

# The Commonwealth of Massachusetts

## DEPARTMENT OF PUBLIC UTILITIES

D.P.U. 17-114

December 21, 2018

Petition of Hopkinton LNG Corporation Pursuant to G.L. c. 40A § 3 for Exemptions from the Operation of the Town of Hopkinton Zoning Bylaws.

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## I. INTRODUCTION

### A. Description of the Proposed Project

On June 30, 2017, Hopkinton LNG Corporation (“HOPCo” or “Company”) filed with the Department of Public Utilities (“Department”) a Petition for individual and comprehensive zoning exemptions from the Town of Hopkinton Zoning Bylaws, Chapter 210, as amended October 2016 (“Zoning Bylaws”), pursuant to G.L. c. 40A, § 3. HOPCo seeks the exemptions in connection with proposed modifications to its existing peak-shaving liquefied natural gas (“LNG”) facility (“Existing Facility” or “Facility”) located in Hopkinton, Massachusetts (Exh. HOPCO-1, at 1).

Originally constructed between 1967 and 1974, the Existing Facility is located on two parcels of land in the town of Hopkinton – one on the west side of Wilson Street (55 Wilson Street or “western parcel”) and the other on the east side of Wilson Street (52 Wilson Street or “eastern parcel”) (together, the “Facility Site”) (*id.* at 3, 5). The Existing Facility’s three LNG storage tanks and truck loading area are located on the western parcel, while the remainder of the equipment, including equipment used for liquefaction of pipeline natural gas and vaporization of LNG into interconnected interstate pipelines, is on the eastern parcel (*id.* at 5, 20).

The Company proposes to make the following modifications to the Existing Facility (together, the “Project”):

- Construction of a natural gas pre-treatment system;
- Construction of a single liquefaction train including a mechanical drive combustion turbine and nitrogen cycle liquefaction process, with a nominal capacity of 21 million standard cubic feet per day (“mmscfd”);
- Installation of a feed gas metering skid with coalescing filter;

- Addition of several small natural gas-fired process heaters, a thermal oxidizer, a gas-fired emergency backup generator, system controls and instrumentation, and various piping and support structures (some of which traverse Wilson Street);
- Conversion of the existing flaring system to an emergency backup and construction of a new flare and supporting equipment;
- Installation of a boil off gas (“BOG”) compression system;
- Construction of five buildings, including a gas turbine and nitrogen compressor building, a BOG compressor building, a combined warehouse and control building, a power distribution building, and a security office;
- Modifications to the truck loading area, including replacement of the existing truck scale, improved definition of the receiving area, and installation of a new security office;
- Installation of new fire detection and fire suppression systems;
- Installation of new security fencing, lighting, and landscaping; and
- Vehicle barriers.

(Exh. HOPCO-1, at 6-8).<sup>1</sup>

The Company proposes to construct the majority of the Project facilities on a currently undeveloped portion of the western parcel, adjacent to the existing storage tanks, with some piping and ancillary facilities on the eastern parcel (together, the “Project Site”)

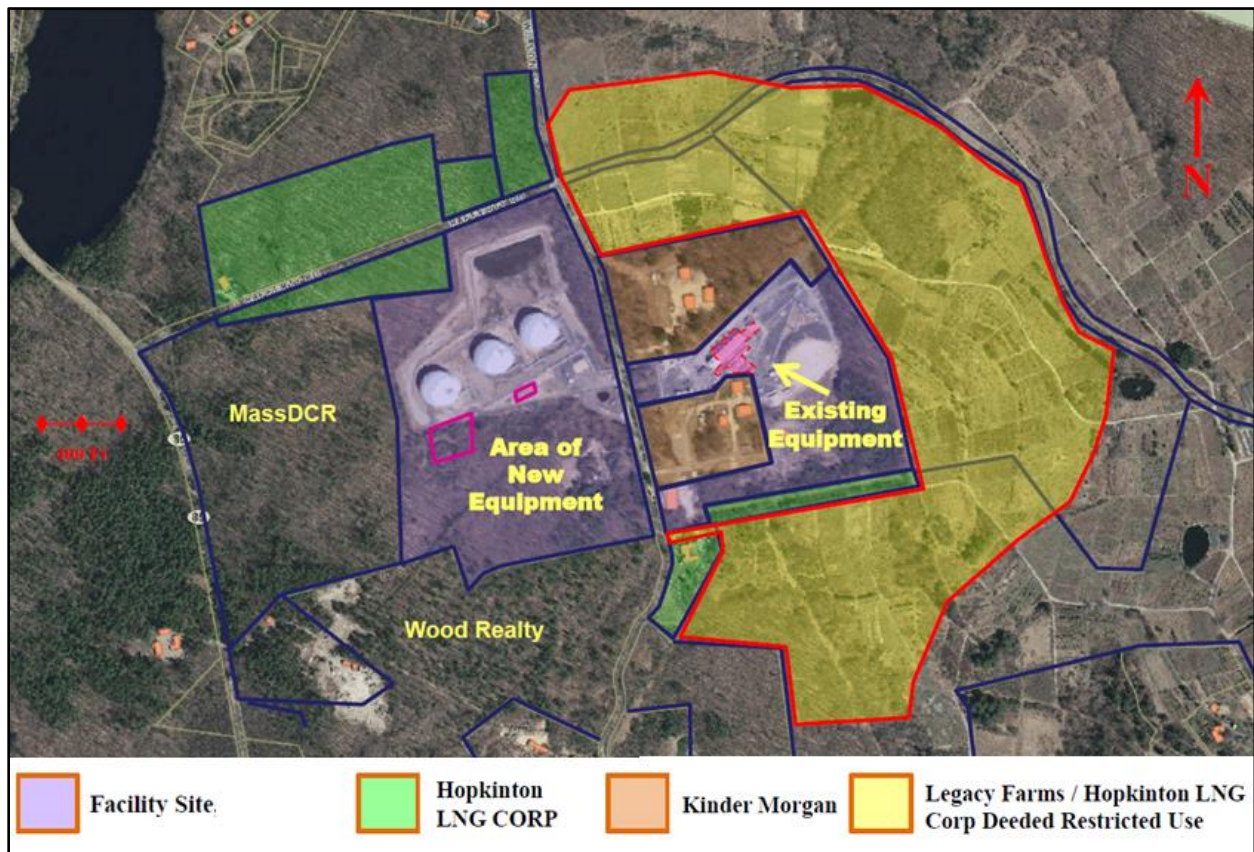
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<sup>1</sup> In a letter filed with the Energy Facilities Siting Board on February 27, 2017, the Company described proposed modifications to the Existing Facility that are the subject of this zoning exemption request. The Company stated that because the Facility was constructed before the Siting Board was established, the Facility is grandfathered and the proposed modifications are not subject to Siting Board review (February 27, 2017 Letter at 4, citing Boston Gas Company d/b/a National Grid, EFSB 14-1, at 8 (2014)). The Department notes that the Company’s proposed Project is not a change to facility previously approved by the Siting Board. The Department further notes that in Boston Gas Company d/b/a National Grid, EFSB 14-1 (2014), the Siting Board determined that the liquefaction of natural gas is not considered “manufacturing” under G.L. c. 164, § 69G, and as such the Company’s proposed installation of replacement liquefaction facilities at the Existing Facility is not subject to the Siting Board’s jurisdiction. See G.L. c. 164, §§ 69G, 69J.

(Exh. HOPCO-1, at 5, 20).<sup>2</sup> HOPCo would leave the existing pre-treatment and liquefaction equipment in place to serve as a backup until the new equipment operates successfully for at least two liquefaction seasons (*id.* at 5; Exh. DPU-G-10). The Company estimated that the Project would cost approximately \$168 million (Exh. HOPCO-1, at 8).

Figure 1, below, is a map of the existing Facility Site, as well as the Company’s proposed Project.

**Figure 1. Map of the Existing Facility and Company’s Proposed Project Site**



See RR-DPU-2(1), at 2.

<sup>2</sup> Piping would extend from the existing feed gas pipeline on the eastern parcel, under Wilson Street, to the Project Site on the western parcel (Exh. HOPCO-1, at 5).

B. Procedural History

Department staff participated in a Project site visit on September 15, 2017, and conducted a duly-noticed public comment hearing in Hopkinton on September 19, 2017. John Coutinho, chairman of the Hopkinton Board of Selectmen, John Ferrari, chairman of the Hopkinton Planning Board, Ray Miyares, Town counsel, and Mary Harrington, a former planning board member, described issues between HOPCo or Eversource Energy and the Town of Hopkinton (“Hopkinton” or “Town”), stated that the companies failed to work cooperatively with the Town, and clarified that the Town wholly opposes the Department granting a zoning override (9/19/17 Public Hearing Tr. at 22-32). No other members of the public spoke at the public comment hearing. On September 28, 2017, the Department granted the Town intervenor status; no other persons requested intervenor or limited participant status in the proceeding.

The Company sponsored the following witnesses: (1) James Blackburn, Project Manager, Eversource Energy Services Company (“Eversource”);<sup>3</sup> (2) James Davis, Director of Gas System Operations, Eversource; (3) Edna Karanian, Director of Gas Supply, Eversource; (4) Denise Bartone, Supervisor, Environmental Affairs, Eversource Energy; (5) Philip Suter, LNG Consultant, CH-IV International; and (6) Teresa Raine, Principal Consultant, ERM Consulting and Engineering. The Town sponsored the following witnesses: (1) Stephen Slaman, Fire Chief and Emergency Management Director, Town of Hopkinton; (2) Chuck Kladiak, Director of Municipal Inspections and Zoning Enforcement Officer, Town of Hopkinton; (3) Elaine Lazarus, Director of Land Use and Town Operations, Town of Hopkinton; (4) Norman

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<sup>3</sup> HOPCo is a wholly owned subsidiary of Eversource Energy (Exh. HOPCO-1, at 2; Company Brief at 14).

Khumalo, Town Manager, Town of Hopkinton; (5) Michael Nicoloro, Senior Vice President/Principal Engineer, Sanborn, Head & Associates; and (6) Stephen Zemba, Project Director, Sanborn, Head & Associates.

The Department conducted evidentiary hearings at its offices in Boston on June 12, 13, and 14, 2018. The record in this case includes 301 exhibits, including the Petition and its exhibits, pre-filed testimony from the Company and the Town, rebuttal testimony from the Company, and responses to information requests and record requests. The Town and the Company filed initial briefs on July 23, 2018, and reply briefs on August 6, 2018.

C. Town Interest in a Host Community Agreement

Hopkinton is seeking a Host Community Agreement (“HCA”) with the Company, and it argues that the Department should not grant the requested zoning exemptions absent a condition requiring the negotiation of a Department-approved HCA that properly protects local interests (Town Brief at 3, 38-45; Town Reply Brief at 1-2, 7-8). Specifically, the Town argues that a Project of this magnitude, coupled with a Company history of reluctant cooperation with the Town, necessitates an enforceable legal framework of information sharing, emergency response planning, and mitigation measures (Town Brief at 2-3, 30, 42). The Town states that the public interest requires conditioning any zoning exemption on the legal security afforded by an HCA (id. at 39).

The Town has identified a number of safety-related considerations, which are discussed in Section II.C.3.h, for inclusion in an HCA (Company Brief at 43-44). The Town is also seeking agreement on provisions it identifies as “aspects of the public welfare,” such as Project



schedule, traffic mitigation, and protocols for noise complaints (Town Brief at 44-45). Some of these issues are specifically considered by the Department in Section II.C.3.

The Company asserts that it has worked cooperatively with the Town and further states that neither the Department nor the Energy Facilities Siting Board (“Siting Board”) has ever mandated the negotiation of an HCA between parties to a proceeding (Company Reply Brief at 29). Additionally, the Company notes that many of the topics the Town seeks to address in an HCA are beyond the scope of this proceeding and do not bear on the evaluation of the requested zoning exemptions (*id.* at 30).

The Department previously recognized that the Town and Company are free to negotiate an HCA but declined to require an HCA as part of its review of gas service agreement relative to HOPCo. NSTAR Gas Company and Hopkinton LNG Corp., D.P.U. 14-64, at 73 (2015) (“NSTAR Gas 2015”). In addition, the “Siting Board has previously declined to include an HCA as part of its Decision or to enforce an HCA between a company and a municipality. Exelon West Medway, EFSB 15-01/D.P.U. 15-25, at 6 (2016).<sup>4</sup> Consistent with Siting Board practices, the Department will neither insert itself into negotiations between the parties, require any

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<sup>4</sup> For example, in EFSB 15-01, the Siting Board stated that “the [already existing] HCA is part of the record evidence in this proceeding, and the Siting Board relies on the Company’s commitments in the HCA in its analysis of the Facility. The Siting Board refers to certain provisions of the HCA within its Final Decision, and incorporates some of the HCA provisions as Conditions. However, the HCA is a private agreement between two parties to this proceeding, Exelon and Medway, and therefore, the Siting Board declines to incorporate the full HCA into the Final Decision regarding the Facility, and also declines to assume enforcement responsibilities for the HCA, *per se*. Where any future deviations from the HCA’s provisions alter material facts or assumptions relied upon by the Siting Board in the Final Decision, the Company is obligated to notify the Siting Board in writing so that it may consider whether further inquiry is required.” Exelon West Medway, EFSB 15-01/D.P.U. 15-25, at 6 (2016). See also NRG Canal 3 Development LLC, EFSB 15-06/D.P.U. 15-180, at 6 (2017).

particular agreement, nor will it enforce any such agreement ultimately reached by the parties.

The Department notes that, while it declines to require an HCA here, many of the items that the Town recommends for an HCA are reflected in conditions to this Order.

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

A. Standard of Review

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

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

Thus, a petitioner seeking exemption from a local zoning bylaw under G.L. c. 40A, § 3, must meet three criteria. First, the petitioner must qualify as a public service corporation. NSTAR Electric Company d/b/a/ Eversource Energy, D.P.U. 15-85, at 3 (2016) (“Woburn Substation”); NSTAR Electric Company d/b/a Eversource Energy, D.P.U. 15-02, at 3 (2015) (“NSTAR Hopkinton”); New England Power Company d/b/a National Grid, D.P.U. 14-128/14-129, at 3 (2015) (“NEP Cabot Taps”); Save the Bay, Inc. v. Department of Public Utilities, 366 Mass. 667, 678-683 (1975) (“Save the Bay”). Second, the petitioner must demonstrate that its present or proposed use of the land or structure is reasonably necessary for the convenience or welfare of the public. Woburn Substation at 3; NSTAR Hopkinton at 3; NEP Cabot Taps at 3; Tennessee Gas Pipeline Company, D.T.E. 01-57, at 4 (2002). Finally, the petitioner must establish that it requires exemption from the zoning ordinance or bylaw. Woburn

Substation at 3; NSTAR Hopkinton at 4; NEP Cabot Taps at 3; Boston Gas Company, D.T.E. 00-24, at 3 (2001).

1. Public Service Corporation

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

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

Save the Bay, 366 Mass. at 680. See also Woburn Substation at 3-4; NSTAR Hopkinton, at 6-7; NEP Cabot Taps at 4; Berkshire Power Development, Inc., D.P.U. 96-104, at 26-36 (1997) (“Berkshire Power”).

The Department interprets this list not as a test, but rather, as guidance to ensure that the intent of G.L. c. 40A, § 3, will be realized; *i.e.*, that a present or proposed use of land or structure that is determined by the Department to be “reasonably necessary for the convenience or welfare of the public” not be foreclosed due to local opposition. Save the Bay 366 Mass. at 685-686; Town of Truro v. Department of Public Utilities, 365 Mass. 407, 410 (1974) (“Town of Truro”); NEP Cabot Taps at 4. The Department has interpreted the “pertinent considerations” as a “flexible set of criteria which allow the Department to respond to changes in the environment in which the industries it regulates operate and still provide for the public welfare.” Woburn Substation at 3-4; NSTAR Hopkinton at 4-5; NEP Cabot Taps at 4; see also Dispatch Communications of New England d/b/a Nextel Communications, Inc., D.P.U./D.T.E. 95-59-B/95-80/95-112/96-13, at 6 (1998). The Department has determined that it is not

necessary for a petitioner to demonstrate the existence of “an appropriate franchise” in order to establish PSC status. Woburn Substation at 3-4; NSTAR Hopkinton at 5; NEP Cabot Taps at 4; Berkshire Power at 31.

## 2. Public Convenience and Welfare

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

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

Therefore, when making a determination as to whether a petitioner’s present or proposed use is reasonably necessary for the public convenience or welfare, the Department examines

(1) the present or proposed use and any alternatives or alternative sites identified; (2) the need for, or public benefits of, the present or proposed use; and (3) the environmental impacts or any other impacts of the present or proposed use. The Department then balances the interests of the general public against the local interest, and determines whether the present or proposed use of the land or structures is reasonably necessary for the convenience or welfare of the public.

Woburn Substation at 4-5; NSTAR Hopkinton at 6; NEP Cabot Tap at 5-6; Tennessee Gas Company, D.T.E. 98-33, at 4-5 (1998).

### 3. Exemptions Required

In determining whether exemption from a particular provision of a zoning bylaw is “required” for purposes of G.L. c. 40A, § 3, the Department makes a determination whether the exemption is necessary to allow construction or operation of the petitioner’s Project. Woburn Substation at 6; NSTAR Hopkinton at 6; NEP Cabot Taps at 6; Tennessee Gas Company, D.P.U. 92-261, at 20-21 (1993). It is a petitioner’s burden to identify the individual zoning provisions applicable to the Project and then to establish on the record that exemption from each of those provisions is required:

The Company is both in a better position to identify its needs, and has the responsibility to fully plead its own case . . . The Department fully expects that, henceforth, all public service corporations seeking exemptions under c. 40A, § 3 will identify fully and in a timely manner all exemptions that are necessary for the corporation to proceed with its proposed activities, so that the Department is provided ample opportunity to investigate the need for the required exemptions.

