



# The Commonwealth of Massachusetts

## DEPARTMENT OF PUBLIC UTILITIES

D.P.U. 08-1

September 25, 2009

Petition of NSTAR Electric Company pursuant to G.L. c. 164, § 72, for approval to relocate a portion of two transmission lines in the City of Waltham, and Petition pursuant to G.L. c. 40A, § 3 for exemption from the Zoning By-Laws of Waltham to construct an electric substation and expand facilities at an existing substation.

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## I. INTRODUCTION

### A. Description of Proposed Project

On January 4, 2008, the Petitioner, NSTAR Electric Company (“NSTAR” or the “Company”), filed a petition with the Department of Public Utilities (“Department”) pursuant to G.L. c. 164, § 72 for approval to relocate a portion of two existing 115 kilovolt (“kV”) overhead transmission lines onto a new right-of-way in the City of Waltham (“Section 72 Petition”). On January 4, 2008, NSTAR also filed with the Department a related petition pursuant to G.L. c. 40A, § 3 for both individual exemptions and a comprehensive zoning exemption from the Zoning Code of the City of Waltham (“Zoning Exemption Petition”), associated with the Company’s transmission relocation project, as described below.

The Company proposes to relocate a portion of two existing 115 kV transmission lines, known as the 320-507 Line and the 320-508 Line, which currently extend from the existing NSTAR Substation 281 in Waltham. The relocation project is proposed in conjunction with Watch City Development LLC’s (“Watch City”) proposal to redevelop the former Polaroid Corporation site, 1265 Main Street, in Waltham (“Site”) into the Commons at Prospect Hill (“Prospect Hill Project”), a mixed-use retail and commercial office space development. In order to facilitate Watch City’s development, and at Watch City’s request and expense, NSTAR proposes to reconfigure its two existing 115 kV transmission lines and related facilities at the Site from overhead to underground facilities (“transmission line proposal”). Related to its proposal to reconfigure existing lines, NSTAR also proposes to construct a new switching station on the Site (“switching station proposal,” together with the transmission line proposal,

the “Project”). The new underground cable and duct system would be comprised of two extruded dielectric cables in a new 50 foot right-of-way along the eastern property line (Exh. NSTAR-1, at ¶ 21). In addition, the Project will include the installation of a separate underground duct and manhole system in the event that NSTAR determines in the future that construction of an additional transmission line within the right-of-way is necessary (id. at ¶ 20). The length of each individual line is approximately 4,000 feet (Exh. NSTAR-1, at ¶ 21).

B. Procedural History

On February 28, 2008, the Department issued a Notice of Filing and Public Hearing that established March 25, 2008 as the deadline for petitions to intervene or for limited participant status. A site visit and the public hearing were conducted on March 17, 2008.

In support of its petition, the Company presented the pre-filed testimony of the following witnesses: (1) Chad E. Cooley, assistant-vice president, related retail, addressing Project need and alternatives on behalf of Watch City; (2) Thomas E. Converse, P.E., executive vice president, SourceOne, Inc., addressing Project engineering and design; (3) John M. Hession, P.E., senior project manager with VHB/Vanasse Hangen Brustlin, Inc., addressing Project environmental impacts; (4) Gregory Sullivan, director of system planning, NSTAR, addressing Project need, engineering and design; (5) Peter A. Valberg, Ph.D., principal, Gradient Corporation, addressing electric and magnetic field (“EMF”) impacts; and (6) John M. Zicko, P.E., manager, substation design engineering, NSTAR, addressing Project engineering and design.

On April 15, 2008, the Department granted the petition to intervene of Normandy Waltham Holdings, LLC (“Normandy”), owner of Prospect Corporate Center. Prospect Corporate Center is the closest building to NSTAR’s proposed switching station.

On July 22, 2008, the Company and Normandy filed a proposed Settlement Agreement with the Department (“Settlement Agreement”). As noted in the Settlement Agreement, the Company requests that the Department adopt the provisions of the Settlement Agreement in its final order (Exh. NSTAR-2, at ¶ 17).

On July 29, 2008, the Department conducted an evidentiary hearing. The evidentiary record consists of 162 exhibits, including the Company’s Petition, responses to information requests, and one response to a Department record request. The Company filed a brief on August 15, 2008.

## II. REQUEST FOR INDIVIDUAL ZONING EXEMPTIONS

### A. Standard of Review

#### 1. Introduction

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 by-law 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 by-law under G.L. c. 40A, § 3 must meet three criteria. First, the petitioner must qualify as a public service corporation. Save the Bay, Inc. v. Department of Public Utilities, 366 Mass. 667 (1975) (“Save the Bay”). Second,

the petitioner must establish that it requires exemption from the zoning ordinance or by-law. Boston Gas Company, D.T.E. 00-24, at 3 (2001). Finally, 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. Massachusetts Electric Company, D.T.E. 01-77, at 4 (2002); Tennessee Gas Pipeline Company, D.T.E. 01-57, at 3-4 (2002).

## 2. 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 at 680. See also, D.T.E. 00-24, at 3-4; Berkshire Power Development, Inc., D.P.U. 96-104, at 26-36 (1997).

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. See D.P.U. 96-104, at 30; Save the Bay at 685-686; Town of Truro v. Department of Public Utilities, 365 Mass. 407, at 410 (1974). 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.” D.P.U. 96-104, at 30;

see also Dispatch Communications of New England d/b/a Nextel Communications, Inc., D.P.U./D.T.E. 95-59-B/95-80/95-112/96-113, 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. D.P.U. 96-104, at 31.

### 3. Public Convenience or 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. 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). When reviewing a petition for a zoning exemption under G.L. c. 40A, § 3, the Department is empowered and required to consider the public effects of the requested exemption in the State as a whole and upon the territory served by the applicant. Save the Bay, 366 Mass. at 685; New York Central Railroad, 347 Mass. at 592.

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.

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. D.T.E. 00-24, at 2-6; D.T.E. 01-77, at 5-6; D.T.E. 01-57, at 5-6; Tennessee Gas Company, D.T.E. 98-33, at 4-5 (1998).

#### 4. Exemption Required

In determining whether exemption from a particular provision of a zoning by-law 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 proposed project. See D.T.E. 01-77, at 4-5; D.T.E. 01-57, at 5; Western Massachusetts Electric Company, D.P.U./D.T.E. 99-35, at 4, 6-8 (1999); 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 proposed 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.

New York Cellular Geographic Service Area, Inc., D.P.U. 94-44, at 18 (1995).<sup>1</sup>

B. Public Service Corporation Status

1. The Company's Position

The Company maintains that it is a Massachusetts public service corporation authorized to transmit and distribute electricity (Brief at 8, citing NSTAR Electric, D.P.U. 07-60/61, at 47 (2008); NSTAR Electric, D.T.E./D.P.U. 07-09/10, at 8 (2007); Boston Edison Company d/b/a NSTAR Electric, EFSB 04-1; D.T.E. 04-5/04-7, at 150 (2005). The Company also contends that it is an “Electric company,” as defined in G.L. c. 164, § 1, having its principal place of business in the City of Boston, Massachusetts. According to the Company, as an electric company and a public service corporation in the Commonwealth, the Company is entitled to seek a zoning exemption pursuant to G.L. c. 40A, § 3 (Brief at 8).

