

Site Plan Review and Special Permit considerations- MA.law.

Annie Hayes <hayesannie@gmail.com>

Wed 7/6/2022 10:38 AM

To: Monique Baldwin <MBaldwin@wareham.ma.us>;

 1 attachments (298 KB)

SunpinSolarPV_NewAtholRoad_Decision_2021.11.29.pdf;

Dear Planning Board and Conservation,Dave Pichette, Monique Baldwin and Ken Buckland

This project site plan review and special permit consideration is similar in many ways to that of Fearing Hill- 24 acres on a wooded upland slope, with single family abutters. The project was denied because it required unanimity and MaryAnn Reynolds, refused. Her excellent refusal document is replete with case law reference as she is also the Assistant Attorney General for the Worcester District, Ma. Siting the Board's authority to assign a special permit, she quotes MA GL 40a ZBL P. 1-"The board may grant a special permit when it"shall have found that the use involved will not cause or give rise to noise, odor, dust,refuse, exterior lighting traffic, or other considerations that would be offensive or detrimental to the present or future character of the neighborhood or the community".



Town Clerk
Diana Cooley

Town Of Petersham
3 South Main Street, PO Box 486
Petersham, Massachusetts 01366-0486
Phone: 978-724-6649 - Fax 978-724-3501
Web: www.townofpetersham.org

CERTIFICATE OF NO APPEAL

DENIAL: ZONING BOARD OF APPEALS
SPECIAL PERMIT & SITE PLAN REVIEW

PETITIONER: Sunpin Energy Services, LLC
3 Cooperate Park, Suite 168
Irvine, CA 92606

OWNER: Ralph P. Lapinkas, Jr.
14 Wachusett Avenue
Athol, MA 01331

SITE ADDRESS: New Athol Road
Assessor's Map 402, Lot 38

DEED & PLAN Worcester District Registry of Deeds
REFERENCES: Deed Book 31919, Page 207
Plan Book 800, Plan 124

This is to certify that a copy of the Decision of the Zoning Board of Appeals of the Town of Petersham for a Special Permit under Section 11.2 and Site Plan Review under Section 18.4 of the Petersham Zoning By-Laws as amended through June 4, 2018 for the property located at New Athol Road, Petersham and being depicted on Assessor's Map 402 as Lot 308 was received and filed in the Office of the Town Clerk on November 30, 2021 at 2:00 P.M.

No Notice of Appeal of the Decision was filed within the twenty days next, the appeal period ending on _____.

A True Copy
Attest:

Town Clerk – Petersham, Massachusetts



Town Clerk
Diana Cooley

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CERTIFICATE OF DECISION ON SPECIAL PERMIT & SITE PLAN REVIEW

Date: November 29, 2021

Project Name: 4.343 MW DC Ground-Mount Solar PV Development, New Athol Road, Petersham, MA

Applicant: Sunpin Energy Services, LLC
3 Cooperate Park, Suite 168
Irvine, CA 92606

Owner: Ralph P. Lapinkas, Jr.
14 Wachusett Avenue
Athol, MA 01331

Proposed Use: Large-Scale Ground-Mounted Solar Energy System (§18)

Location: New Athol Road
Assessors Map 402, Lot 38

Zoning: Residential-Agriculture

Deed Ref.: Book 31919, Page 207

Plan Ref: Plan Book 800, Plan 124

Subject: Application for Special Permit and Site Plan Approval to allow construction of a Large-Scale Ground-Mounted Solar Energy System

ZBA Action: **Denial, lacking a unanimous vote for a three (3) member Board.**

I. PROCEDURAL HISTORY

1. An application for a Special Permit (§11(2)) and Site Plan Review (§18.4) for Large-Scale Ground-Mounted Solar Energy System (§18) dated March 30, 2021 was submitted on April 5, 2021 to the Petersham Zoning Board of Appeals (Board) in accordance the Petersham Zoning By-Laws (ZBL) for New Athol Road, Assessors Map 402, Lot 38 (SITE).
2. Notice of the public hearing and the subject matter thereof was duly published in the Athol Daily News and posted on the website <http://www.mytowngovernment.org/01366>. Abutters were notified by First Class Mail.
3. The public hearing was opened in the Lower Town Hall on June 3, 2021. With the consent of the Applicant, continued sessions of the public hearing were held on July 22, 2021; August 19, 2021; and September 23, 2021, at which time the public hearing was closed with the consent of the Applicant.
4. The record of the hearings, submitted exhibits, public attendance, and the Board's deliberations upon which this decision is based were made available for public inspection throughout the process at the Petersham Public Library, the Office of the Town Administrative Coordinator, and posted on the website <http://www.mytowngovernment.org/01366>.

5. The following Board members were present throughout the public hearing: Don O'Neil (Chair), Maryanne Reynolds, and Brian MacEwen (Clerk)
6. At the public hearing, all those wishing to speak to the application were heard. The Board heard testimony and received other input for consideration as offered by the Applicant, the Applicant's representatives and professional consultants, and members of the public.
7. The decision of the Board on the above-referenced application is based on the testimony heard during the public hearing and the Exhibits listed in **Section IV. Submittals** below.

II. BOARD'S AUTHORITY TO ISSUE A SPECIAL PERMIT

The entire Town of Petersham is designated as a Residential-Agricultural District (ZBL, § 3). Certain uses of the SITE are permitted "by right," including one-family and two-family dwellings, farms, educational and religious uses (ZBL, § 5(A)). Other uses "may be allowed by Special Permit from the Board of Appeals, after a special hearing and subject to such conditions and safeguards as the Board may impose in each case (ZBL, § 5(B) & 18). The Board is the Town's "Special Permit Granting Authority" (SPGA) (ZBL, § 11 and Mass G.L. c. 40A, § 9).

The Town has entrusted the Board to apply the Zoning By-Laws consistent with its purpose. Its purpose is "to promote the health, safety and general welfare of the inhabitants of Petersham; to lessen the danger from fire; to maintain the beauty of the Town; to secure the proper growth of the Town by encouraging the most appropriate use of land and buildings; and to stabilize the value of property; all as authorized by Chapter 40A of the General Laws and other applicable provisions of law" (ZBL, § 1). The Board "may grant a Special Permit" when it "*shall have found that the use involved will not cause or give rise to noise, odor, dust, refuse, exterior lighting, traffic or other considerations which would be offensive or detrimental to the present or future character of the neighborhood or the community and if the Board finds that the proposed use will not derogate from the intent and the purpose of this By-law*" (ZBL, § 11(2)).

III. BACKGROUND

Current Use of SITE: The SITE is an undeveloped woodland with wetlands.

Current SITE Description: The subject SITE is located on the easterly side of New Athol Road approximately 1.6 miles south of its intersection with Route 122, being south of the Petersham/Athol town line by approximately 250 feet, and being opposite of the intersection of Monson Turnpike Road with New Athol Road. The existing SITE consists of ±24 acres of undeveloped forested a mixed hard wood and hemlock upland and wetland. The front portion of the site (±800 feet) slopes upward from New Athol Road in a generally southeasterly direction (generally a northwesterly facing slope). The first ±400 feet of this front portion of the site is predominantly wetlands. The remaining portion of the SITE is wooded uplands sloping upward in a generally southeasterly to southwesterly direction (generally a northerly facing slope) from the SITE's frontage on New Athol Road.

