D.T.E./D.P.U. 06-11

Petition of Princeton Municipal Light Department, pursuant to G.L. c. 40A, § 3, for exemption from the Zoning Ordinance of the Town of Princeton for purposes of construction and operation of a wind electric generating facility.

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TABLE OF CONTENTS

I. INTRODUCTION

A. Description of the Proposed Project

Pursuant to G.L. c. 40A, § 3, Princeton Municipal Light Department ("PMLD") filed a petition with the Department of Telecommunications and Energy ("Department") for exemptions from the Zoning By-Laws of the Town of Princeton ("Zoning By-laws") in connection with the proposed construction of two 1.6-megawatt ("MW") wind turbines off Westminster Road and two existing meteorological test towers ("test towers") at the same location (Exh. PMLD-1, at 1, 5). The two test towers for which PMLD seeks zoning exemptions were installed in 2003 (id. at 1, 4). The turbines and test towers are or would be located on a 16-acre site owned by the Town of Princeton (id. at 3).[1] The Department docketed the matter as D.P.U. 06-11.[2]

In its initial filing, PMLD indicated that in 2003 it entered into a financial agreement with CEI Massachusetts Wind, LLC ("CEI") to finance the proposed facility (Exh. PMLD-JVF at 4). Pursuant to that agreement, PMLD would lease a small portion of the 16-acre site to CEI, who would, install, operate and maintain the proposed facility (id. at 4-5). According to PMLD, CEI would then sell the total output of the proposed facility to PMLD (id. at 5). PMLD later notified the Department that as of June 15, 2006, it would finance, install, and operate the

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[1] PMLD stated that eight 40 kW wind turbines operated at the same site from 1984 to 2004 (Exhs. PMLD-1, at 4; PMLD-JVF at 2).

[2] On April 11, 2007, Chapter 19 of the Acts of 2007 ("Act") was enacted pursuant to Article 87 of the Amendments to the Massachusetts Constitution. The Act, among other things, created a Department of Public Utilities within the Executive Office of Energy and Environmental Affairs, as the successor to the Department of Telecommunications and Energy. Accordingly, the official docket of this proceeding is now D.T.E./D.P.U. 06-11.

proposed facility itself (Exh. DTE 1-1, at 2). PMLD later clarified that CEI retains ownership of one of the test towers installed (Tr. at 83).

PMLD is a Massachusetts municipal light department, purchasing electricity at wholesale and selling to its ratepayers; it operates distribution and other facilities within Princeton (Exh. PMLD-1, at 3). PMLD predicted that the turbines would operate at a capacity of factor of 34.6, and would provide approximately 40% of its electric requirements (Exhs. DTE-2-14; PMLD-1, at 5). The proposed facilities would consist of two 1.6 MW wind turbines, each mounted on a 230-foot monopole, and two 1.5 MW transformers (Exh. PMLD-1, at 5). PMLD would also develop the access road to the site (Exh. JPM-3-9). As described by PMLD, the Town of Princeton would also acquire access rights along the existing access road while exchanging other access rights and ownership of several acres of the existing site to the Massachusetts Department of Conservation and Recreation ("DCR") (Exh. JPM-3-15, at 1-2).

B. Prior Zoning Decisions

PMLD indicated it has received all the necessary approvals from the Town of Princeton in order to construct the proposed facility (Exh. PMLD-1, at 3). PMLD stated that it is seeking exemption from operation of the Zoning By-laws because certain landowners have appealed all of the decisions of the Town of Princeton Planning Board ("Planning Board") resulting in an almost two-year delay to the local siting process (id.).

On May 19, 2004, the Planning Board issued a site plan review for the proposed facility based on the Zoning By-laws in effect as of April 2002 (Exh. PMLD-JVF at 5). The site plan review was appealed to the Land Court, and remanded by the court for lack of sufficient reasons to the Planning Board (id.). On March 9, 2005, the Planning Board issued a supplemental

decision on the site plan review providing reasons for its decision (id. at 5-6).

On May 10, 2005, the Town Meeting of Princeton unanimously approved amendments to the Zoning By-Laws designed to cure any "potential deficiencies" in the 2002 By-laws (id. at 6). On September 28, 2005, the Planning Board issued a new site plan review for the proposed facility based on the 2005 By-laws (id.). On October 27, 2005, John Mollica et al. filed an appeal with the Land Court of the new site plan review (id.).

C. Procedural History

On March 30, 2006, pursuant to notice duly issued, the Department conducted a public hearing in Princeton. On April 3, 2007, John P. Mollica filed a timely petition to intervene that the Hearing Officer granted.[3] The Hearing Officer denied the timely petition to intervene filed by WEST, Watchdogs for an Environmentally Safe Town ("WEST"), but granted WEST limited participant status in the proceeding. In support of its petition, PMLD submitted exhibits, including the testimony of Jonathan V. Fitch, manager of PMLD. The Department conducted an evidentiary hearing on October 17, 2006. The record includes PMLD's responses to information requests issued by the Department and Mr. Mollica. PMLD and Mr. Mollica filed briefs. WEST was granted leave to submit a late-filed brief and did so on January 25, 2007. PMLD and Mr. Mollica filed reply briefs. PMLD also filed a response to WEST's late-filed brief ("PMLD Response").

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[3] At the request of the Petitioner, the Department deferred ruling on Mr. Mollica's petition to intervene pending the submission of anticipated Stipulations to Dismiss in related Land Court proceedings. Princeton Municipal Light Department, D.T.E./D.P.U. 06-11 (August 31, 2006 Hearing Officer Ruling on Procedural Schedule at 1).

II. STANDARD OF REVIEW

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

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

Thus, a petitioner seeking exemption from a local zoning bylaw under G.L. c. 40A, § 3 must meet three criteria. First, the petitioner must qualify as a public service corporation. Save the Bay, Inc. v. Department of Public Utilities, 366 Mass. 667 (1975) ("Save the Bay"). Second, the petitioner must establish that it requires exemption from the zoning ordinance or bylaw. Boston Gas Company, D.T.E. 00-24, at 3 (2001) ("Boston Gas"). Finally, the petitioner must demonstrate that its present or proposed use of the land or structure is reasonably necessary for the public convenience or welfare. Massachusetts Electric Company, D.T.E. 01-77, at 4 (2002) ("MECo (2002)"); Tennessee Gas Pipeline Company, D.T.E. 01-57, at 3-4 (2002) ("Tennessee Gas (2002)").

A. Public Service Corporation

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

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

Save the Bay, 366 Mass. 667, 680. See also, Boston Gas, D.T.E. 00-24, at 3-4; 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. See Berkshire Power at 30; Save the Bay at 685-686; Town of Truro v. Department of Public Utilities, 365 Mass. 407 (1974) ("Town of Truro") at 407. 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." Berkshire Power at 30; see also Dispatch Communications of New England d/b/a Nextel Communications, Inc., D.P.U./D.T.E. 95-59-B/95-80/95-112/96-113, at 6 (1998). The Department has determined that it is not necessary for a petitioner to demonstrate the existence of "an appropriate franchise" in order to establish public service corporation status. See Berkshire Power at 31.

B. Exemption 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 looks to whether the exemption is necessary to allow construction or operation of the petitioner's project as proposed. See MECo (2002), D.T.E. 01-77, at 4-5; Tennessee Gas (2002), D.T.E. 01-57, at 5; Western Massachusetts Electric Company, D.P.U./ D.T.E. 99-35, at 4, 6-8 (1999); Tennessee Gas Company, D.P.U. 92-261, at 20-21 (1993). It is 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:

> 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).