2. Analysis and Findings

NSTAR is an “electric company” as defined by G.L. c. 164, § 1. NSTAR Electric Company, D.T.E./D.P.U. 07-9/07-10, at 8 (2007), citing Commonwealth Electric Company

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<sup>1</sup> See Section II.D.3 below for further discussion regarding the standard of review the Department will apply in future cases for determining whether a particular provision of a zoning by-law is “required” for purposes of G.L. c. 40A, § 3.

d/b/a/ NSTAR, D.T.E. 03-7, at 5 (2003). Accordingly, the Department finds that NSTAR qualifies as a public service corporation for purposes of G.L. c. 40A, § 3.

C. Public Convenience or Welfare

1. Need or Public Benefit of Use

a. The Company's Position

NSTAR states that the existing NSTAR right-of-way and overhead lines at the Site encumber much of the usable commercial/industrial land on the Site (Exh. NSTAR-1, at ¶ 25). According to NSTAR, future development of the Site would be constrained with the overhead lines in their current configuration (id.). NSTAR contends that construction of the proposed underground transmission lines would ensure the continuation of reliable electric service to customers in the region, and would allow Watch City to realize the full development potential of the Site.

NSTAR states specifically that the Project would allow NSTAR to supply its customers with at least equal reliability, and with less environmental and land use impacts, as a result of replacing overhead facilities with underground facilities. NSTAR also maintains that the new switching station would allow the underground line to transition to the existing overhead transmission system and to sectionalize the overhead and underground systems to allow for isolation in the event of a system contingency (id.).

NSTAR asserted that, in facilitating Watch City's development, the proposed Project would create significant benefits for the Commonwealth and the local community, including the following public benefits:

1. upgrading water quality from the Site in a manner that satisfies the MDEP Stormwater Management Policy, and would incorporate a comprehensive program of best management practices;
2. implementing the Route 20/117 Corridor Improvement Plan, which not only contributes to addressing project-related traffic impacts, but also addresses existing deficiencies in the local transportation infrastructure;
3. generating tax revenues to the City of Waltham in the first 10 years of operation in excess of \$58 million;
4. creating over 500 construction jobs and an estimated 2,350 permanent jobs, including 1,000 full-time and 1,350 part-time retail employment opportunities;
5. creating over 1,000 office jobs for Waltham and the Commonwealth; and
6. developing a project to Leadership in Energy and Environmental Design standards, which would incorporate sustainable design elements.  
(Exh. NSTAR-1, at ¶ 25).

b. Analysis and Findings

The proposed relocation of overhead lines 320-507 and 320-508, which would extend from an existing NSTAR electric substation (Station #282), would be installed underground across the majority of the Site within a new right-of-way (Exh. NSTAR-1, at ¶20). The new right-of-way would be 50 feet wide and each line would be installed in separate duct and manhole systems. The underground facilities would consist of two 115 kV extruded dielectric cables which would replace the existing 115 KV overhead lines (id.). Additionally, the new switching station allows the underground line to transition to the overhead transmission system serving the general area surrounding the Site and to sectionalize the overhead and underground systems to allow for isolation in the event of a system contingency (id. at ¶ 25). The relocation of the transmission lines from overhead to underground would allow Watch City to

realize the full development potential of the Site, while ensuring the continuation of reliable electric service to customers (Exh. NSTAR-1 at ¶ 25).<sup>2</sup> Accordingly, the Department finds that there is a need for, and there are public benefits that would result from, the construction and operation of the proposed Project.

## 2. Alternatives Explored

The Company indicated that during the design phase for Watch City's development of the property, alternative transmission line configurations and routes were considered (Exh. NSTAR-1, at ¶ 26). Design considerations such as overhead versus underground, dimension and location requirements of rights-of-way, proximity of lines to other substructures such as gas lines, future capability for site development and cost were all considered in selecting the preferred alternative (id.). The alternatives were evaluated and narrowed to the following three options:

### a. The Company's Position

#### i. Alternative 1

Alternative 1, the proposed Project, is an underground option located along the eastern side of the property (Exh. NSTAR-1, at ¶ 26). The Company and Watch City concluded that the preferred alternative met the requirements for Watch City and NSTAR's needs, particularly when balancing the identified requirements with the considerations of costs and minimizing environmental impacts (id.).

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<sup>2</sup> The construction of the proposed project would also improve water quality from the Site; upgrade the local transportation infrastructure; generate additional tax revenues; create construction and permanent employment opportunities; and incorporate sustainable design elements (Exh. NSTAR-1, at ¶ 25).

Alternative 1 traverses north from Station #282 along the eastern side of the property to the location proposed for the new switching station, which is necessary to bring the underground transmission lines above ground to interconnect with the overhead transmission network that traverses the right-of-way to the south end of the Site (Exh. NSTAR-1, at ¶27). Manhole locations would be specified to accommodate maximum bending allowances of the system as well as maximum cable shipping lengths (id.). The Company indicates that the preferred alternative routing is located behind the proposed retail buildings and would therefore cause less disruption to parking on the Site and less interruption of traffic flow during routine repair and maintenance activities (id.). The Company states that the routing would also be in a location that minimizes proximity to the other utilities within the Site (id.). There are no known existing utility systems that parallel the proposed route, and the number of crossings would be fewer than the western underground route alternative. The Company points out that the eastern routing allows for the straightest route with the fewest manholes and splices, minimizes site disruption during maintenance or repair, and minimizes interference from unrelated utility systems (id.). The cost for this option is approximately \$15.3 million (id.).

ii. Alternative 2

Alternative 2 is an overhead line relocation option located along the eastern property line and partially located in Prospect Hill Park (Exh. NSTAR-1, at ¶26).<sup>3</sup> When NSTAR

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<sup>3</sup> This alternative was originally considered by Polaroid (the previous property owner). According to NSTAR, Polaroid previously evaluated an overhead route for the lines that used 13 acres of abutting Prospect Hill Park land. In return for the 13 acres of park land, 8.9 acres of which Polaroid already held certain perpetual easement rights,

evaluated this alternative for the Watch City project, NSTAR determined that the larger overhead easement would require 200 feet more in width than the comparable underground right-of-way and would create a situation where overhead structures would encroach within areas of vehicular circulation and into areas slated for buildings (id.). Additionally, the Company indicated that changing the angle of the right-of-way sharply to move it toward the east would require more substantial structures to accept the mechanical stresses that changes in angle create on the overhead transmission line (id.). These structures would likely need to be much larger, require guy wires, and take up more land area (id.). The Company opined that the negative visual impact of these structures on Prospect Hill Park and other neighboring properties also makes this alternative less desirable (id.). The Company pointed out that even if an agreement could be reached with the Waltham City Council to allow this alternative, an act of the General Court under Article 97 of the Massachusetts Constitution would also be required to approve the transfer or conversion of existing parkland (id.). As such, the length of time for permitting and licensing may be longer than for Alternative 1 (id.).

