

D.T.E. 00-24

Petition of Boston Gas Company pursuant to G.L. c. 40A, § 3 seeking an exemption from the zoning by-laws of the Town of Danvers for the purpose of constructing a meter/regulation station in connection with Boston Gas Company's delivery of natural gas.

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FOR: BOSTON GAS COMPANY

Petitioner

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Intervenor

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FOR: ANTHONY O. LEACH, II

Intervenor

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I. INTRODUCTION

A. Description of the Proposed Project

On January 24, 2000, Boston Gas Company ("Boston Gas" or "Company")

filed a petition pursuant to G.L. c. 40A, § 3 with the Department of Telecommunications and Energy ("Department") for an exemption from the zoning by-laws of the Town of Danvers ("Danvers") in order to site and construct a meter regulation station ("take station") (Exh. BGC-1, at 1-2). The Department docketed the petition as D.T.E. 00-24.

The Company stated that the proposed take station would consist of one

pre-fabricated concrete building, 63 feet long, 12 feet wide and 10 feet high (*id.* at 13). In addition, there would be an emergency generator next to the proposed take station that would provide backup electrical power (*id.*). The proposed take station would be located on property owned by the Massachusetts Highway Department ("MHD") which is entirely zoned as "Highway Corridor" (*id.* at 9; Exh. DTE-1-15). The Company indicated that within one-half mile of the proposed facility, there are approximately 260 residences, including a single abutting residence along the southwest boundary, as well as several public, industrial, and commercial properties (Exh. DTE-1-34).

The Company is requesting, pursuant to G.L. c. 40A, § 3, exemption from any of the applicable sections of the Zoning By-Laws of Danvers ("Danvers By-laws"). Specifically, the Company is seeking exemption from the following sections of the Danvers By-laws which would preclude the construction of the proposed take station at the proposed site: Section 2.1 (Building Permit), Section 4 (Site Plan Approval) and Section 24 (Highway Corridor Zone) (Exh. BGC-1, at 15).

Boston Gas maintains that it is a local gas distribution company as defined by Chapter 164 of the Massachusetts General Laws and is a public utility (*id.* at 1).

B. Procedural History

Pursuant to notice duly issued, the Department held a public hearing on the Company's petition in Danvers on March 23, 2000 to afford interested persons an opportunity to be heard. Boston Gas presented a summary of its petition and residents raised concerns regarding noise, safety, and the visual impacts of the proposed facility (*id.* at 23-24, 26, 33-36).

Petitions for leave to intervene were filed by the Honorable Theodore Speliotis, Anthony O. Leach II, an abutter to the proposed site, and Mark Zuberek. The Hearing Officer granted the petitions for leave to intervene of Representative Speliotis and Anthony O. Leach II. The Hearing Officer denied the petition for leave to intervene filed by Mark Zuberek, but did afford him limited participant status in the proceeding. Boston Gas Company, D.T.E. 00-24, at 4, Hearing Officer Ruling (April 20, 2000). On May 1, 2000, Mr. Zuberek appealed the Hearing Officer Ruling to the Commission. The Department denied Mr. Zuberek's appeal and upheld the April 20, 2000 Hearing Officer Ruling. Boston Gas Company, D.T.E. 00-24 at 4, Interlocutory Order on Intervention (May 16, 2000)

The Department held evidentiary hearings on September 20, 2000 and September 21, 2000 at the Department's offices in Boston. In support of its petition, the Company sponsored the testimony of Daniel G. Saad, P.E., Director of Engineering for Boston Gas, Anthony LaRusso, Senior Project Engineer for Boston Gas, and A. Leo Silvestrini, Director of Rates and Regulatory Affairs for Boston Gas, Antoinette Whitmore, Director of Government Relations for Boston Gas, and Lynn M. Holten, Community Relations Coordinator for Boston Gas.

The evidentiary record contains approximately 233 exhibits that consist primarily of Company responses to information requests and record requests issued by the Department and Mr. Leach. On October 20, 2000, the Company and Mr. Leach submitted briefs.