There are five (5) direct abutters to the SITE. To the northeast there is the undeveloped ±5 acre lot now or formerly owned by Jean and the undeveloped ±297 acre tract of the Harvard Forest. To the southeast there is an undeveloped ±49 acre tract now or formerly owned by Minty. To the southwest there two (2) recently cleared and developed single family residential lots of ±6.3 acres now or formerly owned by Eppel and a ±7 acre lot now or formerly owned by Woodbury.

Current Zoning: The entire Town is zoned Residential-Agriculture.

Proposed Use of SITE: The Applicant seeks a Special Permit and Site Plan Review approvals for the SITE to be developed shall remain owned by Mr. Lapinskas and leased to Sunpin Energy Services, LLC (Applicant) to operate a 4.3 megawatt (direct current) photovoltaic generation and 2.0 megawatt energy storage system to create electricity for sale directly to National Grid for its distribution to its customers.

Applicant's position: By the application, Applicant asserts its proposed use "may be allowed by special permit" from the Board, subject to such conditions and safeguards as the Board may impose. The Applicant seeks a Special Permit (§ 11) and a Site Plan Review (§ 18.4) of the ZBL to permit the installation of a Large-Scale Ground-Mounted Solar Electric installation greater than 10 kW (kilowatts) at the SITE.

IV. SUBMITTALS

The following items were submitted to the Board for its consideration of the Application all of which are incorporated herein by reference and made a part hereof:

- Exhibit A:** Site Plan Review and Special Permit Application, dated 3/30/21, received 4/5/21.
- Exhibit B:** Project Drawings, Sheets 1-9, dated 3/22/19, revised thru 3/2/21, received 4/5/21.
- Exhibit C:** Stormwater Management Report, dated 7/2019, revised thru 9/2019.
- Exhibit D:** Stormwater Pollution Prevention Plan (SWPP), dated 9/2019.
- Exhibit E:** Certified 300 Foot Abutters List Report, dated 5/11/21.
- Exhibit F:** Letter from EA, dated 6/3/21.
- Exhibit G:** "Comments for Public Hearing" by Anne Cavanaugh, 4 pages, dated 8/19/21.
- Exhibit H:** Sightline Assessment Profiles, Sheets 1-5, SA-101 thru SA-105, dated 8/11/21.
- Exhibit I:** Vista Photo Log with USGS Map Locations & Photos, 6 Sheets, dated July 2021.
- Exhibit J:** Project Drawing, Sheet 2, C-101, dated 3/22/19, revised thru 8/11/21, received 8/16/21.
- Exhibit K:** Decommissioning Plan, 7 pages, dated August 2021.
- Exhibit L:** Special Permit Statement by James F. Martin (JF), Esq., 5 pages, dated 8/12/21.
- Exhibit M:** Applicant's Exhibit A, Land Court Docket No. 18 MISC 000640, 3 pages, dated 8/20/19.
- Exhibit N:** Applicant's Exhibit B, Land Court Docket No. 19 000089 (DRR), 24 pages, dated 4/5/21.
- Exhibit O:** Applicant's Exhibit C, Conservation Order of Conditions, 20 pages, issued 3/3/20, recorded 8/19/20.
- Exhibit P:** Annual Report from the Petersham Inspector of Buildings, 20 pages, covering period 7/1/2011-6/30/2020.
- Exhibit Q:** Property Value Impacts of Commercial-Scale Solar Energy in Massachusetts and Rhode Island by Vasundhara Gaur & Corey Lang, dated 9/29/20 as submitted by Applicant's Representative.
- Exhibit R:** "Study: Solar Farms Reduce Home Values" by the Providence Journal, dated 10/1/20 as submitted by the Applicant's Representative.
- Exhibit S:** "Correcting the Myth that Solar Harms Property Value" by the Solar Energy Industries Association (SEIA), dated July 2019 as submitted by the Applicant's Representative.
- Exhibit T:** Commonwealth of Massachusetts, Chapter 21N, Climate Protection and Green Economy Act as submitted by the Applicant's Representative.
- Exhibit U:** Sunpin Solar Decommissioning Plan for New Athol Road, Petersham, dated September 2021 as submitted by the Applicant's Representative.
- Exhibit V:** Sunpin Solar Shading Analysis & Revised Proposed Site Plan dated 3/22/19 and revised through 8/11/21 depicting Selective Vegetation Clearing Area.

- Exhibit W:** Comments for Public Hearing from Anne Cavanaugh, dated 9/23/21.
- Exhibit X:** Additional Testimony Based on Recent Discussions memorandum, dated 9/23/21 by Ellen Anderson.
- Exhibit Y:** "Why do we burn coal and trees to make solar panels" article by Thomas A. Troszak, dated 11/14/19 as submitted by Ellen Anderson.
- Exhibit Z:** Connecticut report focuses on loss of farmland, forest to solar facilities " article by Crop Protection News, dated 1/17/2017 as submitted by Ellen Anderson.
- Exhibit AA:** Real Estate listings of New Athol Road, Petersham properties, not dated as submitted by Ellen Anderson.
- Exhibit BB:** Clean Energy Results report, dated June 2015 by the Massachusetts Department of Energy Resources as submitted by Ellen Anderson.
- Exhibit CC:** Copy of Mark Rabinsky email regarding SMART program environmental requirements, dated 9/21/21 as submitted by Applicant's Representative.
- Exhibit DD:** Statement in regards to Zoning Board of Appeals Member, Maryanne Reynolds, dated 9/23/21 as submitted by the Applicant's Representative.
- Exhibit EE:** "Summary of Requirements to Qualify as a Green Community", dated 7/10/09 by the Department of Energy Resources Green Communities Program as submitted by Applicant's Representative.
- Exhibit FF:** Petersham Solar Electric Overlay District, Lot 174.6 Map & Assessor's Property Record Card, not dated as submitted by Maryanne Reynolds

V. DISCUSSION

Subsequent to the close of the public hearing on September 23, 2021, the Board deliberated and two (2) of the Board members found that sufficient information and testimony had been made to make the following finding in favor as required by M.G.L. Chapter 40A, Section 9 (Special Permits) and ZBL § 1, §11(2), and § 18 for Applicant's application for a Special Permit and Site Plan Review for the SITE, with one (1) Board member finding to the contrary.

VI. FINDINGS IN FAVOR

Consistent with the Applicant's Application, the Applicant's testimony and supporting documentation provided during the public hearing, and the Discussion noted above regarding the Special Permit and Site Plan Review for the SITE, **the Board Members in Favor made the following findings:**

Special Permit

- F1.** The proposed use, as represented by the Applicant, does not derogate from the purpose and intent of the Zoning By-Law, "to promote the health, safety and general welfare of the inhabitants of Petersham; to lessen the danger from fire; to maintain the beauty of the Town; to secure the proper growth of the Town by encouraging the most appropriate use of land and buildings; and to stabilize the value of property; all as authorized by Chapter 40A of the General Laws (the Zoning Act) and other applicable provisions of law" pursuant to ZBL § 1 and § 11(2).
- F.2** The proposed use, as represented by the Applicant, is permitted as set forth in ZBL § 5(B)(c), being an electric power facility, for which the Board may issue the Special Permit.
- F.3.** The proposed use, as represented by the Applicant, is not explicitly prohibited as set forth in ZBL § 5(C)(b) and ZBL § 11(2) as it will not be detrimental or offensive to the present or future character of the neighborhood or to the community by reasons such as odor, fumes, vapor, smoke, sewage, dust, refuse, noise, flashing lights, vibration or danger from fire or explosion or excessive vehicular or truck traffic.

Site Plan Review

F.4. The proposed use and site development complies with the requirements as set forth in ZBL 18 subject to the condition that the existing and proposed vegetative screenings shall be in conformance with supplemental materials as presented by the Applicant and be maintained for the life of the proposed SITE use.