iii. Alternative 3

Alternative 3 is an underground alternative located along the western property line (the Route 128/I-95 side) (Exh. NSTAR-1, at ¶ 26). The Company asserted that several factors make this option less favorable than the preferred alternative. According to the Company, routing along the western property line increases the number of times that the transmission line

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Polaroid proposed to grant approximately 23 acres, including the adjacent Berry Farm property, to the City of Waltham (Exh. NSTAR-1, at ¶28).

would cross other utility systems (Exh. NSTAR-1, at ¶ 29). The Company indicated that many of the main utilities supplying the Site would be located in this area of the property, including local electric supply, gas supply, as well as water and sewer service (id.).

Additionally, two interstate high pressure natural gas lines traverse that area of the property (id.). The Company notes that proximity of the underground transmission line to other utility systems can affect the ambient temperature surrounding the transmission cable, which could have a negative thermal impact on the cable ratings, and thereby could compromise reliability (id.). Also, NSTAR indicates that locating the transmission lines in close proximity to other utilities would increase the risk of utility damage during construction, repair or maintenance activities (id.). According to the Company, the routing of this alternative is much less desirable because it would require the partial relocation of both interstate natural gas lines (Exh. DPU-G-4). The Company concluded that it viewed the above-referenced utility issues as significant reasons to avoid this alternative if there were other feasible options (Exh. NSTAR-1, at ¶ 29).

The Company further indicated that another drawback with Alternative 3 is that it would be located underneath the Site access roadway, which would adversely affect parking and traffic flow during repairs and/or maintenance (Exh. NSTAR-1, at ¶ 29). This encumbrance on the commerce activities of the future retail areas during maintenance and repair periods was viewed as unfavorable by Watch City, in light of the fact that another alternative exists where this constraint would not be created (id.).

The Company stated that routing along the western portion of the site would require significantly more bends in the routing to navigate through proposed buildings (id.). The Company explained that when designing underground systems, the number of bends and the distance between them are design factors that can require additional manholes and splices (id.). The Company stated that additional manholes and splices increase the cost of installation and also create the possibility for higher failure rates and associated maintenance costs (id.).

The Company indicated that it selected Alternative 1 because it considers it the most reliable option; it allows Watch City to realize the full development potential of the site; and minimizes environmental impacts (Exh. NSTAR-1, at ¶ 30).

b. Analysis and Findings

The Company described three alternative projects. The first alternative is the proposed Project. The second alternative is an overhead line relocation along the eastern property line, which would be partially located in an abutting park named Prospect Hill Park (Exh. NSTAR-1, at ¶ 26). The Company's analysis revealed that the second alternative would require a significantly larger right-of-way than a comparable underground easement and larger structures with guy wires, which would consume more land area than the proposed Project (Exh. NSTAR-1, at ¶28). This route would not allow for the maximization of the redevelopment of the site (id.). Furthermore, there would be negative visual impacts to the Prospect Hill Park and neighboring properties (id.). Since this alternative would require a land swap involving parkland, this alternative would most likely be more complex and take a longer time period to permit and license (id.).



Another proposed alternative (Alternative 3) was an underground relocation along the opposite, western property line. Routing the underground line along the western property line may pose conflicts with the main utilities that would serve the redevelopment site, including local electricity supply, gas, water and sewer (id. at 29). Additionally, two interstate high pressure gas lines would have to be partially relocated (id.). Further, there is the potential for negative thermal impact on cable ratings from nearby utilities, which could compromise reliability and the increased risk of damage during the construction, repair and/or maintenance of the cable lines (id.). When this option is taken into consideration with the layout of the redevelopment plans, there would be more bends to navigate around proposed buildings which would require more manholes and splices, increased installation costs and the potential for higher failure rates and increased maintenance costs (id.). Accordingly, the Department finds NSTAR's decision to pursue the proposed Project, rather than pursuing the other alternatives was reasonable.

### 3. Impacts of the Proposed Use

#### a. Land Use and Visual Impacts

Presently on the Site, there are two existing 115 KV wood H-Frame design transmission lines, as well as existing substation #282, which borders the southern portion of the property. The lines presently occupy a 300 foot wide right-of-way, traversing north-south through the property, in a configuration that prevents the optimal redevelopment of the property (Exh. NSTAR-1, at ¶ 25) (Exh. NWH-1-3, Attachment). As such, NSTAR and Watch City have collaborated to reconfigure NSTAR's existing 115 kV electric transmission

lines and related facilities from overhead to underground facilities to optimize the redevelopment of the Site and ensure the continuation of reliable electric service to customers in the region (id.).

The Company states that undergrounding of lines 320-507 and 320-508 would result in the removal of the H-frame wooden towers and of 4,000 feet of multiple conductors (Exh. NSTAR-1, at ¶ 53). By removing the above-ground facilities from public view, the reconstruction to underground transmission lines would result in a positive visual impact (id.). According to the Company, the construction of the switching station would not have an adverse visual impact because it would be located in an isolated area and is not proximate to buildings on abutting parcels (id.). NSTAR indicates that modifications to Station 282 would not be particularly noticeable to the general public (Exh. DPU-V-2). To the extent the switching station remains visible, selective landscaping would be used to lessen such impacts (Exh. DPU-V-2).

The Company provided four vantage points of the switching station from adjacent areas, including the parking lot at the Prospect Hill Office Park; a viewpoint from Prospect Hill Park; a location within the Project Site and a location from Bear Hill Road (NSTAR-1, at ¶ 53). The switching station would be ten to twenty feet in height and surrounded by security fencing (id.). The Company indicated that shielding masts and risers to the existing overhead line would be erected, but these would be less prominent than the H-frame wooden pole structures and towers that would be removed (id.). The Company stated that the maximum height of the structures is expected to be no more than 67 feet above the top of concrete, which

is comparable to existing facilities. The top of the concrete would be approximately 40 feet below the ground floor of the Normandy building located in the Prospect Hill Office Park (Exh. NWH-1-21). As a means to mitigate the visual impacts to Normandy, one of the terms of the Settlement Agreement executed by NSTAR and Normandy stipulates that Watch City would install an earthen berm and landscaping adjacent to Normandy's property on Watch City land.<sup>4</sup> The landscaping would be purchased by Watch City and would not exceed \$25,000 (exclusive of the costs for the berm) (Exh. NSTAR-2, Landscape Agreement at ¶ 3). The parties agreed that the landscaped berm would be installed as soon as reasonably practicable after the completion of the switching station. Watch City would maintain the landscaping at its own cost (*id.*). The parties have agreed upon a Landscaping Plan prepared by John G. Crowe Associates, which has been attached as an Exhibit to the Settlement Agreement (Exh. NSTAR-2, Landscape Agreement, Exhibit D).

