The Commonwealth of Massachusetts

DEPARTMENT OF PUBLIC UTILITIES

D.P.U. 15-02 November 20, 2015

Petition of NSTAR Electric Company d/b/a Eversource Energy pursuant to G.L. c. 40A § 3 for Exemptions from the Zoning Bylaws of the Town of Hopkinton

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I. INTRODUCTION

A. Description of the Proposed Project

On January 21, 2015, NSTAR Electric Company d/b/a Eversource Energy ("Eversource" or "Company") filed with the Department of Public Utilities ("Department") a Petition for individual and comprehensive zoning exemptions from the Town of Hopkinton ("Town") Zoning Bylaws pursuant to G.L. c. 40A, § 3. Eversource seeks the exemptions in connection with its proposed expansion of the Company's existing Hopkinton Substation No. 126 ("Hopkinton Substation" or "Substation") located at 226 South Street in the Town of Hopkinton ("Project").

In Boston Edison Company, EFSB 96-1, at 86 (1997), the Department granted a zoning exemption in connection with the construction of the Hopkinton Substation site in 1997 (Exh. NSTAR-1, at 2). The Company constructed and began operating the Substation in 1998 (id.). As originally constructed, the Substation had two 24/32/40 megavolt-ampere ("MVA") transformers ("Original Transformers"), and two 14 kilovolt ("kV") bus sections serving twelve 14 kV distribution feeders (id.; Exh. DPU-G-11). In 2012, the Company replaced the Original Transformers with new 37/50/58 MVA transformers ("Existing Transformers") (Exh. NSTAR-1, at 2). The replacement project did not require any zoning relief (id.).

The Substation is supplied by two 115 kV transmission lines totaling 41 miles in length (id. at 6). These transmission lines are predominantly of overhead construction, but transition to underground cables for approximately 1.3 miles each as they approach the Substation (id. at 7; Exh. DPU-G-9(1)).

The Company proposes to expand the Substation site from approximately 20,000 square feet to approximately 34,000 square feet, and to install new Substation equipment (Exh. NSTAR-1, at 4, 33). The proposed equipment additions include:

- Installation of a third 115 kV to 14 kV transformer rated 37/50/62.5 MVA ("Proposed Transformer");
- Installation of a third 14 kV bus section for up to eight 14 kV feeders[1] and two 5.4 megavolt-ampere reactive ("MVAR") station switched capacitor banks; and
- Replacement of the existing 115 kV arrangement so that each Existing Transformer would be supplied by a single 115 kV transmission line, with two 115 kV circuit breakers in-series, and the Proposed Transformer would be supplied by either of the two 115 kV lines.

(Exhs. NSTAR-1, at 5; DPU-G-12; Company Brief at 3).

The estimated cost of the Project, including the associated distribution feeder build-out, is $23 million (Exh. NSTAR-1, at 5-6; Tr. at 19). The Company estimated that the Project would be in-service by the summer of 2017, with an approximately 24-month construction schedule (Exh. NSTAR-1, at 6, 12).

B. Procedural History

On March 26, 2015, Department staff conducted a Project site visit followed by a duly-noticed public hearing in Hopkinton. On April 9, 2015, the Town filed a motion to intervene, which was granted. The Company sponsored the following witnesses:

[1] Eversource stated that in-street distribution system investments would also be required in association with the Project to reliably serve customers in the area (Exh. NSTAR-1, at 5). The Company proposed a phased build-out approach for this work, ultimately including new underground feeders on South Street and West Main Street, and potentially an underground crossing of Route 495 at Hayward Street (id. at 5). The Company estimated the cost of this distribution work at $8 million, and included this in the total cost of the Project (id. at 6; Tr. at 19).

(1) John M. Zicko, P.E., Director of Substation and Overhead Transmission Line Engineering; (2) Frank J. Snyder, P.E., Senior Engineer, System Planning; (3) Kevin F. McCune, Licensing and Permit Supervisor; (4) Duane Boyce, Project Manager; (5) Michael J. Zylich, Senior Environmental Engineer; and (6) Robert D. Andrew, Director of System Planning.

The Department conducted an evidentiary hearing at its offices in Boston on July 22, 2015. The record in this case includes the Petition and its exhibits as well as responses to information requests and record requests. The Town and the Company filed initial briefs on August 14, 2015, and the Company filed a reply brief on August 28, 2015.

II. REQUEST FOR INDIVIDUAL ZONING EXEMPTIONS PURSUANT TO G.L. C. 40A, § 3

A. Standard of Review

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.

Thus, 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. New England Power Company d/b/a National Grid, D.P.U. 14-128/14-129, at 3 (August 7, 2015) ("NEP Cabot Taps"); NSTAR Electric Company, D.P.U. 14-55/14-56, at 8 (May 26, 2015) ("NSTAR Belmont"); Save the Bay, Inc. v. Department of Public Utilities, 366 Mass. 667 (1975) ("Save the Bay"). Second, the petitioner must demonstrate that its present or proposed use of the land or structure is reasonably necessary for the convenience or welfare of the public.

NEP Cabot Taps at 3; NSTAR Belmont at 8, 9; Tennessee Gas Pipeline Company, D.T.E. 01-57, at 4 (2002). Finally, the petitioner must establish that it requires exemption from the zoning ordinance or bylaw. NEP Cabot Taps at 3; NSTAR Belmont at 9; Boston Gas Company, D.T.E. 00-24, at 3 (2001).

1. Public Service Corporation

In determining whether a petitioner qualifies as a "public service corporation" ("PSC") for the purposes of G.L. c. 40A, § 3, the Massachusetts Supreme Judicial Court has stated:

> among 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 NEP Cabot Taps at 4; NSTAR Belmont at 9; Berkshire Power Development, Inc., D.P.U. 96-104, at 26-36 (1997) ("Berkshire Power").

The Department interprets this list not as a test, but rather, as guidance to ensure that the intent of G.L. c. 40A, § 3, will be realized; i.e., that a present or proposed use of land or structure that is determined by the Department to be "reasonably necessary for the convenience or welfare of the public" not be foreclosed due to local opposition. Save the Bay 366 Mass. at 685-686; Town of Truro v. Department of Public Utilities, 365 Mass. 407, 410 (1974) ("Town of Truro"); NEP Cabot Taps at 4. The Department has interpreted the "pertinent considerations" as a "flexible set of criteria which allow the Department to respond to changes in the environment in which the industries it regulates operate and still provide for the public welfare." NEP Cabot Taps at 4; NSTAR Belmont at 9; see also Dispatch Communications of New England d/b/a Nextel Communications, Inc., D.P.U./D.T.E. 95-59-B/95-80/95-112/96-13, at 6 (1998). The

Department has determined that it is not necessary for a petitioner to demonstrate the existence of "an appropriate franchise" in order to establish PSC status. NEP Cabot Taps at 4; NSTAR Belmont at 10; Berkshire Power at 31.

2. Public Convenience and Welfare

In determining whether the present or proposed use is reasonably necessary for the public convenience or welfare, the Department must balance the interests of the general public against the local interest. Save the Bay, 366 Mass. at 680; Town of Truro, 365 Mass. at 410; NEP Cabot Taps at 5. Specifically, the Department is empowered and required to undertake "a broad and balanced consideration of all aspects of the general public interest and welfare and not merely [make an] examination of the local and individual interests which might be affected." New York Central Railroad v. Department of Public Utilities, 347 Mass. 586, 592 (1964) ("New York Central Railroad"); NEP Cabot Taps at 5.

With respect to the particular site chosen by a petitioner, G.L. c. 40A, § 3, does not require the petitioner to demonstrate that its primary site is the best possible alternative, nor does the statute require the Department to consider and reject every possible alternative site presented. Rather, the availability of alternative sites, 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 primary site is reasonably necessary for the convenience or welfare of the public. Martarano v. Department of Public Utilities, 401 Mass. 257, 265 (1987); New York Central Railroad, 347 Mass. at 591; NEP Cabot Taps at 5.

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. 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. NEP Cabot Taps at 5-6; NSTAR Belmont at 11; Tennessee Gas Company, D.T.E. 98-33, at 4-5 (1998).

3. Exemptions Required

In determining whether exemption from a particular provision of a zoning bylaw is "required" for purposes of G.L. c. 40A, § 3, the Department makes a determination whether the exemption is necessary to allow construction or operation of the petitioner's Project. NEP Cabot Taps at 6; NSTAR Belmont at 11; Tennessee Gas Company, D.P.U. 92-261, at 20-21 (1993). 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.
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> New York Cellular Geographic Service Area, Inc., D.P.U. 94-44, at 18 (1995);

NEP Cabot Taps at 6; NSTAR Belmont at 11.

B. Public Service Corporation Status

Eversource is an electric company as defined by G.L. c. 164, § 1, and, as such, is a public service corporation. NSTAR Belmont, at 12; NSTAR Electric Company, D.P.U. 13-177/13-178

(January 7, 2015) at 10-11 ("NSTAR Seafood Way); NSTAR Electric Company, D.P.U. 11-80, at 7 (2012) ("NSTAR Plympton"). Accordingly, the Department finds that Eversource qualifies as a public service corporation for the purposes of G.L. c. 40A, § 3.

C. Public Convenience and Welfare

1. Need for or Public Benefit of Use

a. Capacity and Contingency Issues

The Hopkinton Substation normally had served all customers in Hopkinton, as well as portions of the Towns of Ashland and Holliston ("Hopkinton Area") (Exh. DPU-G-10-RV01). In order to mitigate heavy loading at the Substation (as described below), however, the Hopkinton Substation presently supplies only West Hopkinton (id.). The Company stated that a single large customer, EMC Corporation ("EMC"), has a number of facilities in the Hopkinton Area, which comprise approximately 50 percent of the electrical demand at the Substation (Exh. NSTAR-1, at 12; RR-DPU-2).[2] The Company further stated that a significant segment of EMC's operation involves life-cycle testing of products over periods of weeks, which can require retesting if an untimely interruption in the flow of electricity takes place (Exh. NSTAR-1, at 12).