Conditions

Pursuant to ZBL § 11(2), the Special Permit shall be subject to conditions and safeguards as the Board majority deems necessary or advisable, as follows:

C.1 That the existing vegetation and proposed vegetative screenings shall be in conformance with supplemental materials as presented by the Applicant and shall remain in their natural state and be selectively managed for the life of the proposed use of the SITE in order to maintain and provide a natural buffer for visual screening and a noise barrier to the abutting residential properties.

VII. FINDINGS OPPOSED

The Board Member's opposing findings are set forth in the attached "Statement of Reasons" which are incorporated herein, dated November 22, 2021.

VIII. DECISION

Pursuant to chapter 40A, § 9 of the General Laws, the decision on the Special Permit and Site Plan Review application “shall be made within ninety days following the date of the close of the public hearing,” making the Board’s decision due on or before December 22, 2021. Issuance of a special permit requires “a unanimous vote of a three member board,” which applies to this Board.

At the close of the public hearing on September 23, 2021, the Board briefly deliberated on the Application and after due consideration of the materials submitted through the public hearing process and based on the good faith reliance of the representations made by or on behalf of the Applicant;

Motion: Brian MacEwen motioned to approve the Special Permit and Site Plan Review application conditioned that the existing vegetation and proposed vegetative screenings shall be in conformance with supplemental materials as presented by the Applicant and shall remain in their natural state and be selectively managed for the life of the proposed use of the SITE in order to maintain and provide a natural buffer for visual screening and a noise barrier to the abutting residential properties.

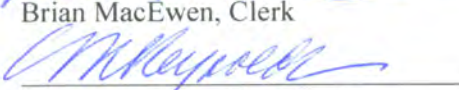
Second: Don O’Neil.

Vote: The Petersham Zoning Board of Appeals voted two (2) for approval and one (1) for denial thereby failing to meet the statutory requirement for a three (3) member Board.

ZONING BOARD OF APPEALS


Donald J. O’Neil, Chair


Brian MacEwen, Clerk


Maryanne Reynolds, Member

Date: Nov 29, 2021

cc: Sunpin Energy Services, LLC (Applicant)
John Martin, Robinson Donovan, P.C. (Applicant’s Attorney)
Petersham Board of Selectmen
Petersham Building Commissioner

STATEMENT OF REASONS

I. Statement of Reasons for Denial of the Special Permit

A. Introduction

The following sets forth the reasons for my “nay” vote on the motion to grant a special permit for a large-scale solar energy system project on New Athol Road, Petersham. The motion was made upon the application filed by Wood Massachusetts, Inc., on behalf of Sunpin Energy Services, LLC and Ralph P. Lapinskas, Jr. My vote reflects careful consideration of written materials and testimony submitted by Applicant and others during the public hearing, knowledge of local conditions, public records, applicable state and local laws, and the Board’s deliberations. The vote is consistent with both the Board’s responsibility under the Zoning By-laws and the state’s guidance on its diversified energy policy, which guidance “strongly discourages” siting such projects in the forest.

B. Brief Procedural and Factual Background

1. Project Description

Before the Town of Petersham’s Zoning Board of Appeals (“Board”) is an application filed by Wood Massachusetts, Inc., on behalf of project proponents: developer Sunpin Energy Services, LLC (“Sunpin”) and landowner Ralph P. Lapinskas, Jr. (“Mr. Lapinskas”) (collectively “Applicant”). Site Plan Review and Special Permit Application (Sunpin Energy Services, LLP), Exhibit (“Ex.”) A at 1; see also Applicant’s supplemental materials. Applicant proposes the installation of an industrial solar energy system to create electricity for sale directly to National Grid for its distribution to its customers; it is a 4.3 megawatt (direct current) photovoltaic generation and 2.0 megawatt energy storage system to be sited on a 24-acre parcel on New Athol

Road in Petersham (“project”).¹ Applicant requests that the Board: (1) grant a special permit for the project pursuant to Section 11 of the Zoning By-laws for the Town of Petersham (as amended, dated June 4, 2018) (“By-laws”), and (2) find the project satisfies the Site Plan Review requirements set forth in Section 18(4) of the By-laws.

The site is part of a larger forested and wetlands area. Mr. Lapinskas acquired his parcel in 2003. It is a deciduous forest with some hemlock trees. As the parcel has a north-facing slope, it is capable of, but not especially adapted to, solar energy generation. About twelve years ago, Mr. Lapinskas used the land for production of forest products.

Applicant proposes to deforest the majority of the parcel to install the town’s first “large-scale” ground-mounted “solar energy system.”² The facility would consist of a ground-mounted solar array and battery racks; the solar panels would be mounted on a simple fixed-tilt, post, rail, and cross beam racking system. The facility would interconnect to National Grid through a 13.8 kV gang-operated three-phase utility distribution system. Ex. A; Ex. U. A 7-foot-high chain link fence and locking gate would surround the array; the compound would occupy

¹ The parcel is identified as Petersham Map 402, Lot 38-0; Worcester County Registry of Deeds Book 31919 Page 207 and Plan Book 800 Page 124. Ex. A, Drawing V-101, Sheet 1. Mr. Lapinskas has either leased or agreed to lease the property to Sunpin for the project. See Ex. A, p. 6; Ex. A, Attachment G; Ex. U, p. 3 (“Sunpin Solar intends to lease the property on a date that is agreeable to both parties.”)

² Both “large-scale” and “solar energy system” are defined terms, as discussed herein. A large-scale ground-mounted solar energy system is allowed as-of-right in the town’s Solar Electric Overlay District (“District”), but not on or near the proposed project site. The District is a single parcel of town-owned land on Old Hardwick Road near the National Grid transmission lines. Ex. FF. At the time of the Board’s decision, the District remains available for development. During the public hearing, a Sunpin representative indicated that the company had chosen to pursue the proposed project site because the company had been approached by Mr. Lapinskas who sought to do a project on his land. Mr. Lapinskas lives in Athol, a neighboring municipality where a number of large-scale projects have been developed.

approximately 14.3 acres. The fence and locking gate are for security and are necessary to comply with the National Electric Code. The proposed fenced area would enclose approximately 12,090 solar photovoltaic panels and related equipment. The fencing “prevents children and the general public from coming into contact with the installations, thus preventing unsafe situations.” Ex. BB, p. 14.

Applicant would construct a restricted-access road on the site starting from New Athol Road and traversing over the site’s wetlands; the access way would enable service vehicles to reach the fenced compound. Five utility poles would be installed along the access way to carry overhead wires that would transport the new electricity from the compound to the street to meet a National Grid distribution line on New Athol Road. An Order of Conditions from the Petersham Conservation Commission is in place and governs the limited issue of disturbance of wetlands.³ Ex. O. Applicant represents that the installation would be screened from public view through a combination of trees left in the wetland area, its planned vegetative screening along the fenced compound and the Applicant’s assumption that other properties pertinent to a line of sight will remain treed.

The irregular shaped parcel has frontage along a public way (New Athol Road) and shares a boundary line with multiple privately-owned properties. One parcel is Harvard Forest’s Riceville Pond site, where the owners allow public access for recreation, such as hiking, dog-walking, fishing, hunting, bird and other wildlife watching, and nature study.⁴ Two parcels are

³ In March 2019, Applicant had submitted Site Plan Review and Special Permit Application to the Board. Subsequently, Applicant made a strategic decision to voluntarily withdraw that application. Thereafter, it initiated proceedings before the Petersham Conservation Commission. Upon the conclusion of those proceedings, it refiled its application with the Board in April 2021.