b. Wetlands and Endangered Species

The Company asserted that approximately 107 linear feet of bank associated with Resource Area 8 would be altered as a result of the underground relocation of the transmission lines and construction of an associated access drive (Exh. NSTAR-1, at ¶ 40). The Company pointed out that design requirements for construction include a 50-foot wide level access area and drivable roadway (maximum 14 percent slope) or the entire length of the easement (*id.*). Construction in the proposed easement area would require the permanent alteration of approximately 107 linear feet of intermittent stream area (*id.*). The Company explained that

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<sup>4</sup> The Settlement Agreement is discussed in greater detail in Section V, below.

flow from the unaffected portion of this intermittent stream would be captured upstream of the proposed electrical easement in a drop-manhole and conveyed through the Site, in proposed drainage pipes that are separate from the proposed on-site storm water systems, to terminate in Wetland Replication Areas (id.).

The Company asserted that there would be no Project-related impacts to Bordering Vegetated Wetlands or to Land Under Wetlands and Waterways (id.). However, Watch City's redevelopment project would include alteration of approximately 560 linear feet of bank associated with intermittent streams and drainage ditches, of which 107 linear feet have been determined to have habitat value and 453 linear feet consists of man-made drainage ditches (id.). The Company stated that intermittent streams and drainage ditches would be permanently altered for the construction of the proposed development. Site work would include extensive earthwork activities, including blasting, earth removal, and filling (id.). Due to changes in grade and drainage patterns, placement of new drainage structures, and modification of existing driveways and parking areas, the existing on-site drainage ditches would have inadequate carrying capacity (id.). The Company asserted that the proposed drainage systems for the Project would use predominately closed piping networks and would not require the use of the existing drainage ditches as conveyance structures (id.). The Company's wetland mitigation includes recreating 107 linear feet of bank area with important wildlife habitat values (Exh. DPU-G-1, Att.1). The Company indicated that plantings would be selected that provide shade and habitat areas in the stream bed while enhancing stability to the channel (id.). Additional naturalizing features such as boulders and logs would act as check dams, helping to

decrease the water velocity while providing stilling pools within the stream. A variety of plant species in the new channel and adjacent areas would ensure a diverse functioning habitat within the mitigation area (id.). There are no Areas of Critical Environmental Concern at or near the site (Exh. NSTAR-1, at ¶ 41). No part of the Project Site is mapped as Estimated or Priority Habitat for protected species (Exh. NSTAR-1, at ¶ 47).

c. Electromagnetic Fields

The proposed Project would consist of the relocation of overhead 115 kV lines, 320-507 and 320-508 (rated for a peak winter load of 125 megavolt-amperes (“MVA”) each), underground across the majority of the site within a new right-of-way (Exh. NSTAR-1, at ¶ 20; Exh. NSTAR-1, at ¶ 42). The new right-of-way would be 50 feet wide, and the proposed lines would consist of 115 kV extruded dielectric cables installed in separate duct and manhole systems (Exh. NSTAR-1, at ¶ 20).

The Company submitted to the Department a copy of a November 2007 study entitled, Analysis of Electric and Magnetic Field (EMF) at The Commons at Prospect Hill prepared by Gradient Corporation to assess the electric and magnetic fields (“EMF”) associated with relocating the existing overhead 115 kV transmission lines into new proposed underground duct banks (Exh. NSTAR-1-G, p. 2). The EMF analysis compared the field levels for the overhead and underground placements, assuming the rated peak winter load of 125 MVA (id.).

Gradient Corporation’s analysis indicated that the overhead placement produces peak electric fields of about 1.6 kilovolts per meter (“kV/m”), and the electric field decreases with lateral distance away from the lines. The Study concluded that magnetic fields at peak loading

decline to about 15 milligauss (“mG”) at the right-of-way edges of the overhead circuits ( $\pm$  160 ft from the midpoint between the two circuits), approximately the level of the expected maximum magnetic field directly over the two underground duct banks ( $\sim$  19 mG) at the same peak loading (id.). Gradient Corporation stated that underground placement would produce no above-ground electric fields (id.). Gradient Corporation’s analysis revealed that the peak magnetic fields of the two circuits are  $\sim$  151 mG with the existing overhead placement and would be  $\sim$  19 mG with the underground placement (id.).

The Company stated that these levels are well below the Massachusetts Energy Facilities Siting Board’s (“Siting Board”) edge of right-of-way guideline for magnetic fields of 85 mG (id.). Gradient Corporation opined that these magnetic field levels are comparable to being in close proximity to operating electrical appliances found in homes, offices, and schools (id.).

Gradient Corporation’s analysis revealed that because the transmission lines near Normandy’s office building remain unaltered, the EMF impacts at the edge of Normandy’s building from the distant proposed facilities are non-existent (Exh. NWH-1-34). At Normandy’s request, one of the terms of the Settlement Agreement executed by NSTAR and Normandy stipulates that NSTAR will provide EMF measurements, pursuant to the request of Normandy or any other abutter, at the cost of the requesting party, after the proposed Project is completed and operational (Exh. NSTAR-2, at ¶ 5). Should the EMF levels exceed the Siting Board’s guidelines, NSTAR agrees to take any reasonable corrective action (id.).

d. Hazardous Substances

The Company proposes to build the transmission line and switching station consistent with system requirements and current industry standards (Exh. NSTAR-1, at ¶ 45). The Company pointed out that the industry introduced efforts over the past decades to limit hazardous substances to the extent possible within transmission and switching station equipment (id.). The Company stated that the underground transmission system would be designed utilizing an extruded technology, eliminating the need for a fluid filled pipe type cable that has been used predominantly in underground transmission line construction over the last 40-50 years (id.). The cables would consist of extruded dielectric cables systems (EPR or XLPE) installed within plastic pipe and concrete manholes (id.). The terminator devices (potheads) may include a small amount of mineral oil in self-contained vessels but would not contain polychlorinated biphenyls (id.).

The switching station has also been designed to minimize hazardous substances on the Site. Hazardous substances would be limited to Sulfur-Hexafluoride gas, which acts as an insulating medium when high voltage circuit breakers open and close (id.). The station would also contain either Lead Acid type or Nickel Cadmium type batteries that provide control power in the event of a system blackout (id.). The Company stated that precautions would be in place to handle any of these substances and it does not plan to store any of these substances on site, except possibly during installation or maintenance periods (id.). The Company indicated that 115 kV voltage measuring devices would contain electrical insulating fluid and, in the event of a fluid loss, the voltage output would drop and trigger an alarm to the

Company's Energy Management Center from where the Company would initiate clean up procedures (Exh. NWH-1-29).

