The Commonwealth of Massachusetts

DEPARTMENT OF PUBLIC UTILITIES

D.P.U. 19-46 September 14, 2020

Petition of NSTAR Electric Company d/b/a/ Eversource Energy Pursuant to G.L. c. 164, § 72 for Approval to Construct and Operate a New 115 kV Overhead Transmission Line in Dartmouth, Massachusetts.

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I. INTRODUCTION

A. Description of the Proposed Project

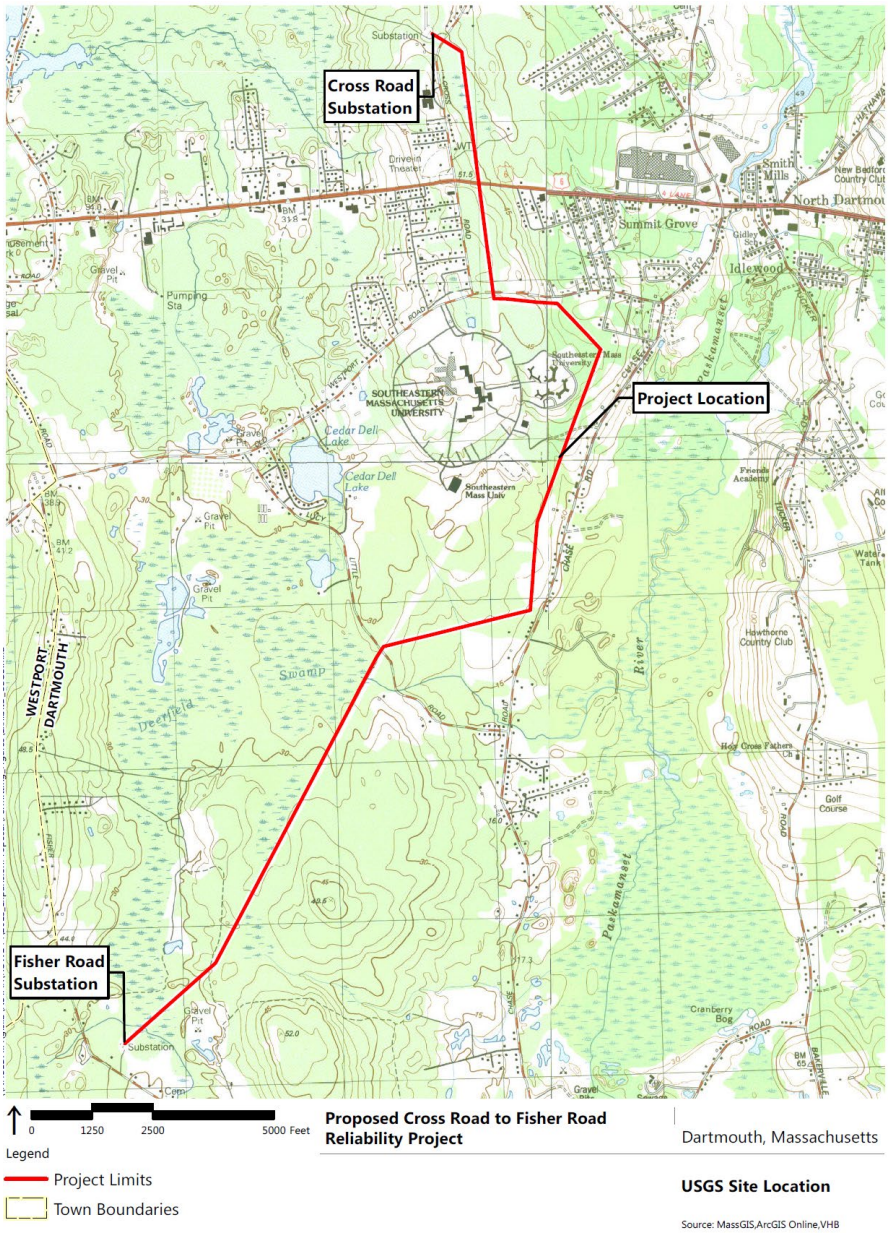
On March 22, 2019, NSTAR Electric Company d/b/a Eversource Energy ("Eversource" or "Company") filed a petition ("Petition") with the Department of Public Utilities ("Department") pursuant to G.L. c. 164, § 72, seeking approval to construct a new 5.1-mile, 115 kilovolt ("kV") overhead transmission line along an existing Eversource right-of-way ("ROW") between the Cross Road Substation and Fisher Road Substation ("Project"), both located in the Town of Dartmouth, Massachusetts ("Dartmouth" or "Town") (Exh. EV-1, at 3). The Department docketed the filing as D.P.U. 19-46.

There is an existing 115 kV line in the ROW, Line 109, which originates at the High Hill Switching Station in Dartmouth and extends south to the Cross Road Substation and terminates at the Fisher Road Substation (Exh. EV-1, at 4, 5, Att. A). The Project will provide a second 115 kV transmission line linking the Cross Road and Fisher Road Substations ("New Line"), effectively extending the existing Line 111 (id. at 4, 5).[1] The New Line will run parallel to Line 109 on the ROW, and each line will serve a transformer at the Cross Road Substation and a transformer at the Fisher Road Substation (id. at 6, 7). The New Line will be supported on approximately 50 new structures consisting of steel monopoles and two three-pole structures, one of which will be installed leading into the Fisher Road Substation and the other of which will be installed in the vicinity of Azalea Road, leading into the Cross Road Substation (id. at 6). In

[1] Line 111 currently runs from the Industrial Park Substation in New Bedford to the High Hill Switching Station in Dartmouth (Exh. EV-1, at 5). Currently, the Line 111 radial portion ends at the Cross Road Substation (id.).

addition to the construction of the transmission line, the Company will also make minor modifications at the Cross Road and Fisher Road Substations (id. at 1).

Figure 1. Overview of Proposed New Line in Dartmouth.



Source: Exh. EV-1, Att. F.

The Company maintains that the Project is needed in order to improve transmission reliability for customers in Dartmouth and Westport served by the Cross Road Substation and the

Fisher Road Substation (Exh. EV-1, at 15, 18). The Company's conceptual grade cost estimate (-25%/+25%) for the Project is approximately $15 million (Exh. EV-1, at 7). Construction is anticipated to take nine to twelve months (Exhs. DPU-CM-8; DPU-G-8(1)).[2]

B. Procedural History

The Company filed its Petition with the Department on March 22, 2019. On July 23, 2019, the Department conducted a duly noticed public comment hearing at the Southworth Library in Dartmouth.[3] Wheat Kelley, an abutter to the ROW filed a timely motion to intervene, which was allowed by the Hearing Officer. The Department and Mr. Kelley each conducted one round of written discovery before evidentiary hearings.

The Company sponsored the following seven Eversource employees as witnesses: (1) Joseph Mayall, manager of transmission capital projects; (2) Keith Jones, senior planning engineer, system planning group; (3) Robert Andrew, director of system solutions; (4) Matthew Waldrip, senior environmental specialist; (5) Nicole Bowden, project outreach specialist; and (6) Christopher Soderman, acting director of transmission line engineering; and (7) William Hayes, supervisor of transmission vegetation management. In addition, the Company also

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2 The Company represented that the 150-foot ROW was established in 1960, when Line 109 was installed, with a provision that a second 115 kV transmission line could be built in the same ROW (Exh. EV-1, at 4). On January 8, 1971, the Department issued order D.P.U. 16706, which included, among other items, approval for Eversource's predecessor, New Bedford Gas & Edison Light Company, to construct and operate the second 115 kV line between Cross Road Substation and Fisher Road Substation in the future (id. at 4-5). The line was not built within the expected five-year timeframe (id. at 5).