⁴ The Harvard Forest, located in Petersham, is a department of the Faculty of Arts and Sciences of Harvard University. It is the largest private employer in town. Since 1941, the Forest’s Fisher

being developed as single-family residences on heavily wooded lots; the area of each parcel is 6 or 7 acres. Other residential and open space lots are nearby. The vicinity is zoned for residential and agricultural use.

2. Town of Petersham

Petersham is a town that prioritizes natural and working lands. There is a deep and enduring ethos among the inhabitants to conserve, create, restore and employ the natural resources within the town. The quantity of natural resources is substantial. Geographically, Petersham is the largest town in Worcester County, having an area of approximately 68 square miles (54 square miles is land and 14 square miles is water).

https://en.wikipedia.org/wiki/Petersham,_Massachusetts (last accessed 11/01/2021). The abundant natural resources are a substantial part of what gives the town a sense of place. As explained below, there is no importance to having the proposed project in town.

3. Town Review

The proposed project requires an exception from the current zoning called a “special permit.” Special permits for a large-scale, ground-mounted solar energy system are governed by Sections 11 and 18 of Petersham’s Zoning By-Laws.

The Board is the town’s “special permit granting authority.” By-laws, § 11. It is a three-member board established pursuant to G. L. c. 40A. Id. Because it is a three-member board,

Museum has provided information on forest ecology, landscape history, and land conservation and management. Many town inhabitants take pride in the work being done by the Forest. The scientists, students, and collaborators at the Forest explore topics ranging from conservation and environmental change to land-use history and the ways in which physical, biological and human systems interact to change our earth. Its’ mission is to advance understanding of biological, physical, and human systems in the New England landscape. <https://harvardforest.fas.harvard.edu/about-us> (last accessed 10/31/21).

state law requires a “unanimous vote” of the Board to obtain the necessary special permit. G. L. c. 40A, § 9.

Upon Applicant’s request, the Board held a public hearing on the application over several dates. Other than the Applicant, no one spoke in favor of the project. The Applicant makes no specific claim that the project would benefit the town.⁵ The direct benefits of the project are limited to financial gains for the landowner and project developer. Applicant also contends the project would help combat climate change.

Before the hearing closed, Applicant supplemented and amended the application materials in response to comments made during the hearing. Among the supplemental materials is a Brief to the Board, which was submitted upon my invitation to assist in the evaluation of the application, primarily the special permit component of the application. Ex. L. The hearing closed on September 23, 2021. The Board began and ended deliberations that evening.

Board Clerk Brian McEwen moved to grant the application, a motion that merged consideration of both a special permit and Site Plan Review. The motion was made subject only to conditions related to vegetative screening for the residential neighbors as agreed to by the Applicant during the public hearing and reflected in the Applicant’s supplemental materials. Board Chair Don O’Neil seconded the motion. On the motion, those two members voted in the affirmative and I respectfully voted in the negative. The Chair announced that the application was denied because the vote on a special permit was not unanimous.

⁵ Applicant states that the project “will generate a significant amount of additional tax revisions [sic] for the Town,” but it neither elaborates nor supports that statement with any specifics. See Ex. L, p. 4. If Applicant is correct, it is not obvious given the tax structure in town.

II. The Special Permit was properly denied.

A. Introduction

The project is “strongly discouraged” under applicable state policy, contrary to Applicant’s assertions.⁶ The Section 11 findings required under the By-laws cannot be made; those findings are a precondition to the grant of a special permit. I would acknowledge that Applicant could satisfy the Site Plan Review required by Section 18 of the By-laws. But, Section 18 facilitates, it does not supplant, the special permit analysis. Basing a decision merely on Site Plan Review would impermissibly nullify the special permit language in Sections 11 and 18. Because state law does not require approval of the project, and the By-laws’ requirements for a special permit have not been satisfied, the special permit was properly denied, as more fully explained below.

B. Nature of a Special Permit is to Bring Flexibility to Euclidean Zoning.

“Special permit procedures . . . bring flexibility to the fairly rigid use classifications of Euclidean zoning schemes⁷ by providing for specific uses which are deemed necessary or desirable but which are not allowed as of right because of their potential for incompatibility with

⁶ The state does not prohibit the proposed project, but state energy policy “strongly discourages” it. Instead of locating projects in places that require significant tree cutting, state policy “encourages designating locations in industrial and commercial districts, or on vacant, disturbed land.” Ex. BB, p. 4.

⁷ The zoning laws of Massachusetts “are based primarily upon the Standard Zoning Enabling Act, which was drawn up under the auspices of the United States Department of Commerce in the 1920's. See 1 Williams, American Land Planning Law § 18.01 (1974). Both uniform districts and special permits (then called ‘special exceptions’) were included in the standard act. The system of zoning codified by the standard act is often referred to as ‘Euclidean’ zoning based upon the seminal Supreme Court case which upheld the lawfulness of dividing a municipality into districts for the purpose of imposing land-use restrictions. *Euclid v. Ambler Realty Co.*, 272 U.S. 365, 47 S.Ct. 114, 71 L.Ed. 303 (1926). See 1 Anderson, American Law of Zoning § 3.09 (2d ed. 1976).” SCIT, Inc. v. Planning Bd. of Braintree, 19 Mass. App. Ct. 101, 104 (1984).

the characteristics of the district.” Fish v. Accidental Auto Body, Inc., 95 Mass. App. Ct. 355, 360 (2019), quoting SCIT, Inc. v. Planning Bd. of Braintree, 19 Mass. App. Ct. 101, 109 (1984) (footnote added). ““Uses most commonly subject to special permit are those regarded as troublesome (but often needed somewhere in the municipality, for example, gasoline service stations, parking lots, and automobile garages) [] and uses often considered desirable but which would be incompatible in a particular district unless conditioned in a manner which makes them suitable to a given location (for example, an apartment house in a single-family residential district).” Id. at 360-361.

“By contrast [with a use allowed as of right], a special permit concerns a use thought under the zoning code to be potentially acceptable in a zoning district, but only after and subject to review and permission of a permit granting authority, to the end that the use applied for be compatible with the allowed uses in the area in which it is to be planted.” Duteau v. Zoning Bd. of Appeals of Webster, 47 Mass. App. Ct. 664, 667 (1999). “Special permits govern that class of uses that lie between those that are prohibited and those that, because they comply with the zoning code in all detail, are allowed as of right.” Duteau, 47 Mass. App. Ct. at 667–68, citing Bobrowski, Massachusetts Land Use and Planning Law § 9.1, at 342 (1993). The burden is on the applicant to submit evidence to demonstrate that the prerequisites for the granting of a special permit have been met. Fish, 95 Mass. App. Ct. at 362.

C. The Grant of a Special Permit is Discretionary.

A special permit is not granted as a matter of right. The grant of a special permit is made at the discretion of the Board. The discretion to approve a special permit is exercised only when the Board makes two findings mandated by Section 11 of the By-laws. The Board “may grant a special permit for a special exception as provided in this By-law, when [1] it shall have found

that the use involved will not cause or give rise to noise, odor, dust, refuse, exterior lighting, traffic or other considerations which would be offensive or detrimental to the present or future character of the neighborhood or the community and [2] if the Board finds that the proposed use will not derogate from the intent and the purpose of this By-law.” By-laws, § 11. The purpose of the By-laws “is to promote the health, safety and general welfare of the inhabitants of Petersham; to lessen the danger from fire; to maintain the beauty of the Town; to secure the proper growth of the Town by encouraging the most appropriate use of land and buildings; and to stabilize the value of property; all as authorized by Chapter 40A of the General Laws (the Zoning Act), as from time to time amended, and other applicable provisions of law.” By-laws, § 1.