According to the Company, the Hopkinton Area has experienced strong growth in electrical demand over the past 17 years, and growth at EMC has been a key driver of this increase (Exh. NSTAR-1, at 2, 12; Tr. at 19). The Company stated that efforts to engage EMC in energy efficiency ("EE") opportunities have resulted in the installation of process control

[2] After the record closed in this case, newspapers published reports that Dell Inc. would acquire EMC. Curt Woodward, Dell to Buy Hopkinton's EMC in $67 Billion Deal, Boston Globe, October 12, 2015. The effects of this acquisition are not part of the record, and therefore were not relied upon in reaching the decisions set forth in this Order.

equipment; heating, ventilation and air conditioning (HVAC) improvements; and lighting retrofits (RR-DPU-1). Taking these EE efforts into consideration, the Company stated it forecasted moderate growth in electricity demand at the Substation going forward (id.; Tr. at 20). Specifically, the Company forecasted that between 2014 and 2024, summer peak demand at the Hopkinton Substation would increase at a rate of approximately 2.2 percent annually after taking into consideration the impact of anticipated EE savings (Exh. NSTAR-1, at 14-16).[3,4] Eversource stated that the Project is needed to meet this growing demand, and to provide reliable distribution service to customers in the Hopkinton Area (id. at 23).

According to the Company, based on the planning standards set forth in its Bulk Distribution Substation Assessment Procedure ("SYS PLAN-010"), the existing electrical system is forecasted to be insufficient to maintain a reliable supply of electricity to the Hopkinton Area by the summer of 2015 (id. at 13; Exh. DPU-N-1). Eversource identified two potential N-1 contingency events ("N-1 Contingencies")[5] that would result in a loss of electrical supply to customers in the Hopkinton Area under summer peak demand conditions (Exh. NSTAR-1,

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3 A compound annual growth rate of 2.2 percent was calculated by Department Staff based on the net demand forecast provided by the Company, which predicted a 2014 net demand of 55.6 MVA, and a 2024 net demand of 69.4 MVA (Exh. NSTAR-1, at 16).

4 The Company indicated that the demand forecast did not take into consideration demand response ("DR") resources procured through the forward capacity market because information on the specific location and character of these resources is kept confidential by ISO New England ("ISO-NE") (Exhs. NSTAR-1, at 23-24; DPU-N-9). The Company indicated that requests for additional information from ISO-NE were denied (Exh. DPU-N-9). Consequently, when performing station area evaluations the Company assumes that no DR resources are located within the Substation area (Exh. NSTAR-1, at 23-24).

5 An N-1 contingency is a circumstance in which there is an unexpected fault or loss of a single electrical element (including the loss of a double-circuit transmission tower).

at 13). The two distinct N-1 Contingencies are as follows: (1) loss of one of the two 115 kV transmission lines serving the Substation;[6] and (2) loss of one of the two Existing Transformers. Following either of the N-1 Contingencies, Substation load is automatically supplied by one (rather than both) of the Existing Transformers through the action of an Automatic Bus Restoral ("ABR") scheme (id. at 6). According to the Company, as demand for electricity continues to increase at the Substation, under peak demand conditions the resulting loading on the remaining transformer would exceed its short term emergency ("STE") rating (id. at 13). Eversource stated that in response to such a violation, the system dispatcher would immediately drop customer load to bring demand at the Substation back into compliance with equipment ratings (id.; Exh. DPU-N-13).[7] The Company forecasted that by summer 2015, 1.3 MVA of load would be at risk of interruption following an N-1 Contingency, increasing to 10.9 MVA by 2024, and continuing to increase over time commensurate with area load growth (Exh. DPU-N-4; Tr. 26-27).[8]

Eversource stated that in order to manage forecasted heavy loading on the Hopkinton Substation it transferred 18 MVA of load away from the Substation to neighboring substations in

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6 Eversource stated that an N-1 contingency to the 115 kV transmission supply due to a failure of the underground portion of either line would likely require a significant amount of time to repair, on the order of 30 days or more (Exh. NSTAR-1, at 23).

7 The Company stated that, while distribution system switching is available to transfer approximately 10.7 MVA of load from the Hopkinton Substation to neighboring substations, the use of post-contingency distribution switching is not a permitted response to transformer STE overloads in accordance with SYS-PLAN-010 (Exh. DPU-N-3).

8 The Company identified an existing non-operational, non-commissioned EMC building, that if fully commissioned could add approximately 5 MVA of load to the Hopkinton Substation within six to nine months (Exh. NSTAR-1, at 16; Tr. at 23-24). The Company stated that if this additional demand were added to the system it would further increase the need for the Project (Tr. at 24).

2013 (Exhs. DPU-G-15; DPU-N-12). Specifically, 4 MVA of load was transferred to the Medway Substation and 14 MVA of load was transferred to an interim substation in Holliston ("Interim Substation") (Exh. DPU-N-12).[9,10] The Company argued that this connection arrangement is unfavorable, as it interferes with the Company's automated load transfer capability,[11] and because the Interim Substation does not provide any firm capacity to the area (id.; Exh. DPU-N-15; Tr. at 27-28). According to the Company, continued and/or increased use of the Interim Substation would result in violations to applicable planning standards and criteria (Exh. DPU-N-15).

b. Company Recommended Solution

Eversource's recommended solution to maintain reliable distribution service to customers in the Hopkinton Area is to install a third transformer, and to make associated modifications to the 115 kV connection arrangement and other equipment at the Substation. According to the Company, the Project would increase the firm capacity of the Substation by 28 MVA, and would address all post-contingency thermal overloads associated with the N-1 Contingencies (Exh. NSTAR-1, at 17; Tr. at 24-25). Upon completion of the Project, the Company would return the 18 MVA of transferred load, with the possible exception of an area in the northeast

9 According to the Company, the loading at the Medway Substation exceeded the substation's long-term emergency rating ("LTE") in 2014 (Exh. DPU-N-12).

10 Additional information on the Interim Substation, including the location and connection arrangement, is provided in Section II.C.2.b below.

11 The Company indicated that its software for automated load transfers uses automated sectionalizing unit ("ASU") scripting (Exh. DPU-N-12; Tr. at 27-28). The Company stated that ASU scripting plays a fundamental role in reducing the occurrence and duration of customer outages (Exh. DPU-N-12; Tr. at 27-28).

part of Hopkinton, to its normal supply arrangement at the Hopkinton Substation (Exh. DPU-N-12).

c. Analysis and Findings

In 2012, the Company replaced the Original Transformers at the Substation, and in 2013 the Company temporarily transferred the supply of 18 MVA of load away from the Substation. Together these measures resolved capacity issues at the Substation on a short-term basis. However, these measures were not sufficient to address the long-term capacity needs of the Hopkinton Area, and as of summer 2015 are insufficient to meet Eversource's planning standards for reliable service.

The Company has shown that there is a need for enhancements to the transmission and distribution system serving the Hopkinton Area. Based on the Company's demonstration of (1) post-contingency capacity constraints at the Hopkinton Substation, and (2) an increasing risk of post-contingency load shedding, the Department finds that there is a need for the Project and that by meeting this need, the construction and operation of the Project would result in public benefits.

2. Alternatives Explored

In assessing alternative solutions to meet the identified need, Eversource explored energy efficiency ("EE"), demand response ("DR"), distributed generation ("DG"), energy storage, and an alternative substation solution.[12]

[12] Eversource also explored a no-build approach. However, this approach did not address the reliability need of the Hopkinton Area (Exh. NSTAR-1, at 17-18).

a. Non-Transmission Alternatives

Eversource considered the potential for incremental EE to address the identified need. The Company indicated that 11.4 MVA of EE would be required at the Hopkinton Substation to defer the need for the Project by ten years (i.e., until 2024) (Exh. DPU-PA-1). The Company stated that implementation of incremental EE measures in the Hopkinton Area would be impractical for two reasons: (1) the Company cannot rely on customers voluntarily implementing the necessary demand reductions by a specific time of need; and (2) that many EE measures, while effective broadly, are very difficult to target geographically (Exhs. NSTAR-1, at 18-19; DPU-PA-2; Tr. at 29). Additionally, the Company stated that efforts to date have captured the majority of potential EE savings at EMC, and that incremental reduction opportunities would be insufficient to offset growth in demand at the Substation (Tr. at 38-44, 48-49, 73-76). Accordingly, the Company concluded that an EE alternative would not be sufficient to address the identified reliability need in the Hopkinton Area (Exh. NSTAR-1, at 19; Tr. 30-31).

Eversource also considered the potential for DR programs to address the identified need. The Company argued that the potentially protracted outage associated with the failure of one of the two underground 115 kV transmission lines serving the Substation made the Hopkinton Area poorly suited to achieve the 11.4 MVA of incremental DR necessary to defer the need for the Project by ten years (Exhs. NSTAR-1, at 23; DPU-PA-1). Eversource stated that in the event of such a contingency, it might be necessary to dispatch DR resources on a daily basis for a month or more in order to lower demand sufficiently to avoid thermal overloads at the Substation (Exh. NSTAR-1, at 23). The Company also stated that it has limited information on the location

and character of DR resources, as this information is kept confidential by ISO-NE, and that as with EE, it cannot require customer participation in DR programs (id. at 22-23). Finally, the Company stated that DR resources are dispatched by ISO-NE on a load zone basis, and would not be dispatched in response to the specific needs of the Hopkinton Substation (Tr. at 182). The Company argued that given the potential for long-duration outages, and the Company's limited control of DR resources, DR cannot be relied upon as a solution to the identified reliability need in the Hopkinton Area (Exh. NSTAR-1, at 23).

Eversource also considered the potential for DG resources to address the identified need. The Company asserted that DG would be inadequate to meet the identified need for three reasons. First, the decision to develop DG resources lies with independent developers rather than with the Company (id. at 21).[13] Second, the pattern of output from solar photovoltaics ("PV"), the most prevalent form of DG in the Hopkinton Area, does not correspond with the pattern of electricity demand in the area (id.; Exh. DPU-PA-1).[14] Third, many DG resources would themselves trip off-line in response to the instantaneous loss of power expected from the N-1

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13 Eversource noted that it expects additional DG applications in the Hopkinton Area, although these resources would typically be small behind-the-meter installations, the impacts of which were already accounted for in the area demand forecast (Exh. NSTAR-1, at 24; DPU-N-8).