II. STANDARD OF REVIEW

G.L. c. 40A, § 3 provides, in relevant part, that

Land or structures used, or to be used by a public service corporation may be exempted in particular respects from the operation of a zoning ordinance or bylaw if, upon petition of the corporation, the [Department] shall, after notice given pursuant to section eleven and public hearing in the town or city, determine the exemptions required and find that the present or proposed use of the land or structure is reasonably necessary for the convenience or welfare of the public

Thus, a petitioner seeking exemption from a local zoning bylaw under G.L. c. 40A, § 3 must first qualify as a public service corporation. Save the Bay, Inc. v. Department of Public Utilities, 366 Mass. 667 (1975) ("Save the Bay"). The petitioner then must establish that it requires a zoning exemption, and that its present or proposed use of the land or structure is reasonably necessary for the public convenience or welfare. New England Power Company,

7 DOMSB 333, at 411 (1998) ("1998 NEPCo Decision").⁽¹⁾

In determining whether a petitioner qualifies as a "public service corporation" for the

purposes of G.L. c. 40A, § 3, the Supreme Judicial Court has stated:

among the pertinent considerations are whether the corporation is organized pursuant to an appropriate franchise from the State to provide for a necessity or convenience to the general public which could not be furnished through the ordinary channels of private business; whether the corporation is subject to the requisite degree of governmental control and regulation; and the nature of the public benefit to be derived from the service provided.

Save the Bay, 366 Mass. 667, 680. See also Berkshire Power Development, Inc. D.P.U. 96-104, at 26-36 (1997) ("Berkshire Zoning Decision").

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. 667, at 680; Town of Truro v. Department of Public Utilities, 365 Mass. 407 (1974); 1998 NEPCo Decision, 7 DOMSB 333, at 411; Berkshire Zoning Decision, D.P.U. 96-104, at 18. 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 at 592 (1964) ("New York Central Railroad"); 1998 NEPCo Decision, 7 DOMSB 333, at 411. 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 petitioner. Save the Bay, 366 Mass. 667, at 685; New York Central Railroad, 347 Mass. 586, at 592; 1998 NEPCo Decision, 7 DOMSB 333, at 412.

With respect to the particular site chosen by a petitioner, G.L. c. 40A, § 3 does not require a demonstration that the petitioner's preferred site is the best possible alternative, nor does the statute require the Department to consider and reject every possible alternative site presented. 1998 NEPCo Decision, 7 DOMSB 333, at 412; Martarano v. Department of Public Utilities, 401 Mass. 257, 265 (1987); New York Central Railroad, 347 Mass. at 591. 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 preferred site is reasonably necessary for the convenience or welfare of the public. Evidence related to other possible sites may be instructive too, but is not determinative of, a G.L. c. 40A, § 3 determination.

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. See 1998 NEPCo Decision, 7 DOMSB 333, at 412; Massachusetts Electric Company, D.P.U.

93-29/30 (1995) ("1995 MECo Decision"), at 10-14, 22-23; New England Power Company, D.P.U. 92-278/279/280 (1994), at 10-14, 22-23 ("1994 NEPCo Decision"); Tennessee Gas Pipeline Company, D.P.U. 85-207, at 18-20 (1986) ("1986 Tennessee Decision"); (2) the need for, or public benefits of, the present or proposed use. See 1998 NEPCo Decision, 7 DOMSB 333, at 412; 1995 MECo Decision, D.P.U. 93-29/30, at 10-14; 1994 NEPCo Decision, D.P.U. 92-278/279/280, at 20-23; 1986 Tennessee Decision, D.P.U. 85-207, at 20-25; and (3) the environmental impacts or any other impacts of the present or proposed use. See 1998 NEPCo Decision, 7DOMSB 333, at 412; 1995 MECo Decision, D.P.U. 93-29/30, at 14-21; 1986 Tennessee Decision, D.P.U. 85-207, at 20-25. 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.⁽²⁾

III. ANALYSIS AND FINDINGS

A. Public Service Corporation Status

Boston Gas is a distributor of natural gas, as defined by G.L. c. 164, and serves more than 555,000 customers in Massachusetts transporting natural gas in bulk to numerous Massachusetts and other New England customers (Exh. BGC-1, at 3). See Boston Gas Company, D.P.U. 92-259 (1993). Accordingly, the Department finds that Boston Gas qualifies as a public service corporation for the purposes of G.L. c. 40A, § 3 and that Boston Gas has properly invoked the Department's § 3 jurisdiction.

B. Need for Requested Exemption

Boston Gas stated that it is seeking an exemption from Sections 2.1, 4, and 24 of the Danvers By-laws in order to construct and maintain the proposed take station at the proposed site (Exh. BGC-1, at 15). The Company further stated that it is seeking a blanket exemption from any and all provisions of the Danvers By-laws that may be applicable to the installation of the proposed take station (id.). The Company explained that the proposed structure and use are not permitted at the proposed site which is designated as a Highway Corridor Zone pursuant to the Danvers By-laws (id. at 11). The Company asserted that there is no lawful relief that the Company could seek from the Danvers Zoning Board of Appeals (id. at 2, 11).

