currently pending at the Siting Board in Park City Wind LLC f/k/a Vineyard Wind LLC, EFSB 20-01/D.P.U. 20-56/20-57. As described below, this petition is predicated on the Siting Board’s approval of the PCW Project, including the Grid Interconnection facilities to be constructed, owned and operated by Eversource.³

II. DESCRIPTION OF THE WORK AT WEST BARNSTABLE SUBSTATION

1. The West Barnstable Substation is located on an approximately 15-acre Company-owned parcel of land on Oak Street (the “Site”). The Site also includes a 115-kV/25-kV substation (“Oak Street Substation”).⁴ The West Barnstable and Oak Street Substations each has its own fenced yard on the Site. No jurisdictional work associated with the Project will occur at the Oak Street Substation.

³ With respect to the full scope of work required to operate the MidCape Project at 345 kV beyond the work described in this Zoning Petition, on this date, Eversource has filed with the Siting Board a Project Change Filing letter and related attachments for review by the Siting Board in EFSB 19-06/D.P.U. 19-142/19-143 and EFSB 10-2/D.P.U. 10-131/10-132. A copy of the Company’s Project Change Filing and the related attachments is provided herewith as Attachment C. The Project Change Filing contains a full description of the work necessary to operate the MidCape Project at 345 kV, and includes a full analysis of issues of need, estimated costs, and environmental impacts, as well as the Company’s plans to minimize such impacts, all in accordance with Condition D of the MidCape Final Decision. The Company anticipates that the Siting Board will review and approve the scope of work described in the Project Change Filing in parallel in its separate proceeding. This Zoning Petition relates only to the proposed 345-kV expansion of West Barnstable Substation for which the Company needs zoning exemptions from the Department pursuant to G.L. c. 40A, § 3.

⁴ The construction of the Oak Street Substation was exempted from the operation of the Barnstable Zoning Ordinance by the Department in Commonwealth Electric Company, D.T.E. 03-7 (2003) (“2003 Exemption”).

2. The West Barnstable Substation will be expanded to the northeast of existing substation facilities to accommodate the Project's 345-kV facilities. The fence line of the West Barnstable Substation will be expanded by approximately 0.96 acres to accommodate the Project. The Project elements are depicted on Attachment D, Overview of Proposed Work, Attachment E, General Arrangement Drawing, and Attachment F, Cross Section Drawings and ROW Configuration. The new 345-kV substation facilities associated with the Project will include the following:⁵

- New approximately 100-foot by 110-foot by 19-foot Gas Insulated Switchgear ("GIS") with four breaker bays and ten circuit breakers, switches, and other associated equipment with provisions to accommodate a future fifth bay position to facilitate future reliability needs.
- New fully integrated and prefabricated 60-foot by 28-foot by 11-foot control enclosure to house station batteries, relay protection and control equipment.
- New approximately 54-foot by 33-foot by 35-foot, three-phase, 345-kV-to-115-kV autotransformer (345B).
- New 345-kV duct bank and underground line cable tie connections between existing 345-kV autotransformer (345A) and the new GIS.
- New 345-kV duct bank and underground line cable tie connections between new 345-kV autotransformer (345B) and the new GIS.
- Two shielding masts, each with a height of 75 feet.

3. The new 345-kV transmission line facilities associated with the Project will consist of the following:

⁵ A small portion of the Project will be located on an adjacent parcel of land currently owned by PCW (Parcel 214-001). Eversource is currently engaged in discussions with PCW to acquire a fee or permanent easement in all or a portion of Parcel 214-001 for those facilities, which include a portion of the control enclosure that is necessary for the interconnection of the PCW Project with Eversource's 345-kV transmission system. On February 14, 2023, PCW and Eversource executed a Memorandum of Understanding ("MOU") whereby PCW and Eversource each made commitments to execute a definitive agreement for the Project's required property interests on PCW's parcel. When those discussions are completed and a definitive property agreement is executed, Eversource will supply a copy of the agreement for the record in this proceeding.

- Two new 345-kV underground transmission lines (i.e., the Grid Interconnection, as defined above) entering on the east side of the Substation.
- New 345-kV Line 3999 underground line and duct bank will exit the new 345-kV GIS on the west side of the Substation and run approximately 495 linear feet along the Substation’s existing access road to a new 161-foot tall, 345-kV transition structure (Structure 3999-2) to transition overhead and connect to the existing overhead transmission line facilities within the right-of-way (“ROW”).⁶
- New 345-kV Line 3998 underground line and duct bank exits the new 345-kV GIS on the west side of the substation and runs approximately 633 linear feet along the Substation’s existing access road to a new 161-foot tall, 345-kV transition structure (Structure 3998-2) to transition overhead and connect to the existing overhead transmission line facilities within the right-of-way.⁷
- One existing structure (Structure 3998-87) must be removed and replaced. This replacement is necessary to avoid structure uplift that would otherwise occur due to the installation of the new Transition Structure 3998-2.
- One existing structure (Structure 3999/144-91) requires modification. Preliminary engineering analysis indicates that this structure will require arm replacement or similar to withstand the differential loads imposed by installation of new Transition Structure 3999-2.
- One existing structure (Structure 3998-88) will be removed because it is no longer needed once the New Line is cut into the 345-kV GIS via a new transition structure and underground duct bank.

⁶ Line 3999 is the line number designation for the Noticed Variation for the MidCape Project when the New Line operates at 345 kV.

⁷ Line 3998 is the line number designation for the sectionalized portion of the existing Lower SEMA transmission line, Line 399, running east from Bourne Switching Station to West Barnstable Substation. Once sectionalized, existing Line 399 from West Barnstable to Bourne will remain Line 399 and the line from Bourne to West Barnstable will be designated Line 3998. The purpose of this sectionalizing work is to strengthen the capability to supply PCW’s offshore wind output on the 345-kV transmission system by enhancing export capacity off the Cape and into the electric grid serving southeastern Massachusetts.

4. The new 115-kV substation facilities that will be added to the existing West Barnstable Substation:⁸

- New 115-kV duct bank and underground line cable tie connection between the 115-kV transformer low-side riser structure at 345-kV autotransformer (345B) run within the existing substation fence line to the new 115-kV breaker position.
- New 115-kV circuit breaker and two 115-kV switches and associated structures.

5. Related site work associated with the Project at the West Barnstable Substation will include:

- Tree removal east of the existing Substation fence line to accommodate development of the expanded Substation area, and northwest of the existing Substation fence line to facilitate installation and operation of proposed riser Structure 3999-2 and the associated duct bank entry for Line 3999.
- Grading and site work to level the site and install the ground grid. Existing site access will be used. A retaining wall will be constructed in certain areas around the perimeter of the expanded portion of the Substation Site. The 41,883 square foot equipment area will be entirely enclosed within a perimeter fence and made a part of the West Barnstable Substation.
- Concrete slab foundation with secondary containment for the new 345B autotransformer; slab on grade foundation will be installed for the GIS equipment.
- Drilled pier foundations will be installed for the control house, bus supports, and cable transition structures.
- New concrete retaining wall system and Substation fence line expansion will be installed. The linear length of the new retaining wall will be 507-feet with a maximum height of 12 feet.

⁸ These modifications to the 115-kV portion of the West Barnstable Substation are more fully described in the Company's Project Change Filing letter being filed with the Siting Board in EFSB 19-06/D.P.U. 19-142/19-143. None of these changes to the 115-kV portion of the yard themselves requires zoning relief beyond the comprehensive zoning exemption provided in the 2022 Exemption for the 115-kV portion of the yard.

- The existing Substation fence line will be expanded by approximately 170 feet to the north and approximately 130 feet to the east. The new fence line will be eight feet tall and will match the existing fence.
- The expanded Substation yard will be covered with crushed stone topping as is typical of Eversource's substation facilities. Stormwater infiltration structures will be designed and developed in accordance with all applicable standards, codes, and guidelines, including the Massachusetts Stormwater Handbook dated February 2008 and Stormwater Standards.