C. Public Convenience or Welfare

In determining whether the present or proposed use is reasonably necessary for the public convenience or welfare, the Department must balance the interests of the general public against the local interest. Save the Bay at 680; Town of Truro at 407 (1974). 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"). When reviewing a petition for a zoning exemption under G.L. c. 40A, § 3, the Department is empowered and required to consider the public effects of the requested exemption in the State as a whole and upon the territory served by the applicant. Save the Bay at 685; New York Central Railroad at 592.

With respect to the particular site chosen by a petitioner, G.L. c. 40A, § 3 does not require the petitioner to demonstrate that its preferred 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 preferred 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 at 591.

Therefore, when making a determination as to whether a petitioner's present or proposed use is reasonably necessary for the public convenience or welfare, the Department examines: (1) the present or proposed use and any alternatives or alternative sites identified; (2) the need for, or public benefits of, the present or proposed use; and (3) the environmental impacts or any other impacts of the present or proposed use. The Department then balances the interests of the general public against the local interest, and determines whether the present or proposed use of the land or structures is reasonably necessary for the convenience or welfare of the public. Boston Gas, D.T.E. 00-24, at 2-6; MECo (2002), D.T.E. 01-77, at 5-6; Tennessee Gas (2002), D.T.E. 01-57, at 5-6; Tennessee Gas Company, D.T.E. 98-33, at 4-5 (1998).[4]

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[4] In addition, the Massachusetts Environmental Policy Act provides that "[a]ny determination made by an agency of the commonwealth shall include a finding describing the environmental impact, if any, of the project and a finding that all feasible measures have been taken to avoid or minimize said impact" ("Section 61 findings"). G.L. c. 30, § 61. Pursuant to 301 C.M.R. § 11.12(5), Section 61 findings are required if the Secretary of Environmental Affairs has required an Environmental Impact Report ("EIR") for the project. On April 23, 2004, the Executive Office of Environmental Affairs notified the Company that no EIR is required for the proposed project (Exh. PMLD-JVF-10). Accordingly, Section 61 findings are not necessary in this case.

III. ANALYSIS AND FINDINGS

A. Public Service Corporation

1. Position of Parties

a. WEST

Although WEST does not challenge PMLD's public corporation status, WEST argues that PMLD lacks standing to seek a zoning exemption for the CEI-owned test tower (WEST Brief at 3). WEST states that the Department must interpret the statute "with sound reason and common sense" (WEST Brief at 3-4, citing State Retirement Board v. John B. Bulger et al., 446 Mass. 169 (2006)). WEST asserts that public service corporations contract for a wide range of services, and that a such a broad reading of the statute would create a possibility that public service corporations could seek relief under G.L. c. 40A, § 3 for projects only tangentially related to the production of energy (id. at 4).

b. PMLD

PMLD asserts that although there is no statutory definition for "public service corporation", the Department previously has found that a municipal light department satisfies the standards for public service corporation status set forth in Save the Bay (PMLD Brief at 3, citing Planning Bd. of Braintree v. Department of Public Utilities, 366 Mass 667 (1975)). PMLD states that it operates as a municipal light department pursuant to G.L. c. 164, §§ 34-69, and is therefore a public service corporation for purposes of G.L. c. 40A, § 3 (id. at 4).

PMLD maintains that G.L. c. 40A, § 3 does not contain a requirement that a public service corporation seeking a zoning exemption own the land or structures it uses to carry out its public service obligations (PMLD Brief at 4; PMLD Response at 1). PMLD states that the

statute requires an applicant to demonstrate that the land or structure in question is "used or used by a public service corporation" (PMLD Brief at 4). PMLD further states that in 2003, CEI Wind constructed both test towers on land owned by PMLD in order for PMLD to collect wind data to assess the feasibility of constructing the proposed facility (Exh PMLD-1, at 4). PMLD asserts that because the test towers used by PMLD are integral to the proposed facility, it has standing to seek a zoning exemption for this structure (PMLD Brief at 5).

2. Analysis and Findings

PMLD is a municipal light department that is operated pursuant to G.L. c. 164, § § 34-69. The Department has previously found that a municipal light department qualifies as a public service corporation. Planning Bd. of Braintree v. Department of Public Utilities, 420 Mass. 22, 27 (1995). Accordingly, the Department finds that PMLD qualifies as a public service corporation in accordance with G.L. c. 40A, § 3.

G.L. c. 40A, § 3 confers standing on public service corporations to seek a zoning exemption for all structures that are used in connection with the operation of the proposed facility. The Department notes that the statute does not restrict an applicant from seeking a zoning exemption for land or structures that are used, but not owned, by an applicant. The Department finds the test tower is a structure that is integral to the operation of the proposed facility and used exclusively by PMLD in connection with providing its public service obligations. Accordingly, the Department finds that PMLD, as a public service corporation, has standing to seek an exemption from the Zoning Bylaws for the test tower owned by CEI.[5]

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[5] Based on this finding, we do not have to reach the question WEST poses as to whether a public service corporation could seek relief under G.L. c. 40A, § 3 for a project that is (continued...)

B. Public Convenience or Welfare

1. Need or Public Benefit of Use

a. PMLD Position

PMLD set forth that the project is necessary to provide benefits to its customers, the Town of Princeton, and to Massachusetts. PMLD stated that the new 3.2 MW wind farm would serve to:

- replace on the same site as the previous PMLD 0.32 MW wind farm whose useful life is over (Exh. DTE 2-2, at 1);
- give PMLD the capacity to generate an average of 40% of its power needs with a clean renewable source (Exh. DTE 2-3, at 1);
- offer PMLD a significant cost advantage compared with continued purchase of all power requirements from sources outside of PMLD (Exh. DTE 2-2, at 2).

PMLD seeks to replace its wind facilities installed in 1984 because the original facilities were twenty years old as of 2004, and the wind turbines had reached the end of their useful lives (Exh. PMLD-JVF at 4).[6] PMLD stated that at a Special Princeton Town Meeting in February of 2003, 74% of the attending residents voted in favor of replacing the then-existing 8 turbines with two 1.6 MW turbines (id.). PMLD stated that the proposed new wind farm is designed to provide electricity at a stable price per kilowatt hour ("kWh") that is cost effective and less

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[5] (...continued)
only tangentially related to the obligations of the public service corporation.

[6] At a Special Town Meeting in January, 1984, the Town voted to authorize PMLD to acquire a 16-acre site and to construct 8 turbines of 40 kW each on that site (Exh. PMLD-JVF at 3). PMLD constructed 8 turbines and put them into service in 1984. PMLD stated that the wind farm generated approximately 2% of the electrical needs of the PMLD for the 20 years from 1984 through 2004 (Exh. PMLD-JVF at 2).

expensive than current Independent System Operator New England ("ISO-NE") market rates (Exh. DTE 2-2, at 2). PMLD's witness, Mr. Fitch, stated that in his view the proposed wind farm is needed to satisfy "PMLD's obligation. . . to provide PMLD's ratepayers with stable, cost-effective electricity, without wide fluctuations in price" (id.).

PMLD stated that since the retirement of the first wind farm it has purchased all of its power requirements from outside sources (Exh. DTE 2-2, at 1). PMLD currently purchases about 80% of its power requirements from the day-ahead and real-time markets operated by ISO-NE (id.). PMLD purchases the remaining 20% of its power under contracts with New England small-scale hydro power producers and New York Power Authority hydro resources (id.). PMLD noted that the market pricing of the open market power purchases has resulted in large fluctuations in electricity prices passed through to PMLD customers (id. at 1-2).