The nature of the proposed use requires that the Section 11 analysis be undertaken in harmony with Section 18. The purpose of Section 18 is to “facilitate the creation of new large-scale solar electric installations by providing standards for the placement, design, construction, operation, monitoring, modification and removal of such installations that address public safety, minimize impacts on environmental, scenic, natural and historic resources and to provide adequate financial assurance for the eventual decommissioning of such installments.” By-laws, § 18. Section 18 establishes where solar energy systems can be installed in town as of right and uniform requirements for approved installations. Conformance to the requirements, however, does not necessitate the grant of a special permit. A special permit properly could be denied if grounded in Section 11, including its “subjective factors” like whether the proposed use is in harmony with the By-law’s general intent and purpose, is essential or desirable to the public conveniences or welfare at the proposed location and will not be detrimental to adjacent uses or to the established or future character of the neighborhood. See Buccaneer Development, Inc. v.

Zoning Board of Appeals of Lenox, 87 Mass. App. Ct. 871, 874-875 (2015) (upholding denial of special permit grounded in “subjective factors”).

D. Denial of the Special Permit is Consistent with State Law and State Policy.

Multiple state statutes and energy policy come into play when considering whether to grant a special permit for a solar energy system in a municipality in Massachusetts. Below, the following statutes are addressed: G. L. c. 40A, § 3, ¶ 9 (protecting “solar energy systems”); G. L. c. 25A, § 10 (Green Communities Act); G. L. c. 30, § 61 (protecting “natural resources”); G. L. c. 21N, §§ 1 – 11 (Climate Protection and Green Economy Act, as amended).

“No zoning ordinance or by-law shall prohibit or unreasonably regulate the installation of solar energy systems or the building of structures that facilitate the collection of solar energy, except where necessary to protect the public health, safety or welfare.” G. L. c. 40A, § 3, ¶ 9, added by St. 1985, c. 637, § 2. Chapter 40A defines a “solar energy system” to be “a device or structural design feature, a substantial portion of which is to provide daylight for interior lighting or provide for the collection, storage and distribution of solar energy for space heating or cooling, electricity generating, or water heating.” G. L. c. 40A, § 1A.⁸ A Massachusetts municipality may apply the special permit provision of its bylaw to the use protected under G. L. c. 40A, § 3, ¶ 9, as long as a special permit requirement is not tantamount to an arbitrary denial or an unwillingness to allow the protected use. See PLH LLC v. Town of Ware, 2019 WL 7201712 (Mass. Land Court).

⁸ Currently in Massachusetts, the most common solar energy system is a “photovoltaic” system. A photovoltaic system is an active solar energy system that converts solar energy directly into electricity. Chapter 40A’s definition of “solar energy system” may be broader to also permit the installation of solar thermal systems. A solar thermal power system has solar energy collectors with two main components: reflectors (mirrors) that capture and focus sunlight onto a receiver.

Petersham regulates solar energy systems in compliance with Chapter 40A. A solar energy system can be installed: (1) anywhere in town when mounted on a building, with a building permit; (2) anywhere in town when it is a ground-mount system of a certain scale (capacity up to and including 10kW), subject to the general requirements for all ground-mounted solar electric installations; and (3) in the town's Solar Electric Overlay District off Old Hardwick Road near the National Grid Power Lines. Ex. P; Ex. FF; By-law, § 18(1)(a), (3).

Building permits for no less than 53 solar energy systems have been issued in Petersham over the last ten years, pursuant to the By-law's regulation. Ex. P. This growing collection of permitted systems serve the town's approximately 1,282 inhabitants (includes children). The systems are located throughout the town serving residences, farms and small businesses. They have been installed on roofs of homes, barns and other buildings, such as the south-facing roof of the iconic Petersham Country Store in the center of town. The smaller scale ground-mount systems, unlike the Applicant's proposed project, are not required to be enclosed behind a fence. They have been mounted on lawns and fields,⁹ integrated into the landscape of personal residences, which encourages a conservation mentality in households and helps increase messaging with the public about energy and climate-related issues.

"Large-scale" systems are authorized outside the District by special permit. Our By-law defines "Large-Scale Solar Electric Installation" to be "[a] solar electric generation system that has a rated nameplate capacity greater than 10 kW." By-law, § 18(2). This definition was

⁹ As noted during the hearing, a 10kW solar energy system is installed at my personal residence. The system generates enough electricity to meet and exceed the annual needs of my household and small farm; we sell the excess generation to the grid.

adopted by the town pursuant to the guidance of the Commonwealth's Green Communities division. Thus, "large-scale" is based on capacity, not square footage.

The Green Communities Act¹⁰ is another law created by the Legislature to "provide forthwith for renewable and alternative energy and energy efficiency in the commonwealth." Nextera Energy Res., LLC v. Dep't of Pub. Utilities, 485 Mass. 595, 597 (2020). The statute addresses an "piece of the clean energy economy" by making provision for renewable and alternative energy in the Commonwealth. Kain v. Dep't of Env'tl. Prot., 474 Mass. 278, 282 (2016).

In 2012, Petersham earned the Commonwealth's imprimatur as a "Green Community." Pursuant to this process, Petersham adopted Section 18 of the By-law. Section 18 promotes the development of alternative energy in Petersham because it: (1) establishes when a solar energy system can be installed as of right; (2) establishes when a solar energy system can be installed with a special permit; and (3) establishes uniform standards for permitted systems. By-law, § 18.

Under the Green Communities Act and its implementing requirements, Petersham provides as-of-right siting for a large-scale project capable of generating at least 250 kW. See Ex. EE. Notably, Applicant is proposing a project to be built at a scale that far exceeds the Green Communities Act's requirements. The proposed project is designed to generate 4.568 megawatts, making the project almost 19 times larger than the 250 kilowatt standard established for a "Green Community" in Massachusetts.¹¹

¹⁰ St. 2008, c. 169; see also codified text at G. L. c. 25A, § 10.

¹¹ During the hearing, Applicant commented that trees would have to be cut down to develop a project in the town's Solar Overlay District. While true, a project in the District would differ from the proposed project in terms of both scale and town-wide planning.

As the clean energy sector has grown and Commonwealth's experience with its energy policy has evolved, serious concerns have materialized about the siting of massive large-scale projects in forests and agricultural lands. In 2015, the Commonwealth released a guide "to help local decision-makers" with decisions about siting solar energy systems to "ensure that solar PV and other clean energy technologies are sited in a way that is most protective of human health and the environment, and minimizes impacts on scenic, natural, and historic resources." Massachusetts Department of Energy Resources *et al.*, Clean Energy Results (June 2015), Ex. BB, p. 3.

Contrary to the Applicant's suggestion that state energy policy favors the proposed project, the Commonwealth's guidance to local decisionmakers issued in 2015 "strongly discourages" the siting of solar energy systems in locations that will require significant tree cutting. Ex. BB, p. 4. Maintaining trees assists the Commonwealth's energy policy goals because of the important water management, cooling and climate benefits trees provide. Id. Moreover, forested natural landscape also provides habitat for wildlife, recreational opportunities and sense of place for people. Instead of deforestation for energy use, the Commonwealth encourages siting projects in industrial and commercial districts, or on vacant, disturbed land. Id. at 4.