Mr. Leach argues that Boston Gas cannot seek relief pursuant to G.L. c. 40A, § 3 until it has pursued relief available under the Danvers By-laws (Leach Brief at 4). Specifically, Mr. Leach maintains that the Company could and should seek a "use variance" pursuant to Section 2.11 of the Danvers By-laws prior to seeking an exemption pursuant to G.L. c. 40A, § 3 (id.).

The record indicates that in order to construct the proposed take station, the Company would require exemptions from Section 2.1 (Building Permit), Section 4 (Site Plan Approval) and Section 24 (Highway Corridor Zone) of the Danvers By-laws. The Department notes that the Company might have been able to obtain relief from some or all of these sections directly from the Town. However, c. 40A, § 3 does not require that a petitioner demonstrate it has exhausted its remedies on the local level prior to seeking relief from the Department. See Save the Bay, 366 Mass. 667, 677-683. Accordingly, the Department finds that Boston Gas has established that it requires an exemption from certain sections of the Danvers By-laws in order to construct and operate the proposed take station.

C. Public Convenience or Welfare

1. Need for and Design of the Proposed Facility

The Company stated that its existing gas distribution system provides gas service to customers in Danvers and surrounding towns (Exhs. BGC-1, at exh. 8; BGC-2). Boston Gas asserted that additional energy facilities are required to improve distribution system pressure in low pressure areas in northern and western Danvers, and to allow the Company to meet projected growth in demand for natural gas in the Danvers area (Exh. BGC-1, at 6-8). The Company stated that it had experienced areas of low pressure in this system (Exhs. DTE-1-1; Leach-2-39). The Company also provided a list of potential customers which the Company was unable to add to the system because to do so would reduce pressure within the system to unacceptable levels (Exh. DTE-1-7).

The Company stated that it had performed modeling to determine system pressure under conditions of forecasted demand, and provided 5-year historical data and 5-year forecast data indicating the growth in demand for gas in the Danvers area (Exhs. DTE-1-1; DTE-1-2). Based on the results of its modeling, the Company stated that it would be unable to maintain satisfactory pressure within this distribution system to meet "reasonable projections of future demand", (Exhs. BGC-1, at exh. 5; BGC-DGS at 10; DTE-1-1). Specifically, the Company reported that its models showed a range of pressures within the existing system between 60 psig and .001 psig, while the Company's design pressure requirements call for a minimum of 10 psig under weather conditions of up to 65 degree-days⁽³⁾ (Exhs. BGC-1, at 10 to 11; DTE-1-8; DTE-1-13). The Company also asserted that a new take station could provide improved natural gas service in communities adjacent to Danvers (Exh. BGC-1, at 8).

Boston Gas proposed to address the identified natural gas supply and pressure problems in Danvers by constructing a new take station to receive natural gas from the Tennessee Gas Pipeline Company's ("Tennessee") pipeline (id. at 12). The Company stated that the proposed take station would consist of equipment to transfer natural gas from the 730 psig Tennessee pipeline to the 60 psig Boston Gas distribution line, and to preheat, odorize, and regulate the gas to 60 psig (Exh. DTE-1-10). This equipment would be enclosed within a structure 63 feet long, 12 feet wide, and 10 feet high (Exh. BGC-1, at 13). A back-up generator would be located adjacent to the take station building (Exhs.

BGC-1, at 13; DTE-1-32; Tr. 1, at 156). Interconnections to the interstate gas pipeline and the Company's distribution mains would be located underground (Exh. DTE-1-14). Approximately 4785 square feet within the facility fenceline would be covered with four inches of crushed stone; a twelve-foot wide concrete driveway would be located outside the fence (Exh. DTE-1-17).

The Company stated that its preferred site for the take station, located on Old Maple Street, is bounded to the northeast by Route 62, to the northwest by the US Route 1 off ramp, to the southeast by Interstate Route 95, and to the southwest by Mr. Leach's property (Exh. BGC-1, at 9). The Company stated that the MHD owns the Old Maple Street site; the Company intends to seek an easement from MHD to allow construction of the proposed take station on this land (Exhs. DTE-1-15; RR-DTE-13).

2. Alternatives Explored

a. Alternatives to the Take Station

Boston Gas stated that it evaluated two alternatives to the proposed take station for meeting the natural gas supply and pressure requirements of the Danvers area: (1) increasing the size of the pipes used in the existing distribution mains; and (2) increasing the pressure within the existing system without replacing the existing pipes (Exhs. BGC-DGS at 10; DTE-1-9). The Company stated that the first option would require the replacement of approximately 19,000 feet of pipes with wider gauge pipes beneath the streets of Danvers (Exh. BGC-DGS at 10). The Company stated that this would result in substantially higher costs, as well as causing a nuisance to the public in the form traffic obstruction and interrupted gas service during construction (Exhs. BGC-1, at 7; BGC-DGS at 10 to 11; DTE-1-9). The Company therefore concluded that the proposed project would be preferable to the alternative of extensively replacing pipes in the Danvers distribution system (Exh. BGC-1, at 7).