PMLD provided an estimate of the financial benefits of the project (Exh. DTE 2-16, Chart 1). For the first year of operation, PMLD estimated a total cost (including bond payments, insurance, and maintenance) of $626,574 to generate 9632 megawatt-hours ("MWh") of electricity, or $0.065 per kWh (id.). PMLD anticipated revenues of $0.040 per kWh ($385,286 in the first year) from sale of Renewable Energy Certificates ("RECs") as part of the Massachusetts Renewable Portfolio Standard ("RPS")[7] program, and $0.019 per kWh

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[7] In order to encourage development of renewable generating resources, Massachusetts legislated the RPS program under which publicly-owned distribution utilities are required to buy a portion of their power from certified renewable resources. 225 CMR 14.00. As of 2007, distribution utilities are required to purchase 3.0% of their power from renewable sources, and by 2009 that percentage will rise to 4.0%. Distribution utilities with insufficient quantities of renewable resources must purchase RECs from certified renewable generators. Thus, a market for RECs has been created. As a municipal utility, PMLD is exempt from the RPS program, but as a Massachusetts Division of Energy

(continued...)

($183,011 in the first year) in federal grants from the Renewable Energy Production Incentive program ("REPI").[8] Based on the evidence provided by the Company, the net cost to PMLD of project power would be $0.006 per kWh ($58,277 in the first year). PMLD projected its first-year cost for the same amount of power (9632 MWh) without the project at $866,893, using an assumed average market price of $0.09 per kWh (Exh. DTE 2-16, Chart 1). Based on the evidence provided by the Company, the net financial benefit to PMLD of the project in the first year would be $808,616, or $0.084 per kWh.[9]

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[7] (...continued)
Resources certified renewable generating source, PMLD can sell its RECs to non-municipal load serving entities subject to RPS who do not have sufficent qualified resources in their mix (Exh. DTE 2-3, at 4; see 225 CMR 14.00). Mr. Fitch stated that initial discussions with potential REC buyers indicated that RECs are valued at approximately $0.04 per kWh (Exh. DTE 2-16, at 25). Future values of RECs will depend upon the balance between the quantity of new renewable generating sources developed and the level of demand for electricity. Mr. Fitch stated that PMLD's strategy is to meet and/or exceed the renewable energy portfolio requirements of DOER (Division of Energy Resources) minimum standards for an investor-owned distribution utility (Exh. DTE 2-2, at 2).

[8] REPI is a federal program initiated in 1992 which provides payments to qualified renewable electric generators owned by states or municipalities (Energy Policy Act of 1992 Section 1212). Unlike the federal Renewable Energy Tax Credits, which reduce the federal tax obligations of for-profit renewable generators, REPI involves payments to generators during the first 10 years of a renewable plant's life. REPI was extended most recently in August, 2005 and currently applies to plants placed in service by December 31, 2016. 42 U.S.C. § 13317(c). However, the funding for REPI must be authorized annually, so there is some uncertainty as to whether there will be any funds and, if there are funds, the maximum number of kWh that can participate. The benefit of the incentive is indexed and was $0.019 per kWh in 2006.

[9] The Company's analysis suggests that annual savings would remain high, as projected reduction in output due to aging plant is roughly balanced by projected increases in the market price for power (see Exh. DTE 2-16, Chart 1).

As to the impact of the projected cost savings on ratepayers, PMLD stated that the energy cost savings would be used by PMLD as an offset to rising energy costs for PMLD's ratepayers (Exh. PMLD-JVF at 8). During the evidentiary hearing, Mr. Fitch stated that PMLD did not expect to pass through directly to its electric customers the savings associated with generating power from the two new wind turbines, but rather would use the savings ". . . to offset future rate increases. . ." (Tr. at 75). PMLD hopes to "reinvest it [the savings] in our distribution system, reinvest it into the things that would make our electrical distribution system more reliable and offset any future rate increases and try to maintain the lowest possible rates that we even have now compared to investor-owned utilities around us" (id.).

Mr. Fitch stated that PMLD's proposed new wind farm would support Commonwealth goals relating to energy and economic development. Specifically, Mr. Fitch indicated that the Certificate on the Environmental Notification Form of April 23, 2004, regarding PMLD's proposed project stated that PMLD's proposed wind farm would support the goals of:

- setting Massachusetts in a leadership role in the emerging renewable energy market;
- helping Massachusetts meet its commitments for reduction of greenhouse gases;
- providing an excellent opportunity for combining economic growth with environmental protection;
- encouraging redevelopment of existing sites; and
- advancing two key goals of the Sustainable Development Principles (increasing the supply of renewable energy and fostering sustainable business)

(Exh. DTE 2-3).

b. Analysis

The record shows that the proposed project would provide PMLD with energy resources to meet an average of 40% of its system needs over the projected 20-year life of the turbines. With the 3.2 MW of wind turbine capacity, PMLD would own a dedicated resource which should enable PMLD to reduce purchases of power from higher cost third-party sources. However, as PMLD recognized, the project would not provide a steady supply resource for PMLD or the region due to the intermittent nature of wind as a resource.

The record shows that the proposed project potentially would provide substantial cost savings to PMLD, compared with the cost of buying power in the market, as well as potentially providing additional revenue from sales of RECs and receipt of REPI grants. Considering potential savings in generation costs together with possible revenue gains from participation in the Massachusetts RPS program and the federal REPI, economic benefits to PMLD potentially would amount to $808,616, or $0.084 per kWh, in the first year.

In light of these power cost savings and gains, the Department has some concern that PMLD is hesitant to affirm that some portion of these benefits will be passed through to its ratepayers in the form of lower than average market costs for delivered electricity. We recognize, however, that PMLD may plan to use initial cost savings and revenue gains from the proposed project to fund system maintenance and improvements it may previously have deferred. We further note that any such application of savings and gains to system maintenance or improvements likely will, in turn, serve PMLD's long-term purpose of providing reliable and cost-effective supplies of electricity.

The record also shows the proposed project would provide renewable resources that are qualified as RECs under the RPS program and, more broadly, are supportive of Commonwealth renewable energy resource development goals under that program. As a required standard of the RPS program, new renewable generation currently must make up a minimum of 3% of the generation portfolios of distribution utilities, and that requirement is set to rise to 3.5% of generation portfolios by 2008 and 4.0% by 2009. The RPS standard is not actually imposed on municipal distribution companies such as PMLD.[10] PMLD maintains, however, that as a project benefit, the proposed project would serve to further PMLD's intention to meet and/or exceed the renewable energy portfolio requirements set under the RPS program. The Department notes that the average projected output from the proposed project would equate to 10 times the 2009 Renewable Portfolio Standard required of a for-profit distribution company with a load the size of PMLD's and, thus, any excess output would serve to increase overall availability of renewable resources in the State and region.

Based on the foregoing, the Department finds that the proposed project would serve energy needs or provide energy benefits, including providing power to PMLD at reduced costs and providing renewable energy resources for Massachusetts.

2. Proposed and Alternative Sites

a. PMLD Position

PMLD proposes to locate the new wind farm on the same site on which its first wind farm was built in 1984. This 16-acre site, located off Westminster Road in Princeton, was

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[10] Municipal distribution companies such as PMLD are exempt from the RPS standard as long as they are the sole supplier for their community and do not sell power to other markets. 225 CMR 14.00

purchased in 1984 for the purpose of building the first wind farm (Exh. PMLD- JVF-2). The cost of the land and original turbines have since been recouped through revenues generated by PMLD (Exh. PMLD-JVF at 3).