The Company indicated that the proposed switching station would not require a Spill Prevention, Control and Counter Measure ("SPCC") since it does not contain transformers or other oil containing equipment (Exh. DPU-S-1). The Company indicates that the proposed facility would be covered by NSTAR's Master Multi-Facility SPCC (id.).

e. Construction, Blasting and Noise Impacts

To construct the underground transmission line, the Company would extend a 50-foot wide level access area and drivable (maximum 14 percent slope) roadway for the entire length of the easement (Exh. NSTAR-1, at ¶ 45).

According to the Company, the conduit and manhole system would be installed first. Once the underground conduit and manhole system is installed, the cables would be pulled in and spliced (Exh. NWH-1-24). With respect to the substation, the first phase of construction would consist of the site being brought down to subgrade, foundations formed and poured, and the site being brought back up to grade. Phase two would consist of erecting steel and setting electrical equipment (id.). The Company likened the noise at the site and abutting properties during this phase to that of building a modest sized steel structure (id.).

Following the construction of the switching station and the transmission line conduit, the transmission lines would be switched over and the existing easement would be decommissioned, including the demolition of the existing towers and transmission lines (Exh. NSTAR-1, at ¶ 45). The removal of existing structures would be accomplished with utility



bucket trucks (Exh. NWH-1-24). These trucks would not be in any one location for an extended duration and as such is not anticipated to generate significant noise on site or at abutting properties (id.).

The Company stated that the main sources of potential construction-related air quality impacts would be emissions from construction equipment and motor vehicles and fugitive dust emissions from disturbed soil surface areas (Exh. NSTAR-1, at ¶ 33). Construction contractors will be contractually required to adhere to all applicable regulations regarding control of dust and emissions. This would include, but not be limited to, maintenance of all motor vehicles, machinery, and equipment associated with construction activities and proper fitting of equipment with mufflers or other regulatory required emissions control devices (id.).

Further, as part of its development, Watch City has committed to participate in the DEP's Clean Construction Equipment Initiative and will work with contractors to retrofit construction vehicle engines and/or the use of low-sulfur diesel fuel to reduce diesel exhaust fumes and particulate emissions (id.). The Company indicated that dust generated from earthwork and other construction activities will be controlled by spraying water. If necessary, other dust suppression methods would be implemented to ensure minimization of the off-site transport of dust (id.). There would also be regular sweeping of the pavement of adjacent roadway surfaces during the construction period to minimize the potential for vehicular traffic to kick up dust and particulate matter (id.).

The Company asserts that the Project would generate typical sound levels from construction activities, including foundation construction, truck movements, heavy equipment

operations, rock blasting, excavation and processing and general construction activities (Exhs. NSTAR-1, at ¶ 36; NWH-1-24). Heavy machinery would be used throughout the Project's construction phases and this activity may temporarily increase nearby sound levels due to the use of heavy machinery (id.). The Company pointed out that the Site is in an area that already experiences a high level of ambient noise in the daytime hours, related to motor vehicle traffic on the Interstate 95/Route 128 and Main Street (Route 117) (id.). The Company estimated that the construction of the transmission line proposal and switching station proposal would take approximately six to nine months from the date of Department approval (id.).

NSTAR indicated that the construction hours would be consistent with the Waltham General Ordinances, which allow construction to occur between 7:00 a.m. and 5:00 p.m. Monday through Friday and from 8:00 a.m. to 4:00 p.m. on Saturday (id.). The Company asserted that sound measurement data was collected at various points surrounding the Project Site (id.). The Company estimated that the highest sound levels would occur during the excavation and finishing phases (id.). The expected sound level at 1,000 feet is 63 dBA while existing sound levels from Route 128 measured at the Site's eastern property line adjacent to Prospect Park approximately 900 feet from the median of Route 128 were 63-64 dBA (id.). Generally, the Company expects the construction sound levels at 500 feet would be comparable to existing sound levels at the Site (id.).

The Project would entail blasting for the preparation of the substation pad. The Company estimated that the bulk of the earthwork and blasting activities would last approximately five months with intermittent earthwork activities, including trenching and

backfilling which would occur for an additional ten months (Exh. NWH-1-42). The Company indicated that a blasting plan will be developed by a certified blaster consistent with the requirements of 527 CMR 13.09 (Exh. NWH-1-44). The Company said that this plan will be designed using current industry standards to minimize ground vibrations, air blast and fly rock from blasting activities (id.). Blasting mats will be required for areas within 100 feet of a highway or inhabited building or structure (id.). Also, a Preblast Inspection Survey will be offered to property owners when blasting within 250 feet of a structure (id.). Additionally, to protect water quality, non-perchlorate explosives will be used during the blasting activities (Exh. NSTAR 1, at ¶ 34).

With respect to facility operation, the Company contends that the proposed switching station would not contain electrical equipment that would continuously produce sound. The Company stipulated that the control enclosure will have climate control that would be similar in sound level to a residential central air conditional condenser (Exh. NWH-1-25). The Company stated that the switching station equipment would include the 115 kV circuit breakers that produce non-continuous sound (Exh. NWH-2-4). When activated, these devices produce a momentary impulse sound and do not contribute to the L90 sound levels (id.). Sound level data from the breaker manufacturer indicates that, with an ambient noise level of 76.4 dBA, the maximum impulse sound level would be 104.3 dBA during a breaker opening at a distance of 36 feet (id.).

The Company indicated that no noise impact is expected to abutting properties based on the distance from the switching station and on grade separation (Exh. NWH-1-25). The

Company stated that it has installed transformers similar to those proposed at this substation in close proximity to office and residential uses in the past and has met or exceeded all sound control regulations in those instances (id.).

As one of the terms of the Settlement Agreement executed by NSTAR and Normandy, NSTAR agreed to comply with all applicable state and local noise regulations, including blasting requirements found at 527 C.M.R. 1309 (Exh. NSTAR-2, at ¶ 7). Additionally, NSTAR agreed to take reasonable measures to mitigate noise levels during construction of the proposed transmission line and switching station facilities (Exh. NSTAR-2, at ¶ 8).

f. Traffic Impacts and Public Safety

The Company indicated that, while the construction management plan for the Project is still under development, it estimates that the average daily manpower would be 40 workers and the peak manpower would be 80 workers (Exh. DPU-T-1). The construction site would be accessed via existing site driveways located on Main Street. Based on the manpower projections, the Company estimated that the NSTAR construction would not generate significant traffic volumes and as such, a construction phase traffic management plan would not be required (id.). However, the Company stated that a detailed traffic management plan is not yet developed for the Commons at Prospect Hill. Given that it is likely that the construction of the NSTAR facilities would overlap the construction of the Commons development, the construction phase traffic management plan will be coordinated between the two projects (id.).

