



Town of Sturbridge

Jean M. Bubon, AICP Town Planner

Email: jbubon@sturbridge.gov

MEMORANDUM

TO: PLANNING BOARD

FROM: JEAN M. BUBON, AICP, TOWN PLANNER *JMB*

CC: MICHAEL S. GIAIMO, ESQ. ROBINSON+COLE; JESSICA BARDI, ESQ. ROBINSON + COLE; 30 SWIFT LLC; CHRIS VORLICEK, STURBRIDGE PV LLC; QUINN WEINBERGER, STURBRIDGE PV LLC; BRIAN YERGATIAN, BSC GROUP; DAVE FAIST, CMG; ERIN CARSON, ASSISTANT CONSERVATION AGENT

SUBJECT: REQUEST FOR SITE PLAN APPROVAL – 200 HAYNES STREET

DATE: 3/7/2024

Since the last meeting, both staff and peer reviews of this project have continued on the plans submitted by Sturbridge PV, LLC for Site Plan Approval for the installation of a large scale ground mounted solar energy facility to be located at 200 Haynes Street (formerly 200 Route 15).

It does appear that all requirements have now been met by the applicant's submittal. A variety of documents have been reviewed including the following:

Documents Reviewed:

The following information was submitted as part of the Site Plan Approval application on August 9, 2023:

- ✓ Cover Letter to the Town Clerk dated August 9, 2023 – Re: Application for Site Plan Approval;
- ✓ Completed application;
- ✓ Abutters list;
- ✓ Filing Fee;
- ✓ Document to Planning Board, Sturbridge Massachusetts – Statement in Support of

Site Plan Approval Application dated August 9, 2023, submitted by Jessica D. Bardi, Esquire, for the applicant Sturbridge PV, LLC;

- ✓ Exhibit A - Site Plan entitled “Ground Mounted Photovoltaic System, 200 Route 15 - Sturbridge, Massachusetts”. Plan prepared by BSC Group – 349 Main Street – Route 28, W. Yarmouth, Massachusetts 02673. Plan date April 26, 2023, Revised 6/14/23, 11/15/23, 1/16/24, 2/23/24, and 3/6/24.
- ✓ Exhibit B - Interconnection Plans entitled “Proposed Photovoltaic Array, 200 Route 15, Sturbridge, Massachusetts 01566,” prepared for Bear Peak Power – 1099 18th ST, Suite 2150, Denver, CO 80202. Plan prepared by ARC Design – 409 North Main Street, Elmer, NJ 08318, dated May 23, 2022 revised through June 16, 2022;
- ✓ Exhibit C – Packet of technical specifications – 10 sheets;
- ✓ Exhibit D – Purchase and Sale Agreement dated September 29, 2022 and an Amendment of Purchase and Sale Agreement, dated April 12, 2023;
- ✓ Exhibit E – Operation and Maintenance Plan for Ground Mounted Photovoltaic System, dated April 10, 2023;
- ✓ Exhibit F – Certificate of Liability Insurance for Bear Peak Power, LLC;
- ✓ Exhibit G – A document entitled “Decommissioning Plan – Ground Mounted Solar Photovoltaic System – 200 Route 15 – Sturbridge, Massachusetts. Applicant & Responsible Part – Sturbridge PV, LLC – 2420 17th Street, Denver, CO 80202. Prepared by – BSC Group, Inc. – 349 Route 28, Unit D, West Yarmouth, MA 02673 (undated – received on August 9, 2023);
- ✓ Exhibit H – Email provided as proof of receipt of Interconnection Application from National Grid dated August 7, 2023;
- ✓ Exhibit I – Photo-simulations prepared by BSC Group;
- ✓ Exhibit J – Stormwater Report – Ground-Mounted Photovoltaic System – 200 Route 15, Sturbridge, MA 01566, April 2023. Owner/Applicant: Bear Peak Power, LLC – 2420 17th Street, Denver, CO 80202. BSC Group – 349 Main Street, West Yarmouth, MA 02673

Additional Information Received and Reviewed Includes:

November 2, 2023

- Fire Review email from Jen Ashe “RE: FW: 200 Haynes Street”;
- A document entitled: “Re: Peer Review, Stormwater Compliance and Zoning Review #1 Sturbridge PV, LLC – 200 Haynes Street (Formerly 200 Route 15), Sturbridge, MA CMG ID 2023-218” from David T. Faist, PE & Robert Lussier, EIT (CMG Environmental Services);

November 17, 2023

- Request for Public Hearing continuation for the Planning Board meeting of November 21, 2023 to January 9, 2024 from Jessica D. Bardi (Robinson & Cole);

November 30, 2023

- A document entitled “RE: Proposed Photovoltaic System, 200 Haynes Street, Responses to Peer Review, Fire Department & Public Comments”, prepared by Brian G. Yergatian, PE, LEED AP (BSC Group), dated 11/20/23;
- A plan entitled “Ground-Mounted Photovoltaic System 200 Route 15 Sturbridge, Massachusetts”, prepared by BSC Group (349 Main Street-Route 28 W. Yarmouth, MA) Dated 8/1/23 Rev. 11/15/2023, Pages 1- 9;

December 27, 2023

- A Stormwater Report “Stormwater Report Ground-Mounted Photovoltaic System 200 Route 15 Sturbridge, MA 01566”, prepared by BSC Group (349 Main Street West Yarmouth, MA 02673) dated April 2023 Rev. Nov. 2023;

January 3, 2024

- A document entitled: “Re: Peer Review, Stormwater Compliance and Zoning Review #2 Sturbridge PV, LLC – 200 Haynes Street (Formerly 200 Route 15), Sturbridge, MA CMG ID 2023-218” from David T. Faist, PE & Robert Lussier, EIT (CMG Environmental Services);

January 4, 2024

- A document entitled: “Re: Pending Application of Sturbridge, LLC for the Site Plan Approval at 200 Haynes Street Request for Waiver of Plan Scale Requirement” Submitted by Michael S. Giaimo (Robinson + Cole)

February 9, 2023

- Email from Brian Yergatian, P.E., LEED, AP, BSC Group in response to the Town Planner’s request for phasing information.

February 12, 2024

- Email from Brian Yergatian, P.E., LEED, AP, BSC Group indicating that Bear Peak Power LLC agreed to continue the Public Hearing to the March 12, 2024 meeting (this was due to weather)

February 13, 2024

- Peer Review report from David T. Faist, PE, Principal Engineer, CMG Engineering Services – 67 Hall Road, Sturbridge, MA 01566.
- Staff Comments were received from:
 - Rebecca Gendreau, Conservation Agent dated September 12, 2023
 - Lt. Jennifer Ashe, Fire Inspector dated September 14, 2023
 - Nelson Burlingame, Building Inspector dated October 5, 2023

- o Ken Lacey, Health Agent dated December 21, 2023

The comments are attached to this report.

Project Summary:

The applicant is requesting Site Plan Approval to allow the construction of a 1.3 MW-DC solar array with a 1,280 kWh battery energy storage system. The project will consist of solar panels mounted on a fixed metal frame with a battery energy storage system and other ancillary equipment as shown on the plans and supporting documentation provided.

Zoning

The property is located in the Special Use District. Large Scale Solar Facilities are permitted as of right subject to the requirements of Article X Solar Energy Facilities and Article XIX Site Plan Approval.

Review

The Public Hearing was initially opened on October 10, 2023 and continued on November 1, 2023 with no testimony, January 9, 2024 with no testimony and February 13, 2024 with no testimony.

Review has been ongoing by both town staff and David Faist, P.E., Peer Reviewer. Several revisions to the plans have been submitted as well as additional supporting documentation. Abutters from the Sturbridge Retirement Cooperative and the Sturbridge Crossing Condominiums have raised a variety of concerns and posed several questions and the applicant and peer reviewer have both responded to the concerns and comments. The applicant has provided several revisions to the plans and provided additional clarification and supporting documentation in response to staff and peer review comments. All of the documents are noted above.