See Attachment B for a copy of the United States Geological Survey ("USGS") locus map and aerial photograph and Attachment D, Attachment E, and Attachment F for plans showing the layout of the proposed Substation modifications.

6. The current cost estimate to expand West Barnstable Substation to 345 kV is approximately \$67.2 million (2023 dollars), estimated at a planning grade cost level ($\pm 25\%$). When considering the transmission line exit facilities, the approximate total cost of the Project is \$73.3 million.

III. COMMUNITY AND MUNICIPAL OUTREACH

7. The Company is committed to working with municipal officials, businesses and residents abutting the Project and providing proactive and transparent communications throughout the life of the Project. The Company's initial outreach efforts have been aimed at briefing local officials and affected residents on the need and anticipated overall schedule of the Project. The Company will continue these efforts throughout the life of the Project and will host additional opportunities throughout the winter and spring of 2023 to invite public participation and feedback.

8. With respect to zoning-related outreach, Company representatives met with Barnstable officials on January 9, 2023. Subsequent to the January 9th meeting, the Barnstable Building Commissioner indicated that he had no objection to the Company's

request for zoning exemptions from the Department; however, he recommended that the Company meet with Barnstable's Site Plan Review Committee for a courtesy administrative review on an informal basis, which the Company has agreed to do. The Company is in the process of scheduling additional meetings with Barnstable officials and will continue to solicit feedback, understand community concerns, and develop the most effective communication strategy that will foster a better understanding of the Project.

9. Following the submittal of this Petition, and throughout the permitting and construction of the Project, the Company will continue to communicate with Barnstable officials and other interested parties about any concerns or issues that may arise. Key elements of the Company's outreach program are discussed further below:

- Open Houses: In April of 2023, the Company will host a public Open House to discuss the West Barnstable expansion including its scope, need and anticipated timeline. Subject matter experts will be present to answer questions from the public. Postcard invites will be sent to all property owners within a quarter mile of the project, and it will be advertised in coordination with the towns on municipal outlets, as well as through local news outlets. Additional open houses will be scheduled as necessary.
- Community Pop-Up Events: As appropriate, the Company will hold local pop-up events in high traffic areas to engage with a diverse cross-section of community members to update them on project activities and solicit feedback and hear any concerns they might have. These efforts can be held at different locations, across different days of the week and/or different hours of the day to accommodate the varied schedules of community members.
- Door-to-Door Outreach and Mailings: Outreach staff began conducting door-to-door outreach to directly affected property owners during the week of February 12. Door-to-door outreach and mailings will also be used in advance of planned Project activity and construction events to ensure abutting property owners and other interested stakeholders remain informed of what to expect. The Company will make all reasonable efforts to minimize impact to these and other abutters as the Project advances. Within these mailings and notices recipients will be informed of the Project website, hotline phone number, and email address where they can ask

questions, file complaints, and ask to be included in future opt-in electronic notifications. There will also be a QR code to send recipients to the Project website.

- Project Website: A website is being developed for this Project that will include basic Project information, a map, contact information, and features regular updates including town-specific construction information and anticipated schedules.
- Project Hotline: A toll-free number of 1-833-836-0302 has been established as a Project Hotline. The hotline allows stakeholders to leave messages, ask questions, seek more information on Project specifics, or file a complaint. This number is listed in all Project outreach materials including fact sheets, mailings, the Project website and is provided at all community events. Eversource is committed to responding promptly to all inquiries and complaints, usually within one business day of receipt.
- Project Email: A Project email address of ProjectInfoMA@eversource.com has been established as a communication method for stakeholders to engage with the project team. Similar to the hotline phone number, the Project email is listed in all Project outreach materials, including fact sheets, mailings, the project website and provided at all community events. This email box allows stakeholders to leave messages, ask questions, seek more information on project specifics, or file a project complaint. Eversource is committed to responding promptly to all inquiries and complaints, usually within one business day of receipt.
- Email Notification Campaign: The Company has set up an opt-in, informational email notification campaign where those who sign up will receive email updates on relevant topics such as Project updates, upcoming construction schedules, and community engagement opportunities. This notification campaign will also provide information on the Project hotline and email address so that residents may contact Company representatives and ask questions, seek additional information, or file a complaint.
- Construction Community Outreach Plan: The Company will execute a comprehensive construction plan to keep property owners, businesses and municipal officials including fire, police, and emergency personnel up to date on planned construction activities. The Company will notify abutting property owners, municipal officials and other interested stakeholders of its planned construction start and work schedule prior to commencing construction and will work closely with all to limit construction impacts. All notifications will occur as soon as practicable.

IV. STANDARD OF REVIEW

10. 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.

11. 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”).

V. EVERSOURCE IS A PUBLIC SERVICE CORPORATION

12. 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”).

13. 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. NSTAR Electric Company d/b/a Eversource Energy, EFSB 14-02/D.P.U. 14-73/14/-74, at 91 (“Eversource Walpole-Holbrook”); NSTAR Electric Company d/b/a Eversource Energy, EFSB 15-03/D.P.U. 15-64/15/-65, at 78 (“Eversource Mystic-Woburn”); NSTAR Electric Company d/b/a Eversource Energy, D.P.U. 15-85, at 6 (2016) (“Eversource Woburn”) (2016); NSTAR Electric Company d/b/a Eversource Energy, D.P.U. 15-02, at 6-7 (2015) (“Eversource Hopkinton”); NSTAR Electric Company, D.P.U. 14-55/14-56, at 12; NSTAR Electric Company, D.P.U. 13-177/13-178, at 10-11 (2015). As an electric company and a public service corporation in the Commonwealth, Eversource is entitled to seek a zoning exemption pursuant to G.L. c. 40A, § 3. Save the Bay, 360 Mass. at 680; Eversource Oak Bluffs at 14; Eversource Hopkinton at 6-7.

VI. THE PROJECT IS REASONABLY NECESSARY FOR THE PUBLIC CONVENIENCE OR WELFARE

14. In determining whether a present or proposed use is reasonably necessary for the public convenience or welfare, the Department balances the interests of the general public against the local interest. Save the Bay, at 680; Town of Truro v. Dep’t of Pub. Utils., 365 Mass. 407 (1974); Eversource Oak Bluffs at 12; Eversource Walpole-

Holbrook at 92; Eversource Mystic-Woburn at 79; Eversource Woburn at 4. Specifically, the Department undertakes “a broad and balanced consideration of all aspects of the general public interest and welfare and not merely [an] examination of the local and individual interests which might be affected.” New York Central Railroad v. Department of Public Utilities, 347 Mass. 586, 592 (1964) (“New York Central Railroad”); Eversource Oak Bluffs at 12-13; Eversource Walpole-Holbrook at 92; Eversource Mystic-Woburn at 79; Eversource Woburn at 4-5. When reviewing a petition for a zoning exemption, the Department considers the effects of the requested exemption in the state as a whole and upon the territory served by the petitioner. Save the Bay, at 685; New York Central Railroad at 592; Eversource Oak Bluffs at 13; Eversource Walpole-Holbrook at 92; Eversource Mystic-Woburn at 79; Western Massachusetts Electric Company and New England Power Company d/b/a National Grid, D.P.U. 13-187/13-188, at 7 (2015) (“WMECO/NEP Northfield/Erving”).

15. With respect to the project site chosen by a petitioner, a petitioner is not required to demonstrate that its preferred site is the best possible alternative, nor must the Department consider and reject every possible alternative site presented. Eversource Oak Bluffs at 13; Commonwealth Electric 2003 at 5. Rather, the availability of alternative sites or routes, the efforts necessary to secure them, and the relative advantages and disadvantages of those sites are matters of fact bearing solely upon the main issue of whether the preferred site is reasonably necessary for the convenience or welfare of the public. Martorano v. Dep’t of Pub. Utils., 401 Mass. 257, 265 (1987); New York Central Railroad, at 591; Eversource Oak Bluffs at 13.