14 The Company stated that PV output typically peaks between 2:00 p.m. and 3:00 p.m., and may be subject to unexpected, intermittent dips in production, whereas demand at the Substation peaks at 5:30 p.m. (Exh. NSTAR-1, at 22). Furthermore, Eversource indicated that by 8:00 p.m., PV output is typically only one percent of the installed capacity, while demand at the Substation is still in excess of 90 percent (id.).

Contingencies (Exh. NSTAR-1, at 22).[15] Thus, Eversource concluded that DG resources could not be considered an ample, reliable supply solution to defer or avoid the need for the Project (id.).

Finally, Eversource considered the potential installation of a battery storage system. The Company explained that a 12 MVA, 72-megawatt-hour, battery storage system connected at the Hopkinton Substation could potentially defer the need for the Project by ten years (Exhs. NSTAR-1, at 25; DPU-PA-1). Eversource estimated the cost of such a battery storage system at between $48 million and $168 million, and indicated that the system would have a life expectancy of 20 years or less (Exh. NSTAR-1, at 25).[16] The Company further stated that the upper limit in discharge duration for a battery system would typically be six hours, which would be insufficient to meet the identified reliability need (Exh. DPU-PA-1). Based on this information, Eversource concluded that the battery storage alternative would be more costly and less reliable than the Project (Exh. NSTAR-1, at 25).

b. Alternative Substation

As an alternative to improvements to the Hopkinton Substation, the Company explored construction of a new double-ended 115/14 kV distribution supply substation on a 56-acre parcel of land off of Marilyn Road in Holliston ("Holliston Substation Alternative") (Exh. NSTAR-1,

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15 Eversource noted that this disconnection response is required by the generally accepted DG connection standards set forth in the Institute of Electrical and Electronics Engineers ("IEEE") Standard 1547-2003 (Exh. NSTAR-1, at 22).

16 Eversource obtained price estimates for energy storage facilities from five suppliers (Exh. NSTAR-1, at 25). Four of the price estimates ranged from $48 million to $68 million, while the fifth price estimate specified an annual cost of $8.4 million for 20 years (id.).

at 26). The Company's evaluation of the Holliston Substation Alternative included a comparison of project scope, cost, environmental impact, and environmental permitting requirements (id. at 28-32).

Since 2013, the Holliston site has hosted the Interim Substation, a mobile substation installation (id. at 26). The Interim Substation is connected to a single 115 kV transmission line running between Medway and Framingham, and has two 14 kV distribution feeders (id.; Exh. DPU-G-9(1)). The Company stated that the Interim Substation was installed as simply and quickly as possible, and included only minimal foundation work, as it was intended to be temporary (Exh. NSTAR-1, at 26).

Eversource stated that the Holliston Substation Alternative would involve replacing the Interim Substation with a permanent facility, which would have two 62.5 MVA transformers, a breaker-and-a-half 115 kV switchyard, a 115 kV capacitor bank, two sections of 14 kV switchgear, and initially eight distribution feeders (id. at 28).[17] In order to transfer load from the Hopkinton Substation to the Holliston Substation, Eversource indicated that over 27 miles of new and reconductored distribution feeders would be required (more than three times the distribution feeder construction required for the Project) (Exh. DPU-PA-8).

Eversource also stated that in order to provide adequate system reliability, the Holliston Substation Alternative would trigger certain transmission system upgrades (Exh. NSTAR-1, at 28-29). These upgrades would include the construction of a new 5.8-mile-long 115 kV transmission line extension from the Medway Substation to the Holliston Substation and

[17] Eversource stated that eight 14 kV distribution feeders would be installed initially, with an ultimate build-out of twelve feeders (Exh. NSTAR-1, at 28).

associated line terminal work at both Substations (Exh. DPU-PA-6). The Company estimated the cost of this work at approximately $11 million (Exh. DPU-PA-9).

In total, Eversource estimated the cost of the Holliston Substation Alternative at $50 million, more than twice the cost of the Project (Exh. NSTAR-1, at 30).[18] The Company also indicated that full implementation of the Holliston Substation Alternative would likely take four years or more to complete, compared to the approximately two-and-a-half year implementation schedule for the Project (id.; Exh. DPU-G-2(1)).

With regards to environmental impacts and permitting requirements, Eversource stated that the Holliston Substation would have greater operational impacts, likely greater environmental impacts, and more significant environmental permitting requirements than the Project (Exh. NSTAR-1, at 30-31). Table 1 below provides a summary of the Company's description of the environmental impacts associated with the Project and the Holliston Substation Alternative.

[18] Eversource noted that the Holliston Substation Alternative has the potential to avoid or defer future investments at the Medway Substation, which the Company estimated to cost approximately $12.3 million (Exh. DPU-PA-14). The Company predicted that if the Project were constructed rather than the Holliston Substation Alternative, the incremental investment at Medway could be required in 2020, depending on load growth at the Medway Substation (id.; Tr. 63-67). If the cost of this potential future investment was added directly to the cost of the Project, the Holliston Substation Alternative would still be approximately $14.7 million more expensive than the Project.

Table 1. Summary of the Environmental Impacts of the Project & Alternative Substation as Identified by Eversource

Type of Impact	Proposed Project	Holliston Substation Alternative
Land Use	Expansion of existing substation at site, land use would be consistent with the current use.	Replacement of an existing temporary substation at site, land use would be consistent with current use.
Wetland Resource Areas	Site contains an Isolated Vegetated Wetland, which would be replanted with native, beneficial species following completion of the Project.	Substation site contains Bordering Vegetated Wetlands, which would be impacted by clearing and grading. A new 5.8-mile 115 kV transmission line extension between the Medway Substation and the Holliston Substation would require significant clearing and fill of wetlands and buffer zones.
Wellhead Protection & Water Supply Resource Areas	Site is not located within a Massachusetts Department of Environmental Protection ("MassDEP") Zone II Wellhead Protection Area, Interim Wellhead Protection Area, or Zone A, B, or C Surface Water Supply Protection Area.	Substation site and portions of the transmission line extension would be located within a MassDEP Zone II Wellhead Protection Area.
Groundwater	Site is not located within a medium- or high-yield aquifer.	Substation site and portions of the transmission line extension would be located within medium-yield aquifers.
Visual	Would require expansion of an already existing substation. Visual impacts would be minimized by maintaining visual screening landscaping around the Substation.	Would require the replacement of an existing temporary substation with permanent construction at a location that would be more visible from a near-by residential street due to facility geometry. Would also result in increased visual impact due to the development of a new 5.8-mile 115 kV transmission line extension between the Medway Substation and the Holliston Substation.
Noise	Greatest noise impacts would occur during construction, and would be temporary in nature. Additional noise impacts would result from the installation of a third transformer on the site. The closest receptors are industrial and commercial in nature.	Greatest noise impacts would occur during construction, and would be temporary in nature. Additional noise impacts would result from the installation of a permanent substation where a temporary facility is located today. The closest residences are roughly the same distance for both Proposed and Alternative Substations.
Traffic	Roads would likely need to be blocked or closed during distribution feeder construction. Traffic would not increase once Project construction is complete.	Roads would likely need to be blocked or closed during transmission line and distribution feeder construction. Traffic would not increase once construction is complete.

Areas of Critical Environmental Concern	The site is not located in an Area of Critical Environmental Concern ("ACEC").	The substation site is not located in an ACEC.
Historic Resources	No anticipated impacts to historical resources.	Substation site may contain cultural or historic resources. Transmission line extension may have the potential to impact cultural resources.
Flood Zone	The site is not located in a flood zone.	Portions of the site and transmission line extension would be located within the 100-year flood zone.
Protected Species and Habitat	No anticipated impacts to protected species and habitat.	Substation site would be located within a Priority Habitat and Estimated Habitat for rare species under the Massachusetts Endangered Species Act. Transmission line extension would also impact rare species habitat. Would likely result in a "take" determination from the Massachusetts Natural Heritage and Endangered Species Program for rare amphibian species.

Sources: Exhs. NSTAR-1, exh. I; DPU-LU-1; DPU-PA-6; DPU-PA-11; DPU-PA-13; Tr. at 51-55.

c. Analysis and Findings

The record demonstrates that EE and DR do not offer adequate alternatives to the Project. The Company's summer peak load forecast for the Hopkinton Area shows continued growth in electricity demand, even after taking into account EE goals that have been set by the Company. The Department notes that the Company's argument that EE is very difficult to target geographically is misplaced in this case, given that one customer constitutes approximately 50 percent of the Substation's load. However, the Department acknowledges that based on information provided, EMC has already implemented a majority of potential EE measures. Therefore, the Department accepts the Company's position that it is not practical to achieve sufficient incremental EE, and/or DR within the Hopkinton Area, especially in light of the immediate nature of the area's reliability need. The Department continues to expect that Eversource will strongly encourage its customers, both existing and new, to take full advantage of EE programs.

The record also shows that DG and battery storage would not provide Eversource with reliable and/or cost effective load relief in the Hopkinton Area at this time. The effectiveness of distributed PV to address the identified need is limited by the intermittent and non-dispatchable nature of these resources, as well as by the non-coincident relationship between system peak loads and the production profiles of PV systems. Development of a battery storage system would be a less robust and significantly more costly solution than the proposed Project. However, Eversource should continue to explore creative ways to use non-transmission alternatives (individually or in combination) to avoid or delay the need for new transmission infrastructure.

With respect to the Holliston Substation Alternative, it would require development of a permanent substation where only a temporary facility now exists. In addition, it would likely result in a "take" of rare amphibian species and would be partially located within the 100-year flood zone. Construction of the Holliston Substation Alternative would require significant distribution feeder construction, as well as the construction of a new 5.8-mile 115 kV transmission line extension. The total cost of the Holliston Substation Alternative is estimated to be $50 million, more than twice the cost of the Project. Based on the above, the Department concludes that the Holliston Substation Alternative would likely have greater environmental impacts, would provide a less robust solution to the area's reliability need, and would be more costly than the Project.