New York Cellular Geographic Service Area, Inc., D.P.U. 94-44, at 18 (1995); Woburn Substation at 6; NSTAR Hopkinton at 6; NEP Cabot Taps at 6.

B. Public Service Corporation Status

HOPCo is a wholly-owned subsidiary of Eversource Energy, and HOPCo's rates, facilities, and services are subject to regulation by the Department, and, as such, it is a public service corporation (Exh. HOPCo-1, at 10, citing D.P.U. 14-64, at 8). See also Save the Bay, 366 Mass. at 680; Woburn Substation at 3-4. Accordingly, the Department finds that HOPCo qualifies as a public service corporation for the purposes of G.L. c. 40A, § 3.<sup>5</sup>

C. Public Convenience and Welfare

1. Need for or Public Benefit of Use

a. Company Position

According to the Company, the Existing Facility serves as a peak-shaving unit, supplementing pipeline natural gas supplies during the winter heating season by vaporizing LNG that was liquefied in lower-demand summer months and stored on site (Exh. HOPCO-1, at 3). HOPCo categorizes activities of the Existing Facility into four operational groups: (1) natural gas liquefaction; (2) LNG storage; (3) LNG truck loading and offloading; and (4) LNG vaporization (id. at 4).

Pipeline gas liquefaction at the Existing Facility is conducted sequentially with three different coolants (propane, ethylene, and methane) in a cascade process (id. at 17; Exh. DPU-P-1(1) at 15; Tr. 1, at 41-42). The liquefaction capacity of this cascade process is 17 mmscfd (Exh. HOPCO-1, at 3-4). The storage tanks have a combined capacity of approximately 3,000,000 million British Thermal Units (id. at 4). LNG can also be delivered to the Existing

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<sup>5</sup> The Department notes that it has exempted portions of this Facility from the operation of the Town of Hopkinton Zoning Bylaws in three previous Orders: D.P.U. 14978 (1965); D.P.U. 16519 (1970); and D.P.U. 17934 (1974).

Facility in specialized LNG trucks (Tr. 1, at 33-34). LNG from the Existing Facility's storage tanks can be offloaded to LNG trucks; however, such delivery is limited to HOPCo LNG storage tanks elsewhere (Tr. 1, at 39-41).<sup>6</sup> LNG can also be vaporized at the Existing Facility and fed back into the pipeline system; the vaporizers at the Existing Facility, which were recently replaced, have a total capacity of 240 mmscfd (Exhs. HOPCO-1, at 3-4; DPU-P-1(1) at 12; DPU-P-3(1) at 3).

The Existing Facility is interconnected to both the Tennessee Gas Pipeline Company ("TGP") and Algonquin Gas Transmission LLC ("AGT") interstate pipeline systems (Exh. HOPCO-1, at 4). HOPCo stated that it is able to liquefy natural gas from either the TGP or AGT systems, and can inject vaporized gas into either system for delivery to NSTAR Gas Company ("NSTAR Gas") customers in the winter (*id.*).<sup>7</sup> Vaporized LNG can also be injected directly into the NSTAR Gas local distribution system (*id.*). HOPCo stated that Existing Facility's diverse capabilities and gas interconnections are unique to the Hopkinton location and that no other LNG facility in New England can provide the same array of services as the Existing Facility (Tr. 1, at 21).

HOPCo stated that the Existing Facility is of critical importance to the NSTAR Gas local distribution system, providing as much as 45 percent of NSTAR Gas' total sendout requirement on a winter peak day (Exhs. HOPCO-1, at 12; DPU-N-1). The Existing Facility allows the

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<sup>6</sup> HOPCo trucks LNG from the Existing Facility to fill its satellite storage facility in Acushnet, where the Company has storage and vaporization capability, but no liquefaction capability (approximately 500 truckloads are required to fill the Acushnet storage facilities) (Exh. HOPCO-1, at 2, 14; Tr. 1, at 79).

<sup>7</sup> NSTAR Gas is a local gas distribution company and, like HOPCo, is a subsidiary of Eversource Energy (Exh. HOPCO-1, at 2-3).

Company to liquefy relatively low-cost summer season pipeline gas, store LNG on-site, truck LNG to a storage facility in Acushnet, and vaporize the LNG stored on-site for injection into its distribution system during the winter months, when demand for natural gas (and therefore price) peaks (Exh. DPU-N-1; Tr. 1, at 19-22). NSTAR Gas has a full service agreement with HOPCo for 100 percent of the Existing Facility's LNG output (Exh. HOPCO-1, at 3-4; Tr. 1, at 23).<sup>8</sup>

This gas service agreement was approved by the Department in NSTAR Gas 2015. The Department found that the Existing Facility is an important and necessary component of NSTAR Gas' resource portfolio and that "the lack of a viable, cost-effective alternative to the [Existing Facility] emphasizes the importance of these facilities as part of [NSTAR Gas'] overall resource portfolio for the foreseeable future..." See NSTAR Gas 2015, at 32-33, 75.

In 2011, HOPCo engaged Fuss & O'Neill Energy Alternatives, LLC to perform a high level assessment of the Existing Facility and to provide guidance on the prioritization of capital improvements thereto ("Facility Assessment") (Exh. HOPCO-1, at 13). The Facility Assessment indicated that the Existing Facility's gas pre-treatment and liquefier systems were 44 years old at that time (i.e., now 51 years old), several years beyond their design life of 30-40 years, and they were functionally at the end of their useful life (id.; Exh. DPU-P-1(1) at 20, 52-53; Tr. 1, at 70-73).<sup>9</sup> The Company characterized the Facility Assessment as concluding that the age and

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<sup>8</sup> HOPCo identified one instance where ten LNG trucks were dispatched from the Existing Facility to support another local distribution company facing emergency conditions (Tr. 1, at 40). HOPCo noted that the volume of gas supplied to this local distribution company was subsequently returned to HOPCo (id.).

<sup>9</sup> The Company defined "design life" as the period for which equipment was initially designed to function, whereas the "useful life" of equipment could potentially be extended beyond this period through maintenance (Tr. 1, at 70-73).



obsolescence of existing equipment posed a significant risk to the continued reliable operation of the Facility, and recommended replacement of various components (Exhs. HOPCO-1, at 12-13; DPU-P-1(1) at 20, 52-56). The Company agreed with this recommendation, concurring that many critical components in use at the Existing Facility are at risk and no longer commercially available (see Exh. DPU-P-1(1)). The Company stated that replacement components must be custom manufactured at a substantial cost and/or modified from their original design in order to be used (Exhs. HOPCO-1, at 12-13; TOH-2-027(S1); Tr. 1, at 72). HOPCO indicated that as equipment at the Existing Facility continues to exceed its design life, the likelihood of a major equipment failure increases, and with it, the risk of an extended facility shutdown (Exhs. HOPCO-1, at 13-15; DPU-N-1; DPU-N-5; TOH-1-050).<sup>10</sup> The Company stated that a shutdown of this type could jeopardize its ability to ensure a reliable supply of peak-shaving LNG for its customers and thereby affect NSTAR Gas' ability to provide reliable winter service to its firm customers (Exhs. HOPCO-1, at 13-15; DPU-N-1; DPU-N-5).

b. Analysis and Findings

Originally constructed in 1967, the Existing Facility plays a critical role in meeting the winter gas supply needs of NSTAR Gas customers. The Company has shown that the age and obsolescence of the Existing Facility's natural gas pre-treatment and liquefaction systems and associated supporting equipment represent a significant reliability risk to the continued operation of the Existing Facility, and this situation jeopardizes the Company's ability to provide a reliable

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<sup>10</sup> For example, the Facility Assessment concluded that a failure of the Existing Facility's cold box valves could result in a one to three month outage to the liquefaction system because custom valve replacements would be required and the service is somewhat unique (Exh. DPU-P-1(1) at 22).

supply of peak-shaving LNG to its customers. In addition, even if the existing liquefaction system and related equipment could be kept in operable condition in future years, this effort would entail increasing reliance on expensive, custom-made parts, a limited pool of technical staff to carry out such involved repairs, and, therefore, the potential for extended outages. Accordingly, the Department finds that there is a need for the Project and that its construction and operation would result in public benefits.

## 2. Alternatives Explored

In assessing alternative solutions to meet the identified need, HOPCo explored the potential for other sources of LNG supply – including trucking in LNG from third party suppliers, development of a greenfield liquefaction facility, and construction of new pipeline capacity – as well as replacement-in-kind of the Existing Facility equipment (Exh. HOPCO-1, at 15-17). In addition, the Company evaluated a number of different liquefaction technology options for use at the Facility Site (id. at 17).<sup>11</sup>

### a. Project Alternatives

The Company considered the potential for annually refilling its Hopkinton and Acushnet LNG storage tanks with 3,500 truck-loads of LNG from third party suppliers located in Pennsylvania, Montreal, or Everett (Exh. HOPCO-1, at 15-16; Tr. 1, at 79). The Company stated that it dismissed this option because it would cost substantially more than the Project and would pose additional risks to the Company, including LNG market dynamics and the availability and cost of trucking (Exh. HOPCO-1, at 15-16; Tr. 1, at 75-82; see also,

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<sup>11</sup> The Company also explored a no-action alternative. However, this approach did not address the identified reliability need (Exh. HOPCO-1, at 15).

RR-DPU-3(1)(Confidential)). HOPCo stated that a trucking alternative would result in significant long-term impacts to the local community through increased truck traffic, at an increased cost and decreased reliability, and, as such, the Company does not consider it an acceptable alternative to the Project (Exh. HOPCO-1, at 16).

The Company also considered and dismissed the option of constructing a new liquefaction facility on a greenfield site as a substitute for liquefaction at the Existing Facility (id.). HOPCo stated that a new liquefaction facility located offsite would be costly, require extensive siting, and would not feasibly be available in the timeframe necessary to support the existing reliability need (id. at 16-17; Tr. 1, at 84-86). The Company also considered replacing the existing liquefaction system with a new system in the same location, but concluded this would be extremely difficult due to limited space availability, and the need to keep existing equipment operable until new the systems have been tested (Exh. HOPCO-1, at 16). The Company further stated that during construction of such a replacement, Existing Facility operations would be at risk of service interruptions, which would be unacceptable to the Company or NSTAR Gas customers (id.).

According to HOPCo, the only viable project alternative would be the construction of incremental pipeline capacity (Exh. DPU-PA-2). HOPCo asserted that a pipeline scenario would be dramatically more expensive than the Project, and it would also erode many of the benefits that the Existing Facility brings to NSTAR Gas customers (e.g., the presence of a supply source within NSTAR Gas' market area and a backstop for a significant problem on the high-pressure gas pipeline system) (Tr. 1, at 86-89; RR-DPU-3). The Company further noted that both of the existing interstate pipeline companies that serve NSTAR Gas (AGT and TGP) have recently

suspended or cancelled large regional pipeline projects, and HOPCo opined that the development of any significant new interstate pipeline capacity for New England would be highly challenging at present (Exh. DPU-PA-2; Tr. 1, at 89-91).

b. Technology Alternatives

The Company evaluated two liquefaction technologies: single mixed refrigerant (“SMR”) and nitrogen cycle refrigeration (Exh. HOPCO-1, at 17; Tr.1, at 92-93).<sup>12</sup> HOPCo stated that, while SMR has a slight efficiency advantage over nitrogen cycle refrigeration, this benefit is outweighed by safety issues and operational complexities inherent to the SMR technology (Exhs. HOPCO-1, at 17; DPU-PA-4; Tr. 1, at 93-97, 104).<sup>13</sup> According to the Company, SMR requires the use and on-site storage of three flammable hydrocarbon refrigerants (typically ethylene, propane, and butane), presenting a potential fire hazard (Exh. DPU-PA-4). Nitrogen-cycle technology, on the other hand, uses a single inert gas (nitrogen), and as such reduces the number of safety hazards on site (id.). Additionally, an SMR system would require the Company to burn (flare) the hydrocarbons during a process upset, which would result in both air and noise emissions from the Facility (id.). HOPCo stated that nitrogen can be vented directly to the atmosphere during a process upset without any environmental impacts, thus reducing air pollutant emissions from the Facility (id.; Tr. 1, at 99).<sup>14</sup> Silencers would be used to

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<sup>12</sup> The Company indicated that the cascade technology currently used at the Existing Facility is an older technology, and is no longer readily available as the market has moved towards the SMR and nitrogen cycle technologies (Tr. 1, at 100).

<sup>13</sup> The Company noted that the nitrogen cycle technology has a slight capital cost advantage over the SMR technology (Tr. 1, at 104).

reduce any noise emissions from potential high pressure nitrogen releases (Exh. DPU-PA-4). Accordingly, the Company selected a nitrogen cycle liquefaction system for the Project (Exhs. HOPCO-1, at 17).

The Company assessed three potential sizes for the nitrogen cycle liquefaction system: 17 mmscfd; 21 mmscfd; and 25 mmscfd (Exh. DPU-N-4). The Company indicated that the 21 mmscfd sized system would meet the Company's LNG supply needs at the lowest capital cost, while requiring a similar construction footprint, and, therefore, it was selected for the Project (id.; Tr. 1, at 100-103).<sup>15</sup>

Finally, the Company considered two potential technology types for the natural gas pre-treatment system: (1) a molecular sieve and (2) amine gas treatment (Exh. DPU-PA-5). These systems take pipeline gas and remove contaminants such as carbon dioxide ("CO<sub>2</sub>") and water vapor before the gas is liquefied (Tr. 1, at 105). The Existing Facility uses an amine gas pre-treatment system (id. at 106). The Company opted to continue use of an amine-based system for two reasons: (1) HOPCo's feedstock pipeline gas has CO<sub>2</sub> concentrations up to or exceeding the treatment capacity of molecular sieve technology; and (2) regeneration of the molecular sieves produces a waste gas stream for which the Company was unable to identify a suitable disposal method (id. at 105-112). HOPCo committed to providing spill containment curbing for

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<sup>14</sup> HOPCo further stated that greenhouse gas emissions caused by fugitive emissions of coolant (e.g., minor leaks through flanges and valves) would also be reduced through the sole use of nitrogen as a refrigerant, rather than the hydrocarbons used in the SMR technology (Exh. DPU-PA-4).

<sup>15</sup> Regarding the potential for increasing the capacity of the liquefaction to 25 mmscfd, HOPCo stated that a larger system would exceed its contractual responsibilities, and the Company viewed outside market opportunities to sell additional LNG as speculative (Tr. 1, at 116-118).

the new amine system, which would be an improvement over the existing system's design (id. at 113-114).

c. Analysis and Findings

With regard to the project alternatives considered by the Company, the record demonstrates that trucking LNG to the Company's Hopkinton and Acushnet storage facilities, either from a third party supplier or a new greenfield liquefaction site, would entail higher costs and have greater environmental impacts than the Project. The record further demonstrates that replacement of the Existing Facility's liquefaction and pre-treatment systems within the same footprint on the Facility Site is not a feasible or reliable alternative. Finally, the Department accepts the Company's position that the construction of incremental natural gas pipeline capacity for delivery within New England of sufficient magnitude to offset the need for the Project would be significantly more costly, and it is unlikely to be available in the timeframe necessary to address the identified need.

With regard to technology alternatives, the record shows that the Company reasonably considered a variety of technology options and sizes, and it selected the option that would best balance cost and environmental impacts, while ensuring the Company's LNG supply needs would be met. Accordingly, the Department finds that the Company's decision to pursue the Project rather than the alternatives is reasonable.

3. Impacts of the Proposed Use

a. Land Use

As described in Section I.A, above, the Facility Site consists of two separate parcels, with the Existing Facility's LNG storage tanks and truck loading area located on the western parcel,

and the remainder of the equipment located on the eastern parcel (Exh. HOPCO-1, at 5, 20). Land uses immediately adjacent to the Facility Site's western parcel include conservation and recreation land owned by the Massachusetts Department of Conservation and Recreation ("DCR") to the west, primarily undeveloped land owned by Wood Realty to the south, and primarily undeveloped land owned by the Company to the north (RR-DPU-2(1)). The Facility Site's eastern parcel surrounds a smaller parcel of land owned by Kinder Morgan (owner of TGP), and it is bordered to the north by additional Kinder Morgan property (*id.*). The Company has purchased a Declaration of Restriction from Legacy Farms LLC for approximately 99 acres of land surrounding both the HOPCO and Kinder Morgan properties ("Deeded/Restricted Use Area") (*id.*; Exh. DPU-LU-7). This restriction ensures that this land will remain in its existing or natural condition and, among other things, restricts the construction of any structures or activities that would normally involve the public assembly of more than 25 persons (Exh. DPU-LU-7).

The Project Site is located primarily in a largely undeveloped portion of the western parcel, south of the LNG storage tanks and west of the truck loading area (Exhs. HOPCO-1, at 20; DPU-G-18(1)). The Project would disturb, in total, approximately 10.7 acres of land, 7.6 acres of which would be permanently altered (RR-DPU-12). A total of 5.3 acres of vegetation clearing would be required to accommodate Project construction and temporary construction staging areas (*id.*). A vegetative buffer of at least 75 feet would be maintained on all sides of the Facility Site, with the exception of already cleared areas along Wilson Street where a number of access roads and the truck loading area are located (Exhs. HOPCO-1, at 20; DPU-LU-3(R1)).