As a means to mitigate the traffic impacts to Normandy, the Settlement Agreement executed by NSTAR and Normandy stipulates that all of the traffic entering and exiting the site related to the construction, maintenance and/or operation of the proposed relocated transmission lines and switching station would enter and exit the site on the property of Watch City and will not make use of Fifth Avenue (Exh. NSTAR-2, at ¶ 3). NSTAR indicated that it may use its access from Fifth Avenue for the purposes of operation and maintenance of its existing overhead transmission facilities in the right-of-way that crosses the Normandy property (id.).

The Company proposes to build the transmission line and switching station consistent with its system requirements and current industry standards including, but not limited to, the American National Standards Institute, Occupational Safety and Health Act and the National Electric Safety Code (“NESC”) (Exh. NSTAR-1, at ¶ 50). The Company stated that the switching station would be surrounded by a chain link fence, approximately seven feet height, with locked gates (id.). The Company stated that all bus work, overhead clearances and spacing of bus work and equipment will meet or exceed requirements of the NESC (id.). The Company would install placards notifying the public of high voltage contained therein (id.). There would also be security lighting within the Site that will allow for work to be performed or for workers to travel within the station at night (id.). The Company pointed out that the switching station activity and key equipment are monitored by the NSTAR system control center, as well as the operation of any equipment on the Site, without a preplanned notice to the dispatchers (id.). Authorization to work within the Site would be restricted to “Qualified

Personnel” as defined by OSHA 1910, and all work would be performed under NSTAR switching and tagging rules to insure worker safety (id.).

g. Analysis and Findings

We find that the environmental impacts would be minimal and some impacts would be less than those associated with the existing overhead transmission lines. Wetlands would be minimally affected, the electromagnetic fields would be reduced from their existing levels, and visual impacts would be improved (Exh. NSTAR-1, at ¶¶ 40, 42, 53). Other benefits include upgrading water quality through improved stormwater management best management practices and traffic infrastructure improvements (id. at ¶ 25). There are no historic resources or rare species contained in the Project area (id. at ¶¶ 46, 49). The Company has worked cooperatively with Normandy to minimize environmental impacts and specifically, will install an earthen berm with landscaping to mitigate visual impacts of the switching station, and provide EMF measurements upon request by Normandy or any other abutter to minimize magnetic field levels (see Exh. NSTAR-2, at ¶¶ 3, 4, 5). NSTAR has also agreed to work cooperatively with Normandy regarding traffic mitigation and noise mitigation (id. at ¶¶ 4, 5). In addition, this relocation Project has the potential to facilitate the redevelopment of an underutilized site into a development that would expand the State and local tax base as well as create over 500 construction jobs, 2,350 full and part time retail opportunities and over 1,000 office positions (Exh. NSTAR-1, at ¶ 25).

#### 4. Conclusion

Based on the foregoing analysis of: (i) need or public benefit of use; (ii) alternatives explored; and (iii) impacts of the proposed use, the Department finds that the benefits of the proposed Project exceed the local impacts, and thus the proposed use is reasonably necessary for the public convenience or welfare.

#### D. Exemptions Required

##### 1. Introduction

The Company seeks the following individual exemptions from the operation of the Waltham Zoning Code:

1. Uses (§ 3.4 and § 3.614);
2. Continuance of Existing Buildings, Structures and Uses (§ 3.71);
3. Emissions of Fumes, Offensive Odors, Noises (§3.84);
4. Dimensional Requirements (§ 4.1, 4.2. and 4.234);
5. Parking Requirements (§§ 5.1 through 5.9); and
6. Special Provisions Relating to Signs (§§6.1 through 6.9).

##### 2. The Company's Position

###### a. Uses (§ 3.4 and § 3.614)

The Company states that the Project would be located within a Commercial Zoning District, and that a public service corporation use is not a permitted use in a Commercial Zoning District unless authorized by special permit granted by the Waltham Board of Appeals pursuant to § 3.614 (Exh. NSTAR-1, at ¶ 55). NSTAR maintains that there is uncertainty whether such an approval could be obtained in an expedited timetable (*id.* at ¶ 56). NSTAR also contends that the

Department's role as the lead state agency in Massachusetts for licensing and approval of the construction of electric-related utility facilities makes it appropriate for the Company to seek all associated approvals from the Department in an integrated fashion (id.).

b. Continuance of Existing Buildings, Structures and Uses (§ 3.71)

Section 3.71 prohibits the use or alteration of any building, structure or land except in conformity with the provisions of the Waltham Zoning Code which apply to the relevant district in which the building, structure or land is located (Exh. NSTAR-1, at Appendix A). NSTAR maintains that an exemption from this provision is required because the Project would consist, in part, of the alteration of electric infrastructure within Station #282, including the removal of poles (Exh. NSTAR-1, at ¶ 58). The Department previously granted a zoning exemption for construction of substation #282 in 1948. Boston Edison Company, D.P.U. 8114 (1948). According to NSTAR, it is uncertain whether the Building Inspector would claim that the alterations to Station #282 are subject to § 3.71 and a special permit from the Board of Appeals (id.).

c. Emissions of Fumes, Offensive Odors, Noises (§ 3.84)

Section 3.84 of the Waltham Zoning Code governs emissions of fumes, offensive odors and noises. The section states, in relevant part, that “no building or structure shall be constructed, enlarged, reconstructed or used in any district for any purpose which . . . by the causing of noise or vibrations . . . would be dangerous or injurious to the public health or safety . . .” NSTAR suggests the possibility that the Waltham Building Inspector might invoke this zoning provision as it relates to construction or operation of the switching station (Exh. NSTAR-1, at ¶ 59).



d. Dimensional Requirements (§ 4.1, 4.2, and 4.234)

Sections 4.1 and 4.2 describe the general and supplemental dimensional requirements for development in each zoning district (Exh. NSTAR-1, at Appendix A). In relevant part, the Table of Dimensional Regulations provides that buildings or structures located in a commercial district must be constructed at least 25 feet from the rear of the property line (Zoning Code, Section 4.11 [Table of Dimensional Regulations]) (*id.*). Section 4.234 requires a rear yard of one-half the height of the building or 25 feet, whichever dimension is greater, where the rear yard of a lot in a Business, Commercial or Industrial District abuts a Conservation-Recreation or Residence District (Exh. NSTAR-1, at Appendix A). NSTAR states that the eastern property line of the Site abuts a Conservation-Recreation District, and that manholes and manhole vaults would be constructed within the right-of-way for the underground transmission line at approximately 20 feet from the eastern property line of the Site (Exh. NSTAR-1, at ¶ 61). NSTAR maintains that it is unclear if the eastern property line of the Site would, in the opinion of the Building Inspector, constitute the rear yard, and whether the construction of manholes and manhole vaults constitute the construction of structures.

e. Parking Requirements (§§ 5.1 through 5.9)

Sections 5.1 through 5.9 include detailed provisions to control and regulate parking (Exh. NSTAR-1, Appendix A). NSTAR states that it intends to provide spaces for approximately five cars at the switching station, and that the design and placement of these spaces should be governed by typical electric industry standards rather than the provisions of

the Zoning Code that do not contemplate parking serving switching stations or other similar electric infrastructure (Exh. NSTAR-1, at ¶ 62).

f. Special Provisions Relating to Signs (§§ 6.1 through 6.9)

Sections 6.1 through 6.9 include detailed provisions to control and regulate signs (Exh. NSTAR-1, Appendix A). NSTAR states that it intends to include placards at its switching station to designate the facility as a high-voltage switching station (Exh. NSTAR-1, at ¶ 63). According to NSTAR, the design and placement of these placards should be governed by typical electric industry standards, rather than provisions of the Zoning Code (id.).

