



TOWN OF BOLTON PLANNING BOARD

663 Main Street, Bolton MA 01740
Phone 978-779-3308 Fax 978-779-5461



Bk: 50500 Pg: 61
Page: 1 of 8 02/26/2013 02:46 PM WD

FINDINGS AND DECISION

PETITIONER: Syncarpha Solar LLC
645 Madison Avenue, 14th Floor
New York, NY 10022

Renewable Energy Massachusetts LLC
17 Arlington Street
Cambridge, MA 02140

PROPERTY: 125 STILL RIVER RD, Bolton MA 01740
Bolton Assessor's Map 006.A Parcel 0004.0

OWNERS: DAVIS FARM TRUST
P O BOX 305
BOLTON, MA 01740

DATE PETITION FILED WITH TOWN CLERK OF BOLTON: February 16, 2012

TYPE OF APPLICATION: Special Permit

APPLICABLE ZONING BY-LAWS OF THE TOWN OF BOLTON, MA: 2.5.8 Commercial Solar Photovoltaic Renewable Energy Installations.

HEARING DATES: March 28, 2012, continued to April 11, 2012. The Hearing was closed on April 11, 2012 and the Planning Board voted on April 25, 2012.

DECISION: On April 25, 2012, The Planning Board voted unanimously to approve the petition seeking a Special Permit.

PROCEDURAL HISTORY

An application for a Special Permit from a portion of Bolton Zoning By-Law Section 2.5.8 Commercial Solar Photovoltaic Renewable Energy Installations was made by the above referenced party and filed with the Planning Board February 16, 2012 seeking a Special Permit for a Commercial Solar Photovoltaic Renewable Energy Installations for Syncarpha Solar LLC & Renewable Energy Massachusetts LLC for land owned by DAVIS FARM TRUST located at 125 Still River Road, Bolton Mass 01740, Bolton Assessor's Map 006.A Parcel 0004.0. The property is located in the residential district.

The application contained the following items: The petition to the Board is dated February 16, 2012

1. Application for Hearing: Part I Background Information;
2. Certified Abutters List from the Bolton's Assessor's office;
3. Plans dated February 16, 2012 sheets 1-7. Amended plans dated April 2, 2012 and April 11, 2012 Sheet 5 addresses drive loop and parking spaces drawn by Beals Associates, Inc. 2 Thirteenth Street, Charlestown, MA 93940.

Comments received:

1. Letter dated March 28, 2012 Bolton Fire Department;
2. Email dated April 11, 2012 Bolton Fire Department;
3. Letter dated April 9, 2012 Conservation Commission to the Board of Selectmen;
4. Letter dated March 29, 2012 from abutter Rene Goutte, 21 Kettle Hole Road, Bolton Ma indicating support for the project; and
5. Emails from Gary Brackett, Town Counsel dated March 6, 2012 and February 13, 2012

A duly posted hearing was held on March 28, 2012 and continued to April 11, 2012. The Hearing was closed on April 11, 2012 and the Planning Board voted on April 25, 2012.

FINDINGS

A. General

1. The subject property is located at 125 STILL RIVER RD, Bolton MA 01740 and identified on Bolton Assessor's Map 006.A Parcel 0004.0 and is owned by DAVIS FARM TRUST JONATHAN DAVIS of P O BOX 305, BOLTON, MA 01740 (deed reference Book 3586, Page 427). The property is located in a residential district.
2. The Applicant submitted a complete application in accordance with the Bylaws.
3. The meeting was called to order on March 28, 2012 at 7:30 pm. by Chairman, Doug Storey. The Chairman read the hearing notice and read the letters and emails submitted for the record. The hearing was continued to April 11, 2012 and closed on April 11, 2012. The Board voted on April 25, 2012.
4. The Board heard testimony from the Todd P. Morey, P.E. from Beals Associate.

The Project Site is located at 125 Still River Road, at the intersection of Main Street (Route 117) and Still River Road (Route 110) in the westerly portion of Bolton (the "Site"). The overall Site consists of several current uses including the Bolton Orchards retail store and an operating gravel extraction industry that has been continuously mining the Site for approximately 45 years. Bolton Orchards requested the endorsement of an Approval Not Required (ANR) plan that will result in two parcels, one of which will be for the purpose of housing the proposed solar facility. Davis Farms Trust, the current owners, will retain ownership of both parcels, and will lease the solar portion of the Site to the applicant, Syncarpha Solar, LLC. The proposed Solar Energy Facility will be located in an area of an operating mineral extraction facility that will be removing the final volumes of material prior to construction.