No designated Priority Habitats of Rare Species or Estimated Habitats of Rare Wildlife are located within the Project Site (Exh. HOPCO-1, at 27). No inventoried archaeological sites or historic properties are located on or immediately adjacent to the Project Site (*id.* at 26-27). Further, HOPCo asserted that based on its initial assessments of the Facility Site, the Project would avoid any impacts to cultural resources located on the Facility Site (such as a historic granite quarry) (Exh. TOH-2-011(1); Tr. 2, at 388-391). The Company has submitted a Project Notification Form to the Massachusetts Historical Commission (“MHC”), and it is awaiting MHC’s official determination of any effect on historic and archeological properties (Exh. HOPCO-1, at 26-27; Tr. 2, at 388-391).

The residence closest to the Project Site is an Eversource Energy-owned property (in use as a women’s shelter) approximately 1,300 feet away (Exh. DPU-P-2(1); Tr. 2, at 379). Following construction of a shelter at a new location, the existing structure will be vacated and razed, after which the closest existing residential abutter to the Project Site would be a single private residence on Cedar Street, located approximately 1,420 feet away (Exh. DPU-P-2(1); Tr. 2, at 379-383).<sup>16</sup> The highest density of housing near the Facility Site is the Legacy Farms residential development (“Legacy Farms”), located east of the Company’s Deeded/Restricted Use Area, approximately 2,500 feet from the Project Site (Exhs. DPU-P-2(1); DPU-LU-9(1); Tr. 2, at 381). To date, 45 residential units have been constructed at Legacy Farms, with an

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<sup>16</sup> The Company expected that the existing shelter location would be vacant as of July 1, 2018 (Tr. 2, at 380).



additional 425 units proposed within a half-mile of the Project Site (Exh. DPU-LU-5). When complete, Legacy Farms will include a mix of duplexes and single family homes (id.).<sup>17</sup>

b. Visual

i. Company Position

The Company identified 14 Project components that would be greater than the maximum 35-foot height allowed by the Zoning Bylaws, all of which would be located on the Facility Site's western parcel and, among which, the recycle nitrogen compressor turbine stack would be the tallest at 75 feet (Exh. HOPCO-1, at 23, 31; Tr. 3, at 407). The Company suggested that a 75-foot stack height would provide the best balance between noise, visual, and air impacts (Tr. 3, at 415). An existing 400-foot-tall TGP radio tower would remain the tallest structure on or immediately adjacent to the Facility Site (Tr. 3, at 413).

Lighting to be installed as part of the Project would be fully-shielded, downward facing fixtures that would comply with American Petroleum Institute ("API") standards intended to provide adequate safety and security for petrochemical facilities such as the Facility (RR-DPU-17).<sup>18,19</sup>

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<sup>17</sup> According to the Town, when complete, Legacy Farms will include a total of 634 residences within a mile of the Facility (Exh. TOH-EL-1, at 6). Construction on the Legacy Farms development began in 2010 and is ongoing (Exh. TOH-EL-1, at 5).

<sup>18</sup> The Company stated that the API standards provide clear design, installation, and safety requirements and guidelines on best practice with regard to electrical installations and lighting for facilities such as the Project, and they are more appropriate than lighting standards relied on by the Town for more routine applications (RR-DPU-17). According to the Company, the Illuminating Engineering Society of North America ("IESNA") handbook referenced by the Town provides general recommendations for many public, residential, manufacturing, and commercial installations, but does not provide specific recommendations or requirements for petroleum plants such as the Existing Facility or a comparable use (id.).

According to HOPCo, public views of the Project Site and associated equipment would be screened by both the existing LNG storage tanks and a vegetative buffer, and as such, visual impacts following Project completion would be no greater than they are today (Exh. HOPCO-1, at 23; Tr. 3, at 416; RR-DPU-15).<sup>20</sup> The Company indicated that improvements to the appearance of the truck loading area (which currently has unobstructed views from Wilson Street) would be achieved through the completion of the Company's proposed landscaping plan, which includes a total of 27 eastern red cedar and Norway spruce to be located on the western parcel (Tr. 3, at 433; RR-DPU-18(1)).

ii. Town Position

The Town argues that the visual impacts of the proposed Project would be quite negative to the bucolic nature of the surrounding area (Town Brief at 16). According to the Town, the Project Site would be visible from the Legacy Farms North development and other locations throughout Hopkinton wherever components of the Facility extend above the tree line (*id.*, citing Exh. TOH-EL-1, at 10).<sup>21</sup> The Town argues that new lighting proposed for the Project would be

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<sup>19</sup> HOPCo notes that the draft lighting plan for the Project was provided to the Town on February 20, 2018 as part of the Company's agreement to provide certain documents requested by the Town as they became available, and again on June 21, 2018 (Company Reply Brief at 11, citing Exh. TOH-MN-3, RR-DPU-16).

<sup>20</sup> According to the Company, storage tanks A and B are 94' 3" tall and storage tank C is 96' 3" tall (RR-DPU-13).

<sup>21</sup> The Town submits that the visibility of Project components was clearly demonstrated in the visual renderings provided by the Company (Town Brief at 16, citing Tr. 2, at 304).

similarly visible and that compliance with certain industry standards<sup>22</sup> would help to mitigate some of the Project's visual impacts (Town Brief at 16).

c. Noise

i. Company Position

With regard to operational noise, the Company stated that the Project would include application of Best Available Control Technology ("BACT") for noise, and that future sound level increases due to the Project would be well below the Massachusetts Department of Environmental Protection's ("MassDEP") noise policy limit of 10 A-weighted decibels ("dBA") over pre-existing ambient conditions (Exhs. HOPCO-1, at 25; DPU-NO-6(S1)(1) at 5, 28; DPU-NO-8). Furthermore, the Company stated that sound level increases would also be below a more stringent 3 dBA limit at residential receptors that MassDEP has requested be applied to this particular Project (Exhs. HOPCO-1, at 25; DPU-NO-6(S1)(1) at 28; Tr. 2, at 221-224; RR-DPU-7).<sup>23</sup> Further, the Project would not result in any "pure tone" conditions, as defined by MassDEP (Exh. DPU-NO-6(S1)(1) at 30).<sup>24</sup> Table 1, below, presents a summary of the L<sub>90</sub> sound level impacts measured and predicted for nighttime conditions at seven residential

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<sup>22</sup> The Town indicated that if the Project were to proceed through local site plan review it would need to comply with the lighting standards prescribed in the IESNA handbook (Tr. 2, at 304-305, 340-342). The Town further indicated that compliance with IESNA standards would help ensure that new lighting proposed would be focused where it is needed and would not shine out from the Facility (*id.* at 304-305).

<sup>23</sup> Examples of noise mitigation applied to the Project include the construction of acoustic buildings around Project equipment, and the use of exhaust stack silencers and premium efficiency motors (Exhs. DPU-NO-6(S1)(1) at 23-25; DPU-NO-8).

<sup>24</sup> The MassDEP defines a pure tone condition where any one octave band sound pressure level exceeds the two adjacent frequency bands by three decibels or more (Exh. DPU-NO-6(S1)(1) at 16).

receptor and three property line locations near the Project Site,<sup>25</sup> and shows a maximum increase of 9.1 dBA over existing conditions at the nearest Facility property line, and 2.4 dBA at the nearest residence (id. at 21-22).<sup>26,27</sup>

**Table 1. Nighttime Broadband L<sub>90</sub> Sound Evaluation Presented by the Company (dBA)**

<b>Receptor ID</b>	<b>Measured Background Noise Level</b>	<b>Combined Project and Background Noise Level</b>	<b>Increase Over Existing Ambient</b>
<b>R1</b>	39.6	40.8	1.2
<b>R2</b>	39.3	39.4	0.1
<b>R3</b>	39.6	40.4	0.8
<b>R4</b>	39.6	40.4	0.8
<b>R5</b>	39.6	40.7	1.1
<b>R6</b>	39.6	40.7	1.1
<b>R7</b>	39.6	42	2.4
<b>PL1</b>	41.3	43	1.7
<b>PL3</b>	33.2	42.4	9.1
<b>PL4</b>	33.2	41	7.8

Note: PL2, a location within the Existing Facility site near the LNG storage tanks, is not subject to the MassDEP noise criteria, and as such is not included in Table 1.

Source: Exh. DPU-NO-6(S1)(1) at 28.

<sup>25</sup> The L<sub>90</sub> sound level is the sound level that is exceeded during 90 percent of the measurement period and is used by the MassDEP to define “ambient” conditions (Exh. DPU-NO-6(S1)(1) at 15; Tr. 2, at 222; RR-DPU-8).

<sup>26</sup> The maximum increase of 9.1 dBA over existing conditions was modelled at PL3, 410 feet west of the center of the Project Site, on the border between the Facility Site and a conservation and recreation area owned by DCR (Exh. DPU-NO-6(S1)(1) at 18; RR-DPU-2(1)).

<sup>27</sup> The Company stated that the Project and the existing pre-treatment and liquefaction systems are not designed for simultaneous operation; however, some limited overlap could occur during Project commissioning (Exh. DPU-NO-5; Tr. 2, at 235-237).

With regard to construction-related noise, HOPCo proposed a six-day per week construction schedule, Monday through Saturday, from 7:00 a.m. to 7:00 p.m. (Exhs. HOPCO-1, at 18; DPU-NO-1). The Company stated that low noise activities, such as electrical testing, painting, and clean up, as well as other work activities located within buildings might be performed outside of these hours (Exhs. HOPCO-1, at 18; DPU-NO-1). The Company noted that once it starts some activities, such as concrete pours and heavy lifts, these activities must occur continuously until they are completed (Exhs. HOPCO-1, at 18; DPU-NO-1). The Company stated that these activities are fairly limited in number and can generally be coordinated without the need for work outside of normal construction hours (Exh. DPU-NO-1).

HOPCo indicated that its proposed construction schedule would comply with weekday construction hours permitted by the Town of Hopkinton Noise Bylaw, but it is requesting an additional four hours (7:00 a.m. to 8:00 a.m., and 4:00 p.m. to 7:00 p.m.) for Saturdays (id.; Tr. 2, at 227-228).<sup>28</sup> HOPCo asserted that these extended construction hours would allow the Company to maintain a standard work day throughout the week, and to make up for any tasks that it was unable to conduct Monday through Friday (Tr. 2, at 228-230).

The Company stated that it would minimize construction-related noise impacts by ensuring functional mufflers are maintained on all equipment, avoiding concurrent sound-emitting activities when possible, and shutting off any equipment not actively in use (Exhs. HOPCO-1, at 24; DPU-NO-3).

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<sup>28</sup> The Town of Hopkinton Noise Bylaw limits construction to 7:00 a.m. to 7:00 p.m. Monday through Friday, and 8:00 a.m. to 4:00 p.m. on Saturday (Exh. DPU-NO-1(1)).

ii. Town Position

The Town argues that the Company has not provided a sufficient level of information on the construction and operational noise impacts of the Project to allow for the development of a noise mitigation plan (Town Brief at 17). The Town indicated that the construction hours permitted in the Town's Noise Bylaw were established to protect Hopkinton residents, and expressed a desire for the Company to limit work hours to those permitted under the Noise Bylaw (Exh. TOH-EL-1, at 15; Tr. 2, at 307-310).

d. Hazardous Materials

The Company stated that once construction is complete, the Facility would include equipment containing substances which, if released, would have the potential to cause negative impacts to the environment (Exh. HOPCO-1, at 21-22; Tr. 2, at 391-392). These substances include amine solution (to be stored in an above-ground storage tank), non-PCB transformer oil, oily water from process systems (to be stored in a slop tank until removal from the Facility Site), hot oil used in the liquefaction system, and an anti-foaming agent (to be stored in drums near the amine pump's suction) (Exh. HOPCO-1, at 21-22; Tr. 1, at 138-143). Each of these substances is present at the Existing Facility today; each would have spill containment or curbing following Project completion (Exh. HOPCO-1, at 22; Tr. 2, at 392-394).

e. Wetlands and Water Resources

i. Company Position

According to HOPCo, the Project Site does not contain any wetland resource areas within the jurisdiction of the Massachusetts Wetlands Protection Act, but does feature Isolated Vegetated Wetlands ("IVWs") subject to the Hopkinton Wetlands Protection Bylaw

(Exh. HOPCO-1, at 20-21). These wetlands are elevated, relative to Project civil work, so the Company does not anticipate any impacts (Tr. 3, at 454-456). The IVWs have an associated 100-foot buffer zone, per the Wetlands Bylaw (id. at 21). Project construction would result in both temporary and permanent impacts to portions of the 100-foot buffer zone, including temporary impacts within a “No Build Zone” within 15 feet of IVW, but no work would take place in a “No Disturbance Zone” within ten feet of IVW (id.). HOPCo and its contractors would follow Eversource Energy’s manual of Best Management Practices for Massachusetts work, using sedimentation controls such as siltation fence or straw wattles for work within the 100-foot wetland buffer zone (Exh. DPU-W-3(R2)). The work near the wetlands would require an Order of Conditions from the Hopkinton Conservation Commission under the Wetlands Bylaw (Tr. 1, at 15). The Company concluded that no wetlands or waterways would be permanently impacted by Project construction, and anticipated no long-term impacts to such resources (Exh. HOPCO-1, at 21).

As discussed in Section II.C.3.d, above, the Project would include storage and use of an amine solution, anti-foaming agent, ethylene glycol, propylene glycol, and transformer and other oils (id. at 22). Secondary containment or spill containment curbing would be provided (id.). Stored oils would be contained indoors in drums or totes on pallets (id.). In addition, each of the two compressor buildings would have a concrete waste basin to collect any material that enters the floor drains (id.). The closest public water supply well identified by the Company is approximately 1.3 miles to the northwest (Exh. DPU-W-7(1)). The Project Site is located within the Water Resource Protection Overlay District, regulated by Article XII of the Zoning Bylaws, but not within any MassDEP Zone I or Zone II groundwater protection area (id.; Exhs. HOPCO-

1, at 21; DPU-W-2). Based on these controls, the Company concluded that the proposed construction and operation of the Project will not have any negative impact on drinking water supplies or their recharge areas (Exh. HOPCO-1, at 22-23; Company Brief at 37-38).

The Project would create approximately four acres of additional impervious surfaces at the Facility Site (Exh. DPU-Z-7). However, the Company does not expect that the Project would exacerbate local flooding because it would install an on-site stormwater management system to control runoff from the added impervious surfaces at the site (Exh. HOPCO-1, at 27). The infiltration basin would be sized to accommodate all of the runoff from impervious surfaces in the event of a 100-year storm, and it would feature a spillway to control scour in the event of larger storms (Tr. 3, at 446-447, 450).

ii. Town Position

The Town explained that Section 210-67 of its Zoning Bylaws identifies the purposes of its Water Resource Protection Overlay District as including promotion of the health, safety and welfare of the community by ensuring adequate quality for the Town's drinking water supply and recommends that the impoundment requirements of the Zoning Bylaws should not be waived (Exh. TOH-CK-1, at 4; Town Brief at 16).

f. Traffic

i. Company Position

The Company stated that traffic conditions on Wilson Street are variable but, in general, do not include significant traffic congestion (Exh. HOPCO-1, at 26). The Company estimated that approximately 100 vehicles per day would arrive at the Facility Site during Project



construction, increasing to approximately 200 per day at peak (Exh. DPU-P-4).<sup>29</sup> Most traffic would arrive at the Facility Site via Rafferty Road (Legacy Farms Road North) off of Route 85, of which approximately 60 percent would arrive from the north on Route 85 and 40 percent from the south (id.). Delivery of the largest loads would likely be scheduled for off-hours or Saturdays at the request of the Massachusetts State Police (Tr. 3, at 472-473). The Company anticipates that most construction workers would arrive between 6:00 a.m. and 7:00 a.m. – earlier than the local rush hour peak – and that departures would be spread out in time, rather than in a mass exodus, but departure times would overlap the weekday evening peak traffic hour (4:45 p.m. to 5:45 p.m.) (Company Brief at 42, citing Tr. 3, at 478).

To minimize potential disruptions, the Company committed to work with the Town to develop a traffic management plan and that, as part of that process, appropriate management measures would be agreed upon and implemented, such as police details, use of appropriate signage, and if required, lane closures or detours (Exhs. HOPCO-1, at 26; DPU-P-4). The Company concludes that Project construction impacts on traffic would be minimal and temporary based on its view that, in combination, a sequential construction schedule, early arrival of workers, coordinated truck deliveries, and defined traffic routes would minimize traffic impacts (Exh. HOPCO-1, at 26; Company Brief at 43, citing Exh. TOH-1-32).

HOPCo has a longstanding agreement with Hopkinton limiting the frequency of LNG trucking to and from the Facility Site, which will be maintained following Project construction

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<sup>29</sup> According to the Company, construction vehicle traffic would be primarily construction worker vehicles, but would also include some delivery trucks (Exh. DPU-P-4).