3. Analysis and Findings

The Company has identified the above-described provisions of the Waltham Zoning Code from which it seeks exemption to minimize delay in the construction and ultimate operation of the proposed Project. We find that the proposed Project may not be an allowable use, and further that, regarding the referenced Dimensional Requirements provisions, the proposed Project may not meet applicable requirements. We find that an exemption from the Use provisions at § 3.4 and 3.614, and the Dimensional Requirement provisions at §§ 4.1, 4.2, and 4.234 is required.

With respect to other identified Waltham Zoning Code sections, as described above, including provisions relating to continuance of existing buildings, structures and uses; emissions of fumes; offensive odors, and noises; parking requirements; and special provisions relating to signs, the Company maintained that exemption is required to avoid uncertainties

over local application of the relevant zoning code provisions to the proposed Project and the potential for delay of construction that might occur were these provisions to be interpreted as applying to the proposed Project. The Department acknowledges that while these provisions do not on their face prevent the development of the proposed Project, there is some likelihood that these provisions would result in one or more of the following: an adverse outcome, a burdensome requirement, or an unnecessary delay as part of zoning review. The Department finds that the substantive sections of the Waltham Zoning Code included in Table 1 below would or could affect the Company's ability to implement the Project as proposed. Accordingly, we find that an exemption from the Waltham Zoning Code provisions listed in Table 1 below is required.

**Table 1      Waltham Zoning Code Provisions That Could Affect the Company's Ability to Implement the Proposed Project**

1.	Uses (§ 3.4 and § 3.614)
2.	Continuance of Existing Buildings, Structures and Uses (§ 3.71)
3.	Emissions of Fumes, Offensive Odors, Noises (§ 3.84)
4.	Dimensional Requirements (§ 4.1, 4.2, and 4.234)
5.	Parking Requirements (§§ 5.1 through 5.9)
6.	Special Provisions Relating to Signs (§§ 6.1 through 6.9)

The Department notes that recently in a review of a proposed transmission line and switching station, the Siting Board set forth a new standard to determine whether an exemption from a particular provision of a zoning by-law is “required” for purposes of G.L. c. 40A, § 3. Russell Biomass, LLC/Western Massachusetts Electric Company, EFSB 07-4/D.P.U. 07-35/07-36, at 60-65 (2009) (“EFSB 07-4”). In that decision, the Siting Board set forth the following approach to be used by public service companies when seeking zoning exemptions pursuant to G.L. c. 40A, § 3:

First, in cases where (1) a local zoning provision would on its face preclude construction and operation of a proposed energy facility, and (2) there is no provision in a local zoning by-law for a special permit, variance or other relief, relief under G.L. c. 40A, § 3 could be considered without further consultation with the local zoning authority. Second, if relief appears to be available, but consultations with the local zoning authority demonstrate that a petitioner is unlikely to obtain that relief, relief under G.L. c. 40A, § 3 could be considered without further local efforts. Absent such circumstances, it is our expectation that a project proponent will make a good faith effort to consult with local zoning authorities and apply for necessary zoning approvals or other relevant relief, as appropriate.

Id. at 62.

The Department finds this general approach reasonable and appropriate for future rulings on whether a request for a particular zoning exemption is “required,” pursuant to G.L. c. 40A, § 3. In applying this general approach in the future, the Department will consider the relevant facts on a case-by-case basis. We recognize that there may be factual circumstances where it may not be appropriate for an applicant to apply for local zoning approvals or other relevant relief prior to filing a G.L. c. 40A, § 3 zoning exemption petition, even when such relief may theoretically be available. Such circumstances may arise, for instance, where the

appropriate municipal authority does not oppose the applicant's plan to file a G.L. c.40A, § 3 petition at the Department.

Because the evidentiary hearing in this case was completed in March, 2008, more than one year before the Siting Board's April 21, 2009 issuance of EFSB 07-4, the Department does not apply the standard set forth in EFSB 07-4 here. The Department also notes that in this case there is no evidence of opposition to the Company's requested zoning exemptions. Accordingly, as set forth above, the Department has relied on its previously stated standard of review to determine whether the Company's request for zoning exemptions are "required," pursuant to G.L. c. 40A, § 3.

E. Conclusion on Request for Individual Zoning Exemptions

As described above, we have determined that: (i) NSTAR is a public service corporation; (ii) the proposed use is reasonably necessary for the public convenience or welfare; and (iii) the specifically named zoning exemptions, as identified by NSTAR, are required for purposes of G.L. c. 40A, § 3. Accordingly, we grant the Company's request for the individual zoning exemptions listed in Table 1.

III. REQUEST FOR COMPREHENSIVE ZONING EXEMPTION

A. Standard of Review

The Department has granted requests for a comprehensive zoning exemption on a case-by-case basis. NSTAR Electric Company, D.P.U. 07-60/07-61, at 50-51 (2008), citing Princeton Municipal Light Department, D.T.E./D.P.U. 06-11, at 37 (2007); NSTAR Electric Company, D.T.E./D.P.U. 07-9/07-10, at 37 (2007). The Department does not consider the

number of exemptions required as a sole basis for granting a comprehensive exemption. Princeton Municipal Light Department, D.T.E./D.P.U. 06-11, at 37 (2007). Rather, the Department considers a request for comprehensive zoning relief only when construction of a proposed facility would avoid substantial public harm. Id.; see also NSTAR Electric Company, D.P.U. 07-60/07-61, at 51-52 (2008).

B. The Company's Position

In addition to the exemptions stated above, the Company requests a comprehensive zoning exemption (Exh. NSTAR-1, at ¶¶ 18, 64). According to NSTAR, a comprehensive zoning exemption is appropriate in this case because of the number and extent of the zoning requirements implicated by the Project, the vagueness of the terminology in the Zoning Code, and the “acute need for expedition” in obtaining the requested zoning exemption (id. at ¶ 64).