Again, as recently as December 2020, a report commissioned by the Massachusetts Executive Office of Energy and Environmental Affairs reiterates the important role forests play in helping society combat climate change. "Natural lands and ecosystems play a critical role in regulating the amount of CO₂ in the atmosphere. Forest ecosystems significantly contribute to this activity, especially in New England." Massachusetts 2050 Decarbonization Roadmap (Dec. 2020) at .pdf p. 73/92, available at <https://www.mass.gov/doc/ma-2050-decarbonization->

[roadmap/download](#) (last accessed 11/12/2021). The plan to ensure Massachusetts achieves net-zero greenhouse gas emissions by 2050 cautions against “forest conversion” and favors policies for site solar projects on “the one million acres of land in Massachusetts already occupied by buildings, lawns, parking lots, and other ‘built’ land cover classes as well as existing rights-of-way, when and where available.” Id. at .pdf p. 75/92.

In Petersham, the entire town is zoned residential and agricultural. There are no industrial or commercial districts to consider for purposes of siting solar energy systems. The local solution was to: (1) organically allow solar energy systems of a certain size (up to 10 kW) to be placed throughout the town, (2) create a Solar Overlay District for a large-scale solar energy system to be sited as of right, and (3) add large-scale systems to the list of potential uses outside the District, i.e., by special permit.

This approach has led to the installation of dozens of smaller scale systems, as mentioned above. These systems convert sunlight into electricity, a key priority for state clean energy efforts. Furthermore, the systems are at a scale where they integrate into the fabric of the community, elevating public awareness of alternative energy, enhancing the town’s long-standing commitment to protection of its natural resources, and fostering a culture where residents pleasantly converse about system design and performance and conservation.

For a special permit, Applicant relies upon “the dangers to the public health from climate change,” citing Exxon Mobil v. Attorney General, 479 Mass. 312, 316 (2018). Ex. L, p. 1. The Applicant argues that we must grant a special permit because, “[c]onsistent with the grave threat posed by climate change, ‘in the absence of clear language to the contrary, all statutes are to be construed to prevent damage to the environment.’” Id. at 1-2, citing Independence Park Inc. v. Board of Health, 403 Mass. 477 (1988).

Without minimizing the need to address climate change, I believe Applicant's position is a non-sequitur. The Court is quoting G. L. c. 30, § 61. See 403 Mass. at 480. Applicant overlooks or ignores Section 61's language, specifically the definition of "damage to the environment." Section 61 provides: "Unless a clear contrary intent is manifested, all statutes shall be interpreted and administered so as to minimize and prevent damage to the environment." As used in Section 61, "damage to the environment" means **"any destruction, damage or impairment, actual or probable, to any of the natural resources of the commonwealth and shall include but not be limited to** air pollution, water pollution, improper sewage disposal, pesticide pollution, excessive noise, improper operation of dumping grounds, reduction of groundwater levels, impairment of water quality, increases in flooding or storm water flows, impairment and eutrophication of rivers, streams, flood plains, lakes, ponds, or other surface or subsurface water resources; **destruction of** seashores, dunes, marine resources, underwater archaeological resources, wetlands, **open spaces, natural areas**, parks, or historic districts or sites." G. L. c. 30, § 61 (emphasis added).¹² If anything, the Court is pointing to language that supports the denial of a special permit, given that the proposed project would destroy acres of open space and natural area.

¹² The proposed project would alter 4,959 square feet of bordering vegetated wetland and replace it with 6,200 square feet of same. Ex. O, p. 3 of 12. The site's slope places wetlands at risk from construction activities and significant storm events. See id. (Special Conditions section). For example, a heavy rainfall event in August 2018 during construction of a solar project near the cemetery in the Town of Orange resulted in sediment breaching the construction barriers, sending sediment-laden water flows a long distance into a wetlands resource area and carrying gravel into adjacent forest. There was a similar problem on project being constructed near the West Branch Mill River in the Town of Williamsburg. Ex. W. While I am noting the risk, it did not form a substantial part of my reasoning, as I trust that the Conservation Commission has addressed the risk.

Applicant also misplaces reliance on the Climate Protection and Green Economy Act, G. L. c. 21N, §§ 1 – 11, Ex. T.¹³ Certainly, the Act supports the general proposition that development of renewable sources of energy, such as photovoltaic systems, is encouraged as a matter of state policy. But, as discussed above, the policy considerations are complex, not one dimensional. Given the environmental benefits that natural resources provide, the Legislature has expressly called for “strategies that conserve and sustainably employ the natural resources of the commonwealth” as part of the overall strategy against climate change. G. L. c. 21N, § 10(a)(viii).

Petersham has a well-established, pro-environment ethos that is aligned with the state’s energy policy goals. The town is an outstanding example of a municipality that governs using planning strategies that conserve, create, restore and employ natural resources. These strategies compliment state energy policy because they enhance climate adaption, resilience and mitigation. In 2015, forests were recognized as the largest contributor to carbon storage in the Commonwealth. Ex. BB, p. 41. The state’s energy policy recognizes that smart growth reduces development of open space, including forested land that sequesters carbon. *Id.*, p. 88. Applicant never explains how the proposed project is consistent with a strategy to conserve and sustainably employ the town’s open space and other natural resources.

At Applicant’s request, I’ve read the recent unreported court decision concerning the Town of Wilbraham’s denial of a special permit for a proposed solar energy system. Ex. N. The decision, as I read it, is a cautionary tale for Petersham.

¹³ This act was amended by the Next Generation Roadmap for Massachusetts Climate Policy Act, signed by Gov. Baker on March 26, 2021. St. 2021, c. 8. On September 23, 2021, Applicant submitted the pre-amendment version of Chapter 21N to the Board for consideration. See Ex. T. The March 2021 amendments do not appear to be material to the Board’s decision.

In the Wilbraham case, ASD Three Rivers MA Solar, LLC v. Planning Bd. of Wilbraham, 2021 WL 1248959 (Mass. Land Court), the Court annulled the municipality's decision and ordered that a special permit issue. The Court based its holding primarily on three findings: (1) the application had been filed at a time when two similar solar energy system projects were pending in the town; (2) the town approved both of the similar projects; and (3) the town had found that the proposed project met all of the design requirements and performance standards under its by-law, but still denied a special permit. Ex. N; 2021 WL 1248959 *5 - *8. Upon analyzing the reasons given by the town for denying the special permit, the Court concluded that the reasons "were a pretext," and the town's denial of the proposed project was "disparate treatment." Id. at *8. The Court held that "pretextual or otherwise arbitrary basis for denial cannot support [the town's decision]." Id. at * 20. "If the laws are not applied equally they do not protect equally." Id. This proposition is one we should embrace, but it does not require grant of a special permit to the Applicant, as we are writing on a clean slate.

Applicant's request is the first special permit request the Board has received for a solar project in town. Government financial incentives exist, currently called the SMART program, to fund these developments. See 225 Mass. Code Regs. § 20.00 (2020). The typical competitive market forces that might temper the number of special permit applications for the use either do not exist or they are substantially muted by the government financial incentives. Thus, Applicant's request is the first, but it is reasonable to believe that it will not be the last. We need to be especially cognizant of the precedent we are setting. Courts properly will expect that the Board treat all applicants equally. In establishing precedent in Petersham, we must be fair, predictable and forward-thinking in our approach.