Boston Gas stated that it also investigated whether it could increase pressure within the existing Danvers-area distribution system without enlarging the pipelines (Exh. BGC-DGS at 11). However, the Company noted that natural gas is already entering the Danvers-area distribution system at 60 psig, the maximum operating pressure for the system (*id.*). The Company noted that system pressure diminishes in outlying areas of the Danvers gas distribution system and asserted that increasing pressure in these areas would be impossible without the addition of a new source that would increase pressure in these outlying areas (Exhs. BGC-1, at 7; DTE-1-13; Tr. 1, at 42 to 43). The Company therefore concluded that the option of increasing pressure without enlarging system distribution pipelines was not a feasible alternative (Exh. BGC-DGS at 11).

b. Alternative Sites for the Take Station

The Company stated that it considered ten potential locations for the proposed take station identified either by the Company or by Town Officials (Exh. BCG-2). The Company identified potential sites by identifying low pressure areas in its distribution

system and comparing these to available sites in proximity to the Tennessee gas transmission system, Boston Gas distribution mains, and public roads (Exh. DTE-1-40). The Company stated that it used an industry-standard software model to determine the potential improvement in gas pressure within the system that would result from construction of a take station at each location (Exh. Speliotis-1-1; Tr. 1, at 25, 152). In addition to these relative system benefit improvements, the Company compared the sites on the basis of efficiency, cost effectiveness, minimization of land disturbance, and impacts to abutters (Exhs. DTE-1-40; BGC-DGS at 12 to 13).

Based on its initial review, the Company eliminated six sites from consideration. The Company then performed a more detailed analysis of four remaining sites -- the Old Maple Street site, a site at the Danvers State Hospital, a site at the Danvers Industrial Park on Rt. 1, and a site at the State Police Barracks -- and a fifth site identified by the Department on Conifer Hill Drive, across Rt. 62 from the preferred site (Exhs. BCG-2; DTE-2-9; RR-DTE-1; RR-DTE-2; RR-DTE-3; RR-DTE-4). The Company developed estimates of the cost of proposed take station⁽⁴⁾ (including any necessary system upgrades) and the potential increase in distribution system pressure that would result from the construction of the proposed take station at each of the five sites. These estimates are set forth in Table 1, below.

Table 1

Site	System benefit	Approximate Costs¹
Old Maple Street	49 lbs.	\$800,000 ²
Industrial Park with existing mains	33 lbs.	\$800,000
Industrial Park with improved mains	Approximately 49 lbs. ³	\$1,539,000 ⁴
Danvers State Hospital	44 lbs.	\$1,425,000 ⁵
State Police Barracks	44 lbs.	\$1,400,000 ⁵
Conifer Hill Drive	Approximately 49 lbs. ³	N/A ⁶

(see Exh. BGC-2, Site Comparison Chart)

¹ Nominal differences among site acquisition costs are not included in the calculations of total cost per site.

² The Company testified that the proposed take station at the Old Maple Street site would cost approximately \$800,000 without the need to relay or replace pipes in the Danvers gas distribution system (Tr. 1, at 51).

³ The Company stated that equivalent system benefit would result from siting a take station in these locations as it would at the Old Maple Street site (Exh. DTE-1-44)

⁴Tr. 1, at 78

⁵Exh. DTE-1-43

⁶The Company did not provide cost estimates for the construction of a take station at this site.

Boston Gas also noted certain qualitative drawbacks to a number of the alternate sites. Specifically, the Company asserted that there is insufficient space at the Danvers Industrial Park site to construct the proposed take station within required setback areas (Exh. DTE-1-44; BGC-2). The Company also noted that a take station located at the Danvers Industrial Park site could provide pressure increases similar to those provided by the proposed take station only if approximately 4500 feet of the 4-inch gas main running beneath Route 1 were replaced with 8-inch pipe (Exh. DTE-1-44; Tr. 1, at 78). The Company asserted that the construction required for these improvements would be "very disruptive to this section of Route 1" (Exh. DTE-1-44).