At this time, it does appear that the plan as proposed meets the requirements of the Zoning Bylaw. The specific sections and my comments are noted below:

§ 300-10.3 General requirements, requires a variety of documents be submitted as part of the application.

All required documents have been submitted as part of the application packet. See specifically, Document to Planning Board, Sturbridge Massachusetts – Statement in Support of Site Plan Approval Application dated August 9, 2023, submitted by Jessica D. Bardi, Esquire, for the applicant Sturbridge PV, LLC including Exhibits A – J.

§ 300-10.4 Utility notification. The applicant shall submit evidence satisfactory to the Planning Board that he has informed the utility company in writing of his intent to install a solar energy facility and that the utility company has responded in writing to the interconnection notice. Off-grid systems are exempt from this requirement.

Exhibit H submitted in the application packet provides the receipt of the interconnection application from National Grid.

§ 300-10.5 Dimension and density requirements.

The Board will recall that the initial submittal did not comply with the setback requirements. According to my report of October 2, 2023, “It appears that the pad and battery storage system are being placed within the front setback requirement. This is not permitted and the plan should be modified to comply with zoning. Please note setback distance on revised sheet. See Sheet 3 of 9 – Transformer Pad is noted as 54.2’ from property line, there is no notation on the EES and that appears much closer than the transformer pad. In accordance with Section 300-10.5 Dimension and Density Requirements, A. Setbacks – Ground-mounted solar energy facilities, including appurtenant structures (**including but not limited to equipment shelters, storage facilities, transformers and substations**) shall have a setback from front, side and rear property lines and public ways of at least 100 feet in Special Use District and Industrial Districts. Twenty percent of a parcel’s square footage may be used for a solar facility”.

Since the issuance of that report the plans have been revised and all structures are outside the setback requirements.

Additionally, the Board will note that I had concerns about the buffering requirements being complied with based upon the submitted documents. Since that time, the applicant has provided several revisions for the buffering. The final revision submitted on March 7, 2024, does now satisfactorily address the buffering on the Sturbridge Crossing side of the property. Based upon the site visit conducted on Tuesday, March 5th, it appears that the lower plantings shown in the prior revision are not necessary to retain a visibility buffer from the condominiums next door. Instead, it was determined that the existing Mountain Laurel on site should be re-used and transplanted by the black chain link fence to be installed. There are numerous plants that would be destroyed during clearing and it made sense to re-use them on site. I will also recommend a condition that this area be viewed after installation to determine that adequate screening is being provided.

For convenience, I have added two of the photos that I took on March 5th. The first shows the view of the nearest condominium from the limit of clearing. The second photo shows the elevation from the limit of clearing up to where the array will be installed.



Note the view of the nearest condo through the vegetated area to be retained.



View looking uphill to where the array will be installed.

§ 300-10.6 Design standards.

- A. *Lighting. Lighting shall be limited to that required for safety and operational purposes, and shall not be intrusive in any way on abutting properties. Lighting shall incorporate full cut-off fixtures to reduce light pollution.*

No lighting is proposed.

- B. *Signage. The site may have a sign not exceeding 16 square feet in area providing educational information about the facility and the benefits of renewable energy. Ground-mounted solar photovoltaic facilities shall not be used for displaying any advertising. Safety signage shall be installed as deemed necessary.*

No signage is proposed for this facility with the exception of safety signage as needed.

- C. *Utility connections. Reasonable efforts, as determined by the Planning Board, shall be made to place all utility connections from the solar photovoltaic installation underground, depending on appropriate soil conditions, shape and topography of the site and any requirements of the utility provider. Electrical transformer for utility interconnections may be above ground if required by the utility provider.*

Utility connections are proposed to be underground with the interconnection being made on Kelly Road.

- D. *Land clearing. Clearing of natural vegetation shall be limited to only what is absolutely necessary as determined during site plan review for the construction, operation and maintenance of the solar photovoltaic installation or otherwise prescribed by applicable laws, regulations and bylaws.*

The clearing proposed is reasonable in relation to the placement and size of the array proposed as shown on the plans provided.

