

J. Raymond Miyares
Thomas J. Harrington
Christopher H. Heep
Donna M. Brewer
Jennie M. Merrill

Rebekah Lacey
Ivria Glass Fried
Eric Reustle
Blake M. Mensing

February 24, 2017

VIA FIRST CLASS MAIL AND E-MAIL

M.Kathryn Sedor, Presiding Officer
Energy Facilities Siting Board
One South Station,
Boston, MA 02110

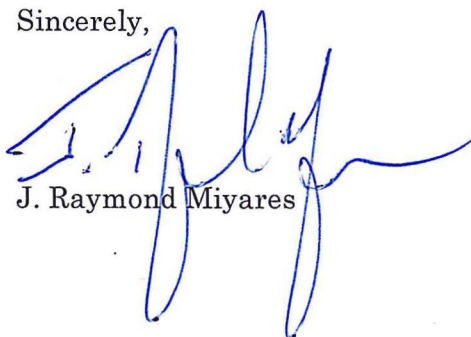
Re: NSTAR Electric Company d/b/a/Eversource Energy,
EFSB 16-02/D.P.U. 16-77

Dear Ms. Sedor:

On behalf of the Town of Needham, enclosed for filing is the Town's second set of Document and Information Requests to NSTAR Electric Company.

Enclosed also is a certificate of service. Thank you for your attention to this matter. If you have any questions or concerns, please do not hesitate to contact me.

Sincerely,



J. Raymond Miyares

cc: Service List

**COMMONWEALTH OF MASSACHUSETTS
ENERGY FACILITIES SITING BOARD**

Petition of NSTAR Electric Company d/b/a/
Eversource Energy for Approval to Construct
and Maintain a New 115-kV Combination
Overhead/Underground Transmission Line in
West Roxbury, Dedham and Needham
Pursuant to G.L. c. 164 § 69J

EFSB 16-02/D.P.U. 16-77

**THE TOWN OF NEEDHAM'S
SECOND SET OF DOCUMENT AND INFORMATION REQUESTS
TO NSTAR ELECTRIC COMPANY**

Instructions and Definitions

These Document and Information Requests incorporate by reference in full the Instructions and Definitions set forth in the Town of Needham's First Set of Document and Information Requests.

Document and Information Requests

TON-2-001: Please refer to the *Greater Boston Area Transmission Needs Assessment*, Appendix 2-1 to the Analysis to Support Petition before the Energy Facilities Siting Board at page 3, which states that "[t]he results of the analysis provided in this report have been organized by subareas to facilitate geographic orientation of the information. A set of defined subareas was developed based on a review of the thermal and voltage violations."

- (a) Please identify each subarea referenced in this document that includes the Town of Needham.
- (b) Please identify all communities included in each subarea identified in response to Part (a) above.
- (c) Please describe the results of the Needs Assessment analysis for each subarea identified in response to Part (a) above.
- (d) Does the Needs Assessment analysis conclude that there are any thermal overloads or unacceptable voltages in any subarea identified in response to Part (a) above? If so, please provide:

1. The number and location of thermal overloads; and
 2. The number and location of unacceptable voltages.
- (e) If a Needs Assessment was performed specific to the Town of Needham, please provide the number of thermal overloads and unacceptable voltages found to exist in the Town of Needham.
- (f) Please provide a copy of the Needs Assessment analyses performed for the for each subarea identified in response to Part (a) above and for the Town of Needham specifically.

TON-2-002: Please refer to the *Electric and Magnetic Field (EMF) Modeling Analysis for the West Roxbury to Needham Reliability Project* (hereinafter, the “EMF Report”), Appendix 5-8 to the Analysis to Support Petitions before the Energy Facilities Siting Board at page 1 that “EMF impacts were modeled for several representative overhead and underground line cross-sections using projected non-emergency summer peak and average transmission line loadings provided by Eversource for the year 2018.”

- (a) Please provide the maximum design load for each transmission line proposed to be sited through the Town of Needham.
- (b) Please provide the design lifetime of each such proposed transmission.
- (c) For each such proposed transmission line, please provide projections of non-emergency summer peak and average transmission line loadings for the year 2018 and for each year thereafter during the design lifetime of the transmission line.
- (d) For each such proposed transmission line, please provide anticipated bin data for loading levels, *i.e.*, relating to the fraction of time that loading levels will exist at various points between zero and 100% design load.

TON-2-003: Please refer to the *Electric and Magnetic Field (EMF) Modeling Analysis for the West Roxbury to Needham Reliability Project* (hereinafter, the “EMF Report”), Appendix 5-8 to the Analysis to Support Petitions before the Energy Facilities Siting Board.

- (a) Please identify the specific populations that may be exposed to EMF, including the locations of pedestrian traffic ways and residential, educational and commercial structures along the preferred route variations and the proximity of the proposed transmission line and conductors in relation to such ways and structures.
- (b) Is the International Commission on Non-Ionizing Radiation Protection (ICNIRP) guideline used by Gradient alone sufficient to: (1) judge the

likelihood of health risks from the projected magnetic EMF levels; and (2) determine if the levels and potential for exposure should be further mitigated?

TON-2-004: Please refer to page 1-11 of the Analysis to Support Petitions before the Energy Facilities Siting Board, which states that “[t]he proposed underground cable will consist of three 3,500 kcmil XLPE-insulated cables in individual High Density Polyethylene (“HDPE”) conduits. The duct bank will consist of four 8 5/8-inch-diameter Polyvinyl Chloride (“PVC”) conduits, as well as two 4-inch- diameter PVC conduits, and two 2-inch-diameter PVC conduits to carry communications lines and ground continuity conductors.

