PLANNING BOARD
STURBRIDGE, MASSACHUSETTS

STATEMENT IN SUPPORT OF SITE PLAN APPROVAL APPLICATION

Applicant: Sturbridge PV, LLC
Owner: 30 Swift LLC
Property: 200 Route 15, Sturbridge, MA
Map/Parcel: 552-03748-200
Zoning: Special Use District
Proposed Use: Large-Scale Ground-Mounted Solar Energy Facility

BACKGROUND

The Applicant, Sturbridge PV, LLC ("Applicant"), seeks site plan approval pursuant to Article X and Section 300-19.5 of the Town of Sturbridge Zoning Bylaw (the "Zoning Bylaw") for the construction and operation of a Large-Scale Ground-Mounted Solar Energy Facility on an approximately 13.92-acre vacant parcel of land owned by 30 Swift LLC ("Owner") at 200 Route 15 (the "Subject Property"). The Applicant develops community-scale and utility-scale solar and energy storage throughout the United States. The Applicant has an option to purchase the Subject Property from the Owner.

DESCRIPTION OF PROJECT

As shown on the Site Plans submitted with this application (**Exhibit A**), the Applicant proposes to construct a 1.3 MW-DC solar array with a 1,280 kWh battery energy storage system on the Subject Property to supply the community with a source of clean energy that can be readily dispatched to customers. The solar array will consist of solar panels mounted on a fixed, metal frame assembly with a battery energy storage system located near the site entrance to ensure quick and easy access. The solar array and appurtenant structures and components will be located within a 7-foot tall chain link fence. An access driveway is proposed off of Route 15 leading to a 20-foot wide slide gate to secure the site. A gravel access roadway will run along the western edge of the solar panels within the fenced area and is designed to accommodate emergency vehicles. Adequate stormwater management is proposed, including swales and infiltration basins, designed to mitigate stormwater runoff outside the project area. New utility poles will be placed along Route 15 as the point of interconnection, connecting to National Grid's existing poles along Kelly Road. Collectively these improvements are referred to below as the "Proposed Solar Facility". The Proposed Solar Facility will have no on-site employees and will operate 24 hours a day, 365 days a year to provide the community with a needed source of clean energy.

SATISFACTION OF SOLAR ENERGY FACILITY REQUIREMENTS

The Proposed Solar Facility and this application satisfy the requirements of Article X of the Zoning Bylaw as follows:

300-10.3.B. In addition to the submission requirements in the Planning Board's Site Plan Review Regulations, the applicant shall provide the following documents:

(1) Plans and drawings of the solar energy facility signed and stamped by a professional engineer licensed to practice in Massachusetts showing the proposed layout of the system;

***See Site Plans attached as* Exhibit A.**

(2) An electrical diagram detailing the solar energy facility, associated components and electrical interconnection methods, with all National Electrical Code compliant disconnects and over-current devices;

***See Interconnection Plans attached as* Exhibit B.**

(3) Technical specifications of the major system components, including the solar arrays, mounting system and inverter;

***See technical specifications attached as* Exhibit C.**

(4) A glare analysis and proposed mitigation, if any, to minimize the impact of glare on affected properties;

The Proposed Solar Facility will not produce glint or glare from the sun because it will have an anti-reflective coating on the front glass to mitigate glint and glare. The proposed solar panels are designed to absorb photons, instead of reflecting them onto surrounding areas. Additionally, the Proposed Solar Facility will have no impact of glare on surrounding properties due to site topography and the natural vegetated buffer that will be maintained around the Proposed Solar Facility.

(5) The name, address and contact information of the owner, proposed installer and operator;

See application form.

(6) Proof of actual or proposed control of access ways and the project site sufficient to allow for installation and use of the proposed facility;

See Purchase and Sale Agreement and Amendment thereto attached as* Exhibit D. *There is about 50-feet of separation between Route 15 and the Subject Property which is Town-owned land, part of the public right-of-way. The Applicant will be requesting a street entrance permit from the Department of Public Works.

(7) An operation and maintenance plan;

***See Operation and Maintenance Plan attached as* Exhibit E.**

(8) Proof of liability insurance; and

***See Liability Insurance Coverage attached as* Exhibit F.**

(9) Financial surety that satisfies § 300-10.12 of this bylaw.

See Decommissioning Plan attached as* Exhibit G. *The Applicant understands that the form of financial surety can be discussed with the Planning Board during its public hearing process and can be made a condition of site plan approval.

300-10.3.C. Operation and maintenance plan. The applicant shall submit a plan for the operation and maintenance of the solar energy facility, which shall include measures for maintaining safe access, stormwater controls and general procedures for operating and maintaining the energy facility.

***See Operation and Maintenance Plan attached as* Exhibit E.**

300-10.4 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.

***See receipt of interconnection application from National Grid attached as* Exhibit H.**

300-10.5.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 total square footage may be used for a solar facility.