16. Therefore, when making a determination as to whether a petitioner's present or proposed use is reasonably necessary for the public convenience or welfare, the Department examines: (1) the present or proposed use and any alternatives or alternative sites identified; (2) the need for, or public benefits of, the present or proposed use; and (3) the environmental impacts or any other impacts of the present or proposed use. Eversource Oak Bluffs at 13; Eversource Mystic-Woburn at 79; Eversource Woburn at 5; NSTAR Electric Hyannis Junction at 6. The Department then balances the interests of the general public against the local interest and determines whether the present or proposed use of the land or structures is reasonably necessary for the convenience or welfare of the public. Eversource Oak Bluffs at 13; Eversource Mystic-Woburn at 79; NSTAR Electric Hyannis Junction at 6.

A. Public Benefit and Need for the Project

17. The primary purpose of the modifications to the Substation is to accommodate and fully interconnect the PCW Project to the New England electric grid in accordance with PCW's 345-kV upland transmission lines and system reliability studies undertaken by ISO-NE as part of QP#700, which require that the MidCape Project be able to operate at 345 kV to safely and reliably interconnect the PCW Project. The Siting Board has established a two-part standard for assessing need for projects such as the upgrades needed at the Substation to interconnect new or expanded generating facilities, including generating facilities such as offshore wind facilities that are located outside of the Siting Board's jurisdiction. Vineyard Wind LLC, EFSB 17-05/D.P.U. 18-18/18-19, at 11 (2019) ("Vineyard Wind I"); Cape Wind Associates, LLC, EFSB 02-2, at 13-17 (2005) ("Cape Wind"); Alliance to Protect Nantucket

Sound, Inc. v. Energy Facilities Siting Board, 448 Mass. 45, 51 (2006) (affirming the Cape Wind need standard on appeal).

18. Pursuant to the Cape Wind standard, an applicant must show: (1) “that the existing transmission system is inadequate to interconnect the new or expanded generator”; and (2) “that the new or expanded generator is likely to be available to contribute to the regional energy supply.” Vineyard Wind 1 at 11; Cape Wind at 17. Where the generator is not subject to the Siting Board’s jurisdiction, the Siting Board assesses the likelihood of its availability to contribute to the regional energy supply “on a case-by-case basis based on indicators of project progress (e.g., progress in permitting or in obtaining project financing).” Vineyard Wind 1 at 12; Cape Wind at 17.

19. Here, as determined by ISO-NE’s System Impact Study (“SIS”), absent the Substation upgrades at West Barnstable, the existing transmission system on the Cape is not capable of safely and reliably interconnecting the PCW Project at 345 kV. Simply stated, the PCW Project would be unable to inject the output of its offshore generating facility into the regional power grid without a 345-kV substation that is integrated into Eversource’s transmission network. The extent of modifications needed at the Substation to interconnect the PCW Project were established in ISO-NE’s SIS for QP#700, as issued on October 6, 2020 (the “PCW SIS”). Among other things, the PCW SIS evaluated the expected system impacts and required facilities needed to upgrade Eversource’s transmission system to connect PCW’s project. Consistent with the SIS, in March 2022, Eversource and PCW entered into the TSA whereby Eversource and PCW agreed to various terms and conditions regarding the upgrades to the Eversource transmission system needed to accommodate the PCW Project (“PCW

Upgrades”). A copy of the TSA is provided herewith as Attachment G.⁹ The PCW Upgrades enumerated in the TSA included a suite of projects further referred to as “Phase II Upgrades.” Attachment G at 13-14. The scope of the Phase II Upgrades includes the following work at the Substation:

- Install a four-bay 345-kV GIS bus that will consist of ten new 345-kV circuit breakers and one existing 345-kV breaker;
- Install associated 345-kV equipment including disconnect switches, and a new control house with control and relay cabinets; and
- Install 345/115-kV autotransformer (connecting to the 115-kV switching position established for Line 144 that will be converted to 345 kV operation as part of network upgrades for the large generator interconnection agreement), high voltage alternating current (“AC”) cables to connect to the 345-kV and 115-kV bus, control and relay cabinets.

These upgrades identified in the PCW SIS conducted by ISO-NE are now the subject of binding contractual arrangements between Eversource and PCW and have been approved by FERC; thus, the upgrades at the Substation are needed to safely and reliably interconnect the PCW Project to the regional transmission grid. Accordingly, the Project satisfies the first prong -- that the existing transmission system is inadequate to interconnect the new or expanded generator -- of the Cape Wind analysis. Indeed, the Siting Board found in the MidCape Final Decision that the PCW SIS required the construction of a 345-kV line on Cape Cod and that, even if the PCW Project is not built, because the ISO-NE interconnection queue identified more than 2,600 MW of offshore wind proposed to interconnect at the West Barnstable Substation, it is “clear that some

⁹ The Federal Energy Regulatory Commission (“FERC”) approved the TSA by Letter Order dated June 17, 2022. NSTAR Electric Company and Park City Wind LLC, Docket No. ER22-1247-000, 179 FERC ¶ 61,200. In the Letter Order, FERC required a compliance filing with revised tariff records within 30 days of the Letter Order. In compliance with FERC’s directive, Eversource submitted tariff records of the TSA in Docket No. ER22-2402-000 on July 18, 2022, which FERC accepted on September 22, 2022.

offshore wind projects will interconnect on Cape Cod, necessitating 345 kV service.”
MidCape Final Decision at 25.

20. With respect to the second prong of the Cape Wind analysis, whether the PCW Project is “likely to be available to contribute to the regional energy supply” is an issue that is being thoroughly evaluated and addressed in the Siting Board’s pending review of the PCW Project in EFSB 20-01/D.P.U. 20-56/20-57. Eversource anticipates that the Siting Board will make favorable findings on this issue and, to the extent the Siting Board determines that the PCW Project is likely to be available to contribute to the regional energy supply, those findings would similarly establish that the Substation upgrades described herein are needed. In this way, Eversource and the Substation upgrades proposed in this proceeding will comply with the second prong of the Cape Wind need analysis.

B. Alternatives Considered

21. Based on ISO-NE’s determination in the PCW SIS that various equipment upgrades at West Barnstable Substation were needed to interconnect PCW’s Project, and that West Barnstable Substation was the appropriate point of interconnection, there are no feasible alternatives to the Substation modifications discussed herein.

C. Environmental Impacts

22. The Company has conducted detailed analyses of the environmental impacts of the Project, identified the relevant impacts and proposed measures to minimize impacts associated with the construction and operation of the Project.

23. Construction – Construction is anticipated to commence in October 2024. Civil construction and electrical construction work will continue for approximately

eighteen (18) months with an anticipated in-service date in April 2026. All construction will be performed in a manner that limits the impact to the area to the maximum extent practicable and adhere to the Company's Construction and Maintenance Environmental Requirements Best Management Practices ("BMPs") Manual for Massachusetts and Connecticut ("BMP Manual"). Construction work will occur 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 (construction hours are dependent upon daylight and weather conditions). The schedule may be adjusted by written request of the Company in consultation with the Town of Barnstable. In limited circumstances, some work tasks may require continuous operation until completion (e.g., cable splicing, concrete pours) and, accordingly, result in work performed outside normal work hours (including nightwork, Sundays and holidays). The Company will provide notification to the Town of Barnstable should the need for continuous operation arise.