Accordingly, the Department finds that the Company's decision to pursue the Project rather than the alternatives is reasonable.

3. Impacts of the Proposed Use

a. Land Use Impacts

The Project would increase the fenced area at the existing Hopkinton Substation from 20,000 square feet to approximately 34,000 square feet (Exh. NSTAR-1, at 33). The expansion would occur to the west, east and south of the existing Substation fenceline (id. exh. C). A retaining wall varying in height from 5 feet to 30 feet above finished grade, surmounted by a security fence, would be installed on the north, west and south sides of the Substation (Exh. DPU-LU-10).

The Hopkinton Substation is located on a lot with tree cover along the north, south, and west perimeter (Exh. NSTAR-1, at 34). Eversource indicated that the Project would require approximately 30,000 square feet of vegetation removal, consisting primarily of trees posing a potential hazard to Substation equipment on the southern and western sides within the Substation site, and on the abutting southern and western property owned by EMC (id. at 34-35; DPU-LU-2; Tr. 82). The Company stated that of the 30,000 square feet of vegetation removal required, approximately 20,000 square feet would be replanted with beneficial species, consisting of native and naturalized shrub and tree species with mature heights not in excess of 25 feet (Exhs. NSTAR-1, at 34; DPU-V-1).

Eversource stated that the adjacent properties are industrial and commercial in nature, and that the nearest residence to the Substation is located to the south in the Town of Milford, at a distance of 440 feet (Exhs. NSTAR-1, exh. I; DPU-LU-1). A total of seven homes lie within 750 feet of the Project, all located to the south of the Substation (Exh. DPU-LU-1).

The Company also stated that the Project is not located within an ACEC, Priority Habitat, or Estimated Habitat for rare species, nor any state-listed Historic Districts or Historic Overlay Districts, and does not contain any documented cultural or historical resources (Exh. NSTAR-1, at 37). While the Company stated that it would not apply herbicides during construction, growth of vegetation within the Substation would be prevented with bare-ground herbicide application after construction is complete (Exh. DPU-LU-4).

b. Visual Impacts

As described above, the Substation is located on a lot with tree cover to the north, south, and west (Exh. NSTAR-1, at 34). Eversource stated that a double row of white pines screens the Substation from the abutting property to the south and west, while a natural ridge screens the Substation from the abutting property to the north (id.; Exh. DPU-V-2). Tree clearing generally on the southern and western sides of the Substation property would result in a decrease in the width of the wooded visual buffer (Exh. NSTAR-1, at 34). The Company asserted that replanting approximately two-thirds of the cleared vegetation would ensure continued visual screening to the abutting properties, but noted that the top of the existing switchgear building and the proposed 75-foot shielding masts would be visible from the driveway of the abutting EMC property to the south and west of the Substation (id. at 35; Exh. DPU-V-2; Tr. 85).[19] The Company stated that deciduous and evergreen tree plantings proposed for the southeast corner of the Substation property would enhance the vegetative buffer in this area (Exh. DPU-V-2).

[19] Eversource indicated that the direct visual impact on the abutting property to the west would be minimal due to the topography of the area (Exh. NSTAR-1, at 35).

Eversource stated that the east side of the Substation faces South Street, and that it is currently, and would continue to be, visible when looking west from the roadway (Exh. NSTAR-1, at 34). The Company proposed a mix of evergreen and deciduous trees along the east side of the Substation and the South Street frontage to mitigate the visual impacts of the Project (id. at 35; DPU-V-3; Tr. 86-87). The Company stated that these plants would provide ample visual screening even before reaching maturity due to the chosen planting locations, the tree sizes, and growth habits (Exh. DPU-V-3). At the request of the Town, the Company also committed to install decorative tilt-up panels to the east of the proposed metalclad switchgear, with a short return parallel to the Substation driveway, to provide additional visual screening (Exhs. DPU-V-4; DPU-G-7). The Company stated that the façade of these panels would be determined in coordination with the Town (Exh. DPU-V-4).

c. Noise Impacts

Eversource stated that it anticipates construction would occur Monday through Friday, from 7:00 a.m. to 6:00 p.m., or later when daylight permits, and on Saturdays from 8:00 a.m. to 4:00 p.m., when additional construction time is necessary to compensate for schedule delays (Exh. NSTAR-1, at 32; Tr. 91). The Company stated that labor activities would begin at 7:00 a.m., but equipment use would not begin until 8:00 a.m. (Exhs. DPU-NO-4; DPU-NO-5). According to the Company, any work performed outside of these hours would be to make up for delays, to accommodate system conditions that require equipment outages to be taken during off-peak periods, or to complete work that once started cannot be stopped, such as transformer filling (Exhs. NSTAR-1, at 32-33; DPU-NO-5). The Company stated that by using the smallest sized equipment suitable for the work, by selecting foundation designs that minimize digging,

and through off-site preassembly of Project components, the Company would minimize construction-related noise impacts (Exh. NSTAR-1, at 32; Tr. at 89).

Following construction, some permanent noise would result from the operation of a third transformer at the Substation. The Company stated that it would install a transformer with a built-in sound wall and use sound absorbing blocks in the retaining wall to the north and west of the transformer in order to limit any ongoing noise impacts from the Project (Exh. DPU-NO-3; Tr. at 94).

The Company's noise analysis concluded that the Existing Transformers were "inaudible" at two locations representative of the closest residences ("R1" and "R2"), and that operation of the Existing Transformers together with the Proposed Transformer would result in an up to five decibel increase over existing nighttime ambient sound levels (Exh. DPU-NO-1-(S1)). The Company stated that this increase would be in compliance with the MassDEP noise policy limit of ten A-weighted decibels ("dBA") over the pre-existing ambient level (id.). The Company stated that since nighttime ambient levels were considerably lower than daytime levels, the increase in daytime sound levels was also expected to be in compliance with MassDEP policy (Exh. DPU-NO-1(1)). The assessment concluded that there are no measured pure tones associated with the Existing Transformers, nor any predicted pure tones associated with the Project (id.).[20] Table 2 below presents a summary of the sound level impacts measured and predicted for nighttime conditions. The Company stated that the assessment did

[20] The MassDEP defines a pure tone condition where any one octave band sound pressure level exceeds the two adjacent frequency bands by three decibels or more.

not take into consideration the use of sound absorbing blocks in the retaining wall around the transformer, and was therefore conservative (RR-DPU-3).

Table 2. Broadband L_{90} Sound Level Evaluation by the Company – Excluding the Impacts of Sound Absorbing Blocks (dBA)

Receptor ID	Ambient Noise Level[21]	Ambient Noise Including Existing Transformers	Ambient Noise Including Existing Transformers, Plus Proposed Transformer	Increase Over Ambient
R1	32	36	37	5
R2	36	36	36	0

Source: DPU-NO-1(1); RR-DPU-3.

d. Wetlands and Water Resources

Eversource stated that the Substation property contains one small, isolated wetland measuring approximately 10 feet by 40 feet in the southwest corner of the lot (Exh. NSTAR-1, at 33). The Company asserted that this wetland is not jurisdictional under the Massachusetts Wetland Protection Act or the Wetland Protection Regulations (310 CMR 10.00), but is regulated under the Hopkinton Wetland Protection Bylaws and Regulations (id.). The Company indicated that the Hopkinton Conservation Agent had been notified of the wetland, and that a Notice of Intent for the Project and hazard tree clearing in the buffer zone to the wetland would be submitted prior to the start of Project construction (id.; Exh. DPU-LU-7). The Company asserted that the Project would improve the quality of the wetland through the removal of invasive and aggressive vegetation (e.g., Oriental bittersweet, winged euonymus, poison ivy) and replacement with beneficial native species (Exhs. NSTAR-1, at 31; DPU-LU-8). Eversource

[21] Measured ambient sound level less modeled sound from the Existing Transformers (Exh. DPU-NO-1(1)).

stated that no further wetland or water resources were identified in the Project Area (Exh. NSTAR-1, at 33-34).

e. Traffic

Eversource stated that no road closures or blockages would be required to facilitate construction activities at the Substation, but that road blockages or closures would likely be required during distribution feeder construction (id. at 36; DPU-T-1). The Company stated that traffic management plans would be developed in coordination with the Town as specific traffic impacts became better known, and would include traffic control measures such as police details (Exh. DPU-T-1; Tr. at 95-96).

The Company committed to providing abutters and the Town with written notice at least 30 days prior to the start of Project construction (Exh. DPU-G-3). The Company would also notify abutters and the Town in advance of major equipment deliveries (id.). The Company estimated that between five and 15 vehicles would arrive and depart from the Substation site on a daily basis depending on the phase of construction (Exh. DPU-T-2). Parking for crew members would be off street, on Company property (Exh. DPU-T-3). According to the Company, parking on South Street or in the Substation front yard setback may be required for non-routine loading purposes during Project construction or during extraordinary maintenance such as after an equipment failure (Exh. TOH-1-12). The Company committed to working with public safety and other Town officials to minimize any disruption to South Street traffic that would result from these activities (Tr. at 150; Company Reply Brief at 6). Eversource stated that once the Project is complete, there would be no permanent traffic impacts (Exh. NSTAR-1, at 36).

f. Air Impacts

In response to questions from the Department, Eversource reported on its use of sulfur hexafluoride ("SF_6"), a gas identified as a non-toxic but highly potent greenhouse gas ("GHG") (Exh. DPU-A-3).[22, 23] The new equipment at the Substation that would contain SF_6 would include the circuit breaker module (approximately 310 pounds of SF_6), and would be designed by the manufacturer for an annual emission rate of 0.1 percent (id.). Eversource stated that the Company currently uses SF_6 at the Substation for two 115 kV circuit switchers, which contain an estimated 15 to 20 pounds of SF_6 each (Exh. DPU-A-5).

Eversource reported that filling new equipment with SF_6 would take place at installation, and that no SF_6 would be stored on site once the Project is complete (Exh. DPU-A-3). Eversource employees who handle or supervise handling of SF_6 receive training from the equipment manufacturer (id.). A specialty gas vendor recovers and reclaims SF_6 gas at equipment retirement (id.).