(Exhs. DPU-P-5; DPU-P-5(1)).<sup>30</sup> According to the Company, there will be no increase in traffic over existing conditions after the Project is placed into operation (Exh. HOPCO-1, at 26).<sup>31</sup>

ii. Town Position

The Town of Hopkinton asserted that truck traffic will continue to have negative impacts on Wilson Street, Legacy Farms North, and the center of Hopkinton (Exh. TOH-EL-1, at 11). The Town stated that Wilson Street is an old, narrow, winding, designated scenic road with steep sections and sharp curves that attempt to avoid rock outcrops and other natural features (id.). The Town stated that the surface condition of Wilson Street is poor, and that truck traffic on Wilson Street will further degrade its surface (id.). The Town also asserted that when a truck encounters any other kind of motorized vehicle traveling in the opposite direction, safety problems may result (id.). The Town concluded that, based on its width, Wilson Street is an inappropriate road for truck traffic (id. at 11-12). The Town stated that it was interested in

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<sup>30</sup> HOPCo stated that the Town of Hopkinton Trucking Agreement, an agreement executed on February 23, 1993, by the Town and the Commonwealth Gas Company (a predecessor of the Company), allows for a maximum of one loaded LNG truck per hour on the roads within the Town of Hopkinton (Exh. DPU-P-5). The Trucking Agreement provides that no truck is to be on the roads in Hopkinton between 6:00 a.m. and 9:00 a.m. and 3:00 p.m. to 6:00 p.m., Monday through Friday, from September through June, except in the event of an emergency (id.). Further, the Company must coordinate with the Hopkinton School Department for trucks on Hopkinton roads between 11:30 a.m. and 12:30 p.m. (id.). HOPCo stated that no changes to the Town of Hopkinton Trucking Agreement are required to accommodate the Project (id.; Exh. TOH-2-4).

<sup>31</sup> The Company has raised the idea of a closure of Wilson Street to public traffic in the area of the Facility as one option in response to safety concerns of the Town relating to the existing pipeline crossing of Wilson Street; such a closure would reduce public traffic past the Facility Site (Exh. DPU-G-2; Tr. 1, at 183-188). The Town has expressed interest in making such a change but no final resolution of this issue was reached by HOPCo and the Town during the course of the proceeding (Tr. 1, at 186-189; Tr. 3, at 474).

exploring a possible closure of Wilson Street through the Facility Site as part of discussions it anticipated having with the Company relative to an HCA (Tr. 2, at 345-347).

The Town stated further that, due to a low bridge over Route 85 north of the Facility Site, all or most truck traffic would likely arrive through the intersection of Routes 85 and 135 at Hopkinton center, a location the Town described as plagued by routine backups and delays (Exh. TOH-EL-1, at 12). The Town also specified certain provisions related to traffic it would like to include in an HCA with the Company (Town Brief at 42-44). The Town wants consideration of traffic mitigation related to the construction (including a traffic management plan, long lead equipment, and their proposed carpooling program), wherein any traffic mitigation should include conversations with the Hopkinton Police Department and funding toward a fix of the intersection of Route 135 and Route 85, including the burying of utility lines so that more trucks do not hit them or drag them down and the lines do not impede the trucks' need to turn (Exh. TOH-EL-1, at 15-17). In addition, the Town requested an updated LNG Trucking Agreement that includes the following: (1) a prohibition on trucking from the Facility Site to fill tanks at the Acushnet or other facilities; (2) coordination with the Hopkinton School Department in order to ease heavy traffic during busing; and (3) restrictions on the use of trucks on Wilson Street and Cedar Street Extension (id.).

g. Air

According to the Company, construction and operation of the Project would not adversely impact air quality (Exh. HOPCO-1, at 26). HOPCo stated that the new liquefier would be a modern, lower-emitting design, and as such would reduce air emissions from the Facility (id.; RR-DPU-6). The Company identified a number of ways in which air emissions from the

Existing Facility would be reduced following completion of the Project, the most significant of which is a reduction in the amount of natural gas flaring required during the liquefaction process (Exh. HOPCO-1, at 5; RR-DPU-6). Currently, heavy hydrocarbons are flared continuously whenever LNG is liquefied (Exh. HOPCO-1, at 5). Following completion of the Project, hydrocarbons will be used to help power the Facility's combustion turbine, and as such, only limited flaring (i.e., during an emergency event) will be necessary (id.).

Table 2 below summarizes the allowable annual emissions from liquefaction operations at the Existing Facility and after construction of the Project, and it shows a reduction in all air pollutants assessed (RR-DPU-6).

**Table 2. Post-Project Maximum Annual Air Emission from Liquefaction as Presented by the Company**

Pollutant	Annual Allowable Potential to Emit (tons of pollutants per year)								Maximum Single HAP
	NO <sub>x</sub>	SO <sub>2</sub>	VOC	CO	PM <sub>10</sub>	PM <sub>2.5</sub>	CO <sub>2e</sub>	Total HAPs	
Existing Liquefaction Equipment Total	33.1	1.2	201.3	186.5	19.5	19.5	92,193	28.9	20.2
Replacement Liquefaction Equipment Total	19.2	0.9	3.2	46.7	3.9	3.9	47,144	2.6	1.8
Net Change Liquefaction Replacement	(14)	(0)	(198)	(140)	(16)	(16)	(45,048)	(26)	(18)

(NO<sub>x</sub> is nitrogen oxides; SO<sub>2</sub> is sulfur dioxide; VOC is volatile organic compounds; CO is carbon monoxide; PM is particulate matter; CO<sub>2e</sub> is carbon-dioxide-equivalents; HAPs are hazardous air pollutants).

Source: RR-DPU-6.

During construction, HOPCO would limit construction vehicle idling in accordance with the Massachusetts anti-idling law (Exh. HOPCO-1, at 19). The Company also committed to use USEPA-verified (or equivalent) emission control devices, such as oxidation catalysts or other comparable technologies, in all diesel-powered non-road construction equipment rated

50 horsepower or above to be used for 30 or more days over the course of the Project (id.). The Company would minimize fugitive dust impacts through the implementation of best management practices, such as water misting and street sweeping (id.). Excavated soils would be stockpiled and covered with plastic sheeting or a similar barrier to minimize the potential for the release of dust and for soil migration from the work area (id.).

h. Safety

i. Company Position

According to HOPCo, comprehensive oversight of the Project is undertaken by the U.S. Department of Transportation Pipeline and Hazardous Materials Safety Administration (“PHMSA”), the Federal Energy Regulatory Commission (“FERC”), and the Department (Exh. HOPCO-PS-1, at 3; Tr. 1, at 137).<sup>32</sup> The Project (and the Facility as a whole), must comply with PHMSA regulations prescribed in the Liquefied Natural Gas Facilities: Federal Safety Standards, 49 CFR Part 193; with National Fire Protection Association (“NFPA”) 59A (2001) as incorporated into PHMSA’s regulations; and FERC requirements outlined in Section 1(c) of the Natural Gas Act (Exh. HOPCO-PS-1, at 3; Tr. 1, at 137).<sup>33</sup> In accordance with these regulations,

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<sup>32</sup> HOPCo stated that, in addition to the above agencies, construction and operation of the Facility is also under the jurisdiction of the U.S. Department of Labor, Occupational Safety and Health Administration; the U.S. Environmental Protection Agency; the Massachusetts Department of Environmental Protection; the Massachusetts Historical Commission; and the Town of Hopkinton (Exh. DPU-P-6).

<sup>33</sup> The Company noted that the Existing Facility currently operates as a “Hinshaw” pipeline, as defined by Section 1(c) of the Natural Gas Act, and as such is not required to seek a Certificate of Public and Convenience and Necessity for the Project from FERC (Exhs. DPU-P-25; DPU-P-31). While Hinshaw pipeline status exempts pipelines that transport gas in interstate commerce from FERC jurisdiction if (i) they receive natural gas at or within the boundary of the state; (ii) all the gas is consumed within that state; and (iii) the pipeline is regulated by a state Commission, the limited-jurisdiction blanket certificate

inter alia, the Company would install trenches around all LNG-containing equipment proposed for the Project, and would ensure that the area potentially affected by radiant heat from any potential fire incident or from vapor dispersion following an LNG leak from Project-related equipment would remain within the Facility Site (Exh. HOPCO-PS-1, at 9-10; Tr. 1, at 139-141).

Throughout Project construction, PHMSA, or its delegated authority (i.e., the Department), would perform inspections of the site for compliance with 49 CFR Part 193 (Exh. HOPCO-PS-1, at 3-4; Tr. 1, at 137-139). PHMSA inspections of the Facility would continue following completion of the Project to ensure that all of the operations and maintenance requirements detailed in 49 CFR Part 193 are followed appropriately (Exh. HOPCO-PS-1, at 3; Tr. 1, at 138-139). FERC will also perform biannual inspections to ensure the Facility is maintained in a safe and reliable manner (Exh. HOPCO-PS-1, at 3-4; Tr. 1, at 138). The Company stated that the regulatory oversight provided by PHMSA, FERC, and the Department, and the codes and standards that the Facility must adhere to, ensure that the Facility will be safe and reliable (Tr. 1, at 139).

According to the Company, public safety would, in fact, be improved by construction of the Project (Exh. HOPCO-PS-1, at 5).<sup>34</sup> HOPCo stated that the Existing Facility's obsolete, cascade-based liquefaction system is difficult to maintain, and requires the use and storage of flammable and hazardous refrigerants (id.; Exh. DPU-PA-4). Construction of the Project would

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issued by FERC to the Company ensures FERC retains jurisdiction over safety, health, and environmental issues at the Facility (Exhs. DPU-P-25; DPU-P-31). See also NSTAR Gas 2015, at 8.

<sup>34</sup> HOPCo stated that the Existing Facility is "extremely safe now," and would be "even safer going forward" (Exh. HOPCO-PS-1, at 12).

result in the implementation of a new, state-of-the-art, nitrogen-cycle liquefaction system that relies on nitrogen, a non-toxic inert gas, as the sole refrigerant (Exh. HOPCO-PS-1, at 5).

Accordingly, a significant potential flammable hazard would be removed from the Facility Site, resulting in an important increase in overall safety (id.; Tr. 1, at 142).<sup>35</sup>

With respect to the specific location of the proposed liquefaction equipment, HOPCo stated that the Project would move the Facility's liquefaction system further away from Legacy Farms and decrease the amount of time LNG flows through the pipe crossing under Wilson Street by as much as 95 percent (Exhs. HOPCO-PS-1, at 7; DPU-S-25). In addition, the Company indicated that the liquefaction system and the BOG compressor would be located a sufficient distance from the existing LNG storage tanks to ensure construction and operation of the Project would not impact the integrity and safe operation of the tanks (Exh. DPU-S-2). HOPCo stated that it selected BOG compressors with a screw-type design, which have low rotational forces compared to other compressor designs and would mitigate any safety concerns related to locating rotating equipment near the existing storage tanks (Tr. 1, at 190-191). No high impact construction methods (e.g., pile driving or blasting) would be required for installation of the liquefaction system or BOG compressor building, and the Company would maintain a perimeter between Existing Facility equipment and the Project Site (Exhs. DPU-S-2; DPU-S-3). Access to the Existing Facility would be limited to only those performing approved work in that area (Exhs. DPU-S-2; DPU-S-3).

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<sup>35</sup> HOPCo submitted that because the Project would reduce the number of hazards at the Facility, there should not be an increase in the amount of Town resources needed to respond to potential emergencies at the Facility (Exh. HOPCO-PS-1, at 5-6).

HOPCo stated that modifications to the truck loading area would include the installation of a “corral” system that would permit vehicle inspections prior to admittance and ensure only a single vehicle enters the LNG storage tank area at a time (Exh. DPU-S-4). Existing Facility security measures, including fencing, 24-hour manned guard houses, and cameras would be expanded to encompass the Project Site and new Project facilities (Exh. DPU-S-1).

ii. Town Position

Hopkinton argues that the Existing Facility is sited in a location that poses a substantial risk to public safety (Town Brief at 3-5, 33-36). According to the Town, PHMSA’s siting standards for LNG facilities, set forth in 49 CFR Part 193, Subpart B, require the calculation of thermal radiation and flammable vapor-gas dispersion “exclusion zones” around LNG facilities and mandate that such areas be under the LNG facility operator’s legal control (*id.* at 4). The Town argues that because PHMSA’s siting standards were not adopted until after the Existing Facility was built, the Company does not acknowledge that the Facility has exclusion zones and that the Company has not obtained legal control over the areas that would be within such zones (*id.* at 4-5, citing Exh. TOH-1-025). Hopkinton argues that HOPCo’s refusal to provide information on exclusion zones prevents the Town’s Fire Chief from creating an evacuation plan for the Town that accounts for the various emergencies that could take place at the Facility (Town Brief at 14, citing Exhs. TOH-SS-1, at 13-14, TOH-SZ-1, at 6-8). The Town argues that, due to Hopkinton’s considerable growth since the 1960s, the Existing Facility is now in the middle of a suburban community without an adequate safety buffer to protect the public



(Town Brief at 5; Town Reply Brief at 2).<sup>36</sup> The Town notes that PHSMA regulations arguably “grandfather” the Existing Facility from siting requirements; however, Hopkinton argues that the absence of a legal requirement for exclusion zones does not change the underlying risks that the identification of exclusion zones is intended to protect against (Town Brief at 35-36; Town Reply Brief at 2).

Hopkinton identifies four interrelated items that it believes would help manage the risks associated with the Facility and help to fill the gap left by the lack of an exclusion zone requirement (Town Brief at 36). These items include the following: (1) information sharing; (2) emergency-response planning and protocols; (3) mitigation measures, training, and resources; and (4) communication and collaboration (*id.* at 36-37).

Hopkinton states that without collaborative information sharing between HOPCo and the Town on topics such as exclusion zones, emergency scenarios at the Existing Facility, and Project-specific information (such as siting plans and contemplated mitigation measures), it is impossible for the Town to effectively plan for the risks associated with the Facility (*id.* at 11-12, 36-37). The Town argues that the Company has a history of delaying communication with public safety agencies during safety-related incidents and has failed to provide first responders

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<sup>36</sup> The Town asserts on brief that if the Company were to calculate exclusion zones associated with the Existing Facility, the zones would cover almost the entirety of Hopkinton (Town Brief at 34). The Department notes that the record in this proceeding does not include evidence supporting this assertion. *See* 220 CMR 1.11(7). The Department further notes that this proceeding is reviewing only the proposed liquefaction and associated equipment and that the Company’s preliminary modeling indicated that the proposed location of the new liquefaction equipment would ensure Project exclusion zones would not extend beyond the Facility Site (Exh. HOPCO-PS-1, at 10).

with adequate pre-arrival information (id. at 5).<sup>37</sup> Hopkinton identifies five incidents between 2006 and 2017 that it argues demonstrate the Company's history of delaying communication with public safety agencies: (1) a small gas leak that resulted in a fire at the Existing Facility on June 23, 2006; (2) a sprinkler system failure that triggered an alarm on January 27, 2013; (3) a problem with a safety valve that caused a natural gas release near a school in Hopkinton on May 2, 2013; (4) a high-pressure gas transmission line leak "several years ago"; and (5) a control fuse that blew resulting in a safety valve opening and a loud noise (similar to a jet-engine), on September 28, 2017 (id. at 5-6, citing Exhs. TOH-SS-1, at 18-19, TOH-1-028, TOH-1-029, TOH-1-037, TOH-1-039). The Town argues that HOPCo failed to promptly contact the Hopkinton Fire Department ("HFD") during each of these incidents, in some cases delaying contact until after the Company believed the issue had been resolved (Town Brief at 5-6).

Further, the Town states that it has not been provided with a copy of the Existing Facility's Emergency Response Plan ("ERP") due to HOPCo's confidentiality concerns,<sup>38</sup> and it submits that, absent unfettered access to the ERP, Chief Slaman has innovatively recommended the creation of an Emergency Response Guide ("ERG") for the Facility (Town Brief at 12, citing

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<sup>37</sup> The Town states that Chief Slaman has repeatedly suggested using a fiber line or similar technology to provide better pre-arrival information to first responders, but that the Company has rejected his suggestion for security reasons (Town Brief at 14, citing Tr. 1, at 160; Tr. 2, at 328-333). The Town argues that it has specialized equipment that has already been approved for highly sensitive public safety monitoring, but that no substantial progress has been made in discussions with the Company on this issue (Town Brief at 14, citing Tr. 2, at 294-295).

<sup>38</sup> The Town believes the Company's confidentiality arguments relating to the ERP are unreasonable given the protections provided to such sensitive documents under the Massachusetts Public Records Law; nevertheless, the Town has, for the time being, agreed to limited access that requires the Fire Chief to view the ERP only at the Facility Site (Town Brief at 12).

Exh. TOH-1-023). The ERG would describe protocols for managing safety-related risks at the Facility, but exclude any confidential information (Town Brief at 12, citing Exh. TOH-1-023). According to the Town, in order to be effective, the ERG must be detailed and include scenario-specific information for the range of potential emergency response needs, such as the locations of buildings, access ways, and fixed fire-fighting equipment, methods of on-site communication, and any unique hazards or other plan-specific information that would aid in an emergency response (Town Brief at 12). According to the Town, progress on ERG development has been “painfully slow,” and the Company has not committed to a timeline for carrying the ERG development process forward, or for completing the ERG (Town Brief at 12, citing Exhs. TOH-1-023; TOH-MN-1, at 8-9; TOH-SS-1, at 4-5, Tr. 1, at 152-153).

Hopkinton asserts that the Company’s failure to collaborate is further demonstrated by its failure to provide all of the information necessary for the Town’s consultants to evaluate the Project’s safety (Town Brief at 13). According to the Town, of the 29 deliverables HOPCo agreed to provide, only 22 had been provided as of May 2018 (id. at 13, citing Exh. TOH-MN-1, at 4-5). Hopkinton submits that the siting report and containment drawings for the Project are two particularly noteworthy outstanding items, as without these documents the Town is unable to properly evaluate the impoundment strategies for containing an LNG spill (Town Brief at 13, citing Exh. TOH-MN-1, at 6-7).<sup>39</sup>

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<sup>39</sup> The Department notes that, following the submission of briefs in this proceeding, additional documents were provided by the Company to the Town, including the containment drawings for the Project, which were delivered on June 5, 2018 (Exh. DPU-35(S1)(1)).