The proposed solar energy Project (the "Project") consists of the development of a photovoltaic solar facility which will have a rated capacity of up to 4.95 megawatts (MW). The electricity that is generated will be distributed to two circuits operated by National Grid.

The construction of the facility will consist of the installation of a pole-mounted photovoltaic system, equipment pads, underground electrical conduit, fencing, security signage, and interconnection to two existing electrical circuits within the public right of way. There will be approximately 25,000 solar panels installed on frames that are secured to the ground by helical augured posts. The final design of the augurs won't be known until the structural calculations are prepared for the building permit application. In general, the augur is between 18 and 30 inches in diameter and runs between 42 and 54 inches deep. The final number of augurs is also determined by the structural calculations. If the soil conditions permit, an alternative to the augurs would be driven posts that would be no deeper than the auger design. The panels are mounted to a rack. The racks are connected and the support requirements are calculated based on soil types, wind uplift calculations, etc. There are numerous panels per rack and there could be several racks per augur. The panels will be interconnected through a series of underground electrical connections and will be divided into four (4) zones. Two of these zones will each have a rated capacity of 2 MW each, a third will have a rated capacity of up to 500 kilowatts (kW), and the final zone will have a rated capacity of up to 450 kW. Each zone will transmit the electricity to an inverter. The inverters convert the direct current (DC) energy into alternating current (AC) electricity. The AC power is then routed through a transfer station, which includes safety transformers that will step the power down to levels consistent with the capacity of the three-phase electricity circuits operated by National Grid on Main Street and on Still River Road.

The facility will also feature a security fence around the perimeter of the panels. This fence will feature chain link fabric and will be eight feet in height. There will be up to a four inch gap at the bottom of the fence between the ground and the fabric which will allow small animals to crawl under the fence. The site will also feature several pole mounted security cameras located inside the perimeter fence.

Upon completion of the installation of the panels, appurtenances and fencing, the entire disturbed area will be seeded with a mix of low growing vegetation which will help maintain a non-erosive soil cover, minimize dust, and require very little maintenance. In addition, there will be no use of fertilizers, pesticides or herbicides for this Project.

The Project area is in a low-lying portion of the overall Site, effectively contained within a bowl that is formed by the reclaimed side slopes of the gravel operation to the south and west and the naturally overgrown side slopes to the north and east. The Project Site is well screened from the residential properties on Still River Road and Main Street and is separated from the abutting Bolton town landfill to the south by an 80+ foot hillside. The perimeter screening will not change during the construction of the Project.

Existing drainage patterns across the parcel indicate that the small volume of runoff is shed to the westerly side of the Site where it is collected in a low lying area and infiltrated into the ground.

A. Special Permit Requirements

1. **Section 2.5.8.2 COMMERCIAL SOLAR PHOTOVOLTAIC RENEWABLE ENERGY INSTALLATIONS** shall be erected or installed except in compliance with the provisions of this Section and other applicable Sections of the Zoning Bylaw, as well as state and federal law. Such use shall not create a nuisance, which is discernible

from other properties by virtue of noise, vibration, smoke, dust, odors, heat, glare and radiation, unsightliness or other nuisance as determined by the Special Permit and Site Plan Approval Granting Authorities.

2. Section 2.5.8.3 of the Zoning By-Law states that the Planning Board shall review:

- a. Lot requirements;
- b. Visual Impact;
- c. Compliance with Laws, Ordinances and Regulations;
- d. Utility Notification;
- e. Maintenance;
- f. Emergency Services;
- g. Safety and Security;
- h. Design Standards;
 - o Lighting
 - o Signs and Advertising
 - o Utility Connections
 - o Land Clearing, Soil Erosion and Habitat Impacts
 - o Structures and Panels
- i. Modifications;
- j. Abandonment and Removal; and
- k. Financial Surety.