24. Where appropriate, the Company will implement construction methods that mitigate construction noise including requirement for construction equipment to be equipped with manufacturer's normal sound muffling devices that will be kept in good working order throughout the construction process. Construction of the Project may cause minimal short-term effects to local air quality because of fugitive dust generated by vehicle travel and earthworks, as well as vehicle exhaust emissions. Vehicle-related fugitive dust emissions would consist of emissions associated with construction equipment, commuter vehicles and delivery vehicles traveling in and around the construction area. Fugitive dust emissions from earthwork would consist of emissions associated with clearing, excavating, and grading of work surfaces. Vehicle exhaust

emissions would be generated by equipment and would generally include gasoline- or diesel-fueled engines in land clearing/grading equipment, cranes, bulldozers, various types of trucks and cars. Measures to minimize fugitive dust emissions from construction vehicle travel and earthworks include: restricting traffic to existing gravel access roads and implementing a speed limit; spraying water on dusty areas, stockpiles and loads of soil being transported, roads and exposed surfaces as necessary during earthworks and dry weather; sweeping roadway surfaces at construction entrances; minimizing areas of disturbed soil; minimizing stockpiling by coordinating excavation, grading, compaction and importation activities; rehabilitating exposed areas in a timely manner; and washing construction equipment. Measures to minimize construction-related vehicle exhaust emissions would include utilizing efficient construction equipment, maintaining all construction equipment in proper working condition, and minimizing the amount of idling time of construction equipment.

25. Land Use – There are several land uses within and adjacent to the Project site. Based on MassGIS mapping categories, these cover types include: (1) Bare Land, representing the lands comprising the existing Substation facilities, (2) Grassland, representing the maintained overhead transmission line ROWs leading to the Substation as well as associated access roads adjacent to the Station and within the ROWs as well as the location of the new 345-kV transition structures, and (3) Deciduous Forest, representing oak-dominated (*Quercus* spp.) upland forest present within the footprint of the proposed Substation expansion. There are also small patches of Deciduous Forest mapped in the vicinity of the Substation, representing individual and small stands of pines (*Pinus* spp.). Oak-dominant deciduous forest is the dominant land cover type in the

general area of the Project site, and is visible along Route 6 to the south, along Oak Street to the west, and withing the Barnstable State Forest to the northeast of the Project site. There will be no appreciable change in the total area of Bare Land or Grassland in association with the proposed Substation expansion. For perspective, approximately 2.3 acres of land will be disturbed by the proposed Substation expansion work, portions of which are presently occupied by gravel access roads and graveled areas within the fence line of the existing Substation. Of this 2.3 acres of land disturbance, approximately 1 acre contains trees that will be removed to construct the Substation expansion. An additional approximately 0.35 acres of tree removal would be required to construct and operate Lines 3999-2 and 3998-2. A total of approximately 1.35 acres of tree removal is proposed.¹⁰ Soils on the site generally consist of excessively drained and well-drained coarse loamy sands and medium sandy loams with some gravel present. Some areas of the Project site are covered with cobbles, stones and boulders. Please see Attachment H, Soils for additional detail.

26. Wetland Resource Areas – There is a small (approximately 0.10 acre) depressional, isolated shrub wetland located on the Site outside the Substation fenced yard between the existing Substation facilities and surrounded by access roads on three sides. Dominant plant species within the wetland are Northern bayberry (*Myrica pensylvanica*) and common reed (*Phragmites australis*). This isolated wetland, which is considered a jurisdictional feature under the Barnstable Wetland Protection Ordinance

¹⁰ While not specifically described herein, the separate MidCape Reliability Project received approvals to remove approximately 1.4 acres of trees to facilitate the 115-kV expansion work on the west side of the West Barnstable Substation. Similarly, PCW's separate filing with the Siting Board also proposed to remove approximately 0.87 acres of trees on the east side of the Project Site to facilitate construction of the underground transmission line interconnection.

(Chapter 237), has no connection to any other wetland or waterway, and is a non-jurisdictional feature under the Massachusetts Wetland Protection Act and U.S. Clean Water Act. No disturbance or alteration of this wetland is proposed in association with the Substation expansion or associated work, and sedimentation and erosion controls will be installed around its perimeter prior to initiation of ground-disturbing construction activities to ensure the wetland is protected. See Attachment H, Work in Wetlands Buffer Zone, for the location of these activities relative to delineated wetlands. The nearest surface water body to the Project site is Garretts Pond, located approximately 1,200 feet to the north. Land uses between Garretts Pond and the Project site include roadways, single family residential properties, and overhead electric transmission ROW.

27. Water Resource Areas – The Company takes seriously the imperative to protect water resource areas in Barnstable. The Project site is located within the Plymouth/Carver Sole Source Aquifer that includes the entire town of Barnstable as well as all of Cape Cod. This aquifer consists of highly permeable glacial sediments and is the principal source of drinking water for Cape Cod. The Project site is situated within the Barnstable Harbor Watershed, is not located within a mapped Wellhead Protection Area, and is not mapped as being within a medium or high-yield aquifer or within a wellhead protection or groundwater protection district. See Attachment H, Water Resources. In addition, regulated materials that are used and stored at the Substation facility will be managed in accordance with applicable laws and regulations. This will include 110% containment structures for the proposed transformer that employs dielectric fluid, and appropriate storage of all regulated materials stored and used at the Substation. During construction, materials that may be used in varying quantities include: 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 refueling will be completed outside of wetlands and buffer zones to the extent feasible and will not be done unattended. 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. Eversource maintains a 24-hours-per-day/7-day-a-week response program. Eversource's Oil & Hazardous Material Spill Release Notification/Contingency Plan Policy & Procedure is provided as Attachment I. 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.

28. Groundwater – As stated above, the Company is keenly aware of the need to protect the groundwater system in Barnstable. Based on the geotechnical borings performed at the Project site in November 2022, the depth to groundwater is relatively deep and was estimated at approximately 15 to 35 feet below ground surface. If there is a need for dewatering during construction, the selected Site Contractor will adhere to the Company's BMP Manual, including the use of sediment filter bags, sediment traps, dewatering basin, overland flow through vegetation, or some combination thereof

depending on the volume of groundwater encountered at the time of construction. There are no mapped Tier Classified oil and/or hazardous material disposal sites or sites with Activity and Use Limitations on or near the Substation. The nearest such site is located approximately 1.42 miles to the south and 2.51 miles to the northeast, respectively. Accordingly, the Project will not have impacts to groundwater resources.

29. Visual – Attachment J includes photo-simulations of the Substation expansion and the proposed transition structures 3999-2 and 3998-2. As depicted in the simulations, the proposed Substation expansion and ancillary facilities represent a continuation and expansion of an existing use, and do not significantly alter the visual characteristics of the area. There are limited views of the structural elements of the proposed expansion from nearby residences, and these views are significantly screened by vegetation and topography. The primary viewpoint from which the proposed structures may be observed is from Oak Street and the open overhead transmission line ROW across the street, and from passing traffic. However, as shown in Attachment J, the views are not materially different after completion of the Project; thus, the Project will have negligible visual impacts.

30. Sound – The only new sources of sound associated with the proposed Substation expansion work are a new electrical transformer and new control building HVAC units. On behalf of the Company, Epsilon Associates, Inc. (“Epsilon”) conducted a sound level assessment to determine potential sound level impacts due to the Substation expansion (see Attachment K). The sound level impact assessment included a sound monitoring program to measure ambient sound levels in the vicinity of the West Barnstable Substation, sound level modeling to predict future impacts from the

installation of the proposed improvements, and a comparison of modeled sound levels with the applicable noise policy of the Massachusetts Department of Environmental Protection (“MassDEP”). As described in further detail in the report, upgrades associated with the Substation expansion are predicted to increase existing ambient broadband sound levels at the closest residential receptors by 8 dBA or less, which complies with the allowable increase pursuant to MassDEP’s Noise Policy of 10 dBA at noise-sensitive receptors. In addition, no MassDEP-defined pure tones are anticipated at any noise-sensitive receptor from operation of the equipment associated with the Substation expansion under conditions included in the model. The sound level evaluation is conservative in that it assumes all equipment is operating at maximum conditions simultaneously during nighttime hours with quiet ambient sound. During the majority of time, background sound levels are expected to be higher than those assumed in this evaluation and the resulting sound level impacts will be less.