Hopkinton argues that in addition to developing proper emergency response plans, it is essential to have in place the proper training, mitigation measures, and resources necessary to implement those plans (Town Brief at 37; Town Reply Brief at 3). The Town submits that its existing resources and training fall short of what is needed to respond to emergencies at the Facility (Town Brief at 6, 37). According to the Town, the HFD has experienced a significant increase in the number of requests for service it receives from the community in recent years, resulting in a decreased ability to respond sufficiently to calls (id. at 6, citing Exh. TOH-SS-1, at 6-8). Furthermore, the Facility poses significant, unique risks requiring specialized training that typical fire departments do not possess (Town Brief at 6, citing Exh. TOH-SS-1, at 9; see also Exh. TOH-SS-1, at 24). The Town argues that the HFD is under-equipped to respond to the unique risks and response demands posed by the Facility, and it lacks the specific information necessary to determine how these demands should be met (Town Brief at 7, citing Exh. TOH-SS-1, at 4, 18).

In addition to these Facility-wide concerns, Hopkinton also expresses concerns with the location of the proposed Project equipment and the safety of Wilson Street (Exh. TOH-SS-1, at 9; Tr. 2, at 344-346; Town Brief at 9-11, 14). Hopkinton argues that moving rotating equipment closer to the LNG storage tanks and Project construction present risks to the safety of the storage tanks (Town Brief at 9-11, citing Exh. TOH-MN-1, at 11-12, Tr. 2, at 288-289). The Town is also concerned with the proposed location of the Facility's control room (Town Brief at 11). Further, Hopkinton argues that the Company has resisted collaborating with the Town on potential risk mitigation measures for the piping under Wilson Street, submitting that Company has never evaluated the potential for running the piping below grade for some distance before

reaching Wilson Street (citing “environmental” impacts), despite the Town's desire to consider this possibility and the Company agreeing to do so (id. at 11, 14, citing Tr. 3, at 500-501).

Overall, Hopkinton argues that while there are reasonable means available to protect public safety, their implementation is by no means assured (Town Brief at 38). The Town maintains that an HCA is a reasonable and efficient way to create a formal legal framework for holding the Company to its promises and ensuring public safety (id.; Town Reply Brief at 3). Hopkinton identifies eight items that it argues must be included in an HCA to protect public safety: (1) Fire Department training; (2) firefighting equipment; (3) enhanced communication and information sharing; (4) development and regular review of an ERG; (5) communication protocols; (6) an evacuation plan; (7) collaboration protocols; and (8) annual HAZID review (Town Brief at 42-44). Hopkinton states that it does not oppose the Project’s fundamental concept (i.e., modernizing certain equipment with potential safety improvements), but does oppose moving forward on the Project absent emergency response planning and preparedness guaranteed by an HCA (Town Reply Brief at 7).

### iii. Company Response

HOPCo argues that the Project has been designed to minimize all potential impacts, including those to public safety (Company Reply Brief at 3).<sup>40</sup> According to the Company, the

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<sup>40</sup> Contrary to the Town, HOPCo asserts that the Project, not the entire Existing Facility, is the subject of the zoning exemptions requested in this proceeding and that the Department’s standard requires that the potential adverse effects of the proposed Project are within reasonable limits and that sufficient precautions have been undertaken to protect public safety (Company Reply Brief at 4, citing Save the Bay at 687). Nevertheless, HOPCo states that it is sensitive to the perceived and actual risks that the Facility may pose to its neighbors, and it is committed to actively working with the Town to minimize, mitigate, and plan for those risks (Company Reply Brief at 4).

Project is appropriately sited on the Facility Site to minimize public safety risks, and it will include state-of-the-art equipment with enhanced safety features (id., citing, e.g., Exhs. HOPCO-1, at 14, 17, HOPCO-PS-1, at 5-6, 11; DPU-NO-7, DPU-S-22, DPU-Z-10, TOH-2-12, TOH-2-13; TOH-2-20, TOH-2-21, TOH-2-38). In addition to its selection of a nitrogen-based liquefaction system, which reduces the risk of fire, HOPCo states that the Project would include state-of-the-art process monitoring equipment and hazard detection and mitigation devices that meet or exceed all federal code requirements (Company Reply Brief at 4-5, 19). Overall, HOPCo asserts that it is clear that risks to public safety will be reduced after construction and implementation of the Project (id. at 3, 19, citing Exh. HOPCO-PS-1, at 5, 8, 12).

In response to the Town's communication concerns, HOPCo asserts that it has gone "beyond what is typically expected" in other municipalities, and it has communicated "frequently and openly" with various Town officials including, among others, members of the Planning Board, Town Counsel, the Board of Selectman, and the Fire Chief (Company Reply Brief at 17, citing Exhs. HOPCO-JB-1, at 3-5; HOPCO-1, at 8). HOPCo argues that, in addition to voluntarily providing the Town with Project-related information, the Company has also funded a consultant, selected by the Town, to provide the Town with its own independent, expert review (Company Reply Brief at 17, citing Exhs. HOPCO-JB-1, at 5, TOH-1-51). HOPCo indicates that, while it continues to provide the Town with Project-related information as it is developed, due to the sequential nature of the design process, some documents will not be available until further into Project development (Company Reply Brief at 18-19, citing Exhs. HOPCO-JB-1, at 6-7, TOH-1-51, RR-TOH-3).

HOPCo argues that it has worked cooperatively with the HFD in the past, and it plans to continue this practice in order to provide necessary information regarding the Facility (Company Reply Brief at 19, citing Exhs. HOPCO-PS-1, at 11; TOH-2-16). According to the Company, the Existing Facility's ERP, which has been made available to both the HFD and the Town's consultant, contains all the information necessary for the development of an evacuation zone based on the hazards and risks of the Existing Facility (Company Reply Brief at 19-20, citing Tr. 3, at 547-548). HOPCo asserts that construction of the Project will not change this information because, although the liquefier is being replaced and relocated, hazards from flammable refrigerants are being decreased and no other changes to the Facility are proposed that would increase risks (Company Reply Brief at 20, citing Tr. 1, at 142).<sup>41</sup>

HOPCo reports that, at the HFD's suggestion, it has agreed to collaboratively develop an ERG for the Facility (Company Reply Brief at 20). The Company states that this plan will contain information that the Hopkinton Police and Fire Departments could use for their own internal training drills and emergency response planning (id. at 20-21, citing Exh. TOH-1-23; Tr. 1, at 150-153). HOPCo responds to the Town's concerns that ERG development is not proceeding quickly enough by stating that it is in the process of preparing a draft ERG, and while the draft cannot be finalized until Project design is fully complete, a final plan will be in place prior to the Project being placed into operation (Company Reply Brief at 21, citing Exh. TOH-1-23).

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<sup>41</sup> According to the Company, in compliance with 49 CFR Part 193 requirements applicable to the Project, an updated ERP will be prepared jointly with the Fire Chief following completion of the detailed engineering design for the Project (Company Reply Brief at 20, citing Exh. HOPCO-PS-1, at 4, 10).

The Company continues to object to the Town's suggested use of a fiber system to provide pre-arrival information to the HFD (Company Reply Brief at 22, 32). HOPCo argues that these objections are related to overriding cyber security concerns and logistical challenges associated with providing critical plant information remotely, and they are not in fact an indication of a failure by the Company to cooperate with the Town (Company Reply Brief at 22, 32, citing Exh. TOH-1-27; Tr. 1, at 160). Further, the Company states that it was unable to identify any fiber lines of this type in use at LNG facilities in the U.S. and that, from a risk and security perspective, the Company prefers to use only systems that have a proven track record and operating experience (Exh. HOPCO-PS-1, at 14; Tr. 1, at 160-161).

The Company rejects the Town's criticisms of its communications with public safety agencies, arguing that one of the five incidents identified by Hopkinton, which occurred "several years ago," was not in fact related to the Existing Facility (rather, it was the result of a leak on the TGP high pressure transmission system), and that for the remaining incidents the Company (1) responded in accordance with the Existing Facility's ERP; (2) took timely and appropriate actions to ensure manageable issues were not allowed to escalate; and (3) notified the HFD once potential off-site impacts were identified (Company Reply Brief at 22-24, citing Exhs. TOH-1-28, TOH-1-29, TOH-1-37(1), TOH-1-39, TOH-SS-2, at 19, 54).

HOPCo argues that, while it is committed to working with the Town to address impacts from the Project and public safety concerns, an HCA is not a proper condition of a Department Order (Company Reply Brief at 29-30). Further, the Company submits that the provisions outlined by the Town for such an HCA are either unwarranted or unnecessary (id. at 31). For example, with respect to the Town's request for Fire Department training, the Company argues



that it has no expertise in such training (id., citing Tr. 1, at 171). Rather, the Company fulfills the requirements of 49 CFR Part 193 that it provide information to the Town about potential hazards at the Facility by engaging with the HFD on an annual basis to refresh first responders' understanding of the Facility, and to ensure they understand the associated risks (Company Reply Brief at 31). HOPCo submits that if the Town determines additional training is necessary for its first responders, the Massachusetts Firefighting Academy in Stow has a specific LNG program in which members of the HFD could participate, as other members of the HFD have in the past (id.). Additionally, HOPCo argues that there is no basis for requiring the Company to provide fire trucks to the Town, citing the Company's tax contributions, as well as the decreased flammability risk associated with construction of the Project (id.). With respect to the Town's request for annual review of the Facility's HAZID, the Company states that a HAZID study is performed early on in the design of major equipment to identify any new potential hazards, and the Company has already held a HAZID review workshop for the Project with the Fire Chief and solicited feedback from him on fire protection (id., at 34). HOPCo argues that because the HAZID for the Project will not change or be updated over time, a requirement for conducting an annual HAZID review is unwarranted (id.).

The Company characterizes as "pure speculation" the Town's assertions that there is an inadequate safety buffer around the Existing Facility and that under current siting standards the Facility could not be built where it is today (Company Reply Brief at 25). The Company argues that the Facility is in compliance with existing safety standards, and there is no basis in the record for a contrary conclusion (id.).

HOPCo states that while the Company can only perform the final calculation of exclusion zones for the Project later in the design process when all of the information needed for their calculation is available,<sup>42</sup> the Company's preliminary modeling indicated that the proposed location of the new liquefaction equipment would ensure Project exclusion zones did not extend beyond the Facility Site (*id.* at 26-27).

In sum, the Company argues that the Facility is comprehensively overseen by PHMSA, FERC, and the Department to ensure that it complies with all applicable federal regulations, including 49 CFR Part 193 (Company Reply Brief at 24, 28-29, *citing* Exhs. HOPCO-JB-1, at 2; HOPCO-PS-1, at 3; TOH-1-7). HOPCo states that PHMSA, or its delegated authority, will inspect the Project for compliance with the above-stated regulatory programs, and FERC would retain oversight of safety, health, and environment issues at the Facility and perform inspections and issue recommendations, where needed (Company Reply Brief at 24, 28-29, *citing* Exh. HOPCO-PS-1, at 4). HOPCo argues that its compliance with all applicable rules and regulations will ensure that the Project is constructed (and the Facility is operated) in a manner that mitigates safety risks (Company Reply Brief at 24-25, 29).

i. Analysis and Findings

The Project Site is located in a largely undeveloped portion of the Facility Site's western parcel, south of the LNG storage tanks and west of the truck loading area. The record shows that no designated priority or estimated habitats for rare species or wildlife are located within the

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<sup>42</sup> According to the Company, thermal radiation and vapor dispersion exclusion zone calculations for the Project cannot be finalized until engineering design deliverables such as heat and material balances, spill containment drawings, and pipe-in-pipe specifications are finalized (Company Reply Brief at 27 n.8, *citing* Exh. HOPCO-PS-1, at 9).

Project Site. HOPCo asserted that the Project has been designed to avoid any impacts to cultural resources located on the Facility Site, but indicated that an official determination from the MHC was pending. The Department directs the Company to provide a copy of the MHC's final Determination of Effect on Historic and Archaeological Properties to the Department and the Town when available.

Regarding the visual impacts of the proposed Project, contrary to the position of the Town, the record shows that views of the Project Site and proposed Project equipment would be appreciably screened by both the existing LNG storage tanks and a vegetative buffer surrounding the Facility Site. Furthermore, Project components would be of a similar nature to infrastructure already on-site, and as such, visual impacts of the Project would be consistent with existing conditions. Landscaping proposed near the truck loading area would improve currently unobstructed views of the Facility Site from Wilson Street.

The Town argues that compliance with IESNA lighting standards would help to mitigate some of the Project's visual impacts. The record shows that lighting to be installed as part of the Project would be fully-shielded, downward facing fixtures designed to comply with API standards specific to petrochemical facilities. The Department views the API lighting standards (which specifically address petroleum plants such as the Existing Facility) as the more appropriate industry standard for application to the Project and, as such, will not require the Company to demonstrate IESNA compliance for the Project.

The Company has provided a detailed assessment of the operational noise impacts of the proposed Project, and it has committed to using all practical noise mitigation (i.e., BACT) for Project noise. Modeled nighttime sound levels showed an up-to-2.4 dBA increase at the closest

residential receptor following completion of the Project, which would be in compliance with the maximum 10 dBA increase defined in MassDEP's noise policy, as well as the more conservative 3 dBA limit applied by MassDEP in this case. Such an increase would also be consistent with impacts allowed in past Department Orders. Finally, no potential pure tones were identified in association with the Project.

The Company proposed a six-day per week construction schedule, Monday through Saturday, from 7:00 a.m. to 7:00 p.m. The Company would mitigate construction-related noise impacts by ensuring functional mufflers are maintained on all construction equipment, and by shutting down all equipment not actively in use. The closest private residence is located approximately 1,400 feet from the Project Site, and over 450 residences currently exist, or are proposed for construction, within a half mile. The Town argues that the Company should be required to comply with the construction hours permitted in the Town's Noise Bylaw in order to protect residential abutters from construction-related noise. The Department is not persuaded that the benefits associated with extended Saturday construction hours described by the Company (i.e., a consistent work schedule, and the ability to make up lost schedule) outweigh the potential construction-related noise impacts – including construction traffic-related noise impacts – to area residents. As such, the Department directs the Company to limit Project construction to between the hours of 7:00 a.m. and 7:00 p.m. Monday through Friday, and to between the hours of 8:00 a.m. and 4:00 p.m. on Saturdays.

Should the Company need to extend construction work beyond those hours and days (with the exception of emergency circumstances on a given day that necessitate work beyond such times), the Company is directed to seek written permission from the relevant Town

authority prior to the commencement of such work and to provide the Department with a copy of such permission. If the Company and Town officials are not able to agree on whether such extended construction hours should occur, the Company may request prior authorization from the Department and shall provide the Town with a copy of any such request. The Company shall inform the Department and the Town in writing within 72 hours of any work that continues beyond the hours allowed by the Department or, if granted extended work hours in writing by the Town, work that continues past the hours allowed by the Town. The Company shall also send a copy to the Department, within 72 hours of receipt, of any authorization for an extension of work hours issued by the Town. Furthermore, the Company shall keep a record of the dates, times, locations, and durations of all instances in which work continues beyond the hours allowed by the Department, or, if granted extended work hours in writing by the Town, work that continues past the hours allowed by the Town, and must submit such record to the Department within 90 days of Project completion.

The Project would require the continued use (and in some cases storage) of amine, non-PCB transformer oil, oily process-water, hot oil, and an antifoaming agent. The Company would install containment systems and/or curbing to protect against any accidental releases of these fluids.

The record shows that no wetlands or waterways would be permanently impacted by Project construction and that any temporary impacts would be minimized. The record shows that potential water contaminants such as oil, amine solution, ethylene and propylene glycols, and anti-foaming agent would have both primary and secondary containment to minimize the potential for leaks and spills reaching the environment, an issue reflected in the Town's Water

Resource Overlay Protection District. The record shows that the Company has designed stormwater containment for a 100-year storm and that scour from larger storms would be controlled.

Traffic impacts of Project construction would be minimized by coordination with the Hopkinton Police Department for the scheduling of large equipment arrivals. The Department directs the Company to prepare a traffic management plan related to Project construction, including management of construction worker traffic impacts, to include a worker carpooling program plan, management of impacts from deliveries of major equipment, and coordination with the Hopkinton Police Department, including the potential for police details, as well as the Hopkinton School Department to mitigate potential traffic conflicts with school bus routes and schedules. The record shows that an existing agreement limits the frequency of LNG trucks arriving or departing from the Facility Site and operation of the Project would not materially change the frequency of LNG trucking. As such, the Department is not persuaded that modifications of the existing LNG Trucking Agreement, nor funding for improvements to Routes 85 and 135 – as requested by the Town in the context of an HCA – are necessary conditions to minimize impacts associated with the Project.

The record shows that the new liquefier proposed would be a modern, lower emitting design and that, post-Project construction, air emissions from the Facility would be reduced.<sup>43</sup> Construction of the Project is subject to idling restrictions imposed by MassDEP, and the Company committed to use USEPA-verified (or equivalent) emission control devices in all

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<sup>43</sup> Because emissions from the Existing Facility are shown to decrease with the completion of the Project, a health impact assessment, as requested by the Town, is not warranted in this instance. See Town Brief at 44.

diesel-powered non-road construction equipment rated 50 horsepower or above to be used for 30 or more days over the course of the Project.