Before deciding to upgrade its wind generation on the same site, PMLD evaluated six sites within Princeton, including the proposed site (Exh. DTE 2-13, at 2-3). PMLD did not consider potential sites outside its service territory (Tr. at 109-110). In evaluating potential sites for its proposed 3.2 MW wind farm, PMLD used various criteria, including exposure to prevailing wind, elevation, existing land use, road access, and transmission line access (Exh. DTE 2-13, at 2-5).

PMLD stated that the prevailing winds at the proposed site are from the northwest and the site allows for turbines to be located perpendicular to the direction of the prevailing wind without interference from higher ground located upwind (DTE 2-13, at 2). PMLD indicated that prevailing wind exposure and elevation are correlated criteria, serving as indicators of wind generation potential (Tr. at 117). PMLD stated that it considered potential sites with average wind speeds of 15 miles per hour or more to be "investment grade" (id. at 115).

To evaluate the potential wind resource, PMLD indicated it used: (1) maps prepared by the Massachusetts Technology Collaborative ("MTC Wind Maps") which indicate wind resources in Princeton and surrounding towns (Exhs. DTE-2; DTE-3), and more broadly throughout Massachusetts (Exh. DTE-1); and (2) the report "Preliminary Wind Energy Survey of the Town of Princeton" ("1980 Wind Survey") prepared by Ocean Wind Energy for PMLD in 1980 prior to the construction of the original wind farm in 1984 (Exh. JPM-3-10(e)).

Based on its evaluation of wind resources, PMLD indicated that the proposed site is one of very few inland locations in Massachusetts where wind resources are sufficient to support a commercial wind farm (Tr. at 6). The MTC Wind Maps show wind speeds at the proposed site average 15.7 to 16.8 mph at a height of 50 meters off the ground (Exh. DTE-3). Average wind speeds of 15.7 to 16.8 mph are graded as "Good" potential wind resources by the MTC (id.). The MTC Wind Maps further indicate that only limited areas of the Commonwealth, including, for example, nearby areas in Princeton, small areas in the neighboring town of Westminster, Watatic Mountain directly north on the New Hampshire border, and some locations in the Berkshires, have inland wind resources as good or better than those in Princeton (Exh. DTE-1).

PMLD further indicated that the 1504-foot elevation of the proposed site is one of the highest in the vicinity (Exh. DTE 2-13, at 3). Only two sites, Wachusett Mountain (2006') and Little Wachusett Mountain (1565'), both of which are owned by the Massachusetts Department of Conservation and Recreation ("DCR")[11], are higher in elevation (id.). PMLD stated that "no other Town-owned land or privately owned land for sale is available at this elevation in Princeton" (id.).

In comparing the proposed site to the other potential sites for the wind farm within Princeton, PMLD indicated that Brown Hill and Little Wachusett Mountain have wind resources rated the same as those of the existing PMLD site (Exh. DTE 2-13, at 6). However, PMLD indicated that the two sites are less favorable based on their current ownership and usage (id. at 7). Brown Hill is owned and managed by the Massachusetts Audubon Society and Little Wachusett Mountain is owned and managed by the DCR (id.). In addition, those two sites lack

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[11] DCR was formerly known as the Department of Environmental Management.

existing road access and, in the case of Brown Hill, also lacks proximity to adequate existing transmission lines (id. at 8).

PMLD asserted that the proposed site is advantageous because it will use the existing infrastructure on the site (including existing access road, on-site access to transmission lines, site preparation, and wind resource measurement data) (id. at 16). In addition, the proposed site features a desirable setback off public roads, relatively few residential neighbors, and is already owned by PMLD (id.).

PMLD stated that after considering all factors, it reached the conclusion that the redevelopment of the "existing wind farm site makes the most environmental and economic sense and . . . is in the best interests of the ratepayers" (Exh. DTE 2-13, at 5).

b. Intervenor Position

Mr. Mollica asserted that PMLD did not thoroughly explore alternative sites for the wind farm (Mollica Brief at 9-10). Specifically, Mr. Mollica states that PMLD did not consider the extent of site modifications required at the proposed site (id. at 9) and did not pursue the utilization of a site on State Route 31 which had been cited in the 1980 Wind Survey as having the best wind speeds in Princeton and being in a commercial zone (id. at 10). PMLD's testimony indicates that, in the area traversed by Route 31, a different alternative site that appeared more viable was considered as part of the siting analysis for the proposed project, rather than the Route 31 site which was included in the 1980 Wind Survey (Tr. at 149-150).[12]

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[12] The MTC Wind Maps indicate that the highest wind resource areas in the identified Route 31 locale show potential wind speed of 14.3 to 15.7 MPH, less than the wind speed of 15.7 to16.8 MPH shown for the proposed site (Exh DTE-1).

c. Analysis

The record shows that, according to the MTC Wind Maps, the higher elevations of Princeton are part of a limited overall area in Massachusetts outside of coastal areas where wind resources (as measured by mean wind speed at 50 meters over ground level) are favorable, and thus provide opportunity for potential high-elevation sites to support a commercial wind farm. The MTC Wind Maps show that several sites PMLD considered, including the proposed site and the alternative Brown Hill and Little Wachusett sites, have favorable potential wind resources. The Company-provided site analysis (based on current land ownership and use, existing road access and proximity to existing transmission lines) reasonably demonstrates that the proposed site, at the location of the 1984 wind farm, is preferable to the five identified alternatives, including the two identified alternatives with favorable wind resources.

The record shows that in its site selection process, PMLD considered costs as well as wind resources. PMLD already owns the proposed site, so no acquisition costs would be involved. In addition, unlike the site on State Route 31 which Mr. Mollica states was not considered, the PMLD site already has established road access and access to transmission facilities. Utilization of the proposed site would avoid costs associated with road and transmission access, and any additional permitting that might be required.

PMLD has stated that, as a municipal utility, it confined its consideration of alternative sites to its own service territory. The Department observes that the PMLD service territory also happens to include a significant amount of the high potential inland wind resources in the Massachusetts and, therefore this restriction has not inappropriately constrained the site selection.

The Department finds that PMLD reasonably established, as site attributes, that the

proposed site would allow PMLD to avail itself of a favorable wind resource, and, by comparison with identified alternative sites, would be more cost effective to develop due to land ownership and the presence of existing infrastructure.

3. Impacts of the Proposed Use

a. Land Use

PMLD stated that site preparation work would involve clearing vegetation on the site, delivery of fill material to provide a level work surface, and roadway construction within the site (Exh. PMLD-JVF-13, at 4). PMLD stated that no archaeological resources have been identified within the project site (id. at 6).

PMLD indicated that the Commonwealth of Massachusetts (or its agencies) is the only landowner within 300 feet of the existing parcel (Exh. PMLD-JVF-5).[13] Aerial photos indicate that the surrounding area is wooded (Exh. PMLD-JVF-9 at fig. 2-1). Historic resources in the area of the site include the summit of Mount Wachusett, the Ledges Overlook on Up Mountain Road, Stage Coach Road, and three historic residential properties along Westminster Road (Exh. PMLD-JVF-13, at 6-8).

PMLD stated that construction preparation would include removal of trees and other vegetation, temporary dismantling of a stone wall and regrading of some of Stage Coach Road, in order to provide adequate access to vehicles delivering turbine blades, which are approximately 131 feet long (id. at 4). PMLD stated that it would, in consultation with DCR, develop a plan to

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[13] Information provided by PMLD identified the owner, as of June 2001, of the parcels within 300 feet variously as Wachusett Mountain State Reservation, Commonwealth of Massachusetts, and Massachusetts Department of Environmental Management (Exh. PMLD-JVF-5).

mitigate tree removal, and that it would reconstruct the stone wall to its original condition (id.). PMLD provided a June 6, 2002, letter from the Massachusetts Natural Heritage and Endangered Species Program indicating that it was aware of no rare plants, rare animals, or exemplary natural communities in the area (Exh. PMLD-JVF-9 at App. B).