3 During the public comment hearing, the Dartmouth Fire Chief inquired about the anticipated tree clearing for the Project (Tr. A, at 18). A local resident asked whether there would be added distribution infrastructure in the near-term after the Project was completed (id. at 20).

sponsored David Halliwell, an environmental and siting consultant from Power Engineers. Mr. Kelley submitted pre-filed testimony that included a copy of the deed to his property, related subdivision plans taken from the Bristol County Registry of Deeds, and photographs of his property.

The Department conducted an evidentiary hearing at its offices in Boston on February 4 and 20, 2020. The Department staff and Mr. Kelley cross examined the Company's witnesses; the Department staff cross examined Mr. Kelley.[4] Approximately 180 exhibits were entered into the evidentiary record. The Company filed an initial brief on March 12, 2020. Mr. Kelley did not file a brief.

II. REQUEST FOR AUTHORITY TO CONSTRUCT AND USE TRANSMISSION LINE PURSUANT TO G.L. c. 164, § 72

A. Standard of Review

General Laws c. 164, § 72, requires, in relevant part, that an electric company seeking approval to construct a transmission line must file with the Department a petition for:

> authority to construct and use … a line for the transmission of electricity for distribution in some definite area or for supplying electricity to itself or to another electric Company or to a municipal lighting plant for distribution and sale … and shall represent that such line will or does serve the public convenience and is consistent with the public interest .... The [D]epartment, after notice and a public hearing in one or more of the towns affected, may determine that said line is necessary for the purpose alleged, and will serve the public convenience and is consistent with the public interest.[5]

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[4] The Company declined the opportunity to cross examine Mr. Kelley (Tr. 2, at 279).

[5] Pursuant to G.L. c. 164, § 72, the electric company must file with its petition a general description of the transmission line, a map or plan showing its general location, an estimate showing in reasonable detail the cost of the line, and such additional maps and information as the Department requires.

The Department, in making a determination under G.L. c. 164, § 72, considers all aspects of the public interest. Boston Edison Company v. Town of Sudbury, 356 Mass. 406, 419 (1969). All factors affecting any aspect of the public interest and public convenience must be weighed fairly by the Department in a determination under Section 72. Town of Sudbury v. Department of Pub. Utils., 343 Mass. 428, 430 (1962); New England Power Company d/b/a National Grid, D.P.U. 19-16, at 6 (2020) ("Golden Rock").

In evaluating petitions filed under G.L. c. 164, § 72, the Department examines (1) the need for, or public benefits of, the present or proposed use; (2) the present or proposed use and any alternatives identified; and (3) the environmental impacts or any other impacts of the present or proposed use. Golden Rock at 6; NSTAR Electric Company d/b/a Eversource Energy, D.P.U. 18-21, at 58 (2019); Boston Edison Company, D.T.E. 99-57, at 3-4 (1999). The Department then balances the interests of the general public against the local interests and determines whether the line is necessary for the purpose alleged and will serve the public convenience and is consistent with the public interest. Save the Bay, Inc. v. Department of Public Utilities, 266 Mass. 667, 680 (1975); Town of Truro v. Department of Public Utilities, 365 Mass. 407 (1974); Golden Rock at 6.

B. Public Convenience and Public Interest

1. Need for or Public Benefit of the Proposed Use

a. Company Description

Eversource used its own econometric forecast model to forecast future loads for each of its substations over a 10-year period from 2018–2028 (Exh. EV-1, at 10-11, 16). The Company stated that it modelled both normal weather conditions and an extreme weather scenario (id. at 10). The Company's forecast projected a cumulative growth rate of 0.5 percent per year for

load out of the Fisher Road Substation (id. at 16). The Company reported that this is consistent with calculated load growth in the Southeastern Massachusetts region (Exh. DPU-N-6).[6]

The Company stated that under the existing conditions, a fault on Line 109 would result in significant customer outages and other adverse reliability impacts (Exh. EV-1, at 12). Eversource noted that the need for the Project is consistent with the Company's internal planning criteria, as established under its Bulk Distribution Substation Assessment Procedure ("SYS-PLAN 010") (id.). Eversource indicated that these Company-established reliability criteria apply to radial transmission lines, such as Line 109, whereas the reliability criteria and standards of the North American Energy Reliability Corporation ("NERC"), the Northeast Power Coordinating Council ("NPCC"), and ISO New England ("ISO-NE") do not apply directly to radial portions of the Company's transmission system (id. at 9).[7]

SYS-PLAN 010 requires that, after the loss of a transmission line supplying more than one bulk distribution supply transformer, a distribution substation must be able to (1) restore all customer loads automatically; (2) maintain distribution bus voltages; and (3) maintain service within secondary distribution feeders' long term emergency ("LTE") and short-term emergency ("STE") ratings (id. at 12). The Project would make the New Line the secondary supply to the

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6 Eversource did not use ISO-NE's Capacity, Energy, Loads, and Transmission ("CELT") report load forecast (Tr. 1, at 42). The Company explained that its forecast was more suitable because it used actual peak loads from substations coincident with service area peaks, while the CELT report used peaks coincident with New England systemwide peaks (RR-DPU-1).

7 Lines 109 and 111 between the High Hill Switching Station and the Fisher Road Substation are radial circuits, and are not classified as Pool Transmission Facility ("PTF") by ISO-NE, Bulk Power System ("BPS") by NPCC, or Bulk Electric System ("BES") by NERC (Exh. EV-1, at 9).

Fisher Road Substation, replacing the existing back-up circuits that do not satisfy SYS-PLAN 010 criteria (id. at 6, 21).

The Company stated that it does not, in general, make a distinction between BPS and non-BPS or PTF and non-PTF when planning and designing the reliability of its transmission system, which ensures that a consistent design approach is applied across the Company's entire transmission system and that the system is tested and designed in a consistent manner with the NERC, NPCC, and ISO-NE standards and criteria (Exh. EV-1, at 9). According to NERC, NPCC and ISO-NE planning criteria, Eversource must ensure that its transmission system can withstand contingencies, such as a single transmission element loss event ("N-1" contingency) (id. at 8). The Company contended that under the existing electrical configuration, a fault on Line 109 is an N-1 contingency event that would result in significant customer outages and, therefore, violate its planning criteria (id. at 12; DPU-N-8).

Eversource described Line 109 as the primary supply for two 115/13.2 kV transformers (each with a maximum capacity 22.4 MVA) and five 13.2 kV distribution feeders at the Fisher Road Substation, which serve southern Dartmouth (including UMass Dartmouth) and portions of Westport (Exh. EV-1, at 6, 10). Secondary supplies or back-up circuits to the Fisher Road Substation include two 13.2 kV distribution feeders from the Cross Road Substation and two 13.2 kV feeders from the Pine Street Substation in New Bedford (id. at 13). In the event of an outage on Line 109, the Company determined that the 6,900 customers served by the Fisher Road Substation would lose electrical service (id. at 15).[8]

[8] The loss of Line 109 would initially result in the service interruption of approximately 10,800 customers, however the load interrupted at the Cross Road Substation would be

Eversource represented that in the event of a fault on Line 109, the Company must perform 18 cascaded load transferring steps on its secondary supplies to completely restore customer loads served by Fisher Road Substation (Exh. EV-1, at 13). In contrast, at the Cross Road Substation service would be automatically restored by an ABR system in the event of such a contingency (id. at 15).[9] The Company estimated that this manual load switching process could take more than an hour because the Company must accurately implement 18 cascaded switching steps in a specific sequence (id. at 13; DPU-N-9). The Company indicated that this delayed customer load restoration process would violate SYS-PLAN 010 (Exh. EV-1, at 13).