Comprehensive oversight of the safety and reliability of the Project, and the Facility as a whole, is undertaken by PHMSA, FERC, and the Department. The Project's compliance with 49 CFR Part 193, NFPA 59A (2001), Section 1(c) of the Natural Gas Act, and the exclusion zone requirements therein, will be ensured through on-site inspections by the appropriate regulating authority both during construction and following commercial operation of the Project.

The record shows that implementation of the Project would result in the modernization of aging and obsolete equipment at the Existing Facility, removal of flammable hazards from the Facility Site, and an improvement in the overall safety of the Facility. The equipment design selected for the Project, as well as the construction methods proposed will limit risks to Existing Facility equipment, including the existing LNG storage tanks. Existing security measures, including, among other things, on-site security professionals, cameras, and fencing will be expanded to encompass the Project facilities. Improvements to the truck loading area will also enhance the security of the Facility.

The Company has committed to developing an updated ERP for the Facility jointly with the Hopkinton Fire Chief, as well as to the preparation of an ERG – a document that would describe protocols for managing safety-related risks at the Facility, but exclude any confidential information – prior to commercial operation of the Project. The Department views the ERP as the appropriate tool for establishing reasonable and effective communication protocols between the Company and the HFD and concludes that the joint development of the updated ERP and the

novel ERG will address the Town's concerns with the Company's historical approach to communicating with public safety agencies during safety-related incidents.

While the Company argues that the scope of the Department's review of safety should be limited to only the impacts of the proposed Project, HOPCo states that it is sensitive to the perceived and actual risks that the Facility may have to its neighbors, and it commits to actively working with the Town to minimize, mitigate, and plan for those risks. The Department views a collaborative and effective working relationship between the Company and the Town as vital to ensuring the safety impacts of the Project (and the Facility as a whole) to the surrounding community are effectively minimized and mitigated. To this end, the Department directs the Company to submit a compliance filing<sup>44</sup> for the Department's review 30 days prior to commencing construction, outlining, at a minimum, the following:

- an update on status of the ERP and ERG, and the communication protocols and review cycles contained therein;
- comments from the HFD on the process used to develop the ERP and ERG, and how its input was considered in this process;
- an update on the status of discussions between the HFD and the Company regarding the development of an evacuation plan that reflects the updated ERP for the Facility;
- comments from the HFD on the sufficiency of the Company's support in the development of an evacuation plan reflective of the Facility's updated ERP;
- an update on the status of discussions between the Company and the Town regarding the potential closure of Wilson Street and/or potential improvements to the security of the LNG piping crossing beneath Wilson Street between the eastern and western parcels of the Facility Site and/or refurbishment of Wilson Street, if it is kept as a public thoroughfare; and

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<sup>44</sup> This compliance filing may take the form of an HCA, but as discussed in Section I.C, the Department will not require the Company and the Town to enter into an HCA as a condition of this Order. The Department urges the Company and the Town to continue discussions in good faith on the development of an HCA for the Project.



- comments from the Town on the discussions between it and the Company concerning Wilson Street.

Further, the Department directs the Company to install a fiber system that is under the operational control of HOPCo to provide pre-arrival information to the HFD, subject to review and acceptance by PHMSA or its delegated authority.

The Department rejects the position taken by the Company that responsibility for ensuring HFD first responders have the training necessary to respond to emergencies at the Existing Facility lies solely with the Town. The Facility presents unique fire-fighting challenges, for which there is specialized training available at the Massachusetts Firefighting Academy in Stow. The Company indicated that certain members of the HFD have attended this program in the past, and the Department concludes it would be appropriate for the Company to facilitate attendance by HFD members in the future. Such support would help to ensure HFD first responders have, and continue to have, the specialized skills necessary to respond to calls at the Facility and any potential emergencies and incidents. Accordingly, the Department directs the Company to reach a mutually agreeable arrangement with the HFD for the attendance of first responders from the HFD, and neighboring communities that have mutual aid agreements with the HFD, at the LNG-specific training program offered by the Massachusetts Firefighting Academy in Stow, and the Company shall file a copy of said agreement with the Department when available. If the Company has not reached an agreement with the HFD prior to completion of Project construction, the Company shall file a progress report with the Department within one month of completing construction and continue to provide updates to the Department on a quarterly basis until an agreement is reached.

With regards to the Town's request for additional funding for fire trucks, the Department accepts the Company's position that flammable hazards at the Facility Site will be reduced following construction of the Project and, as such, the Department will not require the Company fund new firefighting equipment as a condition of this Order.<sup>45</sup>

Finally, the record shows that a HAZID study is performed early in the design of major equipment additions and that the Company has held a HAZID review workshop, which the Hopkinton Fire Chief attended. Because the HAZID for the Project is not subject to change over time, annual HAZID review is unnecessary.

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

The Department concludes that the impacts of the Project will be minimized by the Project's compliance with (1) all applicable federal, state, and local laws and regulations; (2) the

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<sup>45</sup> While the Department is not requiring the Company to fund additional firefighting equipment as a condition of this Order, the Company and the Town are free to enter into such an agreement. In our view, the Town and the Company are in the best position to determine what type and the quantity of firefighting equipment is best suited for meeting the needs of the Existing Facility and the proposed Project.

avoidance, minimization and mitigation measures that HOPCo has stated it will implement during Project construction; and (3) the Department's conditions as discussed above and set forth below.

#### 4. Conclusion on Public Convenience and Welfare

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

#### D. Exemptions Required

##### 1. Individual Exemptions

Hopkinton LNG is seeking exemptions from eight individual provisions of the Hopkinton Zoning Bylaws (Exhs. HOPCO-1, at 34; DPU-P-19; Company Brief at 63-64). The Company is also seeking a comprehensive zoning exemption from the Hopkinton Zoning Bylaws (Exh. HOPCO-1, at 35). The Company states that it needs the exemptions to ensure timely construction of the Project without the time, expense and uncertainty of obtaining zoning relief that, even if attainable, would be subject to appeal (Company Brief at 53).

The Project Site is located in an Agricultural Zoning District (Exh. HOPCO-1, at 2). It is also located within the Water Resource Protection Overlay District ("WRPOD"), specifically the WRPOD-1 (Exh. DPU-W-7(1)). Until recently, uses such as that proposed by the Project were not explicitly allowed, and were therefore prohibited, in the Agricultural District absent a use variance (Exhs. HOPCO-1, Exhibit A, at 21-22; DPU-P-19; Company Brief at 51-53). In May

2017, the Hopkinton Town Meeting approved a change to the Zoning Bylaws whereby “above-ground structures or facilities related to the distribution, collection, transmission or disposal, for a fee of water, sanitary sewage, gas...” could also be allowed by issuance of a special permit (Exhs. DPU-P-19; DPU-P-19(1) at 21-23).<sup>46,47</sup>

The Company’s Petition did not request any exemptions from the operation of zoning provisions to authorize the use of the Project in the Agricultural District, nor did it seek either a use variance or special permit. The Company stated that it did not seek such use exemptions from the Department related to the Project because it relied on two previous zoning exemptions issued by the Department, which remain in full force and effect (Exhs. DPU-P-19; TOH-1-1; Company Brief at 52).<sup>48</sup> However, to the extent the Department does not agree with this

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<sup>46</sup> The revision to the Hopkinton Zoning Bylaws was issued September 2017 (Exh. DPU-P-19(1)).

<sup>47</sup> Hopkinton stated that the Hopkinton Planning Board proposed the amendments specifically with the Facility in mind and that they were intended to provide the Company with an avenue for engaging with the Town to seek local approval prior to the Company pursuing zoning exemptions from the Department (Exh. EL-1, at 9).

<sup>48</sup> In D.P.U. 14978 (December 8, 1965), the Department granted Tennessee Gas Transmission Company (the original proponent and owner/operator of an LNG liquefaction, storage and vaporization facility located on the eastern parcel) exemption from the operation of the Hopkinton Zoning Bylaws for the use of the parcel and the structures to be constructed for purposes of LNG liquefaction, vaporization, and in-ground storage. Subsequently, the in-ground storage caverns (created by blasting out solid Milford granite) were abandoned due to unanticipated thermal losses and excessive vaporization of LNG. See D.P.U. 16519, at 4. In D.P.U. 16519 (August 13, 1970), the new owner of the LNG facility, Worcester Gas Light Company (a predecessor of Eversource Energy) received Department approval for exemption from the Hopkinton Zoning Bylaws for the continued operation of the LNG processing plant and related equipment constructed by Tennessee Gas Transmission Company, and the development of two new above-ground storage tanks on the western parcel and related equipment on both the eastern and western parcels. As a condition of the approval, the Department directed that “there shall be no change in the size or location of the proposed facilities

interpretation, the Company subsequently requested an exemption from Section 210-16D regarding permitted uses in the Agricultural District (Exhs. DPU-P-19; TOH-1-001; HOPCO-JB-1(2)(S1)). The Company maintains that the prior exemptions do not include exemptions from the dimensional and other non-use provisions of the Zoning Bylaws and, therefore, it asks for exemptions from the applicable provisions (Company Brief at 52 n.25).

Table 3, below, presents (1) each of the specific provisions of the Hopkinton Zoning Bylaws for which the Company seeks an exemption, (2) the relief available through Hopkinton's local zoning process, and (3) the Company's argument as to why it cannot comply with the identified zoning provision or why the available zoning relief is inadequate.

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and no additional storage facilities shall be constructed without the approval of the Department.” D.P.U. 16519, at 13. In D.P.U. 17934 (June 27, 1974), the Department approved exemption from the Hopkinton Zoning Bylaws for construction of a third above-ground storage tank on the western parcel and related equipment and modifications to the eastern and western parcels, and the continued operation and use of the existing LNG structures and equipment by Commonwealth Gas Company (another predecessor of Eversource Energy). D.P.U. 17934, at 10. Among other conditions, the Department required that “any change in the design, size or location of the storage and processing facilities shall require the approval of the Department.” D.P.U. 17934, at 11. All of the above referenced Department Orders are contained in Exh. DPU-P-16.

**Table 3. Requested Individual Exemptions from the Hopkinton Zoning Bylaws – Summary of Company’s Position**

<b>Section of the Zoning Bylaws</b>	<b>Available Relief</b>	<b>Why Exemption is Required: Company’s Position</b>
<p><b>Lot Coverage</b>  Section 210-14F</p>	<p>Variance</p>	<p>Lot coverage is limited to a maximum of 25%; the current lot coverage with the Existing Facility is approximately 40 percent and with the Project would cover approximately 60%.</p> <p>The Company would therefore need a variance for lot coverage, and it notes that variances are difficult to obtain and susceptible to appeal even if granted.</p>
<p><b>Setback</b>  Section 210-14C</p>	<p>Variance</p>	<p>A 60-foot setback is required and the Company is proposing to install a gas pipe in the setback. The Company would therefore need a variance for setback, and it notes that variances are difficult to obtain and susceptible to appeal even if granted.</p>
<p><b>Height</b>  Section 210-121</p>	<p>Variance</p>	<p>The maximum structure height allowed is 35 feet and the Company proposes 14 Project components that will exceed 35 feet. The Company states it is not possible to lower the components. The Company would therefore need a variance, and it notes that variances are difficult to obtain and susceptible to appeal even if granted.</p>
<p><b>Parking</b>  Section 210-124</p>	<p>Variance</p>	<p>The Company states that the Existing Facility has adequate parking and the proposed Project would not increase the need for parking. However, the Company states it is likely that parking requirements may be imposed. The Company would therefore need a variance, and it notes that variances are difficult to obtain and susceptible to appeal even if granted.</p>
<p><b>Water Resources Protection Overlay District (WRPOD)</b>  ...</p>	<p>Use Variance</p>	<p>The proposed Project is located in the WRPOD, which would require a use variance to site and operate the Project in the WRPOD-1 (Section 210-71). Further the WRPOD-1 prohibits storage of hazardous materials and/or liquid petroleum products (Section 210-70D(2)), earth removal (Section 210-70D(5)), underground transmission</p>

Section of the Zoning Bylaws	Available Relief	Why Exemption is Required: Company's Position
Article XII <sup>49</sup>		lines for chemical or liquid petroleum products (Section 210-70D(9)), generation and storage of hazardous waste (Section 210-70D(15)), and storage of sludge and septage (Section 210-70D(17)). According to the Company, since use variances are not authorized under Section 210-71A, no local zoning relief would be available.
<b>Use</b> Section 210-16D	Special Permit	The Company states that Project use is allowed in the Agricultural District by special permit. The grant of a special permit is discretionary and subject to appeal.
<b>Site Plan Approval</b> Article XX	Site Plan Approval	The Company states it would not meet the Site Plan Approval requirement that the site plan comply with all zoning requirements. Further, the Company must have discretion to design Project consistent with established utility, and state and federal standards.
<b>Design Review</b> Article XXI	Design Review	Design Review is required as a condition of Site Plan Approval, and the Company is requesting exemption from Site Plan Approval. Further, the Company states the criteria for Site Plan Approval are vague.

Source: Exhs. HOPCO-1, at 29 to 34; HOPCO-JB-1, at 10-11; HOPCO-JB-1(2)(S1); DPU-P-19; RR-DPU-19.

2. Consultation with Local Officials and Community Outreach

The Company indicated that it first presented the Project to Town leadership in June 2014 as part of the overall Facility's long term plan, approximately three years before the Company

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<sup>49</sup> The Company in its Petition asked for an exemption of Article XII in its entirety (Exh. HOPCO-1, at 34). As noted below, in Exh. DPU-P-19, the Company continued to seek exemption from Article XII in its entirety, but also identified one particular section, Section 210-70D(5) (earth removal) for exemption (Exh. DPU-P-19). In RR-DPU-19, the Company discussed and identified four additional sections under Article XII as also needing exemptions: Sections 210-70D(2); 210-70D(9); 210-70D(15); and 210-70D(17) (id.; RR-DPU-19).

filed the Petition with the Department (Exh. DPU-G-1(1)). The Company updated the presentation in December 2014 (id.). In November 2016, the Company met with Town leadership again to provide a tour of the Facility and update them on the Project and other long term goals of the Facility (id.). In 2017, the Company conducted the following series of pre-filing meetings with Town officials regarding the Project: March 2017 with the Town Planning Board to review preliminary design, site plan, and process changes; May 2017 with Town leadership, including their legal counsel and technical consultant, and a separate meeting with the Board of Selectmen (id.). In May 2017, the Company again met with Town officials, including the Board of Selectmen (id.). The Company continued to meet with Town officials after the Petition was filed on June 30, 2017. On August 16, 2017, the Company met with Hopkinton officials to discuss the zoning exemptions requested from the Department (Exh. DPU-P-17).<sup>50</sup> The Company indicated that it did not discuss the applicability of zoning provisions to the Project with the town's Director of Municipal Inspections, as the Company maintains that he is not the final arbiter of interpretations of the Hopkinton Zoning Bylaws and that any determination he makes could be subject to appeal (Exhs. TOH-1-43; TOH-1-44; Company Reply Brief at 8).

The Company, at the Town's request, also funded a technical consultant to aid the Town's review of Project design details, and the Company states that it has worked closely with the consultant (Company Reply Brief at 15, citing Tr. 3, at 579-580; Exh. DPU-G-3). The

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<sup>50</sup> The Company met with the following town officials: Building Inspector; Board of Health Director; Health Agent; Principal Planner; Fire Chief; Deputy Fire Chief; and Fire Prevention Officer (Exh. DPU-P-17). The Company stated it discussed the need for the Project and its plan to seek zoning exemptions (id.). The Company indicated the meeting focused on obtaining building permits (id.).



Company maintains that the purpose of these efforts was to establish goodwill with the Town, enhance the Town's understanding of the Project, and facilitate the Town's support (Company Reply Brief at 15, citing Exh. HOPCO-JB-1). Despite these actions, the Company acknowledges that the Town is not supportive of the Petition and the zoning exemptions requested (Company Reply Brief at 15-16).

The Company explained that it did not formally request a letter of support from Hopkinton for its proposed individual and comprehensive zoning exemptions as it became evident prior to filing the Petition that Hopkinton did not support the Project and, therefore, would not support the requested zoning exemptions (Exh. DPU-Z-8).

a. Positions of the Parties

i. Town Position

Hopkinton cites to the Standard of Review that “it is the petitioner’s burden to identify the individual zoning provisions applicable to the project and then to establish on the record that exemption from each of those provisions is required...” (Town Brief at 2, citing New England Power Company, D.T.E. 04-4, at 6 (2004)). Hopkinton asserts that the Company failed to identify necessary exemptions in a timely manner and that the Petition should, therefore, be denied (Town Brief at 22-24).