31. Relative to construction phase noise, the Company will implement, where appropriate, construction methods that reduce construction noise. These will include use of the smallest equipment possible to perform the work, using foundation designs that minimize the amount of digging required, and maximizing the amount of preassembly of components off site. 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 length of calendar time that temporary construction impacts affect the area. Because the Project involves work on an existing power system that serves customers, there may also be times that work needs to occur outside of these 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, once begun. To the extent such expanded hours are necessary, the Company will work with affected stakeholders to minimize impacts.

32. Traffic – The Substation is located east of Oak Street approximately 1,600 feet north of the crossing of Route 6. There is no exit or entrance ramp to Route 6 at the Oak Street overpass; access to the highway is made via east or west travel from Oak Street on Service Road, located immediately south of the Route 6 overpass. Traffic counts on Oak Street at the Route 6 overpass were measured by MassDOT in 2018 at 2,410 trips. Traffic congestion on Oak Street between Route 6 and Route 132 (Iyannough Road) is generally uncommon. The proposed expansion of the Substation will not significantly increase traffic on Oak Street or in the area following completion of construction. There are no permanent employees stationed at the Substation and once in service, there will be limited additional daily trips to the property associated with Substation improvements. To the extent practicable, delivery of materials or equipment will be planned during off-peak traffic hours. The transmission line aerial crossings of Oak Street (at the two transition structures) will result in only short-term closures when stringing the wires over the roadway. This work would occur during off-peak commuter hours with police details, as directed by local officials.

33. During construction, there may also be situations when Oak Street must be temporarily blocked for a short duration to accept supplies or move larger pieces of equipment onto the Project site. 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 Oak Street. To minimize impacts from construction traffic on local roads and through residential neighborhoods, truck traffic will likely be routed west onto Oak Street, north onto Service Road, and then east or west onto Route 6 at the Route 149 rotary. Alternatively, construction truck traffic could potentially be routed east onto Service Road to Route 132 north, and then east or west onto Route 6. Given the proximity of Route 6, significant congestion or disruptions to traffic patterns because of truck traffic on local roads is not anticipated. The Company will coordinate with the Town of Barnstable to ensure that construction traffic impacts are minimized.

34. Electric and Magnetic Fields (“EMF”) – Eversource conducted an assessment of electric and magnetic fields (“EMF”) associated with the expansion of the Substation, as well as for the new overhead and underground transmission lines proposed to be installed and/or relocated. Regarding electric fields near the Substation, all new substation equipment will be GIS (which will include grounded metal enclosures around the conductive bars of the GIS) and underground cable (except for the immediate connections); thus, there will be no incremental electric fields resulting from the Project. With respect to magnetic fields, a report, prepared by Exponent, Inc., on behalf of the Company, and provided as Attachment L, summarizes the Company’s calculations of the magnetic fields for the proposed Substation. The report shows that, in all cases, magnetic fields from the Substation will be well within exposure guidelines issued by the International Commission on Non-Ionizing Radiation Protection (“ICNIRP”) for continuous public exposure to magnetic fields (2,000 milligauss [mG]; ICNIRP, 2010).

35. Areas of Critical Environmental Concern (“ACEC”) – There are no ACECs on or near the Substation. The nearest ACEC is the Sandy Neck Barrier Beach System/Barnstable Harbor ACEC approximately one mile to the north of the Substation.

36. Cultural Resources – Cultural and archaeological resources on the Project site were previously evaluated by the Company as part of the MidCape Reliability Project and Lower SEMA 345-kV Reliability Project. The evaluation was performed in association with PCW’s New England Wind 1 Connector project, and in consultation with the Massachusetts Historical Commission (“MHC”) and Old King’s Highway Regional Historic District Commission (“OKHD”). Accordingly, no significant impact on any historic or archaeological resource is anticipated in association with the proposed expansion or upgrades to the West Barnstable Substation. The Company will consult with the OKHD in Barnstable relative to local historic districts, as applicable. Based on prior work at the Project site, the Company again anticipates obtaining a Certificate of Appropriateness or Exemption from the OKHD allowing the work to proceed as proposed.

37. Flood Zone – There are no mapped floodplains located within 1,000 feet of the Project site.

38. Protected Species and Habitat – According to the most recent mapping by the Natural Heritage and Endangered Species Program, there are no Estimated Habitats of Rare Wildlife or Priority Habitats of Rare Species on or adjacent to the Project site. The nearest mapped habitat areas are located approximately 5,100 feet to the north and 6,500 feet to the west of the Project site.

39. Based upon the above, the environmental impacts associated with the Project are minor and/or temporary and will be minimized to the maximum extent possible.

VII. THE PROJECT REQUIRES INDIVIDUAL ZONING EXEMPTIONS

A. Standard of Review

40. In determining whether an exemption from a particular provision of a zoning bylaw is “required,” the Department looks to whether the exemption is necessary in order to allow construction or operation of the petitioner’s project as proposed. Eversource Oak Bluffs at 14; Eversource Woburn at 6; NSTAR Electric Hyannis Junction at 7. It is a petitioner’s burden to identify the individual zoning provisions applicable to the project and then to establish on the record that exemption from each of those provisions is required:

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

Eversource Oak Bluffs at 14, quoting New York Cellular Geographic Service Area, Inc., D.P.U. 94-44, at 18 (1995).

41. The Department and the Siting Board favor the resolution of local issues on a local level when possible to reduce concern regarding the possibility of intrusion (by the granting of zoning exemptions) on a municipality’s home rule power to adopt zoning bylaws. Eversource Oak Bluffs at 65; Russell Biomass LLC, EFSB 07-4/D.P.U. 07-35/07-36, at 60-63 (2009) (“Russell 2009”). The Department and the Siting Board look

to whether a petitioner has consulted with local officials regarding its project before seeking zoning exemptions. Eversource Oak Bluffs at 65; NSTAR Electric Company, D.P.U. 14-55/14-56, at 41 (2015) (“NSTAR Belmont”). The Company has complied with each of these requirements by meeting with Barnstable officials on January 9, 2023 to discuss the Project and the zoning exemptions being requested, and through subsequent follow up with Barnstable officials to provide requested Project-related information.

B. Individual Zoning Exemptions Required

42. As described in more detail below, the Project needs relief from the Zoning Ordinance in several respects. Offshore wind plays a critical role in meeting the Commonwealth’s aggressive emission reduction goals. The Project is needed in the immediate time frame in order to expeditiously connect the PCW Project with the regional transmission grid, consistent with the Commonwealth’s emission reduction goals. Thus, Eversource is seeking zoning relief from the Department to allow for the timely and efficient construction of the Project. To date, the Town has not expressed any objection to Eversource’s approach.

43. According to the Zoning Map, the Substation Site is located in the Residence F (“RF”) Zoning District and in the Aquifer Protection (“AP”) and Resource Protection (“RP”) Overlay Districts. Based on Eversource’s review of the Zoning Ordinance, the modifications to the Substation necessary to operate the MidCape Project at 345 kV would require municipal zoning relief as set forth below.