Furthermore, Eversource indicated that even after distribution switching was carried out during a contingency, the five distribution circuits supplied by the Fisher Road Substation would exceed their LTE ratings (become overloaded) during present summer peak load conditions (Exh. EV-1, at 16). The Company estimated that in the event of an outage on Line 109, the Company would potentially shed 7.9 MW of load during 2018 summer peak load conditions and 11.8 MW by 2028 to relieve the overloaded circuits (id. at 17). The Company stated that in alleviating the LTE ratings violations on the distribution circuits supplied by the Fisher Road Substation, another circuit that supplies customers in Westport would become overloaded, resulting in extremely low primary distribution voltages (id. at 16–17). The Company also

automatically restored by its automatic bus restoration ("ABR") system, restoring service to approximately 3,900 customers (Exh. EV-1, at 15).

9 The Company explained that even if it replaced every switch involved in the 18 steps of cascaded transfers with a smart switch, the distribution capacity limits would still exist, especially at summer-peak-load conditions (Tr. 1, at 71). The Company explained that the existing distribution system does not have enough capacity to provide backup service to the load from Line 109 (id. at 64-65).

represented that additional outages could be expected as a result of conductor burndown from distribution circuits exceeding their LTE ratings (Exh. DPU-N-7). The Company concluded that distribution switching alone could not prevent all circuit overloads during a summer peak load fault on Line 109 (Exh. EV-1, at 17).

The Company pointed to another limitation of Line 109, as presently configured: an inability to interconnect growing amounts of distributed generation in the Dartmouth and Westport areas (Exh. EV-1, at 26). The Company reported that in the Fisher Road supply area, as of the fall of 2019, there are 14 distributed generation ("DG") applications in its interconnection queue totaling 46.8 MW (Exh. DPU-N-12). Ten of these DG applications still require system impact studies (id.). The Company anticipated additional interconnection requests under the Solar Massachusetts Renewable Target Program ("SMART Program") within Dartmouth and Westport (id.).[10] The Company stated that impact studies conducted show that the Line 109 outage is a limiting factor in incorporating new DG and that the Project is needed in order to accommodate the DG in queue (Exh. EV-1, at 26).

b. Analysis and Findings

Eversource maintains its bulk transmission system to withstand an N-1 contingency consistent with to NERC, NPCC and ISO-NE planning criteria (Exh. EV-1, at 9). While Line 109 is not governed by these organizations' standards because it is a radial line, the Company nevertheless applies the N-1 contingency requirement to Line 109 in order to ensure consistency across its transmission system (id.). The record shows that the loss of Line 109 is an

10 Eversource indicated that the majority of these interconnection requests were photovoltaic installations, including behind-the-meter and stand-alone, primary-metered systems (Exh. EV-1, at 25).

N-1 contingency event that would result in the distribution system violating a number of Eversource's system planning criteria (id. at 12). First, if the Company were to lose Line 109, an estimated 6,900 customers would lose service for approximately an hour until the Company responds using manual switching procedures (id. at 15). Second, at summer peak load conditions, even after distribution switching, the Company would shed 7.9 MW of load in 2018 and 11.8 MW in 2028 to prevent LTE ratings violations (id. at 17). In addition, no combination of distribution switching is able to prevent all circuits from exceeding their LTE ratings (id. at 17). Furthermore, the record shows that the Project would allow the Company to accommodate more DG interconnection requests in the area (id. at 26). Accordingly, the Department finds that the Company has demonstrated that the Project is needed and that the construction and operation of the Project would result in public benefits.

2. Alternatives Explored

Eversource presented five approaches in addition to its selected Project, including (1) non-transmission alternatives ("NTA"); (2) utility-scale generation and storage; (3) a distribution alternative; and (4) two transmission alternatives (Exh. EV-1, at 21).[11]

a. Non-Transmission Alternatives

Eversource identified the Fisher Road Substation as the only suitable injection point for NTAs because (1) it is supplied by a radial circuit and (2) would be isolated in the event of an outage on Line 109 (Exh. EV-1, at 23). The Company identified the following NTA measures

[11] Eversource stated that the no-build alternative would not address violations of the Company's planning criteria (Exh. EV-1, at 22-23). The Company explained that in the event of an N-1 contingency, 6,900 customers would experience delayed service restoration and 7.9 MW of load would be at risk on the distribution system (id. at 23).

that could address constraints at the Fisher Road Substation: energy efficiency ("EE"); demand response ("DR"); and distributed generation ("DG") (id. at 24–25). The Company reported that because 11.8 MW of load is at risk of being shed at summer peak load conditions post-contingency by 2028, an equal amount of NTA would have to be injected in order to satisfy distribution circuit LTE ratings (id. at 17, 23).[12] In order to maintain continuous service, the Company further stated that it would need to inject up to 26.2 MW to avoid the time-consuming distribution switching process (id. at 23–24). The Company characterized the ability for EE and DR savings to meet the 11.8 MW injection requirement as unrealistic, stating that existing programs would have to generate an additional 40 and 45 percent of savings respectively (id. at 24–25).[13,14]

Eversource also explained that DG, including solar photovoltaic ("PV") paired with storage, would not obviate the need for the Project because the majority of these resources go offline during an outage (Exh. EV-1, at 25, 27). Furthermore, the Company stated that many PV resources are not allowed to operate when connected to a circuit that they are not normally connected to, which would be the case after distribution circuit switching (id. at 27). The

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12 Eversource's forecast is adjusted for EE, solar, and large customer projects (i.e., DG and DR) (Exh. EV-1, at 11, 24). Therefore, any NTA resources would have to exceed what is already in the load forecast (id. at 24).

13 Eversource's load forecast already includes a five percent load reduction attributed to EE programs (Exh. EV-1, at 24). The Company noted that the 2018 CELT report projects only two percent reductions from DR in New England (id. at 25).

14 Eversource added that there were no new large customers in the area that could contribute meaningfully to reduction by DR, except for the University of Massachusetts ("UMass") Dartmouth which already has an existing 2-MW gas-fired combined heat and power unit, a 660-kW wind turbine, and various roof-mounted solar panels (Exhs. EV-1, at 15; DPU-PA-2).

Company explained that this rule ensures the safety of line crews responding to an outage and the safety of the general public (Tr. 1, at 85–86). The Company added that the outage of Line 109 would cause three large solar farms in the area to lose service (Exh. EV-1, at 15–16). The Company stated that DG that supplies 500 kW or more are connected to the grid by Eversource-owned reclosers, which automatically open during an outage, alongside the DG tripping offline (Tr. 1, at 87). The Company is able to close the recloser after circuits are returned to their normal configurations (id. at 88–89).