Vehicle idling would be limited in accordance with the Massachusetts anti-idling law, and with Eversource's company-wide idling reduction policy (Exh. DPU-A-2). The Company also committed to use USEPA-verified (or equivalent) emission control devices, such as

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22 SF_6 is a GHG that is 23,900 times more potent than CO_2. One pound of SF_6 has the same global warming impact as eleven tons of CO_2. See the Massachusetts Clean Energy and Climate Plan for 2020, at 77.

23 The Massachusetts Clean Energy and Climate Plan, issued by the Secretary of Energy and Environmental Affairs on December 29, 2010, adopts a 2020 statewide GHG emissions limit 25 percent below 1990 emissions levels and sets forth an integrated portfolio of policies to reach the Commonwealth's clean energy and climate goals. Reduction of an amount of SF_6 equivalent to a reduction of 0.2 million metric tons of CO_2 is one of the policies set forth in the Plan. See G.L. c. 21N.

oxidation catalysts or other comparable technologies, in all 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 (id.). The Company would minimize fugitive dust impacts through the implementation of best management practices, such as water misting and the use of crushed stone (Exhs. DPU-A-1; DPU-A-4).

g. Hazardous Materials

The Company stated that once construction is complete, the Substation would include equipment containing substances with the potential to cause negative impacts to the environment if released (Exh. DPU-S-2). These substances include SF_6 (as discussed above), mineral oil dielectric fluid ("MODF"), and batteries with electrolytes containing sulfuric acid (id.). Each of these substances is present at the Substation today (id.). Eversource stated that the Proposed Transformer would contain approximately 9,770 gallons of MODF and that, in the event of a release, any MODF would be captured within a concrete secondary containment structure under the transformer (Tr. at 98; RR-DPU-4). The containment structure would utilize a system of imbiber beads drains, which would allow water to pass, but would expand to seal shut should the beads come into contact with MODF (Tr. at 99). Eversource stated that it anticipates the need for a larger control battery at the Substation as a result of the Project, and committed that the existing spill containment and acid neutralization system would be modified to match the final battery size (id.).

h. Magnetic Fields

The Company provided an assessment of the potential magnetic field impacts of the Project (Exh. NSTAR-1, exh. M). The Company calculated pre-Project magnetic field levels

under 2012 peak load conditions and post-Project magnetic field levels under forecasted 2017 peak load conditions (id.). Modeled maximum magnetic field levels outside of the Substation are summarized in Table 3 below.

Table 3: **Modeled Magnetic Field Levels Outside of the Substation Fence Line at Three Feet Above Grade**

Scenario	Maximum Magnetic Field Outside of Hopkinton Substation (milligauss)
Pre-Project: 2012 Peak Demand Conditions	10.7
Post-Project: 2017 Peak Demand Conditions	10.6

Source: NSTAR-1, at exh. M.

The Company stated that magnetic fields associated with the distribution feeders exiting the Substation are relatively low due to the close spacing of the underground feeders and their component parts (Exh. DPU-EMF-1).

i. Analysis and Findings

The land use impacts of the Project would be similar to the existing impacts at the Substation. Approximately 30,000 square feet of vegetation removal would be required, consisting primarily of hazard trees, with approximately 20,000 square feet of the cleared area to be replanted. The Project is not in an ACEC, nor Priority Habitat or Estimated Habitat for rare species, and there are no documented cultural or historical resources in the Project area.

Clearing approximately 30,000 square feet of vegetation would decrease the width of the visual buffer around the Substation. Replanting approximately two-thirds of the cleared area would limit the visual impact of the Project, and additional plantings along the South Street frontage and the southeast corner of the Substation property, would further improve visual screening of the facility.

The Company proposed to use a six-day per week construction schedule, Monday through Friday, from 7:00 a.m. to 6:00 p.m., or later when daylight permits, and from 8:00 a.m. to 4:00 p.m. on Saturdays. The Company would mitigate construction-related noise impacts by using smaller equipment, minimizing digging, and maximizing use of pre-assembled components. The closest residence is approximately 440 feet away from the Substation fence line, with a total of seven residences within 750 feet.

Based on the distance between the work site and the nearest residential receptor, the Department approves a work schedule of 7:00 a.m. to 6:00 p.m., with the limitation that no equipment use begin until 8:00 a.m., from Monday through Friday and from 8:00 a.m. to 4:00 p.m. on Saturdays. Should the Company need to extend construction work beyond those hours and days (with the exception of emergency circumstances on a given day that necessitate work beyond such times), the Company is directed to seek written permission from the relevant Town authorities prior to the commencement of such work and to provide the Department with a copy of such permission. If the Company and Town officials are not able to agree on whether such extended construction hours should occur, the Company may request prior authorization from the Department and shall provide the Town with a copy of any such request.

The Company shall inform the Department and the Town in writing within 72 hours of any work that continues beyond the hours allowed by the Department, or, if granted extended work hours in writing by the Town, work that continues past the hours allowed by the Town. The Company shall also send a copy to the Department, within 72 hours of receipt, of any authorization for an extension of work hours issued by the Town. Furthermore, the Company shall keep a record of the dates, times, locations, and durations of all instances in which work

continues beyond the hours allowed by the Department, or, if granted extended work hours in writing by the Town, work that continues past the hours allowed by the Town, and must submit such record to the Department within 90 days of Project completion.

The Company committed to install a transformer with a built-in sound wall and to use sound absorbing blocks in the retaining wall to the north and west of the transformer to limit the operational noise impacts of the Project. Modeled nighttime sound levels with the Existing and Proposed Transformers showed up to a five dBA increase in sound levels, which would comply with the ten dBA increase defined in MassDEP's noise policy. Additionally, no pure tones were identified in association with the Project.

There are no jurisdictional wetland resources under the Massachusetts Wetland Protection Act located on the Project site. The Company will work with the Town in regards to a small isolated wetland on the Substation property.

With respect to traffic impacts, no road blockages or closures are anticipated in association with construction at the Substation. Road closures and/or blockages are anticipated during distribution feeder construction. The Company committed to notify the Town and abutters 30 days prior to the start of construction and in advance of major equipment deliveries. Eversource also committed to develop traffic management plans in coordination with the Town, and to work with public safety and other Town officials in the event that any off street parking is required during Project construction, or during ongoing operation of the Substation. Nonetheless, the Company has stated that there may be circumstances where parking on South Street would be required for non-routine loading purposes during Project construction or during extraordinary maintenance. On that basis, the Company is directed to minimize the use of South

Street for parking to the extent possible, and to notify the Town 48 hours in advance of any such use except emergency maintenance.

The Project is subject to idling restrictions imposed by MassDEP, and the Company committed that all 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 would be retrofitted.

New equipment requiring SF_6 would include a circuit breaker module. The equipment would have a maximum emission rate specification of 0.1 percent per year. The Department directs Eversource to inform the Department if it adds additional SF_6 to any equipment at the Substation or replaces any equipment at the Substation due to SF_6 loss within five years of the completion and initial operation of the Project, after which time the Company will consult with the Department to determine whether the Department will require continued reporting, as it deems appropriate.

Approximately 9,770 gallons of MODF would be added at the Substation as a result of the Project, and a larger control battery containing electrolytes with sulfuric acid would be required. The Company would install containment systems to protect against any accidental releases of these fluids.

The maximum magnetic field value outside of the Substation would decrease slightly from 10.7 milligauss, under pre-Project 2012 peak demand conditions, to 10.6 milligauss, under post-Project 2017 peak demand conditions.

The Department concludes that the impacts of the Project will be minimized, with the Project's compliance with: (1) all applicable federal, state, and local laws and regulations; (2) the avoidance, minimization and mitigation measures that Eversource has stated it will

implement during Project construction; and (3) the Department's conditions as discussed above and set forth below.

D. Conclusion on Public Convenience and Public Interest

Based on the foregoing analysis of: (1) the need for or public benefit of the proposed use; (2) alternatives explored; and (3) impacts of the proposed use, the Department finds that the Project is necessary for the purpose alleged, that the benefits of the Project to the general public exceed the local impacts, and that the Project will serve the public convenience and is consistent with the public interest.

E. Exemptions Required

1. Individual Exemptions

Eversource is seeking exemptions from twelve individual provisions of the Hopkinton Zoning Bylaws (Exh. NSTAR-JMZ-1, Attachment B; Company Brief at 33-34). The Company is also seeking a comprehensive exemption from the Hopkinton Zoning Bylaws (Exh. NSTAR-1, at 51-54; Company Brief at 46-50).

2. Positions of the Parties

a. Company's Position

Table 4 below presents: (1) each of the specific provisions of the Hopkinton Zoning Bylaws from which the Company seeks an exemption; (2) the relief available through the Town's local zoning process; and (3) the Company's argument as to why it cannot comply with the identified zoning provision or why the available zoning relief is inadequate. Sections 210-34 and 210-35 are considered together because they are related, as these sections list the uses

allowed in the Industrial A ("IA") zoning district, both uses of right and uses by special permit, where the Project would be located (Exh. NSTAR-1, at 41).