The Company stated that locating the proposed take station at the Danvers State Hospital site would require extending both the Tennessee main line and Boston Gas distribution lines across third-party residential properties (Exh. DTE-1-43). The Company stated that locating the proposed take station at the State Police Barracks site would require extending the Tennessee main line and Boston Gas distribution lines under Routes 1 and 62, resulting in construction traffic impacts (*id.*). The Company stated that the Conifer Hill Drive site is generally wet and that, according to the MHD and the Danvers Conservation Commission, portions of the site contain shallow marsh meadow or fen (Exhs. DTE-2-9; RR-DTE-1; RR-DTE-4; Tr. 1, at 91 to 115). Further, location of the proposed take station on the Conifer Hill Drive site would require the construction of an interconnection crossing Rt. 62, resulting in some traffic disturbance on Rt. 62 during construction (Exh. DTE-2-9). Based on these factors, the Company argued that the Old Maple Street site was the most desirable location for the proposed take station (Exhs. BGC-1, at 10; BGC-DGS at 12).

Mr. Leach argues that Boston Gas did not give adequate consideration to alternate sites for the proposed take station (Leach Brief at 7). Mr. Leach notes that, if certain system improvements are incorporated into the take station project, a take station at either the Danvers State Hospital site or the State Police Barracks site could provide system pressure increases only slightly less than those available from a take station located at the Old Maple Street site (*id.* at 7, *citing* Exh. BGC-2). Mr. Leach also argues that the Industrial Park Site would be a more suitable location than Old Maple Street for the proposed facility, despite land acquisition issues and reduced system benefits (*id.* at 6 to 7). Mr. Leach asserts that Boston Gas selected the Old Maple Street site solely because of its lower project costs, and that alternative sites would be preferable to the Old Maple Street site if impacts on his property are taken into account (*id.* at 7).

3. Impacts of the Proposed Use

a. Noise

The Company stated that its equipment selection and station design would minimize noise impacts associated with the proposed take station (Exh. BGC-DGS at 20 to 21; Tr. 2, at 211). The Company stated that the noise from the proposed take station running at full load would be 60 dBA at the fenceline, approximately 10 feet away from the take station building (Exhs. BGC-DGS at 23; BGC-1, at 15). Ambient noise measurements taken at Mr. Leach's residence, located approximately 200 feet from the proposed take station, indicate that existing noise levels there range from approximately 61 dBA (measured between 7:45 p.m. and 8:00 p.m., a non-peak traffic hour) to 76 dBA (measured between 8:45 a.m. and 9:00 a.m., a heavy-traffic hour) (Exhs. BGC-1, at exh. 3; RR-DTE-6).

b. Visual Impacts

Boston Gas indicated that it would attempt to design the take station to be invisible from Routes 1 and 62, Interstate 95, and Mr. Leach's property (Exh. BGC-1, at 13; Tr. 1, at 150). The Company indicated that the facility would be prefabricated and that the exterior would be an earth tone color, which would blend with the visual background (Exhs. DTE-1-25; DTE-1-39). The Company stated that the fenceline would be surrounded by existing indigenous vegetation and evergreen shrubbery to be planted by the Company (Exhs. BGC-1, at 13 and exh. 7). The Company stated that external lighting for the facility would be limited to two 75 watt lights at the building entrance on the northern side of the station, and would be turned on only during night time visits by Company personnel (Exh. DTE-1-38).

c. Safety

Boston Gas indicated that the proposed take station would comply with all Federal, State, and local laws, regulations, codes, and standards (Exh. BGC-1, at 14). The Company stated that the Boston Gas Control Center would continuously monitor the proposed take station and that an after-hours on-call system would provide personnel to respond to any emergency or safety situation (Exh. DTE-1-24). The Company indicated that the site would be surrounded by an eight foot high fence topped with razor wire to prevent access by unauthorized persons (Exh. BGC-DGS at 18). In addition, the station would be locked except during visits by Company personnel (Exh DTE-1-18).

The Company stated that there have been accidents associated with unusually high pressures in the Danvers gas distribution system over the past fifteen years (Exh. DTE-1-5; Tr. 1, at 58). However, the Company stated that it was not aware of any explosions at take stations or similar facilities (Exh. DTE-1-26; Tr. 1, at 57). The Company indicated

that the proposed take station would be designed to minimize or eliminate fire safety risks associated with the station (Tr. 1, at 56). Specifically, the station building would be ventilated to prevent the buildup of combustible gases and no ignition source would be present within the enclosed area of the station (id.). Additionally, in order to preclude the possibility of a natural gas-fueled explosion during construction, the Company agreed that the gas supply to the proposed take station would be shut off during the tie-in phase of construction (Tr. 1, at 74).

d. Construction-Related Impacts

Boston Gas indicated that construction of the proposed take station would take approximately nine weeks, with work taking place between 7 a.m. and 3 p.m. in order to minimize construction and traffic impacts (Exh DTE-1-18). The Company stated that one backhoe, one crane, one flat bed, and one truck would be used during construction and that parking for construction workers and equipment would be provided on-site (Exh. DTE-1-18). The Company stated that the Massachusetts State Police and/or Danvers Police would provide traffic control as necessary during construction (id.).