44. Uses. The Company would need zoning relief in the form of use variances for each of the following provisions of the Zoning Ordinance:

a. Section 240-7A of the Zoning Ordinance provides that “[n]o building shall be erected or altered and no building or premises shall be used for any purpose except in conformity with all of the regulations herein specified for the district in which it is located.” Without the zoning relief described herein, the Project cannot comply with this provision.

b. Per Section 240-14A-D of the Zoning Ordinance, which set forth the principal permitted, accessory, conditional and special permit uses in the RF zoning district, public utility uses are not permitted therein. Although the Site already has been exempted from the operation of the Zoning Ordinance for the construction and operation of both the West Barnstable and Oak Street Substations, the Project expands the public utility use of the Site. Because substation use is prohibited in the RF zoning district, a use variance is required to ensure the proposed Substation modifications comply with the use provisions.

c. Regarding the AP Overlay District, Section 240-35E provides that the only permitted uses in the overlay district are those uses allowed in the underlying zoning district; thus, because public utility uses are prohibited in the RF Zoning District, they are prohibited in the AP Overlay District and a use variance is required for the proposed

Substation modifications.¹¹

d. The Substation Site is also within the RP Overlay District, which is established by Section 240-36 of the Zoning Ordinance. The Zoning Ordinance does not provide a list of permitted or prohibited uses in the RP Overlay District. To the extent that the construction or operation of the Project is regulated or prohibited in the RP Overlay District, the Company seeks an exemption from obtaining zoning relief.¹²

e. Finally, Section 240-10 prohibits any use that is injurious, noxious or offensive by reason of the emission of odor, fumes, dust, smoke, vibration, noise, lighting or other cause. There will be some incremental lighting added to the Substation as part of the Project as well as a slight increase in existing ambient broadband sound levels from

¹¹ The purpose of the AP Overlay District is to “protect the public health, safety, and welfare by encouraging nonhazardous, compatible land uses within groundwater recharge areas.” Even though the Substation modifications are not permitted in the underlying RF Zoning District, the operation of the Substation and the construction and operation of the Project will not cause any detrimental impact on groundwater recharge. The Substation’s existing stormwater management system will be modified, as necessary, to conform to MassDEP’s Stormwater Standards as prescribed under the Wetlands Protection Act Regulations (310 CMR 10.00). These standards require, in part, implementation of certain water quality BMPs to collect and treat stormwater runoff prior to discharge (e.g., deep sump catch basins, infiltration trenches and swales) and adherence to a post-construction stormwater operation and maintenance plan. Moreover, there are no standards or requirements in Section 240-35E regarding activities in the AP Overlay District. Therefore, exempting the Project from the use prohibition in Section 240-35E will not result in any negative impacts to the purposes of the zoning provision.

¹² Per Section 240-36(2), the purposes of the RP Overlay District include: (1) reducing nitrogen contamination by reducing impacts from, among others, runoff from impervious surfaces; (2) reducing nitrogen loading to groundwater and surface water; (3) increasing groundwater protection in areas with septic systems and groundwater wells; and (4) reducing development potential. As noted in the prior footnote and as discussed in the Analysis in Section 5.7.6, the Substation’s existing stormwater management system will be modified, as necessary, to conform to MassDEP’s Stormwater Standards. The proposed BMPs will focus on Low Impact Development (“LID”) techniques to mitigate potential changes in runoff, promote infiltration, and provide water quality treatment. Water quality treatment will be achieved primarily using infiltration BMPs such as infiltration basins and trenches, vegetated swales and crushed stone in lieu of pavement. These types of BMPs efficiently remove stormwater pollutants including total suspended solids, phosphorous, metals and total petroleum hydrocarbons, and are relatively low maintenance. Moreover, there are no standards or requirements in Section 240-36 regarding activities in the RP Overlay District. Therefore, exempting the Project from the use prohibition in Section 240-36 will not result in any negative impacts to the purposes of the zoning provision. As required in Section 240-36D, the minimum square footage of the Substation Site is more than 87,120 square feet.

the operation of the new equipment. There are no standards in Section 240-10 to determine whether potential impacts from the proposed lighting and sound levels could be “injurious, noxious or offensive” and, therefore, the requirement is subjective. The provision also lists “other cause” and, thus, leaves open for interpretation whether a function of the construction or operation of the Project could be “injurious, noxious or offensive.” Because the provision is vague with no objective standard, and therefore subject to interpretation, a variance is required to ensure that the Project complies with Section 240-10.

Regarding the variances discussed in subsections a-e above, Section 240-125B(1)(e) of the Zoning Ordinance authorizes the grant of use variances upon the finding of the following by the Barnstable Zoning Board of Appeals in accordance with G.L. c. 40A, § 10: (a) circumstances exist relating to soil conditions, shape or topography of the particular parcel or structure that do not affect generally the zoning district in which the parcel or structure is located; (b) a literal enforcement of the provisions of the bylaw would involve substantial hardship to the applicant and there is a nexus between the special circumstance and the hardship; and (c) the relief requested may be granted without substantial detriment to the public good and without nullifying or substantially derogating from the intent or purpose of the bylaw. It is difficult, if not impossible, particularly for use variances, to demonstrate the existence of unique conditions relating to soil conditions, shape or topography of a parcel of land or structure. Moreover, variances are a legally disfavored form of relief and, even if granted, are

susceptible to appeal.¹³ To avoid the delay, cost and uncertainty associated with seeking local zoning relief and any potential appeals arising therefrom, the Company seeks exemptions from Sections 240-7A, 240-10, 240-14, 240-35E and 240-36 of the Zoning Ordinance. The Siting Board granted exemptions from these same provisions in the 2022 Exemption.

45. Height. Section 240-14E provides a maximum *building* height of 30 feet, or 2½ stories, whichever is lesser, in the RF District. All proposed structures are below 30 feet with the exception of: (1) two new transition structures that will be 161-feet in height; (2) two shielding masts that will be approximately 75 feet in height; and (3) the autotransformer that will be approximately 32 feet in height. While the Zoning Ordinance does not define “building,” the structures do not have roofs or walls and do not provide sheltering for any use or occupancy. However, to remove all doubt as to whether the above-discussed structures must comply with the maximum height requirement, the Company seeks an exemption from the height requirement in Section 240-14E of the Zoning Ordinance. The Siting Board granted an exemption from the limitation on the height for the structures approved in the 2022 Exemption.

46. Minimum Yard Setbacks. Section 240-14E provides a minimum front yard setback in the RF district of 30 feet from the property boundary and a minimum side

¹³ Zonings variances are considered “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 by Massachusetts courts regarding the issuance of variances. Guiragossian v. Board of Appeals of Watertown, 21 Mass. App. Ct. 111 (1985); see, e.g., Eversource Oak Bluffs at 63; NSTAR Electric Company d/b/a Eversource Energy, D.P.U. 17-147, at 39 (2019) (“Eversource K Street”); Eversource Westfield at 50.

yard setback of 15 feet from the property boundary.

a. Limited portions of Transition Structure 3998-2 are within 30 feet of the front yard setback on the Site along Oak Street. While the center line of Transition Structure 3998-2 is 32 feet from the front property boundary, given the diameter of the structure and foundation, limited above-ground portions of the structure will be within the front yard setback. To obviate the need to seek a variance, the Company seeks an exemption from the 30-foot minimum front yard setback requirement in Section 240-14E.

b. The proposed control enclosure and 345-kV GIS are partially located on the adjacent Parcel 214-001 currently owned by PCW and, therefore, are within the side yards of both the Site and Parcel 214-001. As noted above, Eversource and PCW have negotiated an MOU whereby Eversource will secure property rights on Parcel 214-001 upon which Eversource plans to locate the equipment. If Eversource acquires a fee interest in all or a portion of Parcel 214-001, the property boundary will shift such that the proposed equipment will no longer be located in a side yard. In that scenario, no exemptions will be needed from the minimum side yard setback requirement. However, if the property rights obtained for the equipment on Parcel 214-001 are in the form of a permanent easement, variances would be required to locate the equipment in the side yards of both the Site and Parcel 214-001. To obviate the need to seek variances, the Company seeks exemptions from the 15-foot minimum side yard setback requirements in Section 240-14E on both the Site and Parcel 214-001.