- E. *Environmental impacts. Proposed structures (including panels) shall be integrated into the existing terrain and surrounding landscape by minimizing use of and impact to wetlands, steep slopes and hilltops; protecting visual amenities and scenic views; minimizing tree, vegetation and soil removal; and minimizing grade changes.*

The application is undergoing review by the Conservation Commission to insure there will be no impact to the wetlands on site and adjacent areas. As noted, the tree clearing proposed is the minimum required to develop the proposed facility. The site is heavily vegetated and additional plantings have been required through the review process to provide visibility buffers to the site.

Site Plan Criteria for Approval:

According to Article XIX of the Zoning By-Law, when considering a Final Site Plan approval the Planning Board shall ensure that certain criteria are met. The criteria, along with my review comments follow (the criteria are listed in italics with my comments in regular type):

- (1) *That the subject and adjoining premises are protected against serious detriment by provisions for the safe carrying and discharge of surface water drainage, buffers against light, sight, sound, dust and vibration, and that the development of the site will preserve sensitive environmental features such as steep slopes, wetlands and large rock outcroppings, public scenic views and historically significant features and the quality of light and air;*

The applicant has submitted appropriate plans and studies required for Site Plan approval. The Stormwater Management system has been reviewed by CMG Engineering Services for compliance with the Massachusetts Stormwater Standards. As noted in the reports dated November 1, 2023, January 3, 2024, and February 13, 2024 from CMG Engineering Services, these standards have been met by the plan and Stormwater Management Report as revised.

The limits of development are largely dictated by the wetlands and required zoning setbacks and buffer requirements. Significant natural buffering exists around much of the site and staff and the Peer Reviewer have conducted a site visit to determine what additional planting may be required. As noted above, the existing Mountain Laurel on site will be saved and replanted by the black chain link fence to form a screen to the array. That combined with the vegetation to remain and the change in elevation up to where the array will be installed should provide sufficient visual screens from the adjacent residential property.

No lighting is proposed as part of this project.

Conservation Commission review is underway to determine that the project will be compliant with the wetland requirements and to protect environmental features on site. There are no public scenic views or historically significant features that will be lost as a result of this project.

- (2) *That there are provisions for convenience and safety of vehicular and pedestrian movement within the site and on adjacent streets, by the provision of pedestrian access ways that are adequate in number, width, grade, alignment and visibility, by appropriately locating driveway openings in relation to traffic, access by emergency vehicles, and, when necessary, compliance with other regulations for the handicapped, minors and the elderly, and by the provision of an adequate amount of and safe configuration of off-street parking and loading spaces in relation to the proposed uses of the premises to prevent on-street and off-street traffic congestion;*

This site will not have traffic once complete. There will be no employees on site on a regular basis. The only traffic will be periodic inspections and routine maintenance.

- (3) *That there is a harmonious relationship of structures and open spaces to the natural landscape, existing buildings and other community assets in the area and that the project will be in harmony with the surrounding neighborhood; and that the general landscaping of the site complies with the purpose and intent of this bylaw; that existing trees are preserved to the maximum extent possible; that refuse and storage areas are suitably screened during all seasons from the view of adjacent residential areas and public rights-of-way;*

The landscape of the site surrounding the proposed solar array will be left in its natural site and additional plantings have been added to the plans based on staff and peer reviews of the project. There will be no refuse or storage areas on site.

- (4) *That lighting of the site shall be adequate at ground level for the protection and safety of the public in regard to pedestrian and vehicular circulation; that the glare from the installation of outdoor lights and illuminated signs is properly shielded from the view of adjacent property and public rights-of-way;*

There is no lighting proposed for this facility.

- (5) *That all utility systems are suitably located, adequately designed and properly installed to serve the proposed uses, and to protect the property from adverse pollution and that there is the provision of adequate methods for disposal of wastes;*

Water and sewer connections are not required for this project. The only waste generated will be during construction of the site and the waste will be removed from the site.

- (6) *Mitigation of adverse impacts on the Town's resources, including the effect on the water supply and distribution system, sewage collection and treatment systems, fire protection and streets.*

There are no known adverse impacts on the Town's resources as a result of this project.