Hopkinton indicates that initially, the Company requested relief from only five specific provisions of the Hopkinton Zoning Bylaws: Section 210-14 (lot coverage); Section 210-14.C (setbacks); Section 210-121 (structure heights); 210-124 (off-street parking); and Article XII<sup>51</sup>

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<sup>51</sup> Hopkinton notes that the Company’s rebuttal testimony characterized the Petition as seeking an exemption from the entirety of Article XII (Town Brief at 18). However, Hopkinton contends that the Company’s rebuttal testimony is actually a belated attempt

(as it relates to hazardous materials) (Town Brief at 18). Hopkinton states that the Company made subsequent attempts to remedy the deficiencies of the request for individual exemptions in the Petition (Town Brief at 19). Specifically, Hopkinton stated that during discovery, the Company added requests for exemptions from Article V, Section 210-15B (use in an Agricultural District); Article XII, Section 210-70D(5) (earth removal); Article XX (Site Plan Approval); and Article XXI (Design Review) (*id.*; Exh. DPU-P-19). With regard to the permitted use in an Agricultural District, Hopkinton noted that the Company later clarified in rebuttal testimony that it would require exemptions from Sections 210-16 and 210-10E, not Section 210-15B (Exh. HOPCO-JB-1, at 10; Town Brief at 19). Further, Hopkinton points to a record request response as identifying for the first time the Company's request for additional exemptions under individual sections of Article XII: Section 210-68 (establishment of WRPOD); Section 210-69 (definitions of hazardous and hazardous waste and disposal); Section 210-71 (special permit process); and Section 210-71A (use variances in the WRPOD) (RR-DPU-19; Town Brief at 21).<sup>52</sup>

Hopkinton asserts that the Company has not offered any explanation as to why its Petition did not contain a complete list of required zoning exemptions, nor did the Company consult with the local officials as to the applicability of the Zoning Bylaws, and means of

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by the Company to also seek individual exemptions from five separate sections of Article XII (*id.*).

<sup>52</sup> Hopkinton states that it does not think these sections are applicable to the Project (Town Brief at 21). Hopkinton asserts, however, that since it may not use its brief to enter evidence now that the hearing is closed, the Town cannot effectively present relevant evidence and the Department cannot therefore make a determination as to whether such exemptions are necessary (*id.*).

compliance (Town Brief at 21). Hopkinton asserts that the Company is seeking zoning exemptions it did not request until after the hearings, but should have discovered were needed prior to filing the Petition (id.). Hopkinton argues that the Company did not amend its Petition and, therefore, these late-filed requests are insufficient (id. at 23). According to Hopkinton, the identification of additional exemptions during and after the hearing cannot possibly be construed as timely (id.). The Town maintains that the Company has denied the Town the opportunity to respond to all of the requests that have been submitted, and it certainly has not provided the “ample opportunity to investigate the need for the requested exemptions” as the law requires (id. at 24).

The Town maintains that the Building Inspector has authority to interpret and apply the Zoning Bylaws and that the Company refused to consult with the Building Inspector (Hopkinton Reply Brief at 5-6).<sup>53</sup> Further, the Town argues that the Company’s consultations with the Town have lacked in substance and quality (id. at 6, citing Exh. TOH-NK-1, at 7). The Town concludes that the Department should require that applicants conduct discussions with local zoning officials and not reward the Company’s “bad behavior” which it views as a “haphazard and confusing presentation of requests that came in numerous forms and filings” (Town Brief at 24). In sum, Hopkinton contends that the “Company has gone out of its way to undermine the Town at every step” (Town Reply Brief at 7).

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<sup>53</sup> The Building Inspector testified that he had not spoken with the Company about zoning for the Project (Tr. 2, at 366-367). Specifically, he noted, “the Company has not at any time requested an opinion from my office regarding the applicability of any provision of the Zoning Bylaws to the Liquefier Replacement project or availability of relief at the local level” (Hopkinton Reply Brief at 5, citing Exh. TOH-CK-1, at 9).

ii. Company Response

The Company asserts that its subsequent refinement of its Petition throughout the discovery and evidentiary hearing phases of this proceeding requires neither an amendment to its Petition nor further notice (Company Reply Brief at 6). The Company asserts that there is no legal basis to require an amended Petition for a revised list of requested zoning exemptions (id.). The Company argues that the Public Comment Hearing Notice informed the public that the Company was seeking both individual and comprehensive zoning exemptions pursuant to the provisions of G.L. c. 40A, § 3 (id.). Since a comprehensive zoning exemption would exempt the Project from the operation of all applicable provisions of the Hopkinton Zoning Bylaws in its entirety, including the additional requested zoning exemptions identified later in the proceeding, the Company contends that the public was on notice of the requested exemptions (id.).

The Company asserts that Hopkinton was not prejudiced by additional zoning exemption requests since it was actively involved with the proceeding from the outset (Company Reply Brief at 7). The Company noted that it refined its list of zoning exemptions in a timely manner, allowing inquiry during discovery and evidentiary hearings (id.). The Company argues that Hopkinton's claim that it requested additional exemptions during and after the close of hearings is false (id.). The Company explained that during hearings the documents distributed summarized exemptions that had already been requested and that the record request reiterated why the Company was requesting an exemption from the entirety of Article XII (WRPOD) (id. at 8). The Company concludes that there is no harm in the Department granting exemptions from zoning provisions that are ambiguous (id. at 9).

The Company asserts that it relied on the two prior Department Orders granting exemptions for the LNG-related land use at the Existing Facility, which the Company asserts also extend to the Project (Company Brief at 53; Company Reply Brief at 5). The Company acknowledges that it subsequently included a request for exemption from the requirement to obtain a special permit for energy uses (such as the Project) within an Agricultural District, Section 210-16D, but notes that this addition was prompted by the apparent change in the Town's posture about the applicability of the prior Department exemptions (Company Reply Brief at 6). The Company maintains that the exemption would only be necessary should the Department not interpret its prior Orders as allowing the LNG-related use of the Project Site (Company Brief at 53; Exhs. HOPCO-JB-1(2)(S1); DPU-P-19).

Finally, the Company argues that it has worked cooperatively with the Town and that it has gone "above and beyond" to work with the Town on the Project, especially regarding the Town's safety concerns (Company Reply Brief at 16).

3. Analysis and Findings

a. Regarding Notice of the Company's Requested Exemptions

As a preliminary matter, we address the assertion by the Hopkinton that the Company has failed to provide adequate notice of certain of the zoning exemptions it seeks from the Hopkinton Zoning Bylaws.

The Company seeks exemption from a total of eight individual provisions of the Zoning Bylaws, as well as a comprehensive exemption from the Zoning Bylaws. HOPCo requested these exemptions at different points in the proceeding. In its Petition, filed on June 30, 2017, the Company requested five individual exemptions. Subsequently, in an answer to an information

request issued by Department staff prior to hearings, the Company on October 16, 2017, requested an additional three exemptions.

Hopkinton takes issue with the sequential nature of the Company's request for zoning relief. Hopkinton asserts that the Department should consider only the five exemptions requested in the Company's original Petition and disregard or strike the remaining requests. Hopkinton asserts that, because the original Petition did not include the three later requests, the parties received inadequate notice of these requests, in violation of the statutory notice requirements in G.L. c. 40A, § 3, and G.L. c. 30A, § 11(1).

The Massachusetts Administrative Procedure Act addresses the notice requirements applicable to state-agency adjudicatory proceedings in the Commonwealth. G.L. c. 30A. Section 11 of the Administrative Procedure Act directly addresses the question of adequate notice to parties regarding the issues to be determined in an adjudicatory proceeding. Importantly, Section 11 does not require that all issues be identified at the outset of the proceeding. In fact, Section 11 recognizes that this does not, or cannot, always occur, and it sets out the notice provisions that apply when issues are identified later in the proceeding, rather than at the outset. Section 11 provides that:

parties shall have sufficient notice of the issues involved to afford them reasonable opportunity to prepare and present evidence and argument. If the issues cannot be fully stated in advance of the hearing, they shall be fully stated as soon as practicable. In all cases of delayed statement, or where subsequent amendment of the issues is necessary, sufficient time shall be allowed after full statement or amendment to afford all parties reasonable opportunity to prepare and present evidence and argument regarding the issues.

G.L. c. 30A, § 11(1).

There is no question that the parties had sufficient notice of the Company's initial five zoning exemption requests, as they were set forth in the Company's June 30, 2017 Petition, the filing of which commenced this proceeding. Hopkinton received notice of the next three exemption requests (Site Plan Approval, Design Review, and Use in the Agricultural District) on or about October 26, 2017, when the Company filed its response to Information Request EFSB-P-19. Evidentiary hearings in the proceeding began June 12, 2018, and ended on June 14, 2018. Hopkinton, thus, had approximately eight months to address the three additional requests, both during hearings and in briefing. Further, with regard to Article XII and the listing of discrete sections of Article XII in Exh. EFSB-P-19 and RR-EFSB-19, the Department notes that the Company in its Petition requested an exemption from Article XII in its entirety. Therefore, Hopkinton had the opportunity to address the individual sections of Article XII either in discovery or in evidentiary hearings. The Department finds that the Company provided notice of the additional exemption requests that was sufficient to afford Hopkinton a reasonable opportunity to prepare and present evidence and argument regarding the exemptions, as required by G.L. c. 30A, § 11.

Accordingly, the Department finds that the notice provided for each of the Company's zoning exemption requests satisfied the requirements of G.L. c. 30A, § 11(1). The Department finds further that no prejudice to Hopkinton will occur by allowing the Company to seek the three exemption requests not originally included in its Petition. Accordingly, the Department finds that, consistent with G.L. c. 30A, § 11(1), the notice provided by the Company of all eight of its individual zoning exemption requests was sufficient to afford Hopkinton a reasonable and

sufficient opportunity to address each of the requested exemptions. The Department considers the merits of the Company's individual zoning exemption requests below.

b. Regarding Individual Exemptions

As described above in Table 3, the record shows that construction of the Project would require the Company to obtain certain variances. The Company requests exemptions from Sections 210-14 and 210-14C (lot coverage and setback); 210-21 (height) and 210-124 (parking). The Department accepts the Company's argument that the criteria for obtaining variances are both subjective and difficult to fulfill. See G.L. c. 40A, § 10; see also, 28A Mass.Prac.Series, Real Estate Law, § 23.26 (4<sup>th</sup> ed.) (“[e]stablishing each one of the three requirements [for obtaining a variance] is a very difficult task”). Additionally, we note that the granting of a variance may be appealed. See G.L. c. 40A, § 17, see also, 28 Mass.Prac.Series, Real Estate Law, § 23.26 (4<sup>th</sup> ed.) (“it is not surprising that few variances stand up when challenged in court”). Consequently, requiring the Company to obtain variances could, at a minimum, result in significant Project delay or create additional vulnerabilities to appeal. Accordingly, we find that exemptions from the identified provisions of the Zoning Bylaws that would require the Company to obtain a variance to construct and operate the Project are required within the meaning of G.L. c. 40A, § 3.

The record shows that construction of the Project would require that the Company obtain a use variance from Article XII, WRPOD. However, Section 210-71A (of Article XII) explicitly prohibits use variances within the WRPOD, which are also expressly prohibited by Section 210-70D. As there is no local zoning relief available to the Company, the Department finds that an



exemption from the identified provision, Article XII of the Zoning Bylaws, is required within the meaning of G.L. c. 40A, § 3.

Section 210-16D requires a special permit for use for the proposed Project in an Agricultural District. We concur with the Company that the special permit criteria are to some extent subjective in nature, and that the subjectivity introduces some uncertainty into the permitting process. Additionally, we note that special permits are appealable. Thus, requiring the Company to obtain special permits could result in Project delay. Accordingly, we find that exemptions from the special permit requirement in Section 210-16D are required within the meaning of G.L. c. 40A, § 3.<sup>54</sup>

The Hopkinton Zoning Bylaws would also require the Company to obtain Site Plan Approval (Article XX) and one element of obtaining such approval involves the Design Review Process (Article XXI) for which the criteria are to some extent subjective. In addition, the Site Plan Approval process could conflict with the requirement that the Project be constructed according to established utility standards. Therefore, we find that exemptions from Article XX and Article XXI are also required within the meaning of G.L. c. 40A, § 3.

c. Regarding Municipal Consultation

The Department continues to favor the resolution of local issues on a local level whenever possible to reduce concern regarding any intrusion on home rule. Eversource Woburn, D.P.U. 15-85, at 38 (2016) (“Eversource Woburn”); New England Power Company d/b/a

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<sup>54</sup> While the Company maintains that previous exemptions granted by the Department continue to exempt the Facility Site from provisions of the Hopkinton Zoning Bylaws relating to LNG-related use, the Company subsequently requested an exemption from the use provisions in this proceeding.

National Grid, D.P.U. 14-128/14-129, at 41-42(2015) (“NEP Cabot Taps”); Russell Biomass LLC/Western Massachusetts Electric Company, EFSB 07-4/D.P.U. 07-35/ 07-36, at 60-65 (“Russell Biomass”). The Department believes that the most effective approach for doing so is for applicants to consult with local officials regarding their projects before seeking zoning exemptions pursuant to G.L. c. 40A, § 3. Eversource Woburn at 38; NEP Cabot Taps at 41-42; NSTAR Electric Company, D.P.U. 13-177/178, at 36.

The record shows that the Company consulted with local Hopkinton officials regarding the Project on several occasions and that a number of these meetings took place well before the Company filed its Petition with the Department. However, it appears that in these meetings the Company presented the Project as part of the overall Facility’s long-term plans and goals, and did not discuss the necessity of specific zoning exemptions. In fact, the Company has specifically acknowledged that it did not attempt to discuss the Zoning Bylaws or its interpretation with local zoning officials with regards to the Project prior to filing its Petition. Hopkinton has not provided a letter of support for either individual or comprehensive zoning exemptions. However, Hopkinton does not oppose granting zoning exemptions as long as an HCA is required (see Section I.C., above).

The record demonstrates that, over the past few years, the Company has made efforts to apprise Hopkinton of the proposed Project, but did not seek out the Town’s opinion as to the applicability of the Zoning Bylaws to the proposed Project. The Company explains it did not engage in consultation with the Building Inspector because his opinion does not provide certainty regarding compliance with the Zoning Bylaws. However, this lack of communication has led to an unnecessarily confusing progression of requests for individual exemptions by the

Company. The added complexity in such an approach is time consuming for the Department as well as the parties and, potentially, it could have been avoided through additional communication and consultation with the Town regarding its Zoning Bylaws. The Department notes that, while the Company did not consult with the Building Inspector regarding the applicability of local zoning, the Company did demonstrate a commendable interest in supporting the Town's understanding and review of the Project by funding a technical consultant for the Town.

The Department finds that the Company's efforts to consult with municipal authorities, while considerable, did not fully reflect the spirit of Russell Biomass. Additional, and more focused communication by the Company with appropriate Town officials might have been useful in helping to more fully inform the Petition, at the outset of a proceeding. We expect the Company to engage more vigorously with Town officials in any future proceedings. To this end, we direct the Company to provide documentation showing it has endeavored to consult with zoning officials regarding the applicability of local zoning bylaws to its projects in all future zoning exemption requests to the Department.

#### 4. Conclusion on Request for Individual Zoning Exemptions

As described above, the Department finds that (1) HOPCo is a public service corporation; (2) the proposed use is reasonably necessary for the public convenience and welfare; and (3) the specifically identified zoning exemptions are required within the meaning of G.L. c. 40A, § 3. While the Company did meet with various Town officials and other stakeholders on multiple occasions about the Project prior to filing the Petition and after, the Company's engagement with the Town fell short of the consultations that the Department expects. However, the record suggests that more engagement would not have ultimately produced a different set of zoning

exemption requests or agreement on the necessity of such zoning exemptions between the Company and the Town. Accordingly, in view of the record in the proceeding, the Department grants the Company's request for the individual zoning exemptions listed above in Table 3.

### III. REQUEST FOR A COMPREHENSIVE ZONING EXEMPTION

#### A. Standard of Review

The Department considers requests for comprehensive zoning exemptions on a case-by-case basis. Eversource Energy, EFSB 15-04/D.P.U.15-140/D.P.U. 15-141, at 150 (2018) ("Woburn-Wakefield"); NSTAR Hopkinton, D.P.U. 15-02, at 44; NSTAR Electric Company, D.P.U. 07-60/07-61, at 50-51 (2008) ("NSTAR Carver"), citing Princeton Municipal Light Department, D.T.E./D.P.U. 06-11, at 37 (2007). The Department will not consider the number of exemptions required as a sole basis for granting a comprehensive exemption. Rather, the Department will consider a request for comprehensive zoning relief only when issuance of a comprehensive exemption would avoid substantial public harm. Woburn-Wakefield at 150; Walpole-Holbrook at 98; Woburn Substation at 37; New England Power Company d/b/a National Grid/Western Massachusetts Electric Company at 92 (2012) ("Hampden County").

#### B. Company Position

In addition to the individual exemptions discussed above, the Company has also requested a comprehensive exemption from the Hopkinton Zoning Bylaws (Exh. HOPCO-1, at 35). The Company states that the Project is needed immediately and the exemption is needed to avoid substantial public harm (Company Reply Brief at 12). The Company maintains that it needs a comprehensive zoning exemption in addition to individual exemptions to shield the

Project from future zoning enactments that might jeopardize the Project and to remove doubt as to zoning provisions that might possibly apply to the Project (Company Brief at 66).<sup>55</sup>

In addition, according to the Company, local zoning bylaws and ordinances often (1) directly conflict with overarching state and industrial safety and engineering standards; (2) are vague, ambiguous and difficult to apply to unique energy infrastructure; or (3) are discretionary in nature and can result in burdensome or restrictive conditions (Exh. HOPCO-1, at 36-37). The Company maintains that a grant of a comprehensive zoning exemption would provide greater certainty with respect to all zoning provisions, allow the Company to promptly address and implement design changes associated with the Project, and allow timely construction of the Project (Company Brief at 68).