E. The Board cannot make the findings required for a Special Permit.

Turning to the particulars of the decision, and as mentioned above, the grant of a special permit requires that the Board find “that the use involved will not cause or give rise to noise, odor, dust, refuse, exterior lighting, traffic or other considerations which would be offensive or detrimental to the present or future character of the neighborhood or the community” and “that the proposed use will not derogate from the intent and the purpose of this By-law.” By-laws, § 11. The second part of the test requires the Board to consider “the danger from fire,” property values, and subjective factors such as “the health, safety and general welfare of the inhabitants of Petersham,” “the beauty of the Town” and “the proper growth of the Town by encouraging the most appropriate use of land.” By-laws, § 1. Accordingly, the following is a discussion of the special permit factors applied to the proposed project.

1. Odor, Dust, Refuse, Exterior Lighting, Traffic.

I would agree that the Applicant has demonstrated that there are no concerns with odor, dust, refuse, exterior lighting or traffic.

2. Noise.

Section 18 establishes that “[s]ound or noise levels may not exceed a decibel level of 50 dBA, as measured at the boundary of the property.” By-laws, § 18(8)(e). Solar PV equipment makes “a humming noise during daytime, when the array generates electricity. At 50 to 150 feet from the boundary of the arrays, and sound from the inverters is inaudible.” Massachusetts Department of Energy Resources *et al.*, Clean Energy Results (June 2015), Ex. BB, p. 18. The sound from electrical equipment can be expected can vary based on the manufacturer. Id. Parties planning and designing ground-mounted solar installations can assess noise impact through “pre-construction sound studies.” Id. “Sound impacts from electrical equipment can be

modeled to the property line [and] can be mitigated with the use of enclosures, shielding and careful placement of the sound-generating equipment on-site.” Id.

A study measured noise levels at set distances from the inverters and from the outer boundary of three ground-mounted systems in Massachusetts with a capacity range of 1 to 3.5 MW; these systems had less capacity than the proposed project (and therefore presumably generated less sound), but the results are helpful. See Ex. BB, p. 18. Close to the inverters (10 feet), sound levels varied from an average of 55 dBA to 65 dBA. Sound levels along the fenced boundary of the arrays “were generally at background levels, though a faint inverter hum could be heard at some locations.” Id. Any sound from the array and equipment “was inaudible and sound levels were at background levels at setback distances of 50 to 150 feet from the boundary. Id., pp. 18-19.

Here, the Applicant proposes an equipment pad and arrays that are set back at least 50 feet from the boundary. The application states: “The Applicant acknowledges the noise requirements. Based on previous project experience, noise from the facility is not anticipated to be audible at the surrounding property lines. Typical transformer and inverter installations produce a ‘low hum’ of approximately 50 decibels at a distance of 10 feet away, which can be compared to the noise emitted from a ceiling fan.” Ex. A, p. 7. The Applicant also provided equipment specifications. Ex. A, Attachment E (Solar Equipment Specifications).¹⁴ The only specification that appears to address noise is the Sungrow/Samsung SDI SCI000KU Power

¹⁴ During the public hearing, a resident alleged that the project’s solar panels are made in China. Appellant’s curious response to the comment was that “the Applicant has not yet selected a vender to supply the equipment.” Ex. L, p. 4. It is curious because Attachment E to the application provides the Board with specifications on the Jinko Solar Eagle 1500V 72 340-360 Watt Mono Crystalline Module (solar panel). I otherwise would have assumed this is the panel selected for the project. The response casts doubt on the reliability of the information in Attachment E.

Conversion System, which states: “Noise emission < 78.6 dB @1m.” The Delta Commercial Series 1500V PV Inverter M125HV specification indicates a “operating frequency range” of “50/60Hz +/- 5Hz,” but has no measurement in dB. No pre-construction sound study was provided.

The Applicant has not provided sufficient reliable information for the Board to decide whether the setback is an adequate noise mitigation measure. It seems likely, however, given Wood Massachusetts, Inc.’s, assertion of relevant experience at other sites, albeit vague, and the Commonwealth’s reported test results at other sites, albeit results from smaller systems, that the lingering noise concern could have been adequately addressed by conditioning any special permit upon use of equipment meeting the Section 18 noise level limit.

3. Other consideration: Impact on Natural and Working Lands.

Section 11 does not expressly list impact on natural and working lands, but this local concern falls squarely under “other considerations.” Local concerns may be found in a town’s “bona fide, effective” master plan. See Zoning Bd. of Appeals of Lunenburg v. Housing Appeal Comm., 464 Mass. 38, 48-49 (2013). Petersham posts a Master Plan dated 2004 on its website and the Zoning By-law at Section 19 makes reference to the plan. Whether it is a “bona fide, effective” plan is beyond the scope of this statement, but I treat it as such, and in any event, I find the plan to be extremely informative for the Board’s purposes. See Petersham Master Plan (2004), available at <http://www.townofpetersham.org> (last accessed 11/01/2021); By-law, § 19(C)(1) (“The primary purpose of this section is to implement measures that will further the goals stated in the Petersham Master Plan.”).

“Petersham is located in an environmentally rich part of the state with important water resources and natural ecosystems that are among the most intact in central New England.”

Petersham Master Plan, p. 53. The local conditions present an opportunity for developing in an environmentally sensitive manner. Id. Petersham’s master plan establishes that the town wants to avoid the “usual[] . . . unfortunate trajectory: first, natural lands are fragmented and punctuated with houses and businesses . . . [t]hen, as additional waves of development occur, built areas are joined together and filled in until the remaining natural lands have been fragmented into small, isolated pieces with greatly reduced environmental value. These ‘scraps’ of natural land usually prove inadequate for maintaining clean water and habitat for many native species, and the result is a heavily degraded natural environment.” Petersham Master Plan, p. 53.

Petersham intends to develop compatible with it retaining “a relatively intact ‘green infrastructure’ that protects water resources and natural habitats.” Petersham Master Plan, p. 53. This is no small matter to the health, safety and welfare of the inhabitants and the public at large. The natural environment touches on most aspects of civic life in town and beyond. The Quabbin Reservoir, for example, is one of the largest unfiltered water supplies in the United States and it continues to serve as the primary water supply for Boston.¹⁵ The town’s natural resources, like the Quabbin and its associated environs, attract visitors to town who then support the local economy (ecotourism). Ex. X; Ex. W. Petersham’s image and its economy depends upon the quality of its forest and waterways. The vast unbroken forests shelter not only protect the

¹⁵ The Quabbin Reservoir was created in the 1930s in an engineering marvel. The project, however, came at a high price for many residents living in our region. Four towns were submerged under water or “lost” – Dana, Enfield, Greenwich and Prescott. See, e.g., <https://slis.simmons.edu/quabbin75/items/show/813> (Farewell Party and Ball sponsored by the Enfield Fire Department). Some residents of the lost towns settled in Petersham, others went elsewhere. For various reasons, the Quabbin Reservoir played a role in substantial efforts over the years to preserve Petersham’s natural and working lands.

watershed that provides clean drinking water, they also provides habitat for wild species that cannot live in more developed areas. Id.

Public lands and many private lands throughout town are open to the public or invited guests and utilized for recreation.¹⁶ It is vital to people's well-being to have access to the fresh outdoors. Forests and other open spaces draw people; they are a place people like to see and to visit. Forests provide enjoyment in a variety of ways, such as opportunity for hiking, dog-walking, hunting, bird and other wildlife watching, and nature study. The sight and sounds of a forest rejuvenate people's sense of well-being, and generate a feeling of connectedness to the land, which in turn creates a desire to maintain healthy forests.