***The Proposed Solar Facility will be setback at least 100 feet from front, side and rear property lines and public ways. See Sheet 3 of 8 at* Exhibit A. *Approximately 17% of the parcel's square footage will be used for the Proposed Solar Facility. See* Exhibit A.**

300-10.5.B. Buffering. The visual impact of large-scale solar photovoltaic facilities, including all appurtenant structures, shall be mitigated. Structures shall be buffered/shielded from view and/or joined and clustered to avoid adverse visual impacts as deemed necessary by the Planning Board using landscaping and natural features as appropriate to accomplish the mitigation. When a proposed project abuts a property in residential use, the minimum width of the buffer area shall be 200 feet (measured from the proposed solar project to the property line of the property in residential use) and this distance shall supersede the 100-foot setback as stated in Subsection A above. In all other cases that buffering/shielding shall occur within the stated setback amount.

***The Proposed Solar Facility will be setback at least 200 feet from the property line of abutting property in residential use. See Sheet 3 of 8 at* Exhibit A. *The Proposed Solar Facility will be surrounded by a heavily wooded buffer, naturally blocking views from the public way and surrounding properties. See photosimulations attached as* Exhibit I *and planting plan on Sheet 4 of 9 at* Exhibit A.**

300-10.6.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 with the Proposed Solar Facility.

300-10.6.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 with the Proposed Solar Facility.

300-10.6.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.

***The Proposed Solar Facility is designed to comply with this requirement. Utility connections from the Proposed Solar Facility will be placed underground and then will connect to National Grid's existing infrastructure along Kelly Road. See Interconnection Plans attached as* Exhibit B.**

300-10.6.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 Applicant proposes land clearing on the Subject Property only to the extent necessary for the construction, operation and maintenance of the Proposed Solar Facility. All disturbed areas within the chain link fence will be loamed and seeded with a pollinator seed mixture, unless otherwise specified in the materials supporting this application.

300-10.6.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 Proposed Solar Facility is designed to comply with this requirement. The Proposed Solar Facility will be surrounded by a thickly wooded buffer that naturally blocks views of the Proposed Solar Facility from the public way and surrounding properties. Concurrent with this filing, the Applicant is seeking a permit under the Town's Wetlands Bylaw and implementing regulations because a portion of the Proposed Solar Facility is within the 200-ft and 500-ft buffer zones.

SATISFACTION OF SITE PLAN APPROVAL REQUIREMENTS

The Proposed Solar Facility meets the standards for site plan approval set out in Section 300-19.6 of the Zoning Bylaw, as discussed below:

300-19.6.B. Preservation of landscape. Development of the site should, to the extent practicable, occur in such a manner that natural features are preserved and areas of environmental sensitivity are avoided. The landscape shall be preserved in its natural state, insofar as practicable, by minimizing tree and soil removal, and any grade changes shall be in keeping with the general appearance of the neighboring developed areas. Where tree coverage does not exist or has been removed, new planting may be required. Finished site contours shall depart only minimally from the character of the natural site and the surrounding properties.

The Proposed Solar Facility will be developed to maintain and preserve the natural landscape of the Subject Property to the greatest extent practicable and will avoid areas of environmental sensitivity. See site plans attached as Exhibit A, photosimulations attached as Exhibit I and planting plan on Sheet 4 of 9 at Exhibit A.

300-19.6.C. Relation of building to environment and surroundings. Proposed uses and structures shall be integrated into the existing terrain and surrounding landscape by minimizing use of wetlands, steep slopes and hilltops; protecting visual amenities and scenic views; preserving unique natural or historical features; minimizing tree, vegetation and soil removal; and minimizing grade changes. All buildings and other structures shall be sited to minimize disruption of the topography. Design features shall maintain neighborhood character, enhance aesthetic assets and screen objectionable features from neighbors and roadways. Strict attention shall be given to proper functional, visual and spatial relationship of all structures, landscaped elements and paved areas.

The Proposed Solar Facility is designed to comply with this requirement. The Proposed Solar Facility will be surrounded by a thickly wooded buffer that naturally blocks views of the Proposed Solar Facility from the public way and surrounding properties. The Proposed Solar Facility is generally compatible with the neighborhood character in the Special Use District. It will not have employees, and will not generate traffic or cause noise, odor, glare or significant visual impacts. Concurrent with this filing, the Applicant is seeking a permit under the Town's Wetlands Bylaw and implementing regulations because a portion of the Proposed Solar Facility is within the 200-ft and 500-ft buffer zones. See site plans attached as Exhibit A, photosimulations attached as Exhibit I and planting plan on Sheet 4 of 9 at Exhibit A.