In conclusion, I do believe that the applicant meets the criteria for issuance of Site Plan Approval as requested. I would recommend the Board vote to grant the waiver requested on January 3, 2024 to allow the plan scale to be 1 inch = 50' rather than 1 inch = 40 feet as required in the bylaw. Additionally, I recommend that the Board approve the Site Plan Approval as requested with the following conditions of approval:

Conditions of Approval
200 Haynes Street

1. The construction, operation and maintenance of this facility shall be as described on the plans and supporting documentation provided with the application submitted to and approved by the Planning Board.
2. Applicant shall utilize anti-reflective coating on the solar panels front glass to minimize glint and glare. Final solar panel installation shall result in "no" glare.
3. All State and Local Zoning Bylaws, Building Codes and Regulations must be adhered to.
4. All other necessary permits and approvals must be obtained prior to the start of construction.
5. In accordance with the zoning bylaw, the operator shall provide a copy of the operation and maintenance plan, electrical schematic and site plan to the Sturbridge Fire Chief and Police Chief. The operator shall cooperate with local emergency services in developing an emergency response plan; this plan shall be reviewed annually with local emergency officials and revised as necessary. All means of shutting down the solar energy facility shall be clearly marked. The premises shall identify a qualified contact person to provide assistance during an emergency; the operator shall change the contact information immediately and so notify the Sturbridge Fire Chief and Police Chief whenever there is a change in the contact person.
6. Any and all safety signage deemed necessary by the Fire Chief and Police Chief shall be installed.
7. In accordance with the zoning bylaw, the operator shall maintain the facility in good condition. Maintenance shall include, but not be limited to, painting, structural repairs and integrity of security measures. The operator shall be responsible for maintaining access for emergency vehicles that is determined to be adequate by the Sturbridge Fire Chief, Police Chief and any other local emergency services, and for maintaining adequate access for any maintenance equipment.

8. An emergency contact phone list with at least two names and numbers on it be supplied to the Sturbridge Police Dept. to be used by the dispatchers, in case of an off hour emergency, prior to the start of the project. The list must be updated whenever necessary for the duration of the project.
9. A construction liaison shall be identified for this project. The liaison shall serve as the single point of contact for the Planning Department and other staff during the duration of the construction activity.
10. A copy of the approved plan and all orders of conditions and notices of decision shall be on site at all times. Contractors working on site shall be familiar with the conditions of approval.
11. A pre-construction meeting shall be held with the Town Planner, Conservation Agent, DPW Director and any other pertinent town personnel.
12. A staging area shall be identified prior to the start of construction. The staging area shall be discussed at the pre-construction site meeting and shall be in a location acceptable to the Town Planner, Conservation Agent and DPW Director or their designee.
13. Prior to ground disturbance, the applicant shall provide a decommissioning bond to the Town in the amount of \$328,020.00. The bond shall be auto-renewed annually.
14. Prior to ground disturbance, the Stormwater Operation and Maintenance Plan shall be submitted to, and approved by the DPW Director, with proof of such approval provided to the Planning Department.
15. Prior to ground disturbance of any kind, the project work areas and limits of disturbance shall be clearly delineated by stakes, flags or other clearly identifiable method.
16. Prior to ground disturbance all erosion control measures shall be installed.
17. Prior to ground disturbance the NPDES SWPPP shall be submitted with copies provided to the Planning Department.
18. There shall be no tree cutting within the 100' and 200' wetland buffer along the north end of the project until proof of Conservation Commission approval has been provided to the Planning Department.
19. During construction, all disturbed soils and unpaved roads shall be adequately watered to keep soil moist to provide dust control.
20. The site shall be kept in a neat and orderly condition throughout the construction process. All trash and debris shall be removed from the site at regular intervals.