47. Number of Buildings on a Lot. Section 240-7F(1) allows only one principal permitted building on each lot in a residential district. Both the Substation and the Oak Street Substation have existing control enclosures and the Project will add a new

one. The Zoning Ordinance does not define “building” and, to the extent that the control enclosures are considered buildings, to ensure that the Project conforms with Section 240-7F(1), the Company needs a variance. To avoid the delay, cost and uncertainty associated with seeking a variance and any potential appeals arising therefrom, the Company seeks an exemption from Section 240-7F(1) of the Zoning Ordinance. The Siting Board granted an exemption from the limitation on the number of permitted buildings on a lot for the control enclosures that were associated with the 2012 Exemption and the 2022 Exemption.

48. Site Plan Review. The modifications to the Site appear to trigger the need for site plan approval pursuant to Article IX of the Zoning Ordinance because the Project would involve “construction ... grading, clearing or other land development activity” and “[new construction of any building or structure, including any grading or land development activity except detached single-family and two-family dwellings. . .” Section 240-101A provides that neither a building permit nor occupancy permit shall be issued for any activity or use requiring site plan review until site plan approval has been obtained from the Barnstable Building Commissioner. Regarding the purpose of site plan review, Section 240-98 provides:

Developments designed to be used for business and professional offices, commercial establishments, industrial facilities, medical-service facilities, public recreational facilities and multiple-family dwellings, together with their associated outdoor areas for vehicular movement and parking, invite and accommodate varying degrees of open and continuous use by the general public. Owing to their physical characteristic and the nature of their operations, such developments may affect neighboring properties and adjacent sidewalks and streets. It is in the interest of the community to promote functional and aesthetic design, construction and maintenance of such developments and to minimize any harmful effects on surrounding areas.

As noted by the Department in the 2003 Exemption, “relatively large-scale development projects, with likely impacts beyond a developer’s own site, are the primary focus of the site plan review process laid out in this Section.” Commonwealth Electric Company, D.T.E. 03-7, at 14 (2003). The proposed modifications to the West Barnstable Substation are to the rear of the Substation Site and, once operational, will not have any impacts of the type envisioned by Section 240-98 on neighboring properties and adjacent sidewalks and streets. Moreover, the Company must have the discretion to design the Project and site layout in a manner that is consistent with established utility, state, and federal standards to ensure its reliable operation; such technical engineering and electrical issues are typically beyond the general scope of municipal review. For these reasons, the Company is seeking an exemption from the site plan review requirements in Article IX of the Zoning Ordinance. The Department and the Siting Board granted exemptions from the need to obtain site plan approval in the 2003 Exemption, the 2012 Exemption, and the 2022 Exemption.

49. Parking. Article VI of the Zoning Ordinance establishes Town wide off-street parking requirements for “new, expanded or intensified uses within the Town. . .” and no non-residential use may be intensified without providing adequate off-street parking as provided in the Zoning Ordinance. The Zoning Ordinance provisions regulate several aspects of parking, including: (1) the minimum number of parking spaces by use; (2) parking space location, design and screening requirements; and (3) landscaping requirements. Because utility uses are not permitted in the RF Zoning District, the number of parking spaces required would appear to fall into the catch-all category of “[a]ll other uses” in the Schedule of Off-Street Parking Requirements found in Section

240-56 where the number of spaces is “[a]s determined by the Building Commissioner.” It is within the Building Inspector’s discretion to determine the number of parking spaces for the Project. Parking at the Substation is rare because the Substation is unmanned and will remain so after the Substation modifications are complete. Although the Zoning Board of Appeals can reduce the number of spaces required by special permit, the grant of a special permit is discretionary, some of the criteria are subjective, and the Board of Zoning Appeal may impose conditions to the grant of any special permit. Because of the legal uncertainty in obtaining a special permit, the possibility of the imposition of problematic conditions 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 parking requirements in Article VI. Such an exemption was granted to the Company in the 2003 Exemption, the 2012 Exemption, and the 2022 Exemption.

50. Signs. Article VII of the Zoning Ordinance regulates signs and prescribes the types, number and size of signs in various zoning districts. The Company affixes four types of signs on its substation fences and will do so on the new fence that will be installed to accommodate the Substation modifications:

- No Trespassing Signs (approximate size: 12” x 9”)
- Contact Information Signs (approximate size: 14” x 10”)
- Danger Signs (approximate size: 14” x 10”)
- Substation Safety Sign (approximate size: 3’ x 3’)

The danger signs (and potentially the Substation Safety Sign) appear to be permitted pursuant to Section 240-75, which allows warning signs necessary for public safety. The no-trespassing and informational signs do not appear to be permitted in the RF Zoning

District and, therefore, variances are required for these signs. Such an exemption was granted to the Company in the 2022 Exemption.

51. Performance Bond. Section 240-124A of the Zoning Ordinance requires a performance bond of not less than \$4 per foot of frontage against possible costs due to erosion or damage within passable street rights-of-way, and a second bond or cash security may be required by the Building Commissioner for other construction. The amount of these bonds is to be determined by the Building Commissioner in his sole discretion. Further, this section requires certification of compliance with yard requirements by a registered land surveyor. Inasmuch as the amounts of these bonds are unfixed and there is no process for how these determinations are to be made, the potential for project delay is great, and the Company seeks an exemption from the bond provisions and from the requirements in this Section 120-124A. The Department and the Siting Board granted exemptions from the performance bond requirements in the 2003 Exemption, the 2012 Exemption, and the 2022 Exemption.

52. Occupancy Permit. Section 240-124B of the Zoning Ordinance requires that no premises and no building or structure erected, altered or in any way changed as to construction or use, under a permit or otherwise, shall be occupied or used without an occupancy permit signed by the Building Commissioner, and that “[s]uch permit shall not be issued until the premises, building or structure and its uses and accessory uses comply in all respects with this chapter.” Inasmuch as it will be impossible for the Company to comply with this provision once it has been granted any exemption from the Barnstable Zoning Ordinance by the Department, the Company seeks an exemption from this requirement of Section 120-124B for the issuance of an occupancy permit. The

Department and the Siting Board granted exemptions from the occupancy permit requirements in the 2003 Exemption, the 2012 Exemption, and the 2022 Exemption.

53. To avoid vagueness and subjectivity in the Zoning Ordinance as applied to the Project and the need to seek use and dimensional variances and other zoning relief, Eversource seeks the following exemptions in order to construct, operate and maintain the Project in Barnstable:

Zoning Ordinance Provision	Local Relief Required	Why Exemption is Required
Section 240-7A Prohibits building unless all Zoning Ordinance provisions are met	Use Variance	The Company cannot meet this requirement as the Project cannot meet several provisions in the Zoning Ordinance. A use variance is needed to ensure compliance. The criteria for use variances are difficult to meet and, even if granted, the variance is susceptible to appeal.
Section 240-10 Prohibits uses that are injurious, noxious or offensive	Use Variance	The Project requires additional lighting and will result in slightly higher than existing noise conditions. There are no standards in Section 240-10 governing what is “other cause” or “injurious, noxious or offensive.” A use variance is needed to ensure compliance. The criteria for use variances are difficult to meet and, even if granted, the variance is susceptible to appeal.
Section 240-14A-D Utility uses not permitted in Residence F Zoning District	Use Variance	An exemption was granted from this prohibition for the construction of the West Barnstable Substation as part of Lower SEMA. Therefore, the Substation Site was exempted for the substation use that was described in the Lower SEMA petition. However, the modifications proposed could be interpreted as expanding the use and the building inspector could take the position that the use cannot be expanded without further zoning relief. Because substation use is prohibited in the zoning district, a use variance is needed to ensure compliance with the use prohibition. The criteria for use variances are difficult to meet and, even if granted, the variance is susceptible to appeal.
Section 240-35E Utility uses not permitted in	Use Variance	A use variance is needed to authorize a prohibited use. The criteria for use