PMLD indicated that the project has the potential to have visual and auditory impacts at the summit of Mount Wachusett, the Ledges Overlook, and the properties along Westminster Road (Exh. PMLD-JVF-13, at 6). Mr. Mollica argues that noise, ice throw, visual dominance, and shadow flicker would affect the land use experience of visitors to the Wachusett Mountain State Reservation (Mollica Brief at 9).[14]

PMLD stated that, to help minimize any impacts of the temporary removal of some of a stone wall along Stage Coach Road, it would collect photo documentation of existing conditions (Exh. DTE 2-32). PMLD added that, following turbine installation, it would reconstruct the stone wall along Stage Coach Road in accordance with guidelines of the Massachusetts Historic Commission and the U.S. Department of the Interior (id.).

b. Wetlands and Water Resources

PMLD provided information indicating that there is an intermittent hillside seep located along the proposed access route, which in the opinion of a field biologist and the Princeton Conservation Commission is not to be a jurisdictional wetland (Exh. PMLD-JVF-9, at 9, App. D, E). However, the Massachusetts Department of Environmental Protection, though unable to view a continuous flow in a channel after two days of heavy rain, opined that the area of drainage from the seep constitutes a body of running water, so that the seep, which it described

[14] Visual, noise, and safety impacts are discussed in Sections III.B.3(d), (e), and (g), below.

as a very small area containing wetland vegetation and hydric soils, would be a jurisdictional wetland (id. at App. E). PMLD indicated that its roadbed preparations would not result in a change in drainage patterns (Tr. at 67-68).

c. Birds

PMLD provided an evaluation of likely risk to birds that the proposed facility could pose (Exh. PMLD-JVF-21). The evaluation projected that bird fatality risk would be low and would not be a threat at the population level (id.).[15] One recommendation offered by consultant Paul Kerlinger was to use low frequency white strobe lights if so permitted by the Federal Aviation Administration ("FAA"), to minimize the attraction of migrating birds (id.). According to PMLD, the FAA requires warning lights due to the height of the turbines; PMLD stated that it would install and operate white strobe lights at 40 flashes per minute during the day and 20 flashes per minute at night (Exh. PMLD-JVF-13, at 3).

d. Visual: Views and Shadows

PMLD stated that the wind turbines would extend to a height of 364 feet above the ground, including 230-foot monopole towers (Exh. PMLD-JVF-13, at 3). The towers would be located on a shoulder of Mount Wachusett, with the tower bases at elevations of approximately 1414 and 1471 feet (Exh. PMLD-JVF-9 at App. A). PMLD provided visual simulations and terrain cross-sections that indicate the turbines would be above the horizon and clearly visible from several residential locations on Westminster Road and several trail locations; visible but below the horizon from a location on the 2000-foot summit of Mount Wachusett; fully visible

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[15] No record of bird fatalities from the former wind turbines was identified (Exh. PMLD-JVF-21).

and extending to the horizon as viewed from the scenic ledges at 1850 feet; and blocked by intervening hills from Princeton Center and most other locations along Mountain Road in Princeton (id. at App. A, I, J).

PMLD stated that aviation warning lights on the turbines would be located on top of the nacelle, and would tend therefore not to cast light directly downward (Exh. PMLD-JVF-13, at 3).

PMLD provided studies of shadow-flicker that would be experienced at an inhabited receptor location northwest of the proposed facility on Westminster Road (Exhs. PMLD-JVF-22; PMLD-JVF-23). Shadow-flicker is the phenomenon in which light levels at a receptor location flicker due to the apparent passage of rotor blades through the disk of the sun (Exhs. PMLD-JVF-22; PMLD-JVF-23). At the location studied, shadow flicker would occur on sunny mornings for up to one-half hour around 8:00 AM during several weeks in the fall and again in the winter, for a maximum total of approximately 49 hours per year, assuming cloudless skies and ever-rotating turbines; accounting for wind direction and expected percentage sunshine, the studies project a total of 16 hours of shadow flicker per year at this location (Exhs. PMLD-JVF-22; PMLD-JVF-23). The studies indicate that on some spring and summer mornings, shadow flicker would cross Westminster Road to the west and southwest of the facility and that in the evening, shadow flicker would occur to the east of the turbines, within the Wachusett Mountain State Reservation (Exhs. PMLD-JVF-22; PMLD-JVF-23).

e. Noise

PMLD indicated that the noise level contribution of the turbines would be approximately 36 sound decibels on the A-weighted scale ("dBA") at a distance of 2200 meters, the distance of the nearest private property (Exhs. PMLD-JVF-9, at 3-4; DTE 2-25). PMLD asserted that typical

ambient sound levels in similar areas range from 30 dBA to 45 dBA (Exh. DTE 2-25). PMLD stated that because ambient noise increases due to wind noise when there is sufficient wind to operate the turbines, turbine noise would be similar to the expected background noise level; PMLD asserted further that a receptor would generally hear more wind and background noise than noise from the turbines (Exh. PMLD-JVF-9, at 3-4). PMLD indicated that its noise estimate does not account for trees or topographic barriers to noise (id.; Exh. DTE 2-25). PMLD stated that the turbines in the 1984 wind farm were noisier but had not generated complaints (Exh. DTE 2-25). PMLD stated that the noise level from the proposed turbines at its property line would be 50 to 55 dBA (id.). In addition to noise from operations, PMLD indicated that blasting may be required for site development (Exh. JPM 3-7).

Mr. Mollica argues that PMLD has provided evidence that the proposed project would violate the Massachusetts Department of Environmental Protection 10-decibel noise increase limit on both private property, including Mr. Mollica's home, and on the Wachusett Mountain State Reservation (Mollica Brief at 7, 8).

f. Traffic

PMLD stated that during construction, contractors would park on the site and its access road, which would minimize parking along Westminster Road (Exh. DTE 2-26). PMLD suggested that construction traffic impacts in Princeton would not be of concern (Tr. at 70). PMLD stated further that it would not schedule construction for peak foliage and visitor season (Exh. DTE 2-26).

g. Safety

PMLD stated that the turbine towers would each have a lockable porthole door, with

interior climbing mechanisms, and asserted that the monopole cannot be climbed on the exterior (Exh. PMLD-JVF-9, at 3-5).

PMLD anticipated there would be up to five occurrences of icing on the turbines per year, including both glaze ice and rime ice (id.). PMLD provided information indicating that ice fragments falling from turbines generally are smaller than 1 kilogram (2.2 pounds) (Exhs. DTE 2-22; DTE 3-11(f)(1); DTE 3-11(f)(2)). Under one scenario, PMLD projected that the maximum travel distance for ice would be close to 400 feet (118 meters) (Exh. JPM 3-17; Tr. at 178). PMLD provided published studies indicating that ice throw of up to 330 feet (100 meters) has been observed at other wind farms, and that under certain circumstances, ice throw up to 1000 or 1300 feet (300 or 400 meters) could be anticipated from rotating blades of wind turbines, based on mathematical modeling (Exhs. DTE 3-11(f)(1); DTE 3-11(f)(2)). PMLD asserted that it is unaware of instances of fallen or thrown ice from the turbines in the 1984 wind farm (Exh. JPM 3-17).