Furthermore, the Company stated that previously conducted system impact studies for existing DG identified a Line 109 outage as a risk to the operation of these DG resources (Exh. EV-1, at 26). While DG systems could theoretically operate as a micro-grid that is disconnected from the main grid, Eversource reported that only one such grid was planned in the Fisher Road Substation supply area and that it would only serve UMass Dartmouth (id. at 28).

b. Utility-Scale Generation and Storage Alternatives

Eversource stated that new utility-scale resources would not be allowed to connect in the area based on ISO-NE system impact study criteria without an additional transmission path out of the Fisher Road Substation (Exh. EV-1, at 29). Specifically, the Company noted that new generators would face similar adverse effects as new DG resources, such as light-load rise and voltage flicker (id.; Tr. 1, at 108). Furthermore, the Company stated that a new utility-scale generating resource, such as a battery or combined-cycle gas turbines, of the size required would be prohibitively expensive in part because of the need for land acquisition (Exhs. EV-1, at 2930; DPU-PA-12). The Company estimated that the battery option could cost $43 million, excluding land acquisition costs (Exh. EV-1, at 30).

c. Distribution Alternative

Eversource considered upgrades for the five 13.2 kV distribution circuits out of the Fisher Road Substation and stated that this alternative would not resolve all criteria violations (Exh. EV-1, at 30). The Company stated that while the upgrades would reduce the number of distribution switching steps, these upgrades would not prevent the loss of customers in the event of the loss of Line 109 (id. at 30–31).[15] The Company estimated that the distribution alternative would take five years and cost $16.3 million (-50%/+200%) (RR-DPU-2; RR-DPU-3). Further, the Company stated that this alternative would create more environmental impacts and affect more abutters (RR-DPU-3).

d. Transmission Alternatives

Eversource presented two transmission alternatives to the Project (Exh. EV-1, at 31). The first alternative is a 9.3-mile in-street underground cable from the Pine Street Substation in New Bedford to the Fisher Road Substation (id.). The Company estimated that this alternative would cost $180 million, excluding the property rights it would need to obtain around the Pine Street Substation and along the route (id.). The Company explained that the higher cost is due to longer route length, a required expansion around the Pine Street Substation, in-street civil work, additional environmental permitting, and mitigation measures for community impacts (Exh. DPU-PA-13). The Company anticipated that construction of this alternative would take 24 months longer than for the Project (Exh. EV-1, at 31).

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15 Eversource explained that distribution upgrades would consist of conductor upgrades to larger wires to improve thermal performance and replacing all switching devices to automatic switches (Tr. 1, at 73).

The second alternative is a 10.8-mile in-street underground cable from a National Grid-owned substation in Tiverton, Rhode Island, to the Eversource's Fisher Road Substation (Exh. EV-1, at 32). The Company estimated that this alternative would cost approximately $200 million, excluding substantial costs of new easement rights and additional substation equipment (id.). The Company stated that the higher cost of construction is because of the longer length of the alternative and the need to mitigate the crossing of five water bodies along the transmission route (Exh. DPU-PA-14).

e. Analysis and Findings

Eversource identified five alternative approaches to meeting the reliability needs of the Fisher Road Substation (Exh. EV-1, at 21). The record shows that the transmission system violates several Company planning criteria, and it shows that a no-build alternative would not meet the demonstrated need (id. at 23). The Company further demonstrated that it is unlikely EE or DR-based NTAs would be sufficient, while additional DG is limited in its ability to function during the N-1 contingency event (id. at 24–25, 27). Utility-scale generation resources and storage would not be able to satisfy ISO system impact study criteria needed to interconnect with the grid and are significantly more costly (id. at 29–30). Eversource reported that distribution upgrades would not be able to solve all the identified criteria violations, would create more environmental impacts, and would cost more (RR-DPU-2; RR-DPU-3). Finally, the two transmission alternatives have much higher costs and would take longer to construct, and they would result in more environmental impacts which would require more mitigation (Exhs. EV-1, at 31-32; DPU-PA-14).

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. Construction

The Company stated that it would install new steel monopole structures to support the transmission line along the ROW (Exh. EV-1, at 3). The Company would use three-pole structures for dead-end structures outside the substation (Exh. EV-4, at 2-4). The Company expects that it could construct at multiple locations simultaneously with multiple crews (id. at 2-2). The Company stated that its construction contractor would arrange one or more temporary staging areas in the vicinity of the Project for storing equipment and materials, or staging construction office trailers and worker parking (Exh. EV-1, at 33).

Eversource stated that it would carry out some vegetation removal in the ROW to prepare work areas, including removing approximately 77 trees (Exh. EV-11; Tr. 2, at 182–188) (see Section II.B.3., below). Eversource would also carry out minor grading of the ground surface and use construction matting in wetland crossing locations to provide level and safe access for construction (Exh. EV-1, at 33).[16] The Company committed to using existing gravel access roads within the ROW as primary access for construction work, and it may construct limited spur roads within the ROW to connect to proposed structure locations and provide continuous vehicle access along the ROW (id. at 34).

[16] Eversource explained that construction mats distribute heavy loads across a broad surface, allowing transportation of construction equipment across soft and unstable soils in wetlands (Exh. EV-4, at 2-3). The construction mats could either be heavy timbers, planking or other man-made materials (id.).

The Company stated that the work area surrounding a structure requires a level area, and it initially proposed to level the area using gravel work pads (Tr. 1, at 142–146).[17] Mr. Kelley asserted that this method inhibits the natural growth of vegetation when gravel is left in place at the work pad area after structure construction (Exh. WK-1, at 1). In response to Mr. Kelley's concerns, the Company represented that it would direct its contractors to use timber matting instead of gravel (Exh. WK-CM-1(R1); Tr. 1, at 142). Specifically, the Company committed to not using gravel work pads in the vicinity of Structure 40, which is adjacent to Mr. Kelley's property, under any circumstance (Exh. WK-CM-1(R1); Company Brief at 8, n.2).[18] The Company explained that in other areas, in the event that gravel is the only option to establish a level work area, it would place an geotextile fabric under the gravel to separate the gravel from the soil (Tr. 1, at 144).[19]

The Company also stated that it would dewater holes in and adjacent to wetland areas on a case-by-case basis depending on site conditions (Exh. DPU-CM-9). The Company would implement erosion control barriers according to its best management practices ("BMP") and establish a construction plan under the supervision of an environmental monitor (Exh. EV-4, at 2-3). Such mitigation measures may include straw wattle, silt fences, or straw bales (id.).

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17 The work area is usually 100 feet by 100 feet to allow contractor flexibility, but it could be smaller (Tr. 1, at 146).

18 During evidentiary hearings, Mr. Kelley stated that given the Company's commitment that it would not use gravel work pads in the location of Structure 40, his concerns about that issue have been addressed (Tr. 2, at 274–275).

19 Eversource stated that if it uses gravel work pads, the Company would remove them if removal is required to by a permit condition (Exh. DPU-CM-1).

As part of the Project, the Company would reconfigure a switch within the station fence line at the Cross Road Substation (Exh. EV-1, at 35). At the Fisher Road Substation, the Company would partially relocate an overhead distribution line underground to facilitate the introduction of the New Line into the Substation overhead by removing a three-pole distribution structure, installing a section of distribution cable underground in a duct, and installing a new transition pole for overhead to underground transition (id.). The Company indicated that the only work at the High Hill Switching Station, where Line 109 originates, would be to modify some relay settings in the control box (id.; DPU-G-1).

Eversource stated that it would restore all work sites to pre-existing conditions after construction is completed (Exh. EV-1, at 35). The Company indicated that it would retain the top twelve inches of wetland topsoil for re-use around the new poles to encourage natural revegetation (Exh. EV-4, at 2-4). The Company also committed to (1) removing all construction materials, trailers, and equipment upon completion of the Project and (2) restoring properties per agreement with landowners (Exh. EV-1, at 33). Finally, in response to a concern voiced by Mr. Kelley regarding prior Company construction practices where stumps were left in place after tree removal, the Company stated that it would cut any stumps so they are flush to the ground (Tr. 2, at 275–279).

Regarding community outreach, in early 2016 and again in 2018, representatives from the Company met with Dartmouth officials to inform them about the Project (Exh. EV-1, at 45). The Company also met with the Dartmouth Conservation Commission in February 2016 (id. at 46). In addition, the Company held public open houses regarding the Project on April 13, 2016, and August 8, 2018 (id.).