In 2015, Petersham was an early adopter of Natural Resource Protection Zoning to further the town's goals as stated in the Master Plan. Petersham By-Law, § 19. Such zoning is a regime designed for areas of high natural resource value where the public interest in retention of those resources is predominant. It reflects the inhabitants' interest in the retention of natural resources and promotion of resource-based economies during residential development as outweighing interest in a typical suburban development. While not directly applicable to solar energy systems, the themes that gave rise to Section 19 informed my thinking. Those themes are: (1) preserve the Town's historic rural landscape; (2) direct development away from environmentally sensitive areas; (3) foster small-scale agricultural and forestry production by retaining suitable lands for these purposes. By-Laws, § 19.

¹⁶ See G. L. c. 21, § 17C, known as the "Recreational Use Statute" or "Public Use Statute." This statute was enacted in response to the general public's increasing demand for outdoor recreation opportunities and the corresponding need for suitable land. The statute is intended to persuade private landowners to open their land to the recreating public by protecting landowners from liability for injuries to recreational users. Ali v. Boston, 441 Mass. 233, 235–37 (2004).

Official reports from town committees help illustrate the importance of natural and working lands to the town. For example, the 2017 – 2018 Annual Official Reports of the Town of Petersham contain the following excerpts. The Open Space & Recreation Committee reported: “People come from far and wide to hike the many trails in Petersham.” The Forest & Shade Tree Committee reported: “The Wood Bank administered 42 wood crate vouchers (approximately 21 cords) of split, dry firewood to residents last heating season. The Wood Bank continues to gain in popularity and efficiency, with a great deal of additional capacity added in FY2019 [sic] via [Department of Conservation and Recreation] support and volunteers from a UMass forestry program.” The same committee also reported its efforts to promote tree planting and education on trees to residents. The Tree Warden reported: “Petersham was again granted Tree City USA status from the National Arbor Day Foundation, and honored in 2018 with a Tree City USA Growth Award, which recognizes higher levels of tree care and innovative programs and projects.”

A seasonal example of the inhabitants’ interest in natural and working lands is the town’s support for a weekly market on the Town Common from June to October where local farmers and others sell a variety of local products ranging from food to nature-inspired art, accompanied by music from the bandstand. The local concern is shared by people of many ages. There is an active Fish ‘n Game Club at the Ralph C. Mahar Regional School (grades 7-12), which serves Petersham. This club gives middle & high school students “the opportunity to be involved with various outdoor activities ranging from fishing to hiking to shooting” and the opportunity “to learn about the natural resources available in the North Quabbin area.”

<https://sites.google.com/a/rcmahar.org/rcm/extracurricular/clubs> (last accessed 10/31/21).

Approving a special permit for the proposed project would be inconsistent with the By-law because it would not encourage the most appropriate use of land. Petersham wants to avoid the usual, unfortunate trajectory: first, natural lands are fragmented and punctuated with houses and businesses, then, as additional waves of development occur, built areas are joined together and filled in until the remaining natural lands have been fragmented into small, isolated pieces with greatly reduced environmental value. While we can't predict the future, granting the Applicant a special permit for the proposed project would facilitate this trajectory and therefore should be denied.

4. Other consideration: General discomfort generated by the commercial activity in a residential area.

Zoning provides a predictive quality when people invest in land. The Board heard testimony from an abutter, Daniel Eppel, who purchased his parcel for use as a single-family residence, intending to enjoy the area wildlife and quiet. The thought of having the project next to his property is “a let down. . . not why I came to Petersham.” What Mr. Eppel conveyed can be described as a general discomfort generated by the proposed commercial activity in a residential area.

Even accounting for what Applicant describes as a “passive” commercial use and the vegetative screening, the project is too dense and too out-of-character with its surroundings. The dimensional requirements established by Section 4 of the By-law helps illustrate the concern. The Town requires that no land be occupied with a building that exceeds 20% of the lot area, unless an exception applies. By-law, § 4. Here, while there may not be a “building” that exceeds 20% of the lot area, the installation exceeds 50% of the lot area.

One supplemental sheet in Applicant's materials describe large-scale solar projects as similar to a single-family residence. It states, "Large solar projects have similar characteristics to a greenhouse or single-story residence. Usually no more than 10 feet high, solar farms are often enclosed by fencing and/or landscaping to minimize visual impacts." Ex. S, at sheet titled "Solar and Property Value", dated July 2019. Even setting aside any dimensional issue, I find this assertion non-sensical. Seven-foot high chain link fences surround dangerous places, not single family residences.

5. Danger from Fire.

The Commonwealth's guidance to local decision-makers also addresses the danger of fire. A "sufficiently hot fire" would create a "slight chance that chemicals could be released" from the PV panels. Ex. BB, p. 5. "This is unlikely because . . . PV systems must conform to state and federal fire safety, electrical and building codes." Id. "In the rare instance where a solar panel might be subject to higher temperatures, the silicon and other chemicals that comprise the solar panel would likely bind to the glass that covers the PV cells and be retained there." Id. "Emergency personnel responding to potential emergencies at a solar PV site face the most risk, but the solar industry and firefighters provide training and education for emergency personnel to ensure that the proper safety precautions are taken." Id., p 14.

Applicant's materials cite to the guidance with approval. See Ex. S, at "Solar and Property Value" sheet, n. 5.

Petersham has a volunteer Fire Department. It is not clear if the volunteers have the required training to ensure their safety when responding to an emergency at a solar site. They might, perhaps due to a mutual aid agreement. Concern for the safety of emergency personnel is

a legitimate concern, but one that likely could have been adequately addressed by conditioning a special permit upon access to training if necessary.

6. Property values

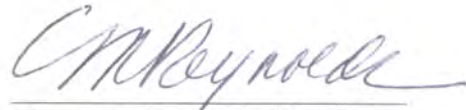
Mr. Eppel expressed concern that the project would have a negative effect on his property value. The University of Rhode Island studied similar large-scale installations in Massachusetts and Rhode Island and concluded that installations like the proposed project “negatively affect nearby property values.” Ex. Q, p. 4. Applicant points to other studies conducted in Illinois, Indiana, and an area “spanning from North Carolina to Tennessee.” Ex. S. I am more persuaded by the University of Rhode Island study, since it concerns projects in our own state and a neighboring state, rather than projects in other regions of the country. Therefore, the risk of destabilization of property values is also a concern.

7. Future Projects.

Leading up to the vote, a question was raised whether the Board would approve a special permit for any large-scale project outside the District, if it denied this one. The answer remains unclear. If all future proposed projects are similar to the present one (substantial destruction of natural resources without clear community benefits), then the answer is no, but there is always the possibility of an approvable project. Humankind is creative and technology evolves. The Commonwealth is pushing for multi-faceted strategies. It is foreseeable that solar panel array technology will evolve, much like computer and telephone technologies have evolved, or ground-mounted design will evolve in ways that will facilitate integration of large-scale projections into the community in ways we cannot yet conceive. For now, it is the Board’s responsibility to adhere to the requirements of the By-laws and to trust that we will know an approvable project when it comes before us.

F. Conclusion

In conclusion, a special permit is not granted as a matter of right. The grant of a special permit is made at the discretion of the Board. The proposed project will cause or give rise to considerations which would be offensive or detrimental to the present or future character of the neighborhood and the community. The proposed use will derogate from the intent and the purpose of the By-laws. The forests in town provide sustainable wood products, create rural jobs, provide a variety of ecological services to people and wildlife, and are restorative places where people recreate. The project would cause the destruction of forest on New Athol Road and replace it with an industrial compound not suited to the residential character of the neighborhood. It is neither essential nor desirable to the public welfare to grant a special permit. The special permit was properly denied.


Maryanne Reynolds, Member

Dated: November 22, 2021