PMLD stated that it would install a control system to stop the turbines when icing conditions are present as measured by air temperature and humidity sensors on the nacelles or by a mismatch between expected and actual power (Exh. PMLD-JVF-9, at 3-6). PMLD indicated it would not restart the turbines until a visual check shows an absence of ice accretion (id.; Exh. DTE 2-2).

Mr. Mollica argues, based on his expectation of ice throw of 442.8 meters (approximately 1450 feet), that an ice throw zone of 150 acres would be created around the turbines, and that the zone would include three hiking trails, 140 acres of state reservation, and ½ mile along Westminster Road (Mollica Brief at 2, 3). Mr. Mollica notes evidence that windmill blades

would extend to within 10 feet of abutting land of the Wachusett Mountain State Reservation (id. at 9).[16] Mr. Mollica argues that the evidence shows that the rate of ice strikes at a distance of 150 feet would be 1/100 strike per square meter per year (one strike per 100 square meters per year) (id. at 4, citing Exh. DTE 3-11(f)). Mr. Mollica notes that PMLD did not indicate that a barrier would be erected around any ice throw zone (id. at 3, 4). With respect to the ice throw issue, Mr. Mollica also expresses concerns about the reliability of shutdown procedures, warning systems, and employee safety (id. at 5).

PMLD stated that it would install information signs around the perimeter to identify the site and that it would also install safety signage to warn pedestrians and hikers in the vicinity of the construction site (Exh. DTE 2-26).

h. Wastes and Chemicals

PMLD stated that materials in use at the site would include gearbox oil in the turbines and mineral oil in power transformers (Exh. DTE 2-28). PMLD stated that each transformer pad would have overflow reservoirs, and that transformers and gearboxes would be inspected monthly to ensure containment of these oils (id.; Exh. JPM 3-1). Other materials would include hydraulic oil, grease, and a glycol-water mixture for cooling fluid (Exh. DTE 2-28). PMLD indicated it expected use of gasoline and diesel fuels, paint, solvents, welding gases, lubricating oils, and concrete materials during construction (Exh. DTE 2-27). PMLD stated that emergency response spill kits would be maintained on site in the event of a spill of hazardous fluid (id.).

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[16] Plans provided by PMLD show the furthest extent of the rotor tips on the northerly of the two turbines extending within 10 feet from the site property line (Exh. PMLD-JVF-9, App. A; Tr. at 100-102).

i. Intervenor Position

Mr. Mollica argues that due to the proximity of the Wachusett Mountain State Reservation, combined with risks of ice throw, structural failure, and noise, the selected location for wind turbines is not reasonably necessary for the welfare of the public (Mollica Brief at 10).

j. Analysis

The record shows that the proposed wind turbines would be located on a site surrounded by wooded public lands. The record shows that PMLD would need to remove part of a stone wall in order to deliver components to the site, and that PMLD has committed to rebuilding the stone wall in the same place. Otherwise, no direct impacts to archaeological or historical materials were identified.

The record indicates that the proposed project would not affect jurisdictional wetlands and drainage patterns.

The record indicates that PMLD has committed to use nighttime tower lighting that would minimize bird mortality, if so authorized by the FAA. With this precaution, the record suggests that bird mortality from the turbines would be low.

The record shows that the turbines would be located on a prominent ridge, and would therefore be visible and above the horizon as viewed from a number of locations; however, the turbines would be below the horizon when viewed from the summit of Mount Wachusett, and would not be visible from Princeton Center. The record also shows that the sunlight would appear to flicker for 20 to 30 minutes in the morning for a few weeks a year at some points to the west and southwest along Westminster Road, with an expected total of 16 hours per year at one inhabited location.

The record indicates that the noise level from the wind turbines at the closest private property line, 2200 feet away, would be 36 dBA. PMLD provided no ambient noise level measurements for the site. However, the Department would not expect ambient noise levels in the area to be much below 36 dBA except during low-wind conditions at night, based on its past experience reviewing ambient noise levels in rural areas as measured for other proposed projects. See New England Power Company, D.T.E. 04-4, at 19-20 (2004); Massachusetts Electric Company, D.T.E. 01-77, at 25 (2002); Berkshire Power Development, D.P.U. 9-104, at 43-44 (1997), citing Energy Facilities Siting Board Docket 95-1, Berkshire Power Development, 4 DOMSB 221, at 358-445 (1996) (see 396-400, n. 84). See also IDC Bellingham, LLC, 9 DOMSB 225, at 302, n. 97, 98, and 307-308 (1999); ANP Blackstone, 8 DOMSB 1, at 158-167 (1999); U.S. Generating Company, 6 DOMSB 1, at 162 (1997). Since the turbines would not be operating during low-wind conditions, it is unlikely that the turbine noise would be perceived as very noisy at a distance of 2200 feet. Therefore, we agree with PMLD's inference that, off the ridge, sound levels from operating turbines would generally be similar to background sound levels when the wind is blowing. However, at closer locations, the turbines would likely be quite audible. PMLD identified no means of further reducing noise impacts.

The record indicates that, under particular weather conditions, ice could build up on the tower and rotors of the wind turbines, and subsequently fall off or be thrown off. The record indicates that pieces up to 2.2 pounds could be expected. The record indicates that PMLD has committed to stopping operations when there are icing conditions, in order to prevent throwing of ice. The Department notes that ice falling off the turbines, even when the blades are stopped,

would also be distributed, due to wind, but heavier pieces would be expected to land close to the turbines.

The record shows that the turbines and associated transformers would contain gearbox, transformer, and hydraulic oils. The record shows that PMLD would maintain emergency response spill kits on site as a precaution for a spill of hazardous fluid.

Among these potential impacts, visual and noise effects would extend out beyond the immediate vicinity of the site. Given the height of the turbines, potential mitigation of visual and noise impacts is limited. With respect to visibility and shadow flicker, a wind turbine requires use of locations exposed to the wind. Any wind turbine facility, and particularly a wind turbine facility of scale and efficiency to achieve the purposes of this project, necessitates above-ground dimensions likely to result in visibility and shadow flicker away from the immediate facility location. Here, the record indicates some ways in which impacts from any such off-site changes are held to limited levels, including the significant 1000-foot woods buffer to residential areas and a turbine location which, while open to wind, avoids the area's highest ridge line or peak.

At close range, the safety of hikers, visitors, and employees may be at risk during icing events. A protocol to shut down operation during icing events would lower but not eliminate risks. In order to ensure that risks from falling ice are minimized, the Department directs PMLD to: (1) prepare adequate signage warning of ice fall risk and, after consultation with DCR, post this signage at points of entry to the site and any other agreed-upon locations; and (2) provide to the Department, within three months of turbine installation, documentation showing compliance with this condition.

The Department finds that the wind turbine project, with proposed and other identified mitigation described herein, may result in some modest local adverse environmental impacts, including visual, noise and potential ice fall impacts.

4. Necessity for the Public Convenience or Welfare

The Department has found that the proposed project would serve energy needs or provide energy benefits, including providing power to PMLD at reduced costs, and providing renewable energy resources for Massachusetts.

The Department has found that PMLD reasonably established, as site attributes, that the proposed site would allow PMLD to avail itself of a favorable wind resource, and, by comparison with identified alternative sites, would be more cost-effective to develop due to land ownership and the presence of existing infrastructure.

The Department has found that the wind turbine project, with proposed and other identified mitigation described herein, may result in some modest local adverse environmental impacts, including visual, noise and potential ice fall impacts.