The Company said it will notify abutters of upcoming construction work through mailings (Exh. DPU-G-9). The Company will also conduct door-to-door outreach, outlining Project schedules and equipment delivery and providing contact information, including a 24-hour hotline number and email addresses (id.). Further, the public can access the Project website, which contains construction updates and contact information as well as links to the Department website (Exh. EV-1, at 46). The Company stated it will provide further details of construction plans and overall schedules to town officials as the Project advances, provide further presentations and outreach if requested, and maintain communication with town officials and neighbors throughout the duration of the construction (Exh. DPU-G-9).

b. Land Use Impacts

The Company characterized the land use adjacent to the ROW as consisting of agricultural areas (cranberry bogs), lower density residential, and municipal conservation land (Exh. EV-1, at 35). There are 13 residences within 100 feet of the edge of the ROW over the entire 5.1-mile route (Exh. DPU-LU-1).[20] None of the Project structures would be located within bogs; the Company would use existing access roads associated with the bogs for structure installation in other locations (Tr. 2, at 247-248).

In the Petition, the Massachusetts Environmental Policy Act ("MEPA") filings (the Environmental Notification Form ("ENF") and the Single Environmental Impact Review ("SEIR")), as well as answers to staff discovery, the Company indicated that no trees would be removed either within the ROW or outside of the ROW in conjunction with the Project (Exhs. EV-1, at 38; EV-4, at 2-2; DPU-V-1; DPU-V-3). In addition, the Company relayed

[20] There are 67 residences within 300 feet of the ROW (Exh. DPU-LU-1).

through open houses, door-to-door notification and discussions, and communication with the Town, prior to January 2020, that no trees would be removed (Exhs. DPU-V-1; DPU-G-5). The Company initially explained that the ROW had been cleared to its full width, and that only limited side trimming would be required (Exh. EV-1, at 38).

Based on a new boundary survey of the ROW easement in December 2019 and a ROW site walk with an arborist in January 2020, the Company now states that it would need to remove trees both within and outside of the ROW (Exh. DPU-LU-2(R1); Tr. 2, at 184, 191). The Company acknowledged that it should have conducted the survey earlier in the Project planning (Tr. 2, at 208-209).[21] Specifically, the Company would remove 77 trees within the ROW, along with other woody vegetation (Exh. EV-11; Tr. 2, at 182-188). Further, the Company would remove 209 trees considered to be danger/hazard trees from off-ROW; however, landowner permission is required before the Company can remove the off-ROW trees (Exhs. EV-12; EV-13; Tr. 2, at 190-195).[22] The Company indicated that it does not consider the number of off-ROW trees to be removed as significant because (1) the trees are spread along the 5.1 mile ROW; (2) many of them are adjacent to conservation, industrial, and cranberry-bog areas instead

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21 Originally, the edge of the ROW was not clearly delineated because some boundary markers were missing or relocated (Exh. DPU-LU-2(R1)). Accordingly, the vegetation management field personnel measured the "perceived edge" of the ROW by manually measuring from Line 109 (id.).

22 A danger tree is one that has the potential to grow to a height that could fall into an electric line (Exh. DPU-LU-2(R1); Tr. 2, at 192-193). A hazard tree is a danger tree that is compromised in some fashion (e.g., by disease or lightning strike) that makes the likelihood of it falling into the Company's infrastructure more probable (Exh. DPU-LU-2(R1); Tr. 2, at 192-193).

of residential areas; and (3) most are hazard trees (Company Brief at 44, citing Tr. 2, at 211, 226).

The Project area is not mapped as Priority or Estimated Habitat, and the Natural Habitat and Endangered Species Program ("NHESP") database does not contain any record of state-listed species in the immediate vicinity of the Project area (Exh. EV-1, Att. N).[23] In addition, the Company filed a notification form with the Massachusetts Historical Commission ("MHC"); and a subsequent Intensive Archeological Survey was completed with results submitted to the MHC in September 2016 (Exh. EV-1, at 42). The MHC issued a finding of "no historic properties affected" in October 2016 (id. at 42, Att. M).

c. Visual Impacts

The Company asserted that the Project would result in only minor changes to the views of most abutting residences (Exhs. EV-1, at 22; DPU-V-2(S1); Company Brief at 45). The Company indicated that it expects the visual impacts to be minimal because the new structures would be placed adjacent to the existing structures where practical (Exh. DPU-V-3(R1)). Furthermore, the proposed weathered steel finish of the new structures would be similar to the existing tangent wood structures and the same as the existing steel dead-end structures

[23] Although the Project is not located in an area of mapped state-listed species, the Company stated that it did encounter two box turtles during field investigations (Exh. EV-4, at 6-6; Tr. 2, at 256-257). The Company stated it has documented the findings and will be working with the NHESP to protect the turtles in this area (Tr. 2, at 256-257).

(Exh. DPU-V-3(R1)). The new structures for the New Line will be an average of 85 feet tall compared to the Line 109 existing structure average height of 62 feet (Exh. DPU-V-4(1)).[24]

The Company acknowledged that its removal of trees may result in additional change to the views of abutting residences (Exh. DPU-V-3(R1)). Based on before and after visual simulations of the Project area, the views from the Azalea Road residential area would be most affected (Exhs. DPU-V-2(S1)(1); EV-14). The Company reiterated that it would conduct outreach concerning the tree removal and provide reasonable visual mitigation for those affected by the Project (Exh. DPU-V-3(R1); Tr. 2, at 206-207). The Company provided examples of typical screening including trees, shrubs, window awnings, and fences (Tr. 2, at 207). The Company indicated that during the summer of 2018 it conducted door-to-door outreach and that to date it has not received any requests for visual mitigation (Exh. DPU-V-1-(R1)). However, the Company acknowledged that with the exception of Mr. Kelley, it has not conducted outreach that reflects the updated information about tree removal (Tr. 2, at 230-232).[25]

d. Wetlands and Water Resources

Of the 50 proposed structures, twelve would be located within wetland resource areas and 20 would require the use of temporary construction mats for access and/or to establish work areas (Exh. EV-1, at 36). The Company reported that impacts to Bordering Vegetated Wetlands ("BVW") associated with the construction of the new structures total 387 square feet of

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24 Of the 50 new structures for the New Line, 21 are between 92 and 103 feet tall (Exh. DPU-V-4(1)).

25 Mr. Kelley stated that due to the height and location of the new Structure 40, he would have a view of the structure regardless of whether trees were removed or not (Tr. 2, at 274). He noted that he has had an initial discussion with a Company-sponsored landscape architect and that discussions continue (id.).

permanent impacts and 275,127 square feet of temporary impacts (Exhs. EV-16, at 3; DPU-W-4; EV-4, at 5-4).[26] These figures included the temporary wetland impacts associated with the use of construction mats in wetland areas where tree removal would occur both on and off the ROW (Exh. EV-16, at 3; Tr. 2, at 204-205).

The Company stated that depending on conditions of the existing access roads, the roads may be maintained as necessary; but it would not construct new roads in wetlands (Tr. 1, at 127). Any access through the wetlands would require the use of construction matting (id.).

The Company would provide wetland replication at a minimum 1:1 ratio as detailed in a wetland replication plan it submitted to the Dartmouth Conservation Commission in its Notice of Intent (Exhs. DPU-W-3; EV-15, at 6). The replication area consists of 400 square feet at the Cross Road Substation site and is included in Dartmouth's approved Order of Conditions (Exhs. DPU-W-3; DPU-W-1(S1)(1)).