The Company stated that its contractor would be instructed to minimize the area of the site affected by construction and to limit the removal of vegetation to that which is actually necessary for the installation of equipment (Exh. DTE-1-17). The Company noted that construction impacts to vegetation would be temporary (id.).

e. Water/Wetlands

Boston Gas asserted, based on consultation with the Danvers Conservation Commission, that the preferred site contains no wetland resources protected either under the Wetlands Protection Act or by the applicable Danvers wetland by-law (Exh. DTE-1-23). The Company also stated that there are no wellhead protection areas, sole-source aquifers, outstanding resource waters, or public or private wells on or near the site (Exhs. DTE-1-19; DTE-1-20). The Company further stated that there would be no permanent water use or sanitation facilities at the site (Exh. DTE-1-21).

The Company asserted that construction of the proposed take station would require minimal grading, and would not result in increased stormwater runoff impacts (Exhs. DTE-1-19; DTE-1-20). However, the Company indicated that there is an area at the western property line, adjacent to Leach's property, where the topography currently results in an accumulation of stormwater runoff (Exhs. BGC-1, at exh. 3; Leach-1-4; Leach-2-67). The Company stated that construction of the proposed take station would not "contribute to the stated poor condition of the ditch" (Exh. Leach-2-67).

f. Other Potential Impacts

The Company indicated that there are no federal or State-listed or designated critical habitat or species within the vicinity of the proposed take station (Exh. DTE-1-27). The Company noted that, while approximately one-third of the site is a regularly cleared

electric transmission line easement, the vegetative cover on the remainder of the site provides temporary shelter, nesting, and forage sites for a variety of common birds and small mammals (Exh. DTE-1-28). However, the Company asserted that the site's size, its proximity to highways, and its previously disturbed state limit its value as wildlife habitat (id.).

The Company provided correspondence from the Massachusetts Historical Commission indicating that construction of the proposed take station at the preferred site would not affect significant historical or archeological resources (Exh. DTE-2-7).

The Company stated that two boilers used to pre-heat the gas and a gas-powered generator would produce small quantities of CO₂, NO₂, and water vapor (Exh. DTE-1-36). The Company estimated that these emissions would be comparable to those from a typical Massachusetts residence (Exhs. DTE-1-36; Leach-2-64).

4. Analysis

The record indicates that there has been increase in the demand for gas in Danvers and the surrounding towns, and that this demand growth can reasonably be expected to continue (Exhs. DTE-1-1; DTE-1-2; BGC-1, at 6 to 8 and exh. 5). Boston Gas Company has provided evidence that customers are not being added to the existing system because pressure insufficiencies within the system would develop (Exhs. DTE-1-1; DTE-1-7; Leach-2-39). The Department therefore concludes that additional volumes of natural gas are needed to provide service within its distribution systems.

Boston Gas investigated three options for improving system pressures in the Danvers area: (1) construction of the proposed take station; (2) increasing the size of the pipes used in the existing distribution mains; and (3) increasing the pressure within the existing system without replacing the existing pipes. The Company's analysis indicates that increasing the pressure within the existing distribution system is not feasible (Exh. BGC-DGS at 11), and that increasing the size of the pipes used in the existing distribution mains would result in higher costs, service interruptions, and obstruction of traffic along the pipeline replacement route (Exhs. BGC-1, at 7; BGC-DGS at 10 to 11). Consequently, the Department finds that the construction of the proposed take station is a reasonable manner of meeting Boston Gas' service obligations and would therefore be in the public interest: the new facility would enable Boston Gas to serve new natural gas customers in the Danvers area, while maintaining reliable and safe delivery to existing customers.

The record shows that the proposed take station would be located on a property which is owned by the MHD and zoned as "Highway Corridor". A single residence, Mr. Leach's home, abuts the site. The record indicates that construction of the proposed take station at this location would result in minor noise, drainage, visual, and construction-related impacts, as discussed below.

With respect to noise, the record shows that proposed facility would operate continuously, producing noise levels as high as 60 dBA at the fenceline. However, ambient noise levels in the vicinity of the Old Maple Street site already exceed 60 dBA, due primarily to the site's proximity to Interstate 95, and to a lesser extent, Routes 1 and 62 (Tr. 1, at 144). Noise sampling conducted by Boston Gas at the Leach residence suggests that ambient noise levels at the Leach residence, approximately 200 feet from the proposed take station, are higher than the expected noise levels of the proposed take station at the fenceline ten feet from the facility (Exhs. BGC-DGS at 21; BGC-1, at 15; DTE RR-6). Thus, the record suggests that during normal operation, the proposed take station would not create significant noise impacts at the Leach residence. Other residential locations near the proposed take station are further away, and separated from the Old Maple Street site by at least one road; consequently, noise impacts at other nearby residential locations would be even less than at the Leach residence.