Table 4. Requested Individual Exemptions from the Hopkinton Zoning Bylaws. Summary of Company's Position

Section of the Zoning Bylaws	Available Relief	Why Exemption is Required: Company's Position
Allowed Uses §§210-34, 210-35	**Variance**	Neither 210-34 (uses allowed as of right in the IA district) nor 210-35 (uses allowed by special permit in the IA district) allow public utility uses (Exhs. NSTAR-1, at 41, and at Exh. A at 31-32; TOH-1-1). It would be difficult to obtain a variance; variances are a disfavored form of relief; and variances are subject to appeal (Exhs. NSTAR-1, at 41, 46; DPU-Z-5).[24]
Lot Coverage §210-28(A)(3)	**Variance**	This section provides that no more than 40 percent of the lot be covered by buildings (Exhs. NSTAR-1, at 42; DPU-Z-8). The additions to the Site required by the Project could cause the Site to exceed this maximum percentage.
Minimum Front Yard Setback § 210-28(A)(5)	**Variance**	This section requires a minimum front yard setback of 60 feet, which must remain undeveloped (Exh. NSTAR-1, at 42). The Project, however, requires that 14 kV metal clad switchgear be placed in the front yard, and this would leave a setback of only 26 feet (id. at 42-43; Exh. DPU-Z-7).
Minimum Side Yard Setback §210-28(A)(6)	**Variance or Special Permit**	This section requires a minimum side yard setback of 30 feet (Exh. NSTAR-1, at 43). The 115 kV bus supports must be placed in the south side yard, leaving a setback there of approximately 26 feet (id.; Exh. DPU-Z-11; TOH-1-9; TOH-1-10). The Site does not qualify for a special permit (Exh. TOH-1-9).
Minimum Rear Yard Setback §210-28(A)(7)	**Variance or Special Permit**	This section requires a minimum rear yard setback of 40 feet (Exh. NSTAR-1, at 43). The Project requires that the new transformer be placed in the rear station yard (id.; Exh. DPU-Z-12). Such placement would leave a setback of only 18 feet, and the Site does not qualify for a special permit (Exhs. NSTAR-1, at 43; TOH-1-11).

[24] These three arguments regarding why it would be difficult to obtain a variance are equally applicable to all of the bylaws listed in this table for which a variance would be required in order to comply with a Town zoning bylaw.

Section of the Zoning Bylaws	**Available Relief**	**Why Exemption is Required: Company's Position**
Off-Street Loading §210-29	**Variance**	This section requires that adequate off-street loading be provided at the side or rear of the building (Exh. NSTAR-1, at 43-44). Certain Project components must, however, be placed in the rear and sides of the Site, leaving no room for off-street loading (id. at 44; DPU-Z-14; TOH-1-12).
Landscaping for Minimum Setback Areas §210-31(A)	**Variance**	This section requires that all minimum setback areas be "attractively" landscaped (Exh. NSTAR-1, at 44). But the Project requires exemptions from setback requirements, as set forth above. Although the Company will landscape the remaining setback areas, it cannot comply with the explicit requirement that all required setback areas be landscaped (id.; Exh. TOH-1-13).
Height Restriction § 210-32	**Variance**	This section limits all structures in the IA district to 60 feet or four stories, whichever is less (Exh. NSTAR-1, at 44). The proposed shielding masts would be 75 feet tall (id.; Exhs. DPU-V-5; DPU-Z-15).
Off Street Parking §210-124	**Variance**	This section lists off-street parking requirements for each use (Exh. NSTAR-1, at 45). Electric Substations are not listed as a use; and the section requires that the nearest comparable use shall apply, although it is not clear what might constitute a comparable use (id.; Exh. TOH-1-16). This provision is therefore ambiguous as applied to the Substation (Exhs. DPU-Z-18; DPU-Z-30; TOH-1-16). The only way to resolve this ambiguity would be to obtain a variance (Exh. TOH-1-16).
Site Plan Approval Article XX	**Site Plan Approval**	The Project would be subject to Site Plan Approval by the Hopkinton Planning Board (Exh. NSTAR-1, at 47). Such approval may only be granted if all variances and special permits required have been granted (id.). Therefore, approval cannot be granted for the Project, given that construction of the Project will require exemptions from the variance and special permit requirements (id.). Also, the engineering issues involved in substation construction are beyond the scope of site plan review, creating a potential conflict between the Planning Board's preferences and established utility standards (id.; Exh. TOH-1-17).

Section of the Zoning Bylaws	Available Relief	Why Exemption is Required: Company's Position
Design Review Article XXI	**Design Review**	The Design Review Board presents its findings to the Planning Board as part of the site plan approval process (Exh. NSTAR-1, at 47-48). Because design review is performed only in connection with site plan review, and the Company seeks exemption from the site plan review process, the Company therefore also seeks an exemption from design review (id.). Furthermore, the criteria on which design review findings are based are subjective and vague (Exhs. DPU-Z-19; TOH-1-18).

The Company stated that it held the following meetings with Town officials, prior to the filing of the Petition, to discuss the requested zoning exemptions:

- In September 2013 and March 2014, the Company met with the Hopkinton building inspector and the deputy building inspector to discuss the Project and the requested zoning relief (Exh. DPU-Z-2).

- In September 2014, the Company presented the Project to the Hopkinton Board of Selectmen (id.).

- In November 2014, acting pursuant to the Board of Selectmen's request, the Company presented the Project to the Planning Board (id.).

The Company stated that it has held the following meetings with Town officials since the filing of the Petition:

- In January 2015, Company representatives and Town officials took part in a conference call to discuss each individual exemption sought and the reason for requesting it (id.).

- In March 2015, Company representatives met again with and presented the Project to the Hopkinton Planning Board (id.).

The Company represents that it has made at least three changes to the Project in order to comply with requests expressed by Town officials. First, the building inspector requested additional screening in the form of tilt-up panels, which the Company has added to its landscaping plan (Exhs. DPU-V-4; DPU-Z-2). Second, the building inspector and the deputy

building inspector requested that the Company provide an opaque wall to the east of the proposed switchgear (Exh. DPU-Z-3). In response, the Company added such a wall to the Project design (id.; Exh. DPU-V-4). Third, the building inspector and the deputy building inspector requested that the Company landscape the expanded Substation (Exh. DPU-Z-3). In response, the Company created detailed landscaping proposals and has reviewed these proposals with the Planning Board on two separate occasions (id.; Exhs. DPU-V-1; DPU-V-3).

b. Town's Objections

The Town concedes that one set of requested exemptions – from sections 210-34 and 210-35 – should be granted (Hopkinton Brief at 5). Certain other exemptions, the Town argues, should be denied (id. at 8-11). They are as follows:

- **Lot Coverage, Section 210-28(A)(3)**. The Town argues that the Company's lot-coverage calculation, which it used to justify an exemption, is too conservative (id. at 9). When using the calculation favored by the Town, the exemption is not needed (id.).

- **Minimum Side Yard and Rear Yard Setbacks, Sections 210-28(A)(6) and (7), and Landscaping Requirements for Minimum Setbacks (Section 210-31(A))**. The Town asserts that the purchase of additional land to the rear and the side of the Site would obviate the need for the exemption from setback requirements (id. at 7-9). Furthermore, if the Company were to purchase such additional land and to landscape such land, then the need for an exemption from section 210-31(A) – the requirement that the full minimum setback areas be landscaped – would also be obviated (id. at 8-9). In the alternative, the Town argues, any exemption granted should be narrowly tailored. For example, an exemption from the rear yard setback should allow the Project to extend 22 feet into said setback but no farther (id. at 7-8). Similarly, any exemption from the side yard setback requirement should allow the Project to extend four feet into said setback but no farther (id. at 8).

- **Site Plan Review and Design Review, Articles XX and XXI**. The Town argues that these exemptions are not needed (id. at 10-11). The Town characterizes the Company's arguments in favor of granting such relief as "circular reasoning," and it denies that the criteria to be applied are either vague or subjective (id.). In the alternative, the Town argues, the exemptions should be allowed only upon the condition that the Company "enter into a written cooperation agreement with

Hopkinton providing that the parties will work to formulate a mutually agreeable plan and design for the site" (id.).

With respect to the other exemptions, however, the Town asserts that the relief granted, if any, should be limited to the minimum amount necessary (Hopkinton Brief at 5-8):

- **Front Yard Setback, section 210-28(A)(5)**. The Town's position is that any exemption granted should be limited to the specific number of feet that the Petition represents is necessary, and no more (id. at 7-8). The Petition states that the Project will intrude into the required front yard setback by 34 feet (id. at 7). Therefore, the Town argues, any exemption granted should allow the Project to extend into the front yard setback by said distance but no farther (id.).

- **Height Restriction, section 210-32**. The Town agrees that an exemption from the height restriction of section 210-32 is necessary (id. at 5-6). The Project includes a shielding mast 75 feet high, and section 210-32 of the Hopkinton Zoning Bylaws limits all structures in the IA zoning district to 60 feet (id. at 5; Exh. NSTAR-1, at 39). Nevertheless, the Town argues that the height exemption must be limited to 75 feet (Hopkinton Brief at 6).

- **Off-Street Loading and Off-Street Parking, sections 210-29 and 210-124**. The Town agrees that exemptions to these zoning bylaws are necessary (id.). But it requests that, as a condition of the exemptions, the Department order the Company to "enter into a written agreement with the Town requiring that it take mutually agreed-upon steps necessary to minimize the impact of any parking and loading" (id. at 6-7).

3. Analysis and Findings Regarding Exemptions Required

a. Consultations with Local Officials

The Department continues to favor the resolution of local issues on a local level whenever possible to reduce concern regarding any intrusion on home rule. NEP Cabot Taps at 41-42; NSTAR Belmont at 41; Russell Biomass LLC/Western Massachusetts Electric Company, 17 DOMSB 1, EFSB 07-4/D.P.U. 07-35/ 07-36, at 60-65 ("Russell Biomass"). The Department believes that the most effective approach for doing so is for applicants to consult with local

officials regarding their projects before seeking zoning exemptions pursuant to G.L. c. 40A, § 3. NEP Cabot Taps at 41-42; NSTAR Belmont at 41; Russell Biomass at 61.

The record shows that the Company consulted with multiple local officials, both before and after filing the Petition. As a result of these consultations, the Town has expressed its support for the grant of exemptions from sections 210-34 and 210-35 of the Hopkinton Zoning Bylaws. These are the provisions that govern allowed uses in an IA district. In addition, the Town has expressed qualified support for the granting of other exemptions, as discussed above. Accordingly, we find that the Company made a good faith effort to consult with municipal authorities, and that the Company's communications have been consistent with the spirit and intent of Russell Biomass and the other cases cited above.

b. Specific Exemptions Required

Both the Company and the Town are in agreement that the Project, as proposed, does not conform to the Hopkinton Zoning Bylaws, and could not be built unless the Company is able to obtain several variances and special permits from the Town. The record also shows a significant divergence between the Town and the Company perspectives regarding several key aspects of Project design – as well as the perceived timing of Project need – strongly suggesting that the Company's prospects for obtaining zoning and variance relief from the Town would be far from assured. Within this context, and for the reasons set forth below, the Department finds that the specifically identified zoning exemptions are required for the purposes of G.L. c. 40A, § 3.