Approximately 1,400 linear feet of the Project in the vicinity of Chase Road is located within a Zone II Wellhead Protection Zone (Exhs. EV-1, at 38-39; DPU-W-5). The Company noted that utility projects are allowed in this Zone under the Dartmouth Aquifer Protection Regulations of the Dartmouth Zoning Bylaw (Exh. EV-1, at 37; Company Brief at 42). The Company would require that all construction equipment have spill containment kits and absorption materials readily available (Exh. DPU-W-5). All refueling activities, major equipment maintenance, and parking will be conducted more than 100 feet from wetlands,

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[26] The Company originally reported 195,617 square feet of temporary impacts to BVW associated with the construction of the new structures, prior to the additional tree clearing (Exhs. DPU-W-4; EV-4, at 5-4).

including the Zone II and wetland buffer zones, with the possible exception of large, less-mobile or fixed equipment, which would then include containment (id.; Exh. EV-15, at 7).

The Company explained that the only MEPA threshold related to wetland impacts is associated with construction matting (Tr. 2, at 204-205; Company Brief at 42).[27] Since the filing of the SEIR and the August 30, 2019 issuance of the Secretary's Certificate on the SEIR, the Company has updated the number of trees that must be removed both on and off the ROW for construction of the Project as discussed above (Exhs. DPU-LU-2(R1); EV-15). The Company filed a Notice of Project Change with MEPA on March 27, 2020, to reflect the additional tree removal (Exh. EV-16, at 6). On May 8, 2020, the Secretary issued a Certificate on the Notice of Project Change, determining that the project change does not require a Supplemental Environmental Impact Report and, therefore, no further MEPA review is required (Exh. EV-17, at 1, 5).

The Town of Dartmouth Conservation Commission issued an Order of Conditions for the Project on November 19, 2019 (Exh. DPU-W-1(S1)). Given the additional matting needed for the updated tree removal activities in wetlands, the Company filed a change request for the Order of Conditions with the Dartmouth Conservation Commission on February 24, 2020 (RR-DPU-6; Tr. 2, at 221). On March 2, 2020, the Dartmouth Conservation Commission approved the change request with no change to the Order of Conditions (RR-DPU-6(S1)).[28]

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[27] The Company explained that under MEPA regulations, whenever there is an increase of 25 percent or more of impacts that were calculated as part of an Environmental Impact Report ("EIR"), an applicant must file a notice of project change, and here the amount of matting that would be necessary for the tree removal is 40.6 percent (Exh. EV-16, at 3; Tr. 2, at 205).

[28] The approval of the change request included the following directives to the Company: written approval from property owners for removal of off-ROW trees; on-site compliance

e. Traffic

The Company explained that there may be temporary traffic impacts associated with material delivery, large equipment movement to the ROW, and conductor and shield wire stringing (Exh. EV-1, at 40). The Company stated that the volume of construction traffic is not expected to significantly affect traffic flow (Exh. EV-1, at 40). However, there will be an aerial crossing of Route 6, which needs a permit from Massachusetts Department of Transportation ("MassDOT") and will be conducted under MassDOT-approved traffic management plans (Exh. DPU-T-1). The Company indicated that the work over Route 6 would occur over a maximum of three nights (Tr. 2, at 265). The Company will prepare a traffic management plan and post it to the Eversource website closer to the beginning of Project construction (Exh. DPU-G-5).

f. Noise

The Company stated that noise impacts from the Project would be temporary and only occur during construction (Exh. EV-1, at 38). Construction noise would be generated by worksite preparation, foundation construction, structure assembly and line stringing, and delivery of materials (id.). The Company committed to use construction methods that reduce noise by requiring construction equipment that meets all regulatory requirements, operating only necessary equipment during the construction process, and directing its contractors to strictly adhere to work hours (Exh. DPU-NO-4).

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monitor present during tree removal; and coordination with Conservation Commission staff during tree removal (RR-DPU-6(S1)).

Typical sound levels from all construction equipment at a reference location of 50 feet away would range from 70 A-weighted decibels ("dBA") to 98 dBA (Exh. DPU-NO-3). The Company identified that the nearest abutter is 194 feet from any structure (id.). The Company stated that construction noise impacts at any given receptor along the ROW would be limited due to the linear construction schedule and, therefore, construction noise at any one location would be brief and intermittent over the construction period (Exh. EV-1, at 39). The Company indicated that it does not anticipate helicopter installation for conductor stringing, except to span locations such as busy roadways (Exh. DPU-CM-7; Tr. 1, at 152-153). The Company stated it does not anticipate that blasting will be required for the Project (Exh. DPU-CM-4; Tr. 1, at 134-138).

The Company proposed to perform construction during weekday hours, Monday through Friday, from 7:00 a.m. to 8:00 p.m., or when daylight ends (Exh. DPU-NO-1; Tr. 2, at 259).[29] The Company noted that a sixth workday is often needed to keep on schedule due to weather and other delays (Exh. DPU-NO-1). None of the work proposed for the Project requires continuous 24-hour construction (Tr. 2, at 262). However, concrete pours, which can last six to eight hours must be completed once started; it is the Company's goal to start the pours early enough to be completed within a normal workday schedule (id. at 263). The Company explained that it would discuss these issues with the Town and formalize works hours and days during the grant of location process (Exh. DPU-NO-1; Tr. 2, at 259-260).

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[29] Section 250-4 of the Town of Dartmouth noise bylaw provides that construction activity is allowed between the hours of 7:00 a.m. and 8:00 p.m. on weekdays (Exh. DPU-NO-1(1)). The Company noted that work is allowed outside of those hours with a permit from the Building Department and if Saturday work is required, the Company would apply for this type of permit (id.).

g. Air, Safety, Hazardous Waste and Solid Waste

The Company committed to use USEPA-verified (or equivalent) emission control devices, such as oxidation catalysts or other comparable technologies, in all diesel-powered non-road construction equipment rated 50 horsepower or above that would be used for 30 or more days over the course of the Project (Exh. EV-1, at 39). Eversource will comply with Massachusetts Department of Environmental Protection ("MassDEP") regulations set forth at 310 CMR 7.11(1)(b) that limit vehicle idling (Exh. EV-4, at 7-3, 9-11). The Company stated that in accordance with best management practices, it would control dust at the construction site by maintaining reasonable construction vehicle speeds during dry conditions and spraying water (Exh. EV-1, at 39). In areas where construction vehicles are exiting onto public roads, the Company would require regular road sweeping to remove tracked-out soils, thus, minimizing conditions that create dust (id.).

The Company would require each of its contractors to submit a Project Safety Plan that meets the Eversource's safety requirements, as well as those of the Occupational Safety and Health Administration ("OSHA") and other regulatory agencies (Exh. DPU-S-1). For all elements of construction work, construction workers will be subject to all Company safety protocols, including safety meetings, pre-work briefings, insulation and isolation of electrical equipment, and sheeting of excavations (id.). Further, the Company would require its contractors to provide a dedicated safety individual on site to ensure compliance with all safety means and methods, and a Company safety employee would conduct random safety inspections (id.).

Project earthwork would be limited to excavations for the structure foundations and for counterbalance as well as some grading work to construct and improve access roads and prepare

work areas (Exh. EV-1, at 44). The Company indicated that there are no MassDEP-reportable release contaminated sites identified within the ROW (id. at 44-45).

The Company maintains a 24/7 oil and hazardous materials release notification program (Exh. DPU-HW-1). The Company will adhere to its spill prevention and mitigation plan, which is detailed in its Massachusetts Oil and Hazardous Material Spill Handbook (February 2019) (Exh. DPU-HW-2(1)).

The Company stated that it would ensure that its contractor is responsible for policing any laydown areas and construction sites for removal of waste materials (Exh. DPU-HW-3). In addition, solid waste will be disposed of in accordance with applicable regulations and will not be left on site (id.).

h. Magnetic Fields

The Company modeled changes to magnetic fields associated with the proposed Project; the magnetic fields were calculated with and without the Project, under average annual load conditions and at annual peak load (Exh. EV-1, at 40-41, Att. L).