300-19.6.D. Circulation. With respect to vehicular and pedestrian circulation, including entrances, ramps, walkways, drives and parking, special attention shall be given to location and number of access points to the public streets (especially in relation to existing traffic controls), width of interior drives, and access points, general interior circulation, separation of pedestrian, bicycle and vehicular traffic, access to community facilities and arrangement of parking areas that are safe and convenient and, insofar as practicable, do not detract from the use and enjoyment of proposed buildings and structures and the neighboring properties. The arrangement of access points, service roads, driveways, parking areas, lighting and pedestrian walkways shall be designed in a manner that maximizes the convenience and safety of pedestrian and vehicular movement within the site and in relation to adjacent ways.

There will be no public vehicular or pedestrian access to the Proposed Solar Facility. Access after construction is completed will be limited to inspections for routine maintenance.

300-19.6.E.1. Surface water drainage. Special attention shall be given to proper site surface drainage so that removal of surface waters will not adversely affect neighboring properties or the public storm drainage system, nor obstruct the flow of vehicular or pedestrian traffic, and will not create puddles in paved areas. All surface water drained from roofs, streets, parking lots and other site features shall be disposed of in a safe and efficient manner that shall not create problems of water runoff or erosion of or from the site in question, or onto other sites. Insofar as possible, natural drainage courses, swales properly stabilized with plant material or paving when necessary, and drainage impounding areas, shall be utilized to dispose of water on the site through natural percolation, to a degree equivalent to that prior to development. Also, appropriate control measures shall be employed that include maximum slope requirements, slope stabilization measures, including seeding of exposed areas to replace vegetative cover.

***The proposed stormwater water management system is designed to comply with this standard. See Stormwater Report attached as* Exhibit J.**

300-19.6.E.2. Surface water drainage. Applicants are encouraged to incorporate "green techniques" into project designs in an effort to improve water quality by minimizing impervious surfaces and run-off. The use of nontraditional paving materials such as pavers or porous pavement is encouraged to be incorporated into project design whenever feasible. Additionally, other best management practices for stormwater management such as the collection of roof runoff, use of rain gardens, the promotion of vegetation rather than turf in nonpaved areas, and minimizing soil disruption and similar construction methods should be explored whenever feasible.

***The proposed stormwater water management system is designed to comply with this standard. See Stormwater Report attached as* Exhibit J.**

300-19.6.F.1. Groundwater recharge and quality preservation. Groundwater recharge shall be maximized and groundwater quality shall be protected. Various techniques may be required to maximize recharge, such as perforated drainpipes, pervious pavement, reduction of paved areas,

reduction of building area or reduction of building coverage, etc.; or to improve quality, such as installing grease traps or gas/oil separators.

***The proposed stormwater water management system is designed to comply with this standard. See Stormwater Report attached as* Exhibit J.**

300-19.6.F.2. Groundwater recharge and quality preservation. Where groundwater elevation is close to the surface, extra site grading precautions may be required to maintain the protective function of the over burden.

***The proposed stormwater water management system is designed to comply with this standard. See Stormwater Report attached as* Exhibit J.**

300-19.6.G. Utilities. The placement of electric, telephone or other utility lines and equipment, such as water or sewer, shall be underground; and so located as to provide no adverse impact on the groundwater levels, and to be coordinated with other utilities. The proposed method of sanitary sewage disposal and solid waste disposal from all buildings shall be indicated precisely on the plans.

The Proposed Solar Facility is designed to comply with this requirement. Utility connections from the Proposed Solar Facility will be placed underground and then will connect to National Grid's existing infrastructure along Kelly Road. See Interconnection Plans attached as* Exhibit B. *The Proposed Solar Facility does not require public utilities such as water or sewer and will not cause groundwater contamination.

300-19.6.H. Advertising. All signs and outdoor advertising features shall be reviewed as an integral element in the design and planning of all development on the site. As a minimum, all signs and advertising devices shall be in conformance with the Zoning Bylaw, Part 4, Article XVII, and the provisions thereof shall be administered by the Planning Board.

No advertising or signage is proposed with the Proposed Solar Facility.

300-19.6.I. Other site features. Exposed storage areas, exposed machinery installations, service areas, truck loading areas, utility buildings and structures and similar accessory areas and structures shall be designed with such setbacks, screen plantings or other screening methods to prevent their being a hazard or being incongruous with the existing or contemplated environment and the surrounding properties. With respect to personal safety, all open and enclosed spaces shall be designed to facilitate building evacuation and to maximize accessibility by fire, police and other emergency personnel and equipment.

The Proposed Solar Facility is designed to comply with this requirement. The Proposed Solar Facility and appurtenant structures and components are entirely located within a chain link fence and surrounded by a heavily wooded buffer that screens views of the Proposed Solar Facility from the public way and surrounding properties.