- (a) Please explain all anticipated uses of the fourth conduit referenced in this statement, which will not be carrying cables.
- (b) Please explain how use of the fourth conduit could affect above-ground levels of EMF associated with the proposed transmission lines.

TON-2-005: Please refer to Section 4.5.2.2 of the Analysis to Support Petitions Before the Energy Facilities Siting Board. On page 4-61, it is stated that “[t]he Company developed scoring for each of the Candidate Routes and their Variations using a standardized approach.” Please identify the source for the standardized approach referenced in this statement.

TON-2-006: Please refer to Section 4.5.2.3 of the Analysis to Support Petitions Before the Energy Facilities Siting Board.

- (a) Please refer to Table 4-3 on page 4-69, which presents a “Total Raw Ratio Score” for each alternative evaluated. Please describe the objective factors for each component of the Total Raw Ratio Score, and explain how each component was assigned a value. For example, what criteria were used to distinguish a raw value of 1 versus a value of 0.5, for each component to which a value was assigned?
- (b) Please describe the objective factors for each assigned weight within each criterion set forth in Section 4.5.2.3. For example, and by way of clarification only, what is the basis for determining that historic resources have an assigned weight of 1 and high impact crossings have an assigned weight of 3?
- (c) Please refer to page 4-69, where it states that “the majority of scoring criteria reflect the evaluation of temporary, rather than permanent, impacts.” Please explain why permanent impacts are not reflected in the analysis with respect to portions of the route in densely residential areas. Please explain why the weighted score of criteria should not be more affected by impacts of longer duration than impacts of shorter duration.

TON-2-007: Please provide all documents that show how the raw and weighted scores were assigned to all criteria presented in Section 4.5 of the Analysis.

TON-2-008: Please identify, by lot reference to the Assessors Maps of the Town of Needham, the record owners and current uses of all parcels of land located in the Town of Needham through which the Company's preferred transmission route will pass.

- (a) For all such parcels of land, please identify by lot reference to the Assessors Maps of the Town of Needham all parcels subject to Article 97 of the Articles of Amendment to the Constitution of the Commonwealth of Massachusetts;
- (b) Please provide a map that displays the Company's preferred transmission route and shows the lot references on the Assessors Maps of the Town of Needham.

TON-2-009: Please identify, by lot reference to the Assessors Maps of the Town of Needham, the record owners and current uses of all parcels of land located in the Town of Needham through which the Company's preferred transmission route variations will pass.

- (a) For all such parcels of land, please identify by lot reference to the Assessors Maps of the Town of Needham all parcels subject to Article 97 of the Articles of Amendment to the Constitution of the Commonwealth of Massachusetts;
- (b) Please provide a map that displays the Company's preferred transmission route variations and shows the lot references on the Assessors Maps of the Town of Needham.

TON-2-010: Please identify, by lot reference to the Assessors Maps of the Town of Needham, the record owners and current uses of all parcels of land located in the Town of Needham through which the Company's noticed alternative transmission route will pass.

- (a) For all such parcels of land, please identify by lot reference to the Assessors Maps of the Town of Needham all parcels subject to Article 97 of the Articles of Amendment to the Constitution of the Commonwealth of Massachusetts;
- (b) Please provide a map that displays the Company's noticed alternative transmission route variations and shows the lot references on the Assessors Maps of the Town of Needham.

TON-2-011: Please identify all easements, including sub-easements, that the Company expects to acquire from the Town of Needham for each of the following:

- (a) The preferred transmission route;
- (b) The preferred transmission route variations; and

(c) The noticed alternative transmission route.

TON-2-012: Please identify all easements, including sub-easements, that the Company expects to acquire from an entity other than the Town of Needham for each of the following:

(a) The preferred transmission route;

(b) The preferred transmission route variations; and

(c) The noticed alternative transmission route.

TON-2-013: Please refer to Section 1.9, p. 1-12, of the Analysis to Support Petitions Before the Energy Facilities Siting Board, generally describing the project's public benefits. Please describe specifically whether, and in what manner, the project will directly benefit the Town of Needham or its ratepayers.

TOWN OF NEEDHAM,
By its attorneys,



J. Raymond Miyares, BBO #350120

Eric Reustle, BBO #681933

Miyares and Harrington LLP

40 Grove Street • Suite 190

Wellesley, MA 02482

t: (617) 489-1600

f: (617) 489-1630

Dated: February 24, 2017

COMMONWEALTH OF MASSACHUSETTS
ENERGY FACILITIES SITING BOARD

Petition of NSTAR Electric Company d/b/a/
Eversource Energy for Approval to Construct
and Maintain a New 115-kV Combination
Overhead/Underground Transmission Line in
West Roxbury, Dedham and Needham
Pursuant to G.L. c. 164 § 69J

EFSB 16-02/D.P.U. 16-77

CERTIFICATE OF SERVICE

I certify that I have this day served the foregoing upon the Energy Facilities Siting Board and the Service List in the above-docketed proceeding in accordance with the requirements of 980 CMR 1.03 (Siting Board's Rules of Practice and Procedure).


J. Raymond Miyares, BBO #350120
Eric Reustle, BBO #673908
Miyares and Harrington LLP
40 Grove Street • Suite 190
Wellesley, MA 02482
t: (617) 489-1600
f: (617) 489-1630

Dated: February 24, 2017