Table 1. Calculated Magnetic Field Levels (mG) Near Proposed Transmission Facilities

System Load Condition	Cross Section/Route Segment	Western Edge of ROW		Maximum w/in ROW		Eastern Edge of ROW	
		Without Project	With Project	Without Project	With Project	Without Project	With Project
Average Annual Load	Cross Rd. SS to State Rd.	1.8	1.3	12.2	9.7	1.2	2.0
	State Rd. to UMass	2.9	1.5	8.9	3.7	0.7	1.6
	UMass to Fisher SS	3.3	2.1	9.1	4.6	1.1	2.2
Annual Peak Load	Cross Rd. SS to State Rd.	3.6	2.6	23.6	19.5	2.3	3.9
	State Rd. to UMass	5.8	3.0	17.7	7.3	1.3	3.2
	UMass to Fisher SS	7.0	4.2	18.8	9.2	2.6	4.4

Source: Exh. EV-1, Att. L at 13.

The Company noted that the results of the modeling show that the Project would contribute to small increases in magnetic field values at the eastern ROW edge due to the location of the New Line's conductors on the eastern side of the ROW, but reduce values at the western ROW edge and within the ROW (Exh. EV-1, Att. L at 4). The reduction in magnetic field levels at the western edge of the ROW and the maximum in the ROW results from the cancellation of magnetic fields due to the placement of the New Line conductors (id.). There are no residences within 25 feet of the edge of the ROW and three residences within 25 to 50 feet of the ROW; the closest residence is 39 feet (Exhs. DPU-LU-1; DPU-NO-3). The Company noted that magnetic fields drop as distance increases from the ROW; beyond 25 feet from the edge of the ROW the dominant source of magnetic fields would likely be other sources, such as distribution lines and wiring, and appliances within homes (Tr. 2, at 174).

The Company stated that it is reasonable to conclude that the Project will not have a significant effect on magnetic fields (Company Brief at 51).

i. Analysis and Findings

The Company will construct the New Line including 50 new structures in 5.1 miles of an existing ROW. Surrounding land uses include agricultural areas (cranberry bogs), lower density residential, and municipal conservation land (Exh. EV-1, at 35). Construction of the Project will neither change land use in the area nor impact habitat or historical resources (Exh. EV-1, at 42, Att. M, Att. N).

During structure construction, the Company has agreed that in order to avoid the impacts of gravel removal on vegetation within the ROW it would use timber matting and not gravel work pads to level the work area, except when not feasible (Exh. DPU-CM-1(R1)). Further, as requested by Mr. Kelley, Eversource would not use gravel work pads around Structure 40, which abuts his property (id.). The Department directs the Company to not use gravel work pads during any phase of the installation of Structure 40. Further, the Department directs the Company to use timber mats instead of gravel work pads where feasible during construction of all other structures along the Project ROW.

As noted above, the Company has revised its original Project to now include tree clearing within and outside the complete length of the ROW. Previously, the Company represented to the Town, residents, and abutters that there would be no tree clearing as the ROW had been cleared edge-to-edge (Exh. EV-1, at 38). The Company made the same representation to state agencies in prior filings (Exhs. EV-1, at 38; EV-4, at 2-2). The Company would now remove 77 trees within the ROW and 209 danger and hazard trees outside of the ROW (Exhs. EV-11; EV-12). Some areas of tree clearing will now fall within BVW resources, requiring the use of

construction mats, thereby increasing temporary impacts in these wetland resource areas (Exh. EV-4, at 2-3). While the visual impacts from the tree removal may not be significant, given the location of the trees and the limited residential land use abutting the ROW, there are now increased temporary wetland impacts.

The Department is concerned with the timing of the revision, given that the public was assured that there would be no tree removal. Had Mr. Kelley not requested additional review in the vicinity of his property, the need for additional tree removal associated with the Project might not have come to light in this proceeding. The Department expects the Company to provide accurate boundary measurements for ROWs and parcels to properly assess numerous environmental impacts and inform the public early in the review process. These actions should be undertaken well prior to public presentations and filings with the Department. To address this late revision, the Department directs the Company to create an updated information sheet regarding the Project that describes the increase in tree clearing and to post this information sheet to the Project website. In addition, prior to construction, the Company must notify by direct mail or hand-delivery all residents within 300 feet of the ROW in areas where there is proposed tree cutting.

The general visual appearance of the ROW would not be altered as a result of the Project. The Project would be constructed within an existing ROW and the addition of a second transmission line within the ROW would not appreciably change the visual character of the ROW (Exh. DPU-V-3(R1)). Further, much of the line is located in areas away from residences (Exh. EV-1, at 35). However, the new structures are taller than the existing structures, and the addition of several of the new structures would be discernable to a number of residences,

especially in the locations closer to the Cross Road Substation (Exh. DPU-V-4(1)). The Company and a landscape architect have met with Mr. Kelley of Azalea Road and the Department expects that additional landowners would benefit from the same consultation (Tr. 2, at 274). Therefore, the Department directs the Company to work with individual landowners to provide off-site screening in a reasonable manner for properties where the Project affects the landowner's viewshed. As discussed above in response to a concern by Mr. Kelley and the Company's commitment regarding maintenance of the areas where tree removal occurs, the Department directs the Company to provide that the remaining tree stumps associated with tree removal are cut flush with the ground.

The Project will create both temporary and permanent impacts on wetland resource areas. The Project will create limited permanent impacts on wetland resources and will include, as approved in the Dartmouth Order of Conditions, a wetland replication project for the approximately 400 square feet of permanent impacts to BVW (Exh. DPU-W-3). Based on the expansion of tree clearing in wetland areas, which necessitates the use of construction matting, the Project is currently projected to create 275,127 square feet of temporary impacts to BVW, but will not cause any permanent wetland impacts (Exh. EV-16, at 3). To addresses the increase in temporary wetland impacts the Company received an approval from the Dartmouth Conservation Commission for a change to its Order of Conditions (RR-DPU-6(S1)).

In accordance with G.L. c. 30, § 61 ("Section 61"), if an EIR is required, the Department is precluded from issuing any Orders, including a Section 72 approval, without a Secretary's Certificate determining that an EIR adequately and properly complies with MEPA and its implementing regulations (see Section III, below). Here, the Secretary's Certificate on the SEIR

was issued August 30, 2019. In the intervening period, the Company revised the Project such that additional tree clearing is required within and outside of the ROW. The Company filed a Notice of Project Change with MEPA on March 27, 2020, and on May 8, 2020, MEPA determined that no further environmental review is required (Exhs. EV-16; EV-17).

The Town of Dartmouth's noise ordinance permits a construction from 7:00 a.m. to 8:00 p.m. Monday through Friday (Exh. DPU-NO-1(1)). Eversource has stated that it expects to conduct its construction Monday through Friday between 7:00 a.m. to 8:00 p.m., with the exception of certain limited special circumstances (Exh. DPU-NO-1). The Company has not yet discussed construction hours with the Town (Exh. EV-1, at 35). To avoid potential disturbance during evening hours, the Department directs the Company to follow a construction schedule of Monday through Friday from 7:00 a.m. to 6:00 p.m. 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 Town of Dartmouth prior to the commencement of such work and to provide the Department with a copy of such permission. If the Company and the Town are not able to agree on extended construction hours, 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 relevant municipal authorities 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 of Dartmouth, work that continues past the extended hours allowed. The Company shall also send a copy to the Department, within 72 hours of receipt, of any authorization for an extension of work hours. 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 of Dartmouth, work that continues past the extended hours allowed, and must submit such record to the Department within 90 days of Project completion.