21. Exterior construction shall only occur during the hours of 7:00 a.m. to 7:00 p.m. Monday through Friday and 8:00 a.m. to Noon on Saturday. No exterior construction shall occur on Sundays or State Holidays as follows: New Year's Day, Martin Luther King Day, Presidents Day, Patriots Day, Memorial Day, Independence Day, Labor Day, Columbus Day, Veterans Day, Thanksgiving and Christmas.
22. The applicant/developer shall provide no less than forty-eight hours notice prior to the start of any construction activity including clearing. No vehicles or equipment shall be refueled within 100' of a wetland or drainage area unless a bermed and lined re-fueling area is constructed. Any vehicles driven and/or operated within or adjacent to drainage areas or wetlands shall be inspected and maintained daily to prevent leaks.
23. A Knox box shall be required for the chain link fence around each array with keys being provided to public safety personnel.
24. All chain link fencing shall be black and shall be installed with whatever clearance may be required by the Conservation Commission to allow for movement of smaller species.
25. An inspection shall be made by the Town Planner, Planning Board and/or designee after completion of the project to determine if any additional plantings/screening is required on both sides of the property that are abutting areas in residential use. If it is determined that additional plantings are required, a planting plan shall be submitted to the Planning Board for review and approval. The applicant shall bond for the cost of the landscaping if the landscaping is not installed prior to requesting final inspection/approval of the project.
26. The applicant/developer shall be responsible to maintain the access roads to the project in a viable condition for emergency vehicles on a continuing basis.
27. The applicant/developer shall submit bi-weekly construction reports that provide details of work occurring on site, site photographs, condition of erosion control measures, compliance with conditions of approval and any issues encountered during construction. The frequency of reporting shall be established at the pre-construction meeting.
28. Prior to energization or final inspection, whichever occurs first, the applicant/developer shall install electrical safety signage on all solar arrays in the immediate vicinity of all wiring and on all electrical conduit using weather resistant and fade proof materials. The purpose of this measure is to reduce the risk of electric shock.
29. Prior to energization or final inspection, whichever occurs first, the applicant/developer shall provide appropriate training for emergency personnel of the Town of Sturbridge. Training to be arranged through the Police Chief and Fire

Chief and the details of such training shall be provided to the Planning Department in advance of the training.

30. The applicant/developer shall be responsible for restoring all public roads, easements, rights of way (ROW) and infrastructure (signs, guard rails, etc) within the public right of way that have been damaged due to project-related construction activities.
31. The applicant shall submit to the Planning Department, two hard copies and an electronic copy of the as-built plan along with certification of the engineer of record that the project was constructed as approved. Any deviations of the approved plan shall be noted on the certification and plan.

If I can provide any additional information, please let me know.

DEPARTMENTAL MEMOS – 200 HAYNES STREET – STURBRIDGE PV, LLC

<p align="center">Police 9/12/23</p>	<p>No concerns.</p>
<p align="center">Conservation 9/12/23</p>	<p>Project is within the Sturbridge Wetland Bylaw 200-foot buffer zone and within the Sturbridge Zoning Bylaw (Chapter 300-4.1E) jurisdictional buffer zone for projects on slopes of 8% or more. A Notice of Intent has been filed for review and a public hearing has been scheduled. The project includes land alteration that will affect most of the 14 acre parcel.</p> <p>A detailed phased plan will be required. Property contains steep slopes and clearing and grubbing needs to be phased to avoid having large amounts of land open on steep slopes. The Commission may have concerns with the extent of work within the 200 foot buffer zone and may ask that alternatives are explored to minimize work here.</p>
<p align="center">Fire 9/14/23</p>	<p>There will be an ESS on site to collect from the panels. The fire department requests the following to be included in the final proposed plans:</p> <ol style="list-style-type: none"> 1. A knox box mounted at a fixed location at the exterior of the fencing for access. 2. All NFPA required signage be provided. 3. A gate providing direct access to the ESS and any shut offs for efficient emergency management. 4. Manufacturer / cut sheets with the specs on the ESS and the solar panels. <p>There are no other concerns, questions, or requests at this point in the review from the Fire Department. (Also see email from Lt. Ashe regarding abutter fire safety concerns dated November 1, 2023)</p>
<p align="center">Building 10/5/23</p>	<p>No concerns from building dept. will address any concerns in the permitting process as far as code goes.</p>
<p align="center">BOH 12/21/23</p>	<p>No concerns.</p>