The record shows that the proposed take station site has on-site vegetation that should partially obscure the take station from view in all directions. The Company plans to provide evergreen plantings and other landscaping to further screen views of the facility (Exh. BGC-1, at 13 and exh. 7). The Department notes that with the provision of a row evergreen (as distinct from deciduous) plantings of sufficient height and density, visual impacts can be effectively mitigated regardless of the season of the year.

Construction of the proposed take station is expected to take approximately nine weeks. (Exh. DTE-1-18). During this period, there may be some disruption of traffic on surrounding roads, and there may be construction noise audible in the surrounding areas. The record indicates that Boston Gas intends to employ police details as necessary to minimize construction traffic impacts (*id.*). Boston Gas also has indicated that it would be willing to limit construction to specified hours in order to minimize construction impacts (*id.*). Therefore, in order to limit construction noise and traffic impacts, the Department requires Boston Gas to restrict construction activity to the hours between 7:00 a.m. to 3:00 p.m., Monday through Friday. If the Company needs to engage in construction activities outside of these hours for any reason, it must notify the Town of Danvers and Mr. Leach at least 48 hours prior to such activity.

The record shows that the construction of the proposed take station would not alter land within a wetland or wetland buffer zone (Exh. DTE 1-23). The crushed stone area surrounding the proposed station building should minimize the general impact of runoff caused by the increase in impervious surface area on site (Exh. DTE-1-17). However, a depressed area with poor drainage, located to the southwest of the proposed site driveway on the western property line between MHD land and Mr. Leach's property, appears to be the likely recipient of increased stormwater runoff from the new driveway (Exhs. BGC-1, at exh. 3; Leach-1-4; Leach-2-67). In order to eliminate the potential for stormwater-related impacts on Mr. Leach's property, the Department requires, to the extent practicable, the Company to construct the site driveway so that runoff is dispersed and not directed primarily towards this depression.

The record shows that construction of the proposed take station would not affect any local water supply, recreational or scenic area, archaeological area, historic resource, or critical habitat or species (Exhs. DTE-1-27; DTE-1-28; DTE-2-7). Finally, the Company has taken steps to minimize safety concerns associated with the construction of the proposed take station. These steps include the use of a station design which minimizes the possibility of explosions, safe construction procedures, security infrastructure at the station site, and the location of the station away from potential sources of ignition (Exhs. BGC-1, at 14; BGC-DGS at 18; DTE-1-18; DTE-1-24; DTE-1-26; Tr. 1, at 56, 57 and 74).

Mr. Leach has argued that Boston Gas selected the Old Maple Street site solely because it offered lower project costs, and that one or more of the alternate sites would be considered preferable to the Old Maple Street site if impacts on his property are taken into account. The Department notes that G.L. c. 40A, § 3 does not require a petitioner to demonstrate its preferred site is the best possible alternative, nor does the statute require the Department to consider and reject every possible alternative presented in making its determination of whether the preferred site is reasonably necessary for the convenience and welfare of the public. 1998 NEPCo Decision, 7 DOMSB 333, at 412. 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 preferred site is reasonably necessary for the convenience or welfare of the public.

Here, the record indicates that the Company examined a number of possible sites for the proposed take station, and selected the Old Maple Street site after considering each site's ability to provide the required increase in distribution system pressure, its proximity to roadways, the Tennessee main line, and the Boston Gas distribution system, potential disturbance to the public (especially on roadways) during construction, and impacts to abutters. The record indicates that a take station located at the Old Maple Street site would provide the highest level of system benefit. This level of benefit could be achieved at other sites only through substantial expansion of the existing gas distribution system, which would increase project costs by 75 percent⁽⁵⁾

and would produce significantly increased construction impacts. While construction of the proposed take station at the Old Maple Street site is not without impacts, these impacts have been mitigated in large part through the station design and proposed site layout. Given the potential impacts to abutters and to the general public that would result from constructing the proposed take station on a different site, and the higher cost and reduced benefits associated with the alternatives, the Department concludes that the Company's choice of the Old Maple Street site for the take station is reasonably necessary for the convenience or welfare of the public.

Based on the foregoing, the Department determines that construction of the proposed take station on the proposed site would be consistent with the public interest. The Department therefore finds that the proposed project is reasonably necessary for the public convenience or welfare.