The Department now must balance the public interest in allowing the proposed use of site, considering identified project benefits and any site advantages, against any adverse local impact of that use. Some identified benefits of the proposed use of site stand out, including the substantial potential cost savings the project would provide to PMLD as well as the opportunity afforded by the proposed site to use the favorably rated wind resource which is available there. The Department also notes the role of wind power projects, generally, in supporting a number of energy resource development goals that are important on a regional and state level, including: (1) helping to satisfy applicable RPS requirements; (2) providing energy without reliance on any

depletable resources (such as fossil or non-sustainable biomass fuels); (3) helping to meet energy demand while avoiding added emissions of regional significance, including greenhouse gas emissions subject to prospective limitations of the Regional Greenhouse Gas Initiative ("RGGI"), and NO_x and VOC emissions subject to ozone constraints; and (4) providing broadly advantageous energy resources from an environmental perspective, compared to many other power generation sources, including outright avoidance or de minimis levels of operating impacts from air pollutant emissions, water requirements and discharges, solid waste production, and traffic or nuisance conditions associated with fuel and waste product transportation.

Regarding the local interest, the record shows the project may result in some modest visual and noise impacts and potential ice fall impacts extending beyond the site. However, the proposed use of site takes advantage of project features serving to minimize any adverse local effects, including a degree of buffer from nearest residences, and by virtue of its location off the area's highest ridge line or peak, some limitation of visual impacts to the surrounding area. Further, the project essentially avoids impacts for a range of other local concerns, including local air quality, wetland and water resources, and traffic. The Department also notes recent favorable votes of Princeton residents concerning the project, including separate Town Meeting votes to authorize PMLD to pursue the project and to approve zoning changes necessary for the project.

Based on the foregoing, and with compliance of the ice safety condition, the Department finds that the general public interest in implementing the PMLD wind turbine project off Westminster Road would outweigh any adverse local impacts of the project. Consequently, the Department finds that the wind turbine project is reasonably necessary for the convenience or welfare of the public.

C. Need for the Requested Zoning Exemptions

1. PMLD Position

As stated in Section I. B, above, PMLD states that it has received all the necessary approvals from the Town of Princeton in order to construct the proposed facility (Exh. PMLD-1, at 3). PMLD asserts that it is seeking exemption from operation of the 2005 Zoning By-laws, even those that would allow construction of the proposed facility, because certain landowners have appealed the Planning Board's approval of the project resulting in an almost two-year delay to the local siting process (id.).

According to PMLD, the parties to two of the appellate proceedings filed stipulations to dismiss the actions (Exh. DTE-1, at 2). The third proceeding, filed with the Land Court, an appeal by Mr. Mollica et al. of (1) the Planning Board's site plan review on the grounds that it is contrary to site criteria; and (2) the permitted use provisions of the Zoning By-laws as they apply to the project, remains a pending matter (Exh. JVF-1, at 6).

PMLD has filed in the Massachusetts Appeals Court an appeal of the Land Court's decision to grant standing to Mr. Mollica to file this action (Exh. JVF-1, at 6). The Massachusetts Appeals Court has issued a stay of its proceeding pending the outcome of PMLD's petition to the Department. John R. Bomba et al. v. Princeton Zoning Board of Appeals et al., Notice of Docket Entry (September 14, 2007).

PMLD seeks, at a minimum, exemption from the following sections of the Zoning By-laws: Sections: III.1(D); III.1(I); I.1(B);VI.2 (parts A and C);VII; VIII; and XII (Exh. D.T.E. 1-1, at 1-2). PMLD also acknowledges that it might require an exemption from Section VI.1.(E) of the Zoning By-laws (Tr. at 102).

a. Sections of Zoning By-laws Subject to Pending Legal Challenge

The pending appeal of the site plan review and the permitted use of the project incorporates challenges to the following five sections of the 2005 Zoning By-laws.

Section III.1.(D) of the Zoning By-laws allows in a residential-agricultural district the construction of a building, structure or area that is used for generation of electrical power, all of which is used by or sold to the Town of Princeton or PMLD (Exh. PMLD- JVF-6, at 3).

Section III.1(I) of the Zoning By-laws allows, subject to the permission of the Board of Appeals, the use of land or structures for generating electric power for the Town of Princeton or the PMLD in a Residential-Agricultural District (id. at 3).

Section VII of the Zoning By-laws provides, inter alia, general regulations pertaining to non-conforming uses (id. at 6-7).

Section VIII of the Zoning By-laws provides, inter alia, that the Planning Board shall act as the granting authority in connection with site plan reviews required pursuant to the Zoning By-laws (id. at 8-10).

Section XII of the Zoning By-laws sets forth the requirements for the site plan review process for developments such as the proposed facility (id. at 10-11).

PMLD asserts that pending a determination by the Appeals Court, PMLD cannot construct the proposed facility (id.).

b. Zoning By-laws Subject to no Pending Legal Challenge

Section VI.2.(C) of the Zoning By-laws provides that the 35-foot height limitation for structures set forth in Section VI. 2(A) of the Zoning By-laws does not apply to any structures used for the generating of electric power for the Town of Princeton or PMLD (Exh.PMLD-

JVF-6, at 6). Section VI.1.(B) of the Zoning By-laws provides that the lot size and street frontage requirements set forth in the section do not apply to a building or structure dedicated to municipal service (id. at 5).

PMLD argues that since a challenge to the 2005 change in the Zoning By-laws can be asserted within six years of their enactment, PMLD requires a zoning exemption for each of these provisions (Exhs. DTE 2-7; DTE 2-8).

c. Rear and Side Lot Requirements

Section VI.1.(E) of the Zoning By-laws provides that, no new structure or part thereof can extend within ten feet of a side or rear lot line of any existing lot (Exh. PMLD-JVF-6, at 6). PMLD's witness stated that the furthest extent of the rotor tips of the northerly wind turbine would be within ten feet of the lot lines (Tr. at 101-102). PMLD further stated that, subject to a determination by the zoning enforcement officer, the proposed facility may require an exemption from Section VI.1.(E) (id. at 102).

d. Comprehensive Exemption

In addition to the eight specific exemptions discussed above, PMLD seeks comprehensive relief from the Zoning By-laws as a whole (Exh. PMLD-1, at 4). PMLD argues that comprehensive relief is appropriate in this instance because numerous individual exemptions would be required to construct the project (id.). PMLD also states that it is seeking a comprehensive exemption to avoid any future challenges to the Zoning By-laws such as those raised by Mr. Mollica (PMLD Brief at 9).

PMLD asserts that further delay will result in higher rates for its ratepayers, and notes that on at least three occasions citizens of the Town of Princeton voted to allow the development of a

wind generating facility at the proposed site (Exh. PMLD-JVF-1, at 4).

2. Intervenor Position

Mr. Mollica asserts that PMLD has failed to establish that the proposed facility is time sensitive, or that the delay, or even cancelling of construction and operation of the proposed facility would affect PMLD's ability to serve its ratepayers (Mollica Brief at 14).

3. WEST Position

WEST asserts that PMLD does not require exemption from any of the Zoning By-laws and is seeking an exemption "in anticipation of legal challenges by the intervener, Mr. Mollica" (WEST Brief at 5). WEST argues that if the 2005 amendments to the Zoning By-laws were challenged and set aside, it is then that the Department could consider a request for an exemption pursuant to G.L. c. 40A, § 3 (id. at 6). With respect to PMLD's request for a comprehensive exemption, WEST asserts that PMLD has not demonstrated that substantial pubic harm would result from any delay in the project (id. at 7).