Addressing factors for a comprehensive zoning exemption, the Company argues that the Project is needed both for reliability purposes and is time sensitive, and it categorizes the reliability need as immediate (Exh. HOPCO-1, at 36-37; Company Brief at 66; Company Reply Brief at 12-13). The Company notes that the Existing Facility is over 50 years old, and the pre-treatment and liquefier systems are obsolete, several years beyond their design life of 30-40 years, and functionally at the end of their useful life (Company Brief at 19-20, citing Exh. HOPCO-1, at 13; Tr. 1, at 40, 59, 61-62).

The Company notes that much of the existing liquefier and pre-treatment equipment is no longer supported by the original manufacturer and parts can only be sourced from specialty equipment suppliers or reverse engineered (Company Brief at 21, citing Exh. TOH 1-50). The

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<sup>55</sup> The Company does not regard zoning exemptions granted as exempting future Facility modifications from the operation of dimensional and other non-use provisions of a zoning bylaw (Company Brief at 52 n.25, citing Exh. TOH-2-5).

Company contends that this circumstance significantly increases both the cost of repairs and the time needed to obtain replacement parts and service, which can exceed nine to twelve months in some cases (id.). The Company asserts that if the Facility experienced a catastrophic failure of a piece of equipment related to the existing liquefier, it could shut the Facility down and significantly impact the Company's ability to fill the Facility's LNG tanks in time for the vaporization season (Company Brief at 21). The Company notes that the Facility supplies up to 45 percent of NSTAR Gas' total system requirement on the coldest days (Exhs. DPU-Z-10; DPU-Z-11; DPU-N-2; Company Reply Brief at 13). A loss of this Facility, the Company maintains, would expose NSTAR Gas customers and the region to inadequate supplies of natural gas to meet peak demand days (Company Reply Brief at 13-14). The Company notes that the Facility is a critical and highly strategic component of NSTAR Gas' supply portfolio that is ideally situated to serve the local NSTAR Gas system, as well as other NSTAR Gas distribution areas via LNG trucking or injection of vaporized gas into both the TGP and AGT pipeline systems for delivery to upstream or downstream NSTAR gas customers (id.).

The Company also notes that the Project would enhance public safety by replacing the current cascade liquefaction cooling technology, which relies on three different flammable refrigerants, with a modern refrigeration system using nitrogen that is a non-toxic and inert gas (Exh. HOPCO-1, at 17; Tr. 1, at 96; Company Brief at 26-27).

The Company acknowledges that the Project is in located in only one municipality and, therefore, the Department's consideration of multiple municipalities is not a factor favoring the Department's grant of the comprehensive zoning exemption (Company Reply Brief at 14).

Regarding the Company's efforts to engage with the Town, the Company maintains that it made significant contact with municipal officials and other stakeholders through 20 outreach meetings prior to and since filing the Petition and that the Company inquired about the Town's concerns regarding the Project attempting to address such concerns through project design (id. at 15, citing Exhs. DPU-G-1(R1); DPU-P-17; HOPCO-JB-1). The Company recounts multiple meetings with Town officials including members of the Planning Board, Town Counsel, the Board of Selectmen, the Fire Chief, the Fire Prevention Office, the Building Department, the Health Department, and the Principal Planner (Company Reply Brief at 15, citing Exhs. DPU-G-1(R1); DPU-P-17; HOPCO-JB-1). As discussed in Section II.D.2, above, the Company also funded a technical consultant to act as the Town's peer reviewer of Project design details, in hopes of enhancing the Town's understanding of the Project and facilitating the Town's support (Company Reply Brief at 15, citing Exh. HOPCO-JB-1, Tr. 3, at 579-580). Nevertheless, the Company acknowledges that the Town is not supportive of its request for a comprehensive zoning exemption from the Zoning Bylaws (Company Reply Brief at 15-16). Notwithstanding the Company's inability to obtain the support of the Town, the Company contends that it has shown that the grant of a comprehensive exemption would avoid substantial public harm (id. at 16).

C. Town Position

When the Town amended its Zoning Bylaws to create a special permit process for specified utility uses, the Town intended that the Company seek local approval for the Project prior to seeking exemptions from the Department (Exh. TOH-EL-1, at 9). The Town alleges that the Company instead opted to request a comprehensive zoning exemption because it prefers not

to engage with local officials (Town Brief at 30). The Town argues that grant of a comprehensive zoning exemption would nullify its Zoning Bylaws in its entirety, which is warranted only to avoid substantial public harm (id. at 28). The Town asserts that “the only immediate harm identified by the Company is the increased cost of finding replacement parts for aging equipment” (id.). Instead, Hopkinton contends that the Project requires only relatively few individual zoning exemptions, and “the Company would have known which provisions were applicable had it consulted with local officials” (id. at 29).

Hopkinton argues that the Project does not meet the legal standard for a comprehensive zoning exemption and cites to factors that the Department considers (id. at 24-26). Hopkinton argues that, although the Company alleges that the Project is time sensitive due to the cost and lead time of replacing aging equipment, “there have been no significant [Facility] failures in the last 10 years,” “no failures of any liquefier equipment during a year when tank inventory was critically low after the winter vaporization season,” and “the existing Facility is designed with an ‘N+1’ redundancy for equipment that is prone to fail such that replacements are already installed in parallel” (Town Brief at 26, citing Exh. TOH-2-28(c)). Therefore, the Town states that the Company’s reliability argument is based on cost, not an immediate need to replace failing equipment (Town Brief at 26).

Hopkinton asserts other shortcomings of the requested comprehensive zoning exemption. Hopkinton notes that there is only one municipality involved, not multiple municipalities with potentially conflicting zoning provisions (id.). It contends that the Company has sought only a few individual exemptions, and any complexity or ambiguity in zoning requirements is due to the Company’s refusal to engage with the Town (id. at 26-27; Town Reply Brief at 4).



Specifically, Hopkinton alleges that the Company made no effort to discuss the applicability of local zoning provisions with local officials or to address local concerns (Town Brief at 27).<sup>56</sup>

Finally, Hopkinton points out that, although the Company has not received an endorsement of the Project from the Town, “the Town has not opposed the Project; rather, the Town began its attempts to work with the Company prior to the initiation of this proceeding with the goal of being able to support the Project once local concerns had been addressed” (Town Brief at 28). The Town alleges that the Company “will cooperate with the Town’s public safety agencies only if forced to do so” (*id.*). The Town argues that any zoning exemptions granted by the Department should be conditioned on Department approval of an HCA, to be negotiated by the Company and the Town, that creates “an enforceable legal framework for the information-sharing, emergency-response planning, and mitigation measures safety demands” (*id.* at 30).

#### D. Analysis and Findings

The grant of a comprehensive zoning exemption is based on the specifics of each case. Compared to the grant of individual zoning exemptions, which are tailored to meet the construction requirements of a particular project, the grant of a comprehensive zoning exemption serves to nullify a municipality’s zoning code in its entirety with respect to the project under review. Thus, compared to the grant of individual zoning exemptions, a comprehensive zoning

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<sup>56</sup> The Town contends that zoning laws provide the Building Inspector with the legal authority to interpret and apply the Zoning Bylaws, but that the Company did not recognize this authority or consult with the Building Inspector regarding the Bylaw (Town Reply Brief at 5). The Town rejects the Company’s rationale that such consultations would not have been worthwhile because they may be appealed as inconsistent with the Department’s requirement that the Company engage with responsible officials to discuss the applicability of local zoning provisions (Town Brief at 27).

exemption constitutes a broader incursion upon municipal home rule authority. In the absence of a showing that substantial public harm may be avoided by granting a comprehensive zoning exemption, the granting of such extraordinary relief is not justified. NSTAR Electric Company, D.P.U. 15-85, at 39 (2016); NSTAR Electric Company, D.P.U. 13-126/13-127, at 37 (2014) (“Electric Avenue”); New England Power Company d/b/a National Grid/Westborough, D.P.U. 12-02, at 35-37 (2012); NSTAR Electric Company Waltham, D.P.U. 08-1, at 35-37 (2009).

In order to make a determination regarding substantial public harm, the Department and the Siting Board have articulated relevant factors, including, but not limited to, whether: (1) the project is needed for reliability; (2) the project is time sensitive; (3) the project involves multiple municipalities that could have conflicting zoning provisions that might hinder the uniform development of a large project spanning these communities; (4) the proponent of the project has actively engaged the communities and responsible officials to discuss the applicability of local zoning provisions to the project and any local concerns; and (5) the affected communities do not oppose the issuance of the comprehensive exemption. Woburn Substation at 37, 38-39; New England Power d/b/a National Grid, EFSB 13-2/D.P.U. 13-151/D.P.U. 13-152, at 99 (2014); Hampden County at 89-90; see also NRG Canal 3 Development LLC, EFSB 15-06/D.P.U. 15-180, at 154 (2017).<sup>57</sup>

Department and Siting Board cases that have considered and granted comprehensive exemptions have often involved projects that were (1) time sensitive where a comprehensive zoning exemption would avoid substantial public harm, by serving to prevent a delay in the

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<sup>57</sup> The Department notes that this list of factors is not exhaustive, and is applied on a case-by-case basis.

construction and operation of the proposed use, and (2) dealt with the zoning ordinances of multiple municipalities, where conflicting interpretations could arise. NEP Cabot Taps at 45; New England Power Company d/b/a National Grid, EFSB 12-1/D.P.U. 12-46/12-47, at 86-87 (2014); Western Massachusetts Electric Company, EFSB 08-2/D.P.U. 08-105/106, at 136-137 (2010). The Company argues that the proposed Project is needed immediately for reliability and that delay in constructing this Project could lead to substantial public harm. The Department has found that the proposed Project is needed for reliability and is an important component of the NSTAR Gas portfolio. The Existing Facility is well past its design life. While the Existing Facility is operable, replacement equipment is getting more difficult to obtain, and some replacement parts may take as long as nine to twelve months to procure or reverse engineer. A loss of the Facility for a prolonged period of time would have a significant detrimental impact on NSTAR Gas' ability to provide gas service to its customers, particularly during peak winter conditions, and this would clearly result in substantial public harm. This is not a risk that the Department views as warranted or consistent with our statutory mandate to weigh the prerogatives of local zoning with the broader and vitally important energy needs of the Commonwealth and the public's welfare and convenience. While the Facility is located in only one municipality, its reliability, environmental, and economic benefits extend to NSTAR Gas' service territories across the Commonwealth; these considerations are particularly critical during supply-constrained peak winter conditions.

The Company's outreach to municipal officials concerning the comprehensive zoning exemption was not distinguishable from its overall outreach efforts, community engagement, and communications described above for the individual zoning exemptions. Similarly, the

Department finds that during its engagement with Town officials regarding the comprehensive zoning exemptions these exemptions should have been more thoroughly and specifically discussed, prior to submission of the Petition. However, again, the Department sees nothing in the record to suggest that either more or earlier engagement with the Town would have altered the Company's rationale for seeking the comprehensive zoning exemption or led to agreement on the necessity of such zoning exemptions by the Company and the Town.

Considering all of the factors discussed above, the Department finds HOPCo's request for a comprehensive zoning exemption is warranted and necessary to avoid substantial public harm. Accordingly, the Department approves the request.

#### IV. SECTION 61 FINDINGS

The Massachusetts Environmental Policy Act ("MEPA") provides that "[a]ny determination made by an agency of the commonwealth shall include a finding describing the environmental impact, if any, of the project and a finding that all feasible measures have been taken to avoid or minimize said impact" ("Section 61 findings"). G.L. c. 30, § 61. Pursuant to 301 CMR 11.01(3), Section 61 findings are necessary when an Environmental Impact Report ("EIR") is submitted to the Secretary of Energy and Environmental Affairs, and should be based on such EIR. Where an EIR is not required, Section 61 findings are not necessary. 301 CMR 11.01(3). In an affidavit dated June 30, 2017, Denise Bartone, at that time a Senior Environmental Engineer with Eversource Energy and current supervisor of Eversource Energy's Environmental Affairs group, stated that the Project would not exceed any of the applicable

MEPA review thresholds and, accordingly, that the Project does not require a MEPA filing (Exh. HOPCO-1, exh. G). Accordingly, Section 61 findings are not necessary for this Project.<sup>58</sup>

V. ORDER

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

ORDERED: That the petition of Hopkinton LNG Corporation, pursuant to G.L. c. 40A, § 3, seeking the specific exemptions set forth in Table 3 from the operation of the Town of Hopkinton Zoning Bylaws is GRANTED; and it is

FURTHER ORDERED: That the petition of Hopkinton LNG Corporation seeking a comprehensive exemption from the operation of the Town of Hopkinton Zoning Bylaws pursuant to G.L. c. 40A, § 3, is GRANTED; and it is

FURTHER ORDERED: That Hopkinton LNG Corporation shall submit a copy of the Massachusetts Historical Commission's final Determination of Effect on Historic and Archaeological Properties for the Project to the Department and the Town of Hopkinton when available; and it is

FURTHER ORDERED: That Hopkinton LNG Corporation shall limit Project construction to between the hours of 7:00 a.m. and 7:00 p.m. Monday through Friday, and to between the hours of 8:00 a.m. and 4:00 p.m. on Saturdays. Should Hopkinton LNG Corporation need to extend construction work beyond those hours and days (with the exception

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<sup>58</sup> The Department notes the requirements set forth in G.L. c. 30, § 61, effective November 5, 2008, regarding findings related to climate change impacts. Since Section 61 findings are not required in this case, the Project is not subject to the Greenhouse Gas Emissions Policy and Protocol. The Department nonetheless notes that this Project would reduce the potential annual CO<sub>2</sub> equivalent emissions from liquefaction operations at the Facility by over 45,000 tons per year (RR-DPU-6). Air emissions from the Project are addressed in Section II.C.3.g., above.

of emergency circumstances on a given day that necessitate work beyond such times), Hopkinton LNG Corporation is directed to seek written permission from the relevant Town of Hopkinton authority prior to the commencement of such work and to provide the Department with a copy of such permission. If Hopkinton LNG Corporation and Town of Hopkinton officials are not able to agree on whether such extended construction hours should occur, Hopkinton LNG Corporation may request prior authorization from the Department and provide the Town of Hopkinton with a copy of such request; and it is

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

FURTHER ORDERED: That Hopkinton LNG Corporation shall prepare a traffic management plan related to Project construction, including management of construction worker traffic impacts, to include a worker carpooling program plan, management of impacts from deliveries of major equipment, and coordination with the Hopkinton Police Department,

including the potential for police details, as well as the Hopkinton School Department to mitigate potential traffic conflicts with school bus routes and schedules; and it is

FURTHER ORDERED: That Hopkinton LNG Corporation shall submit a compliance filing for the Department's review 30 days prior to commencing construction, outlining, at a minimum, the following:

- an update on status of the Emergency Response Plan and Emergency Response Guide, and the communication protocols and review cycles contained therein;
- comments from the Hopkinton Fire Department on the process used to develop the Emergency Response Plan and Emergency Response Guide, and how its input was considered in this process;
- an update on the status of discussions between the Hopkinton Fire Department and Hopkinton LNG Corporation regarding the development of an evacuation plan that reflects the updated Emergency Response Plan for the Facility;
- comments from the Hopkinton Fire Department on the sufficiency of Hopkinton LNG Corporation's support in the development of an evacuation plan reflective of the Facility's updated Emergency Response Plan;
- an update on the status of discussions between Hopkinton LNG Corporation and the Town of Hopkinton regarding the potential closure of Wilson Street and/or potential improvements to the security of the liquefied natural gas piping crossing beneath Wilson Street between the eastern and western parcels of the Facility Site and/or refurbishment of Wilson Street, if it is kept as a public thoroughfare; and
- comments from the Town of Hopkinton on discussions between it and Hopkinton LNG Corporation concerning Wilson Street; and it is

FURTHER ORDERED: That Hopkinton LNG Corporation shall install a fiber system that is under the operational control of the Company to provide pre-arrival information to the Hopkinton Fire Department, subject to review and acceptance by the U.S. Department of Transportation Pipeline and Hazardous Materials Safety Administration or its delegated authority; and it is

FURTHER ORDERED: That Hopkinton LNG Corporation shall reach a mutually agreeable arrangement with the Hopkinton Fire Department for the attendance of first responders

from the Hopkinton Fire Department, and neighboring communities that have mutual aid agreements with the Hopkinton Fire Department, at the liquefied natural gas-specific training program offered by the Massachusetts Firefighting Academy in Stow, and Hopkinton LNG Corporation shall file a copy of said agreement with the Department when available. If Hopkinton LNG Corporation has not reached an agreement with the Hopkinton Fire Department prior to completion of Project construction, Hopkinton LNG Corporation shall file a progress report with the Department within one month of completing construction and continue to provide updates to the Department on a quarterly basis until an agreement is reached; and it is

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

FURTHER ORDERED: That Hopkinton LNG Corporation shall provide documentation showing it has endeavored to consult with zoning officials regarding the applicability of local zoning bylaws to its projects in all future zoning exemption requests to the Department; and it is

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



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

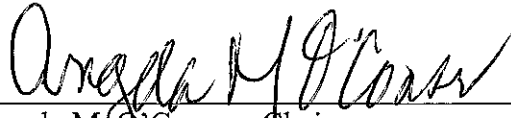
FURTHER ORDERED: That Hopkinton LNG Corporation and its successors in interest notify the Department of any changes other than minor variations to the Project so that the Department may decide whether to inquire further into a particular issue; and it is

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

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

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

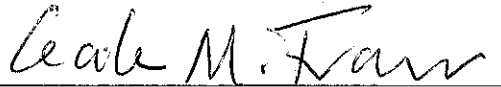
By Order of the Department



Angela M. O'Connor, Chairman



Robert Hayden, Commissioner



Cecile M. Fraser, Commissioner

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