It would be difficult for the Company to obtain the variances required because variances are a disfavored form of relief and because the criteria for obtaining them can be met only under

specific circumstances. In addition, variances are subject to appeal that could result in significant Project delays.

The Town suggests that the Company seek special permits for rear and side yard nonconformities (Hopkinton Brief at 1; Company Initial Brief at 37, n. 9). The Hopkinton Zoning Board of Appeals, however, is empowered to grant such special permits only "in the case of an irregular, narrow or shallow lot, or a lot unusual in shape or topography" (Company Initial Brief at 37, n. 9). The Company asserts that the Project site does not contains these attributes (id.), and nothing in the record contradicts this assertion. Therefore, any application for a special permit regarding the rear and side yard setbacks would likely be futile.

The Hopkinton Zoning Bylaws would also require the Company to obtain Site Plan Approval and one element of obtaining such approval involves the Design Review Process for which the criteria are subjective. In addition, the Site Plan Approval process could pose a conflict with the requirement that the Project be constructed according to established utility standards.

For its part, the Town states that one acceptable alternative would be for the Department to grant the exemptions from Site Plan Approval and the Design Review Process on the condition that the Company enter into a "written cooperation agreement with Hopkinton providing that the parties will work to formulate a mutually agreeable plan and design for the site" (Town Brief at 10). Requiring that any such plan be "mutually agreeable" would, however, give the Town veto power over the Company's plans. Such a scenario is exactly the type intended to be prevented pursuant to G.L. c. 40A, § 3.

The Department is not persuaded by the Town's argument that many of the exemptions should be limited as much as possible – and to the Town's specifications and preferences. If such limitations were imposed, then even minor variations in Project plans (an inch of increased height for the shielding masts, or an inch of additional encroachment into setback requirements) would require that the Company file for zoning relief – thereby defeating the purpose of the grant of exemptions. Such a course of action would result, at a minimum, in increased costs and delays, and potentially could put in jeopardy completion of the Project.

The record does not indicate that the imposition of severe limitations on the exemptions, as requested by the Town, would bring tangible benefits. Based on Department practices (and the conditions specified in this Order) the Project can only be constructed as set forth in this proceeding. Any change to the Project plans other than minor variations would require the Company to notify both the Department and the Town of a project change.[25] The Town would then have an opportunity to object to the proposed change. Regardless of whether the Department grants the Town's request to limit or deny the exemptions requested, the Town would have the opportunity to review prospective Project changes and could raise an objection to any changes other than minor variations. Arguably, in this case, if the Town's limiting language

[25] In previous cases, the Department required notice of any "significant changes in the planned timing, design, or environmental impacts of the Project so that the Department may decide whether to inquire further into a particular issue" (Cabot Taps at 51; Western Massachusetts Electric Company and New England Power Company d/b/a National Grid, D.P.U. 13-187/188, at 63 (July 14, 2015)). In order to address the Town's concerns in the present case, however, the Department is imposing a more stringent standard, similar to that currently applied in Siting Board cases. To that end, the Company must inform the Department of any changes other than minor variations so that the Department may decide whether to inquire further into a particular issue. This more stringent standard is incorporated in the text of this Order and in a "Further Ordered" clause at the end of this Order.

were to be incorporated into the Order, it would effectively vitiate the requirement that the Company must only notify the Department of changes other than minor variations.

The Department is also not persuaded by the Town's argument that the grant of certain exemptions – Site Plan Review, Design Review, Off-Street Loading and Off-Street Parking – should be conditioned upon a requirement that the Company enter into written agreements with the Town regarding cooperation and mitigation. As noted above, the Department has found that the Company has already engaged in good faith with Town officials. With respect to parking on South Street, such parking is already restricted by the Department's condition in II.C.3.1 above.

The Town also suggests that the Company should be required to purchase additional land from adjoining properties to eliminate nonconformance with setback requirements. However there is no evidence in the record that would indicate whether such a requirement is feasible, practical, or even possible. Furthermore, there is no language in G.L. c. 40A, § 3, and no language in any of the opinions interpreting that statute, that implies or states that the Company should or must take such action. Further, the cost of such land purchases, ultimately borne by ratepayers, has not been established on the record and cannot be discounted as insignificant or presumed to be an appropriate expenditure.

4. Conclusion on Requests for Individual Zoning Exemptions

As described above, the Department finds that: (1) the Company is a public service corporation; (2) the proposed use is reasonably necessary for the public convenience and welfare; and (3) the specifically identified zoning exemptions are required for the purposes of G.L. c. 40A, § 3. Additionally, the Department finds that the Company has engaged in good faith consultations with the Town. Accordingly, the Department grants the Company's request

for the individual zoning exemptions listed above in Table 4, subject to any conditions set forth in this Order.

III. REQUEST FOR A COMPREHENSIVE EXEMPTION

A. Standard of Review

The Department considers requests for comprehensive zoning exemptions on a case-by-case basis. NEP Cabot Taps at 42-43; NSTAR Electric Company, D.P.U. 07-60/07-61, at 50-51 (2008) ("NSTAR Carver"), citing Princeton Municipal Light Department, D.T.E./D.P.U. 06-11, at 37 (2007). The Department will not consider the number of exemptions required as a sole basis for granting a comprehensive exemption. Rather, the Department will consider a request for comprehensive zoning relief only when issuance of a comprehensive exemption would avoid substantial public harm. NEP Cabot Taps at 43; NSTAR Electric Company, D.P.U. 13-177/13-188 at 37-38 (January 7, 2015) ("NSTAR Seafood Way"); NSTAR Carver at 51-52.

B. The Company's Position

The Company asserts that the Project is urgently needed and that the grant of a comprehensive zoning exemption will ensure its prompt completion (Company Brief at 46-50). The Hopkinton Zoning Bylaws were not written with the unique aspects of energy infrastructure in mind (id. at 47, n. 14). Consequently, the lack of specific provisions addressing energy infrastructure in the said bylaws makes the application of these bylaws to the Project imprecise and subject to differing interpretations (id.). These difficulties could be the basis of disputes, which would delay construction (id. at 46-50). Furthermore, a comprehensive exemption would

protect construction of the Project from delay in the event that a new bylaw is enacted or a project change is needed (id. at 47-48).

The Town's opposition, the Company argues, is largely irrelevant to the issue of whether a comprehensive exemption is justified (id. at 49-50). Nothing in G.L. c. 40A, § 3, or in the Department's post-Russell Biomass orders requires municipal support as a prerequisite to the grant of a comprehensive exemption (id. at 49). Furthermore, the Supreme Judicial Court opinions interpreting this statute explicitly state that the interests of the locality must be balanced against the general interests of Massachusetts citizens (id. at 50, citing Save the Bay at 686 and Pereira v. New England LNG Co. Inc., 364 Mass. 109, 119 (1974)).

C. The Town's Objections

In objecting to the grant of a comprehensive exemption, the Town argues that the standard for granting such an exemption is higher than the standard for granting individual zoning exemptions (Hopkinton Brief at 12, citing Tennessee Gas Pipeline Company, D.P.U. 11-26, at 31 (2011) ("Tennessee Gas")). Therefore, the grant of a comprehensive exemption is only warranted if it is necessary to avoid substantial public harm (id. at 3-4, 12). In considering whether the refusal to grant a comprehensive exemption would result in substantial public harm, the Department has examined the following factors: (1) whether the project in question is time sensitive; (2) whether the zoning requirements of multiple municipalities are involved; and (3) whether the host municipality endorses the grant of a comprehensive exemption (id. at 12, citing Tennessee Gas at 31-32, and NSTAR Electric, D.P.U. 14-03, at 50-51 (2015) ("NSTAR Mashpee")).

The Town argues that a consideration of all three of these factors leads to the conclusion that a comprehensive exemption should not be granted (Hopkinton Brief at 12). There is no dispute that the present case involves only the zoning bylaws of one town, and that the Town of Hopkinton opposes the grant of a comprehensive exemption (id.). Furthermore, the Town argues, the Company has not proven that the Project is time sensitive (id.). The Company has offered only a "projection of a potential shortfall in load capacity," and that projection "is based in part upon a concern that the Company will be unable to supply electricity to a currently unused building on the EMC campus" (id., citing Exhs. TOH-1-19; Tr. at 75:14, 116:22) (emphasis in original text). The speculative nature of the Company's argument, the Town asserts, is insufficient to justify the grant of a comprehensive zoning exemption (Hopkinton Brief at 12).

D. Analysis and Findings

As noted above, the grant of a comprehensive exemption is based on the specifics of each case. Compared to the grant of individual zoning exemptions, which is tailored to meet the construction requirements of a particular project, the grant of a comprehensive exemption serves to nullify a municipality's zoning code in its entirety with respect to the project under review. Thus, compared to the grant of individual zoning exemptions, a comprehensive zoning exemption constitutes a broader incursion upon municipal home rule authority. In the absence of a showing that substantial public harm may be avoided by granting a comprehensive exemption, the granting of such extraordinary relief is not justified. NSTAR Electric Company, D.P.U. 13-126/13-127, at 38-39 (2014) ("Electric Avenue"); NSTAR Plympton at 45; NSTAR Electric Company Waltham, D.P.U. 08-1, at 36-37 (2009).

Department and Siting Board cases that have considered and granted comprehensive exemptions have typically involved projects that were time sensitive, and have also often dealt with the zoning ordinances of multiple municipalities where conflicting provisions or interpretations could arise. NEP Cabot Taps at 45; Western Massachusetts Electric Company and New England Power Company d/b/a National Grid, D.P.U. 13-187/188, at 50-51 (July 14, 2015) ("Northfield/Erving Decision").