4. Analysis and Findings

PMLD is seeking exemption from seven specific provisions of the Zoning By-laws, and . acknowledges it may require an exemption from an additional provision. The record shows that an appeal is currently pending regarding the Land Court's decision that Mr. Mollica has standing to appeal: (1) the Planning Board's site plan review approval of the proposed facility pursuant to Sections XII and VIII of the Zoning By-laws; and (2) the Town of Princeton's permitted use of the site set forth in Sections III.1.(D), III.1.(I) and VII. of the Zoning By-laws.

The record shows that the 2005 Zoning By-laws permit the construction and operation of the proposed facility; however, PMLD cannot construct the proposed facility pending

Mr. Mollica's legal challenge to the Planning Board's September 28, 2005 approval of the site plan review of the proposed facility, which was conducted in compliance with Section XII of the Zoning By-laws. Accordingly, the Department finds that PMLD requires exemption from Sections VIII and XII of the Zoning By-laws within the meaning of G.L.c. 40A, § 3 in order to construct the proposed facility.

The record also shows that the rotor tips, which are part of the northerly wind turbine structure, would extend less than ten feet from the vertical extension of the rear and side lot lines, in violation of Section VI.1.(E). Accordingly, the Department finds that PMLD requires an exemption from Section VI.1.(E) within the meaning of G.L. c. 40A, § 3 in order to construct the proposed facility.

With respect to Sections III.1.(D), III.1.(I), and VII of the Zoning By-laws, that allow construction of the proposed facility but are being challenged by Mr. Mollica, the Department questions the benefit that granting an exemption from these provisions would provide in advancing the construction and operation of the project. However, based on our finding below that a comprehensive exemption from the Zoning By-laws is warranted, we need not address the question of whether exemption from Sections III.1.(D), III 1.(I) and VII is required within the meaning of G.L. c. 40A, § 3.

PMLD also has requested exemption from certain provisions of the Zoning By-laws that allow the construction of the proposed facility and are not subject to any pending legal challenge: Sections VI.1.(B) ; VI.2. (Parts A and C). Based on our finding below that a comprehensive exemption from the Zoning By-laws for the proposed facility is warranted, we need not address the question of whether G.L. c. 40A, § 3 confers authority to the Department to issue an

exemption from a zoning by-law in anticipation of a future legal challenge.[17]

In prior cases, the Department considered the issuance of comprehensive relief where numerous exemptions are required or where the issuance of a comprehensive exemption could avoid substantial public harm by serving to prevent a delay in the construction and operation of the proposed use. New England Power Company, D.T. E. 04-4 at 32-33 (2004); US Gen New England, D.T.E. 03-83, at 34 (2004); Tennessee Gas Pipeline Company, D.T.E. 01-57, at 11 (2002).

The Department notes that petitions for comprehensive exemptions must be evaluated on a case-by-case basis. Furthermore, the demonstration of a need for numerous exemptions may not be a sufficient basis for granting comprehensive relief. The mere number of exemptions required does not necessarily reflect the distinct circumstances for which comprehensive relief is warranted. Therefore, in future cases, the Department will not consider the number of exemptions required as a sole basis for granting a comprehensive exemption.

The Department, however, will continue to use its standard for granting comprehensive relief when construction of a proposed facility would avoid substantial public harm. Tennessee Gas Pipeline Company, D.T.E. 01-57, at 11 (2002). This allows the Department to examine whether a comprehensive exemption would support the goal of granting relief that is in the public interest.

In the instant case, the record demonstrates that as a principal benefit the proposed facility will likely provide a net financial benefit to PMLD, potentially on the order of 8¢ per kWh. The Department also notes, as stated in Section III.B, above, the average projected output from the

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[17] We, therefore, need not address the question of ripeness raised by WEST.

proposed project would equate to ten times the 2009 Renewable Portfolio Standard required of a for-profit distribution company with a comparable load size to PMLD. By virtue of their magnitude, the above benefits of PMLD's project are of distinct importance. Avoiding possible delay in such benefits supports the issuance of a comprehensive exemption.

We also note that, as set forth in Section III.B.4, above, this project provides a broader set of benefits attributable to its reliance on a renewable, non-emitting energy resource, of importance not only to PMLD customers but also to the rest of the Commonwealth. Specifically, the proposed project would: (1) generate energy within Massachusetts without any emissions of CO_2, NO_X , SO_X, mercury, or other criteria or non-criteria pollutants; (2) result in de minimis solid waste associated with plant operation; (3) require no consumption or discharge of water for any plant cooling or processing requirements; (4) generate electricity without combustion, and without reliance on any depletable resources (such as fossil or non-sustainable biomass fuels); and (5) have little or no traffic or nuisance impacts associated with the transportation of fuel to, or waste products from, the plant location.

Production of electricity from in-state, renewable, non-emitting resources provides these benefits at a time when our region faces important economic and environmental challenges associated with dependence on depletable resources, increasing local impacts of energy infrastructure development, local air and water quality impacts, and the need to meet the climate change reductions of the Regional Greenhouse Gas Initiative. Because the proposed project would help to meet such multiple important challenges, moving the project forward without delay is again in the public interest, and further supports issuance of a comprehensive exemption.

Based on all the above distinct circumstances, as well as the Town's support of the project, and the moderate local adverse environmental impacts of the project, the Department finds that a comprehensive zoning exemption to construct and operate the proposed facility is in the public interest. Accordingly, the Department grants PMLD's request for a comprehensive exemption from the Zoning By-laws of the Town of Princeton for the proposed facility. This comprehensive exemption shall apply to the construction and operation of the proposed facility as described herein to the extent applicable. See Planning Bd. of Braintree v. Department of Public Utilities, 420 Mass. 22 (1995).

D. Conclusion

As set forth in Section III.A, above, PMLD has established that it is a public service corporation. As set forth in Section III.B, above, PMLD has established that, on compliance with the ice safety condition, the proposed project is reasonably necessary for the convenience and welfare of the public. As set forth in Section III.C, above, PMLD requires an exemption form Sections VI.1.(E), VIII, and XII of the Zoning By-Laws of the Town of Princeton, as well as a comprehensive exemption from the Zoning By-Laws of the Town of Princeton.

IV. ORDER

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

ORDERED: That the petition of Princeton Municipal Light Department for exemption from Sections VI.1.(E), VIII, and XII of the Zoning By-laws of the Town of Princeton for the project is granted; and it is

FURTHER ORDERED: That the petition of Princeton Municipal Light Department for an exemption from all sections of the Zoning By-laws of the Town of Princeton, to the extent they are

applicable, is granted for this project; and it is

FURTHER ORDERED : That Princeton Municipal Light Department prepare adequate signage warning of ice fall risk and, after consultation with the Department of Conservation and Recreation, post this signage at points of entry to the site and other locations as may be agreed; and that PMLD provide to the Department, within three months of turbine installation, documentation showing compliance with this condition; and it is

FURTHER ORDERED: That Princeton Municipal Light Department shall obtain all other governmental approvals necessary for this project before construction commences; and it is

FURTHER ORDERED: That the Secretary of the Department shall transmit a certified copy of this Order to the Clerk of the Town of Princeton; and that Princeton Municipal Light Department shall serve a copy of this Order on the Princeton Board of Selectmen; the Princeton Planning Board, and the Princeton Zoning Board of Appeals within five business days of its issuance and shall certify to the Secretary of the Department within ten business days of its issuance that such service has been accomplished.

By Order of the Department,

_____
Paul J. Hibbard, Chairman

_____
W. Robert Keating, Commissioner

_____
Tim Woolf, 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.