B. Specific Findings

1. The proposed project meets the minimum lot requirement of 4 acres. The parcel is 53.8 acres with 24.66 acres within the fenced in area. It meets the 8% lot coverage and 50% impervious coverage requirement as well as the set back requirements;
2. The proposed use shall not create a nuisance, which is discernible from other properties by virtue of noise, vibration, smoke, dust, odors, heat, glare and radiation, unsightliness or other nuisance;
3. Visual Impact: the Project area is in a low-lying portion of the overall Site, contained within a bowl that is formed by the side slopes of the gravel operation to the south and west and the naturally overgrown side slopes to the north and east. The Project Site is well screened from the residential properties on Still River Road and Main Street and is separated from the abutting Bolton town landfill to the south by an 80+ foot hillside. The perimeter screening will not change during the construction of the Project;
4. The proposed project is in compliance with other Laws, Ordinances and Regulations;
5. Utility Notification: the Generating Facility Interconnection Application has been filed with National Grid. The Special Permit is conditioned requiring documentation of National Grid Approval which will be provided to the Town prior to the issuance of a building permit;
6. Maintenance: Upon completion of the installation of the panels, appurtenances and fencing, the entire disturbed area will be seeded with a mix of low growing vegetation which will help maintain a non-erosive soil cover, minimize dust, and require very little maintenance. There will be no use of fertilizers, pesticides or herbicides. The applicant

indicated that the area will be mowed a few times a year. The panels will be pressure washed with a hose hooked up to a truck as needed.

7. **Emergency Services:** Prior to the issuance of a building permit the applicant will provide the Board with an emergency response plan that includes a site plan showing the key features on the site such as the Knox box location and location of disconnect switches, an instructional manual that includes information on shutting down the facility during emergencies, and a guided tour of the facility that will show the Town of Bolton emergency personnel the exact location and operation of the necessary features on the site.
8. **Safety and Security:** an 8' security fence will be installed around the perimeter of the panels. There will be up to a 4" gap at the bottom of the fence between the ground and the fabric which will allow small animals to crawl under the fence.
9. **Lighting:** no pole mounted luminaries are proposed.
10. **Signs and Advertising:** any signs and advertising must be approved by the Board of Selectmen.
11. **Utility Connections:** The project will be connected to two different circuits owned and operated by National Grid and will provide electric energy to those circuits through transfer stations and underground interconnection lines.
12. **Land Clearing, Soil Erosion and Habitat Impacts:** the project site is currently an ongoing gravel operation and the owner of the site will undertake final gravel removal and will maintain a six to eight feet of cover above the groundwater elevation. A mix of low growing vegetation will be planted to maintain a non-erosive soil cover and minimize dust. There will be up to a 4" gap at the bottom of the fence between the ground and the fabric which will allow small animals to crawl under the fence.
13. **Structures and Panels.** There will be approximately 25,000 (no more than 26,000) solar panels installed on frames that are secured to the ground, equipment pads, underground electrical conduit, fencing, and interconnection to two existing electrical circuits within the public right of way.
14. **Modifications;** All substantive material modifications made after issuance of the Special Permit and Site Plan approval will require modification to the Special Permit and Site Plan Approval Decision.
15. **Abandonment and Removal:** The Applicant must comply with the Bylaw Section 2.5.8.6
16. **Financial Surety:** The form of financial surety is conditioned in this Decision.

17. DECISION

In view of the foregoing, the Planning Board hereby decides that the application meets all requisite criteria under Section 2.5.8 of the Bolton Bylaws. Therefore, the Board voted unanimously to grant a Special Permit for Commercial Solar Photovoltaic Renewable Energy Installations with the following conditions:

1. "Prior to the issuance of a building permit the Applicant shall provide a non-cancellable surety bond or other form of surety approved by the Planning Board, in an amount determined to be adequate by the Planning Board to cover the cost of removal and site restoration. The Applicant shall submit a fully inclusive estimate of the costs associated with removal, prepared by a qualified engineer. The amount shall include an escalator for calculating increased removal costs due to inflation. The surety shall be maintained by the developer for the lifespan of the facility, with annual certification notices from the surety company submitted to the Planning Board".
2. Any signs and advertising shall be approved by the Board of Selectmen unless otherwise required by Utility Companies or State and Federal regulations.
3. Prior to the issuance of a building permit the applicant shall provide evidence of a mutual agreement with the utility company per section 2.5.8.3.4 of the Bylaw.
4. Upon completion of the project the applicant shall provide the Board an emergency response plan that includes a site plan showing the key features on the site such as the Knox box location and location of disconnect switches, an instructional manual that includes information on shutting down the facility during emergencies, and a guided tour of the facility that will show the Town of Bolton emergency personnel the exact location and operation of the necessary features on the site.
5. Before issuance of any building permits such construction and installation shall conform to local and state and federal laws, ordinances, bylaws and/or any regulations as well as any regulations adopted pursuant to the Commercial Solar Photovoltaic Renewable Energy Installation Bylaw.
6. Prior to the issuance of a building permit the applicant shall provide the Board with a revised plan showing the bottom of the fence gap as no more than 4".
7. Prior to the issuance of a building permit the applicant shall submit a final plan (6 copies) that is substantially in compliance with this Special Permit to the Planning Board along with the Town Clerk, Fire Department, Conservation Commission, Board of Health, and Board of Selectmen, that is substantial to this approval showing location and details for all structures, panels and all associated equipment and fencing, utility connections that includes all related equipment.
8. Prior to the issuance of a building permit the a preconstruction meeting with the Board is required to review the following:
 - a. a timeline;
 - b. schedule for inspections;
 - c. measures to control erosion and sedimentation;
 - d. limitations on hours of work;
 - e. types and numbers of vehicles and vehicle trips involved with construction;
 - f. tree and brush clearing;
 - g. grading and general site mitigation measures;
 - h. identification of all contractors, field engineers, and all other professionals that will be involved in the implementation of the project;
 - i. removal of vegetation and top soil;
 - j. drainage system construction; and
 - k. Inspection dates.

9. Prior to the issuance of a building permit the applicant shall be required to submit to the Board in an amount established at the pre construction meeting in an amount sufficient to pay for reasonable construction inspection services by an agent to assist the Board in its determination as to the adequacy of the construction as well as final as built plan review.
10. Written notice shall be sent to the Board advising the Board that construction will commence not sooner than seven (7) days from the date that notice is given.
11. Final As Built Plan showing location and details for all structures, panels and all associated equipment and fencing, utility connections and includes all related equipment. Six copies shall be submitted to the Planning Board along with copies to: Town Clerk, Fire Department, Conservation Commission, Board of Health, and Board of Selectmen.
12. Substantive modifications made after issuance of the Special Permit and Site Plan approval will require modification to the Special Permit and Site Plan Approval Decision.

A substantive material modification shall be defined as any modification which:

- Increases the rated capacity of the system above 5.0 MW AC
- Expands the perimeter fence line
- Increased the total number of inverter sheds
- Increases the total number of transfer station sheds
- Increases the number of interconnect lines
- Alters the general location of the Interconnect lines

Minor modifications may occur which do not alter the parameters of the above project elements and do not alter the Specific Findings 1 through 16 above.

RECORD OF VOTE

This Special Permit shall lapse twelve (12) months following the grant thereof (excepting such time required to pursue or await the determination of an appeal referred to in Section 17, Chapter 40A of the General Laws).

Appeals, if any, to this decision, must be made pursuant to Mass. Gen. Laws C.40A § 17 and must be filed within twenty (20) days after the date of filing of this decision in the office of the Bolton Town Clerk.

This decision shall not take effect until a copy of this decision bearing the certification of the Town Clerk that twenty (20) days have elapsed after this decision has been filed in the office of the Town Clerk, and that no appeal has been filed within said twenty (20) days; or that, if such appeal has been filed, that it has been dismissed or denied. Further, this decision shall not take effect until it is recorded in the Worcester County Registry of Deeds and indexed in the grantor index under the name of the owner of record, or is recorded and noted on the owner's certification of title.

The Planning Board voted unanimously on April 25, 2012 to grant a special permit subject to the above-stated terms and conditions:

Doug Storey
Chairman Doug Storey on behalf of the Planning Board

5/8/12
Date Signed

FILED WITH THE TOWN CLERK

Date: May 8, 2012
By: Pamela H. Powell
Title: Town Clerk

CERTIFICATE OF NO APPEAL

The undersigned, being the Town Clerk of the Town of Bolton, certifies that the 20-day appeal period on this decision has passed and there have been no appeals made to this office.

Date: May 30, 2012
By: Pamela H. Powell
Title: Town Clerk

Copy of Findings and Decision mailed to:

Abutters

Abutting Towns

Applicant

Engineer

Bolton Boards and Committees