Even when a comprehensive zoning exemption is granted, however, one class of zoning ordinances or bylaws is often excluded: zoning restrictions relating to environmental aspects of the ongoing operation of the proposed project. NEP Cabot Taps at 45-46; Northfield/Erving Decision at 50-51); Electric Avenue at 34-35. In the present case, section 210-34(A)(3) prohibits:

> "activities . . . [that] will be offensive, injurious or noxious because of gas, dirt, sewage and refuse, vibration, smoke, fumes, dust, odors, discharge of harmful bacteria, radioactive material or chemicals into the air, water or septic or site drainage systems, danger of fire or explosion, objectionable noise or other characteristics which are detrimental or offensive or which tend to reduce property values in the same or adjoining districts." (Exh. NSTAR-1, exhibit A, at 31-32).

Consequently, were the Department to include Hopkinton Zoning Bylaw section 210-34(A)(3) in the grant of a comprehensive exemption, the Town could not exercise control over the on-going operations of the proposed Project with respect to these important environmental impacts. NEP Cabot Taps at 46; Northfield/Erving Decision at 50-51; Electric Avenue at 35.

Although the Department grants requests for zoning exemptions to facilitate construction and avoid unnecessary delay or adverse zoning outcomes, the Department also believes that once

such facilities are operational they should comply with local zoning requirements relating to environmental aspects of the ongoing operation of the proposed Project, such as those found in Hopkinton Zoning Bylaw section 210-34(A)(3). NEP Cabot Taps at 46; Northfield/Erving Decision at 51; Electric Avenue at 35.

As stated in section II.C.1 above, as of the summer of 2015, the existing Hopkinton Substation fails to satisfy applicable reliability criteria and, as a result, the Company would shed load in the Hopkinton Area following two N-1 contingency events. As also discussed in II.C.1, EMC facilities comprise approximately 50 percent of the electrical demand at the Substation, and a significant segment of EMC's operation involves the life-cycle testing of products over a period of weeks, which can require retesting if the flow of electricity is interrupted. Therefore, any load-shedding could be acutely harmful to local business operations.

Consequently, not only is the Project needed, but its construction is time-sensitive. Furthermore, we acknowledge that the lack of specific provisions addressing energy infrastructure makes the application of the bylaws imprecise, and therefore difficult, with respect to certain Project components. This lack of precision may lead to a difference in how the bylaws are interpreted by various entities: e.g., the Town, the Company, a Substation abutter, the Zoning Board of Appeals ("ZBA"), and, ultimately, any court to which a ZBA decision might be appealed. Resolving such differences may cause a delay and, in light of the current need for the Project, any delay in construction could cause significant public harm.

It is true, as the Town points out, that this Project is located entirely in Hopkinton and that the Town opposes the grant of a comprehensive exemption. But there is nothing in the text of G.L. c. 40A, § 3, or in Department precedent that explicitly requires the assent of a

municipality in order to grant a comprehensive exemption. While the Department continues to require and encourage engagement between a company and a municipality, we also recognize that the Supreme Judicial Court has held that G.L. c. 40A, § 10 (the predecessor to G.L. c. 40A, § 3), ensures a "broad and balanced consideration of all aspects of the general public interest and welfare and not merely examination of local and individual interests which might be affected." Town of Truro at 410; see also, Save the Bay, Inc. v. Department of Public Utilities, 366 Mass. 667, 686 (1975) ("local interests must be balanced against the general interests of the citizenry as a whole"). Indeed, the very purpose of "G.L. c. 40A, § 3, is . . . to assure utilities' ability to carry out their obligations to serve the public when this duty conflicts with local interests." Planning Board of Braintree v. Department of Public Utilities, 420 Mass. 22, 27 (1994).

Therefore, the Department must balance Hopkinton's opposition to a comprehensive zoning exemption with the real possibility that, absent the grant of such an exemption, the construction of the Project would be delayed and the supply of electricity to the area would become vulnerable and unreliable. After considering the competing interests, the Department concludes that the grant of a comprehensive zoning exemption from the Zoning Bylaws of Hopkinton, with the exception of section 210-34(A)(3), is necessary in order to avoid substantial public harm. We exclude section 210-34(A)(3) consistent with our prior precedent regarding zoning restrictions relating to environmental aspects of the ongoing operation of the proposed project.

IV. SECTION 61 FINDINGS

The Massachusetts Environmental Policy Act ("MEPA") provides that "[a]ny determination made by an agency of the commonwealth shall include a finding describing the

environmental impact, if any, of the project and a finding that all feasible measures have been taken to avoid or minimize said impact" ("Section 61 findings"). G.L. c. 30, § 61. Pursuant to 301 C.M.R. § 11.01(3), Section 61 findings are necessary when an Environmental Impact Report ("EIR") is submitted to the Secretary of Energy and Environmental Affairs, and should be based on such EIR. Where an EIR is not required, Section 61 findings are not necessary. 301 C.M.R. § 11.01(3). In an affidavit dated January 13, 2015, Kevin McCune, supervisor environmental affairs for Eversource, stated that the Project would not exceed any of the applicable MEPA review thresholds and, accordingly, that the Project does not require a filing with MEPA (Exh. NSTAR-1, exh. K). Accordingly, Section 61 findings are not necessary in this case.[26]

V. ORDER

Accordingly, after due notice, hearing, and consideration, it is hereby

ORDERED: That the petition of NSTAR Electric Company d/b/a Eversource Energy ("Eversource") seeking the specific exemptions set forth in Table 4 from the operation of the Hopkinton Zoning Bylaws pursuant to G.L. c. 40A, § 3, is granted; and it is

FURTHER ORDERED: That the petition of Eversource seeking a comprehensive exemption from the operation of the Hopkinton Zoning Bylaws pursuant to G.L. c. 40A, § 3, is granted with the exception of Hopkinton Zoning Bylaws section 210-34(A)(3); and it is

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[26] The Department notes the requirements set forth in G.L. c. 30A, § 61, effective November 5, 2008, regarding findings related to climate change impacts. Since Section 61 findings are not required in this case, the Project is not subject to the Greenhouse Gas Emissions Policy and Protocol. The Department nonetheless notes that this Project would have minimal greenhouse gas emissions, as it consists of modifications to an existing Substation. As such, the Project would have minimal direct emissions from a stationary source under normal operations and would have minimal indirect emissions from transportation sources limited to construction, occasional repair, or maintenance activities. The Department addresses Project SF_6 in Section II.C.3.f, above.

FURTHER ORDERED: That Eversource limit Project construction to Monday through Friday, from 7:00 a.m. to 6:00 p.m., with the limitation that no equipment use begin until 8:00 a.m., and from 8:00 a.m. to 4:00 p.m. on Saturdays. Should the Company need to extend construction work beyond those hours and days (with the exception of emergency circumstances on a given day that necessitate work beyond such times), the Company is directed to seek written permission from the relevant Town authorities prior to the commencement of such work and to provide the Department with a copy of such permission. If the Company and Town officials are not able to agree on whether such extended construction hours should occur, the Company may request prior authorization from the Department and provide the Town with a copy of such request; and it is

FURTHER ORDERED: That the Company shall inform the Department and the Town in writing within 72 hours of any work that continues beyond the hours allowed by the Department, or, if granted extended work hours in writing by the Town, work that continues past the hours allowed by the Town. The Company shall also send a copy to the Department, within 72 hours of receipt, of any authorization for an extension of work hours issued by the Town. Furthermore, the Company shall keep a record of the dates, times, locations, and durations of all instances in which work continues beyond the hours allowed by the Department, or, if granted extended work hours in writing by the Town, work that continues past the hours allowed by the Town, and must submit such record to the Department within 90 days of Project completion; and it is

FURTHER ORDERED: That the Company shall minimize the use of South Street for parking to the extent possible, and to notify the Town 48 hours in advance of any such use with the exception of emergency maintenance; and it is

FURTHER ORDERED: That Eversource inform the Department if it adds SF_6 to any equipment at the Hopkinton Substation or replaces any equipment there due to SF_6 loss within five years of the completion and operation of the Project, and thereafter consult with the Department to determine whether any continued reporting will be required by the Department; and it is

FURTHER ORDERED: That Eversource and its contractors and subcontractors comply with all applicable federal, state, and local laws, regulations, and ordinances for which the Company has not received an exemption; and it is

FURTHER ORDERED: That Eversource obtain all other government approvals necessary for the Project; and it is

FURTHER ORDERED: That Eversource and its successors in interest notify the Department of any changes other than minor variations to the Project so that the Department may decide whether to inquire further into a particular issue; and it is

FURTHER ORDERED: That because the issues addressed in this Order relative to this Project are subject to change over time, construction of the Project commence within three years of the date of this Order; and it is

FURTHER ORDERED: That within 90 days of Project completion, the Company must submit a report to the Department documenting compliance with all conditions contained in this Order, noting any outstanding conditions yet to be satisfied and the expected date and status of such resolution; and it is

FURTHER ORDERED: That the Secretary of the Department transmit a certified copy of this Order to the Town of Hopkinton, through its Counsel, and that the Company serve a copy of this Order on the Hopkinton Board of Selectmen, the Hopkinton Planning Board, and the Hopkinton Zoning Board of Appeals within five business days of its issuance and to certify to the Secretary of the Department within ten business days of its issuance that such service has been accomplished; and that said certification be served upon the Hearing Officer and all parties to this proceeding.

By Order of the Department:

/s/
Angela M. O'Connor, Chairman

/s/
Jolette A. Westbrook, Commissioner

/s/
Robert Hayden, Commissioner

An appeal as to matters of law from any final decision, order or ruling of the Commission may be taken to the Supreme Judicial Court by an aggrieved party in interest by the filing of a written petition praying that the Order of the Commission be modified or set aside in whole or in part. Such petition for appeal shall be filed with the Secretary of the Commission within twenty days after the date of service of the decision, order or ruling of the Commission, or within such further time as the Commission may allow upon request filed prior to the expiration of the twenty days after the date of service of said decision, order or ruling. Within ten days after such petition has been filed, the appealing party shall enter the appeal in the Supreme Judicial Court sitting in Suffolk County by filing a copy thereof with the Clerk of said Court. G.L. c. 25, § 5.