C. Analysis and Findings

We will not consider the number of exemptions required by NSTAR as the basis for granting a comprehensive zoning exemption. Princeton Municipal Light Department, D.T.E./D.P.U. 06-11, at 37. Similarly, we will not consider the purported vagueness of the Waltham Zoning Code as the basis for a comprehensive zoning exemption. To the extent there is uncertainty in the language of the Zoning Code, NSTAR bears the burden to identify it for the Department's review in this case. General assertions of vagueness in the Zoning Code on their own do not serve as the basis for granting a comprehensive zoning exemption.

Additionally, the Company has not demonstrated how granting comprehensive zoning relief in this case would avoid substantial public harm. Although NSTAR cites the “acute need

for expedition,” it does not provide any evidence for this acute need nor does it describe the avoidance of any substantial public harm associated with failing to grant a comprehensive zoning exemption in this case (see Exh. NSTAR-1, at ¶ 64). Accordingly, we decline to grant NSTAR a comprehensive zoning exemption from the Waltham Zoning Code.

IV. REQUEST FOR AUTHORITY TO CONSTRUCT AND USE 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.<sup>5</sup>

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). Among other things, Section 72 permits the Department to prescribe reasonable conditions for the protection of the public safety. Id. at 419-420.

In evaluating petitions filed under G.L. c. 164, § 72, the Department examines: (1) the need for, or public benefits of, the present or proposed use; (2) the environmental impacts or

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<sup>5</sup> 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, and estimate showing in reasonable detail the cost of the line, and such additional maps and information as the Department requires.

any other impacts of the present or proposed use; and (3) the present or proposed use and any alternatives identified. New England Power Company d/b/a/ National Grid, D.T.E. 06-37, at 2-3 (2007); Boston Edison Company d/b/a NSTAR Electric, D.T.E. 04-71, at 2-4 (2005); Commonwealth Electric Company d/b/a NSTAR Electric, D.T.E. 05-1, at 2-3 (2005); Massachusetts Electric Company, D.T.E. 03-130, at 2-3 (2004). 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.<sup>6</sup>

B. Analysis and Findings

In evaluating petitions filed pursuant to G.L. c. 164, § 72, the Department relies on the standard of review established for G.L. c. 40A, § 3 for determining whether the proposed Project is reasonably necessary for the convenience or welfare of the public. Based on the record in this proceeding and the above analysis, and with the implementation of mitigation measures pertaining to traffic, EMF and compliance with applicable state and local regulations set forth in the Settlement Agreement as directed by the Department, the Department finds

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<sup>6</sup> In addition, 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. §11.12(5), these findings are required if the Secretary of Energy and Environmental Affairs has required an Environmental Impact Report for the project. In the instant case, on November 20, 2008, the Executive Office of Energy and Environmental Affairs issued an Advisory Opinion, which stated that NSTAR’s proposed Project constitutes a Replacement Project, pursuant to 301 CMR 11.01(2)(b)(3), and that no MEPA review is therefore required. Accordingly, Section 61 findings similarly are also not required in this proceeding.



pursuant to G.L. c. 164, § 72, that the proposed transmission lines are necessary for the purpose alleged, will serve the public convenience, and is consistent with the public interest.

The Department directs the Company to serve a copy of this decision, within five business days of this issuance, on the Waltham City Council and the Zoning Board of Appeals. The Department further directs NSTAR to certify to the Secretary of the Department within ten business days of its issuance that such service has been made.

#### V. SETTLEMENT AGREEMENT

The July 22, 2008 Settlement Agreement between the Company and Normandy states that based upon good faith discussions, NSTAR, Normandy and Watch City have reached agreements through which Normandy's concerns would be addressed without adversely affecting NSTAR's construction, maintenance and operation of its proposed facilities and without undue impact on Watch City (Exh. NSTAR-2, at 3). The Settlement Agreement includes a landscape plan executed between Normandy and Watch City, which is supported by NSTAR (Exh. NSTAR-2, at Exhibit D). NSTAR also agreed to several environmental mitigation measures addressing traffic, EMF, noise and hazardous materials that the Settlement Agreement states are "consistent with Department precedent" (Company Brief citing Exh. NSTAR-2). NSTAR indicates that the parties do not seek explicit Department approval of the Settlement Agreement, but that the Company is supportive of the Department incorporating conditions, consistent with the terms of the Settlement Agreement in its final order in this proceeding (Exh. NSTAR-2, at 8; Tr. 1, at 83).

The Settlement Agreement includes certain landscaping to be constructed on Watch City property pursuant to a Landscape and Easement Agreement between Watch City and Normandy (Exh. NSTAR-2, at Exhibit A). Because such landscaping is being performed by Watch City, which is not a party in this case, and which is not otherwise subject to the Department's jurisdiction, we will not specifically approve the landscaping provisions of the Settlement Agreement. Moreover, as requested by the parties to the Settlement Agreement, we will not review the Settlement Agreement for purposes of approving or rejecting it, but we incorporate conditions requested by the parties pertaining to traffic, EMF, and compliance with applicable state and local regulations, as described above.

VI. ORDER

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

ORDERED: That the petition of NSTAR seeking numerous specific zoning exemptions from the operation of the City of Waltham Zoning Code pursuant to G.L. c. 40A, § 3, is allowed; and it is

FURTHER ORDERED: That the petition of NSTAR seeking a comprehensive exemption from the operation of the City of Waltham Zoning Code is denied; and it is

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

FURTHER ORDERED: That NSTAR work cooperatively with municipal and state officials and affected property owners in Waltham to minimize any traffic, noise, visual or other local impacts associated with the proposed Project; and it is

FURTHER ORDERED: That all traffic entering and exiting the Site of the proposed transmission lines due to the construction, maintenance and operation of the proposed switching station enter and exit the site on the property of Watch City and shall not make use of Fifth Avenue; and it is

FURTHER ORDERED: That NSTAR work cooperatively with the abutters and upon request by Normandy Waltham Holdings, LLC or any other abutter, NSTAR at the cost of the requesting party, shall provide EMF measurements, taken after the proposed Project is completed and operational and take any reasonable corrective action needed to limit the magnetic field levels consistent with their settlement; and it is

FURTHER ORDERED: That NSTAR and its contractors and subcontractors shall comply with all applicable state and local regulations, including those pertaining to noise, blasting, herbicides, and hazardous materials; and it is

FURTHER ORDERED: That NSTAR shall obtain all other governmental approvals necessary for this proposed transmission and substation Project; and it is

FURTHER ORDERED: That the Secretary of the Department shall transmit a certified copy of this Order to the City of Waltham, and that NSTAR shall serve a copy of this Order on the Waltham City Council and the Waltham Zoning Board of Appeals within five business days of its issuance and shall 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:

/s/  
Paul J. Hibbard, Chairman

/s/  
Tim Woolf, Commissioner

/s/  
Jollette A. Westbrook, 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.