300-19.6.J. Open space. All open space (landscaped and usable) shall be so designed as to add to the visual amenities of the vicinity by maximizing its visibility to persons passing the site or overlooking it from nearby properties. Attention should be paid to connectivity of open space in an effort to provide natural corridors for wildlife and walking paths, as well as social and recreational needs and the need for neighborhood meeting places and sports fields. The plan for open space should be consistent with the Open Space Plan adopted by the Town. Pedestrian paths, excluding standard sidewalks, should be counted toward open space.

The area surrounding the Proposed Solar Facility will maintain a heavily wooded natural buffer, blocking views of the Proposed Solar Facility from the public way and surrounding properties. There will be no public vehicular or pedestrian access to the Proposed Solar Facility. The proposed chain link fence will have a 6-inch gap between the bottom of the fence and the finish grade for wildlife to pass through.

In addition to the above, the Applicant maintains that the Proposed Solar Facility furthers the health, safety and welfare of the public in general and the surrounding neighborhood in particular in accordance with Section 300-19.5.A of the Zoning Bylaw because it will supply the community with a source of clean energy that can be readily dispatched to customers. In further support of this application, the Proposed Solar Facility accomplishes the following objectives, set out in Section 300-19.5.A, justifying the grant of site plan approval by the Planning Board, as discussed below:

300-19.5.A.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 Proposed Solar Facility is designed to comply with this requirement. The Proposed Solar Facility will be surrounded by a thickly wooded buffer that naturally blocks views of the Proposed Solar Facility from the public way and surrounding properties. It will not have employees, and will not generate traffic or cause noise, odor, glare or visual impacts. The proposed stormwater management system is designed to mitigate stormwater runoff outside the project area. See site plans attached as <u>Exhibit A</u>, photosimulations attached as <u>Exhibit I</u>, planting plan on Sheet 4 of 9 at <u>Exhibit A</u> and stormwater report attached as <u>Exhibit J</u>.

300-19.5.A.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;

There will be no public vehicular or pedestrian access to the Proposed Solar Facility. Access after construction is completed will be limited to inspections for routine maintenance. The proposed access roadway will run along the western edge of the solar panels within the fencing and is designed to accommodate emergency vehicles.

300-19.5.A.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 Proposed Solar Facility will be developed to maintain and preserve the natural landscape of the Subject Property to the greatest extent practicable. The area surrounding the Proposed Solar Facility will maintain a thickly wooded buffer, naturally blocking the Proposed Solar Facility from public view. See site plans attached as **Exhibit A**, ***photosimulations attached as*** **Exhibit I** ***and planting plan on Sheet 4 of 9 at*** **Exhibit A**.

300-19.5.A.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;

No outdoor lighting is proposed with the Proposed Solar Facility. The Proposed Solar Facility will have no impact of glare on surrounding properties due to site topography and the natural vegetated buffer that will be maintained around the Proposed Solar Facility.

300-19.6.A.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;

The Proposed Solar Facility is designed to comply with this requirement. It does not require public utilities such as water or sewer and will not cause adverse pollution on the Subject Property. Stormwater from the Proposed Facility will be managed and recharged on site. Any waste generated from the maintenance visits will be properly disposed of off-site.

300-19.5.A.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.

The Proposed Solar Facility will not require Town water supply or sewer service and will not burden other Town resources or services.

WAIVER REQUEST(S)

The Applicant requests a waiver from the Zoning Bylaw's requirement that an applicant submit a traffic study in accordance with Section 300-19.3.B.3. The Proposed Solar Facility is not open to the public. Once in operation, the Proposed Solar Facility will not have employees on-site, and therefore, will not generate traffic to and from the Subject Property, with the exception of maintenance visits.

CONCLUSION

For all of the foregoing reasons, the Applicant respectfully requests that the Planning Board grant site plan approval authorizing the construction and operation of the Proposed Solar Facility at the Subject Property.

Respectfully submitted,
Sturbridge PV, LLC
By its attorney,

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Robinson & Cole LLP
One Boston Place, 25th Floor
Boston, MA 02108
(617) 557-5982
Dated: August 9, 2023

LIST OF EXHIBITS

Exhibit A – Site Plans titled, "Ground-Mounted Photovoltaic System, 200 Route 15, Sturbridge, Massachusetts," prepared by BSC Group, dated August 1, 2023

Exhibit B – Interconnection Plans titled, "Proposed Photovoltaic Array, 200 Route 15, Sturbridge, Massachusetts 01566," prepared by ARC Design, dated June 16, 2022

Exhibit C – Technical Specifications

Exhibit D – Purchase and Sale Agreement between Owner and Applicant, dated September 29, 2022, and 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 – Decommissioning Plan for Ground-Mounted Photovoltaic System

Exhibit H - Receipt of Interconnection Application from National Grid, dated August 7, 2023

Exhibit I – Photosimulations, prepared by BSC Group

Exhibit J – Stormwater Report, prepared by BSC Group, dated April 2023