The Company has committed to use USEPA-verified (or equivalent) emission control devices 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, and the Project will comply with idling restrictions imposed by MassDEP (Exh. EV-1, at 39). Further, the Company will implement BMPs such as watering, sweeping, and speed limit restrictions to prevent dust (id.). Finally, with the implementation of a traffic management plan, the Department sees no significant traffic impacts (Exh. DPU-G-5).

With respect to magnetic fields, the identified increases in magnetic fields from the installation of the New Line are minimal on the eastern edge of the ROW; and magnetic field levels are reduced along the western edge of the ROW and within the ROW (Exh. EV-1, Att. L at 13). Further, magnetic field levels decrease as distance increases from the edge of the ROW; and here there are no residences within 25 feet of the ROW edge and only three residences within 25 to 50 feet of the ROW (Exhs. DPU-LU-1; DPU-NO-3). Therefore, the predicted post-project magnetic field levels either decrease or show minimal changes from pre-project levels, and they are relatively low compared with other projects approved by the Department and the Energy Facilities Siting Board. See, e.g., New England Power Company d/b/a National Grid, D.P.U. 15-44/15-45, at 47 (2016) ("MVRP"); NSTAR Electric Company d/b/a Eversource

Energy, D.P.U. 14-08, at 22 (2015); NSTAR Electric Company d/b/a Eversource Energy, EFSB 16-02/D.P.U. 16-77, at 65 (2018).

Finally, to ensure that information about construction and operation of the Project is disseminated widely within the community, the Department directs the Company, in consultation with the Town, to develop a community outreach plan for Project construction and operation. The outreach plan should, at a minimum, lay out procedures for providing prior notification to affected residents of the following: (1) the scheduled start, duration, and hours of construction; (2) any construction that must take place outside the normal hours or days indicated above; (3) any operation the Company intends to conduct that could result in unexpected community impacts due to unusual circumstances; and (4) complaint and response procedures, including contact information.

The Department concludes that the impacts of the Project will be minimized by 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.

C. 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.

III. SECTION 61 FINDINGS

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 CMR 11.01(3), Section 61 findings are necessary when an EIR is submitted to the Secretary of Energy and Environmental Affairs ("EEA Secretary") and should be based on such EIR. Where an EIR is not required, Section 61 findings are not necessary. 301 CMR 11.01(3).

On February 1, 2019, the EEA Secretary issued a Certificate on the expanded environmental notification form ("EENF") (Exh. EV-1, Att. P).[30] This certificate required the Company to submit a Single Environmental Impact Report ("SEIR") (Exh. EV-1, Att. P at 1-10). Consequently, this Order must contain Section 61 findings.

The Company filed an SEIR on July 26, 2019 (Exh. EV-4). The Secretary issued the Certificate on the SEIR on August 30, 2019, determining that the SEIR adequately and properly complies with MEPA and its implementing regulations (Exh. EV-15). The Secretary subsequently issued a Certificate on May 8, 2020, determining that the Notice of Project Change filed March 27, 2020, adequately and properly complies with MEPA and its implementing regulations and requires no further MEPA review (Exh. EV-17, at 5).

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30 The Certificate on the EENF noted that the Project is subject to the MEPA Greenhouse Gas Policy and Protocol ("GHG Policy") because it exceeds the threshold for a mandatory EIR (Exh. EV-4, at 6). However, given the nature of the Project, the Project falls under the de minimis exemption and is not required to prepare a GHG analysis (id.). In accordance with the Certificate, the Project incorporated measures to avoid and minimize GHG emissions and air pollutants during the construction period (see Section II.B.3.g, above) (id.).

The record contains, and the Siting Board has reviewed, the MEPA documents submitted by the Company, including the EENF, the SEIR, and the Notice of Project Change for the Project, as well as the Secretary's Certificates and comments filed by the public and by other reviewing agencies regarding these documents. As specifically required by MEPA, the Department has (1) reviewed the SEIR for the Project; (2) evaluated and determined the impact of the Project on the natural environment; and (3) specified in detail in this Order measures to be taken by Eversource to avoid damage to the environment or, to the extent damage to the environment cannot be avoided, to minimize and mitigate damage to the environment to the maximum extent practicable. Accordingly, as provided by MEPA, the Department finds that all feasible measures have been taken to avoid or minimize the environmental impacts of the proposed Project. G.L. c. 30, § 61; 301 CMR 11.2(5).

IV. ORDER

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

ORDERED: That the petition of Eversource seeking approval to construct and operate a transmission line pursuant to G.L. c. 164, § 72, is granted; and it is

FURTHER ORDERED: That Eversource not use gravel work pads during any phase of the installation of Structure 40. Further, the Department directs Eversource to use timber mats instead of gravel work pads where feasible during construction of all other structures along the Project ROW; and it is

FURTHER ORDERED: That Eversource provide an updated information sheet regarding the Project describing the increase in tree clearing and post the revised information sheet to the its Project website; and Eversource must give notification to all affected residents by direct mail or hand-delivery; and it is

FURTHER ORDERED: That Eversource work with individual landowners to provide off-site screening in a reasonable manner on properties where the Project affects the landowner's viewshed; and it is

FURTHER ORDERED: That Eversource provide that the remaining tree stumps associated with tree removal are cut flush with the ground; and it is

FURTHER ORDERED: That Eversource file with the Department a copy of the Town of Dartmouth Conservation Commission Order of Conditions addressing the field project change prior to the commencement of construction; and it is

FURTHER ORDERED: That Eversource limit construction to Monday through Friday from 7:00 a.m. to 6:00 p.m. 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), Eversource is directed to seek written permission from the relevant Town of Dartmouth authorities prior to the commencement of such work and to provide the Department with a copy of such permission. If Eversource and Town of Dartmouth officials are not able to agree on such extended construction hours, Eversource may request prior authorization from the Department and provide the Town with a copy of such request; and it is

FURTHER ORDERED: That Eversource shall inform the Department and the Town of Dartmouth 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. Eversource shall also send a copy to the Department, within 72 hours of receipt, of any authorization for an extension of work hours. Furthermore, Eversource 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 of Dartmouth, work that continues past the hours allowed, and must submit such record to the Department within 90 days of Project completion; and it is

FURTHER ORDERED: That Eversource shall, in consultation with the Town of Dartmouth, to develop a community outreach plan for Project construction and operation. The outreach plan should, at a minimum, detail procedures for providing prior notification to affected residents of (1) the scheduled start, duration, and hours of construction; (2) any construction that must take place outside the hours or days indicated above; (3) any operation Eversource intends to conduct that could result in unexpected community impacts due to unusual circumstances; and (4) complaint and response procedures including contact information; and it is

FURTHER ORDERED: That Eversource and its contractors and subcontractors comply with all applicable federal, state and local laws, regulations, and ordinances; and it is

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

FURTHER ORDERED: That Eversource and its successors in interest shall 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 change; and it is

FURTHER ORDERED: That within 90 days of Project completion, Eversource shall 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 because the issues addressed in this Order relative to this Project are subject to change over time, construction of the Project must commence within three years of the date of this Order; and it is

FURTHER ORDERED: That Eversource and its successors in interest shall comply with all other directives contained in the Order; and it is

FURTHER ORDERED: That the Secretary of the Department transmit a certified copy of this Order and the Section 61 findings herein to the Executive Office of Energy and Environmental Affairs, that the Secretary of the Department transmit a certified copy of this Order to the Town of Dartmouth Town Clerk, and that the Company serve a copy of this Order on the Dartmouth Board of Selectmen and the Dartmouth Department of Public Works within five business days of its issuance and certify to the Secretary of the Department within ten business days of its issuance that such service has been accomplished.

By Order of the Department:

Matthew H. Nelson, Chair

Robert Hayden, Commissioner

Cecile M. Fraser, 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.