Zoning Ordinance Provision	Local Relief Required	Why Exemption is Required
Aquifer Protection Overlay Zoning District		variances are difficult to meet and, even if granted, the variance is susceptible to appeal.
Section 240-36 Resource Protection Overlay District	Use Variance	The Zoning Ordinance does not provide a list of permitted/prohibited uses. To ensure compliance, a use variance is needed. The criteria for use variances are difficult to meet and, even if granted, the variance is susceptible to appeal.
Section 240-14E Maximum building height	Variance	Because “building” is not defined in the Zoning Ordinance, it is unclear whether the maximum building height requirement would apply to the new transition structures, the two lightning masts and the autotransformer, all of which exceed 30 feet in height. To ensure compliance, a variance is needed. The criteria for use variances are difficult to meet and, even if granted, the variance is susceptible to appeal.
Section 240-14E Minimum Yard Setbacks	Variance	The current Substation design indicates a couple of areas where equipment is proposed to be located within certain setbacks. Specifically, Transition Structure 3998-2 proposed in the front yard setback and the Proposed Control Enclosure and the new 345-kV GIS proposed in the side yard setback. To ensure compliance, a variance is needed. The criteria for use variances are difficult to meet and, even if granted, the variance is susceptible to appeal.
Section 240-7F(1) Only one principal permitted building is allowed on each lot	Variance	There are currently two control enclosures on the Site and the Project would add a third. The Zoning Ordinance does not define “building”

Zoning Ordinance Provision	Local Relief Required	Why Exemption is Required
		and, to ensure compliance, a use variance is needed. The criteria for use variances are difficult to meet and, even if granted, the variance is susceptible to appeal.
Article IX Site Plan Review	Site Plan Approval	The Company must have the discretion to design the Project and site layout in a manner that is consistent with established utility, state and federal standards to ensure its reliable operation; such technical engineering and electrical issues are typically beyond the general scope of municipal review.
Article VI Off-Street Parking	Special Permit	There are no parking requirements listed in the Zoning Ordinance because utility uses are not allowed. The number of parking spots that are required is at the discretion of the Building Commissioner. The number of parking spots can be adjusted by special permit, but the grant of special permits is discretionary and could be unfavorably conditioned. The station is currently unmanned and will continue to be so after the Project is constructed.
Article VII Signs	Variance	The informational and no-trespassing signs that will be placed on the fence are not allowed in the RF Zoning District so variances would be required. The criteria for use variances are difficult to meet and, even if granted, the variance is susceptible to appeal.

Zoning Ordinance Provision	Local Relief Required	Why Exemption is Required
Section 240-124A Performance Bond	Variance	Inasmuch as the amounts of these bonds are unfixed and there is no process for how these determinations are to be made, the potential for project delay is great.
Section 240-124B Occupancy Permit	Variance	An occupancy permit can be granted only if all provisions of the Zoning Ordinance are met. An exemption from this provision is needed so that an occupancy permit can be obtained.

VIII. THE PROJECT REQUIRES COMPREHENSIVE ZONING EXEMPTIONS

54. The Company also respectfully requests a comprehensive exemption from the operation of the Zoning Ordinance 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.

55. The Department and 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.

56. 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 Ordinance *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 Ordinance (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).¹⁴ In this manner, the two types of zoning exemptions 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

¹⁴ 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 Ordinance, and the vague and subjective terms and provisions of the Zoning Ordinance 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 Ordinance.

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.

57. As described herein, the Project satisfies the Department's and the Siting Board's standards for the grant of a comprehensive zoning exemption. The Project is needed in the immediate timeframe because it is a critical piece of the Commonwealth's ability to meet its aggressive climate change goals. In addition, Eversource is subject to contractual obligations with PCW to permit and construct the Project as expeditiously as possible in accordance with the construction schedule that contemplates an in-service date in April, 2026. Prompt completion of required permitting is a prerequisite to that schedule. Further, the Company maintains active and constructive relationships with municipal officials in Barnstable, and, to date, Barnstable officials have not expressed any objection to the Company's pursuit of zoning exemptions from the Department in this proceeding.

58. In sum, a comprehensive zoning exemption from the operation of the Barnstable Zoning Ordinance would ensure the timely construction of this important Project. This benefit redounds directly to customers.

IX. PERMITS REQUIRED

59. To the extent that the Department grants the Company's Petition, the Company anticipates that the following additional permits would be required to construct and operate the Project.

State, Regional and Local Permits and Approvals for West Barnstable Substation Expansion			
Agency / Regulatory Authority	Permit / Approval	Applicant / Owner	Status
U.S. Environmental Protection Agency	National Pollutant Discharge Elimination System Construction General Permit for Stormwater	Eversource	A Notice of Intent (“NOI”) will be filed with USEPA approximately 14 days prior to the start of construction in Q4 2024.
Executive Office of Energy and Environmental Affairs	Massachusetts Environmental Policy Act Review	Eversource	In consultation with the MEPA office, on February 22, 2023, the Company submitted an Advisory Opinion under 301 CMR 11.01(6) documenting that the proposed changes to the Project are insignificant in terms of their environmental consequences such that no further MEPA review is required. MEPA’s review of the submittal is ongoing.
Old King’s Highway Regional Historic District Committee	Old King's Highway Regional Historic District, Application for Certificate of Appropriateness or Exemption	Eversource	Eversource will consult with the OKHD staff as the design details are advanced.
Barnstable Conservation Commission	Notice of Intent pursuant to the Massachusetts Wetlands Protection Act, G.L. c. 131, § 40, and Chapter 237 of the General Ordinances of the Code of the Town of Barnstable	Eversource	Eversource will submit a Notice of Intent (“NOI”) with the Conservation Commission describing work within the 100-foot Buffer Zone or will otherwise seek to amend the Order of Conditions the Commission issued for the MidCape Reliability Project to include this additional minor Buffer Zone work.
Federal Aviation Administration	Hazard Determinations for Transition	Eversource	Will be applied for prior to construction.

State, Regional and Local Permits and Approvals for West Barnstable Substation Expansion			
Agency / Regulatory Authority	Permit / Approval	Applicant / Owner	Status
	Structures 3999-2 and 3998-2		

X. CONCLUSION

WHEREFORE, Eversource respectfully requests that, pursuant to G.L. c. 40A, § 3, and after due notice and a public hearing, the Department determine that the construction of the proposed modifications to the West Barnstable Substation is reasonably necessary for the convenience and welfare of the public, and that the Substation Site in Barnstable, the uses to be made of it, and the structures to be built and maintained thereon by Eversource shall be individually and comprehensively exempted from the operation of the Barnstable Zoning Ordinance, to the extent applicable thereto.¹⁵

Respectfully Submitted,

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

By their attorneys,



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Dated: February 28, 2023

¹⁵ Pursuant to the Department’s Checklist for Zoning Exemption Petitions (attached as Attachment M), the Company has provided a draft hearing notice as Attachment N.

ATTACHMENTS

- Attachment A: Barnstable Zoning Ordinance and Zoning Map
- Attachment B: USGS Locus Map and Aerial Photograph – West Barnstable Substation
- Attachment C: Copy of the Company’s Project Change Filing Submitted in EFSB 19-06/D.P.U. 19-142/19-143 and EFSB 10-02/D.P.U. 10-131/10-132
- Attachment D: Plan of West Barnstable Substation Modifications
- Attachment E: General Arrangement Drawing – Plan & Sections
- Attachment F: Cross Section Drawings and ROW Configuration
- Attachment G: Settlement Transmission Support Agreement (March 2022)
- Attachment H: Environmental Figures
- Attachment I: Eversource’s Oil & Hazardous Material Spill Release Notification/Contingency Plan Policy & Procedure
- Attachment J: Photo-Simulations - West Barnstable Substation
- Attachment K: Sound Level Assessment – West Barnstable Substation
- Attachment L: Assessment of Electric and Magnetic Fields
- Attachment M: Checklist for Zoning Exemption Petitions
- Attachment N: Draft Public Notice