D. Conclusion

As set forth in Section III.A , above, Boston Gas has established that it is a public service corporation. As set forth in Section III.B, Boston Gas also has established that it requires an exemption from Sections 2.1, 4, and 24 of the Danvers By-laws in order to construct the proposed take station. As set forth in Section III.C, Boston Gas has established

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that the proposed project is reasonably necessary for the public convenience or welfare, if it restricts its hours of construction, provides plantings of sufficient height and density to obscure views of the proposed facility from the Leach residence, and at least one week prior to the commencement of construction, submits a plan for grading the proposed access driveway.

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V. ORDER

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

ORDERED: That Boston Gas Company's petition for an exemption from Sections 2.1, 4, and 24 of the Town of Danvers Zoning By-laws be allowed, pursuant to G.L. c. 40A §3; and it is

FURTHER ORDERED: That Boston Gas Company shall implement all mitigation measures proposed by the Company in this proceeding; and it is

FURTHER ORDERED: That Boston Gas Company, prior to the construction of the proposed take station, develop a plan for the gradation of the proposed access driveway to ensure that stormwater runoff from the proposed driveway would be diverted from the depressed area located to the southwest of the proposed driveway, and that Boston Gas Company shall submit such plan to the Department of Telecommunications and Energy one week prior to the commencement of construction; and it is

FURTHER ORDERED: That Boston Gas Company shall restrict its hours of construction to 7:00 a.m. to 3:00 p.m., Monday through Friday. If the Company needs to extend hours of construction for any reason, the Company is directed to notify the Town

of Danvers and Mr. Anthony Leach at least 48 hours prior to the expected extended day of construction; and it is

FURTHER ORDERED: That Boston Gas Company, within one year of the commencement of construction, shall provide and maintain plantings of sufficient height and density to obscure views of the proposed facility despite seasonal conditions, from residential abutters; and it is

FURTHER ORDERED: That Boston Gas Company notify the Department of any significant changes in the planned timing, design, or environmental impacts of the proposed project as described above; and it is

FURTHER ORDERED: That Boston Gas Company shall obtain all other governmental approvals necessary for this project before construction commences; and it is

FURTHER ORDERED: That the Secretary of the Department shall transmit a certified copy of this Order to the Clerk of the Town of Danvers; and that Boston Gas Company shall serve a copy of this order on the Danvers Board of Selectmen; the Danvers Planning Board, the Danvers Board of Health, and the Danvers 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,

James Connelly, Chairman

W. Robert Keating, Commissioner

Eugene J. Sullivan, Jr., Commissioner

Paul B. Vasington, Commissioner

Deirdre K. Manning, Commissioner

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 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. (Sec 5, Chapter 25, G.L. Ter. Ed., as most recently amended by Chapter 485 of the Acts of 1971).

1. The 1998 NEPCo Decision included a request for a zoning exemption that originally was filed with the Department of Telecommunications and Energy (formerly the Department of Public Utilities) ("Department") and docketed as D.P.U. 97-99. Pursuant to G.L. c. 25, § 4, the Chairman of the Department referred the matter to the Siting Board for review. G.L. c. 164, § 69H (2) provides that the Siting Board may accept such a matter for review provided that it shall apply Department and Siting Board precedent in a consistent manner. On November 17, 1997, the matter was consolidated with EFSB 97-3.

2. In addition, the Massachusetts Environmental Policy Act 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." See G.L. c. 30, § 61. Pursuant to 301 C.M.R. § 11.01(3), these findings are necessary when an Environmental Impact Report is submitted by a company to the Executive Office of Environmental Affairs, and should be based on such Environmental Impact Report. The Company stated that it was not required to file an Environmental Impact Report for the proposed projects (Exh. DTE-RR-14). Therefore, c. 30, § 61 findings are not necessary in this case.

3. ¹ The Company stated its models predicted system pressure for a "65 degree-day", which measures the extent to which the daily mean temperature falls below a reference temperature, in this case, 65 degrees Fahrenheit. Therefore the 65 degree-day referenced reflects an experienced temperature of 0 degrees Fahrenheit (Exh. Leach 1-9).

4. ² The Company reported that the MHD and the Danvers Conservation Commission indicated that the Conifer Hill Drive site is unsuitable for siting the proposed take station (Exhs. DTE-2-9; RR-DTE-1; RR-DTE-4; Tr. 1, at 91 to 115). Consequently the Company did not provide cost estimates for the construction of a take station at this site.

5. ³ The Department notes that it is clearly appropriate for public utilities such as Boston Gas to consider project cost in determining whether and where to site infrastructure such as a take station. In fact, a utility which consistently failed to consider such costs would likely also fail in its duty to serve its customers at just and reasonable rates. See, e.g., Boston Edison Company, D.P.U. 86-71, at 15 to 16 (1986).