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November 18, 2025

Mr. Bart Niswonger
Chair
Worthington Planning Board
160 Huntington Road
Worthington, MA 01098

RE: Special Permit Petition and Site Plan Review for BWC Wades Stream, LLC LSGMSPI

Dear Mr. Niswonger:

Beacon Integrated Solutions (“Beacon”) was engaged by the Town of Worthington, Planning Board to review the Site Plan and Special Permit Applications filed by BWC Wades Stream LLC LSGMSPI (the “Applicant”) for a Large-Scale Ground-Mounted Solar Agrivoltaic System paired with a Battery Energy Storage System (“Systems”) and to report on our findings with respect to the Applicant’s compliance with the Worthington Zoning By-Laws.

Beacon has reviewed the filed Applications and has compiled a series of initial questions for response by the Applicant to supplement its submissions in order for the Applications to be deemed complete.

1. Ownership Questions:

- a. During the meeting held on November 6, 2025, Applicant indicated that it intends to retain ownership of the Agrivoltaic system and all related equipment.
 - i. Please advise if the Applicant intends to operate the Systems or if that obligation will be subcontracted.
 - ii. Please discuss whether the Applicant will be soliciting/choosing an EPC contractor with specific experience constructing on agricultural property.
- b. Site Control:
 - i. Please provide a copy of the Lease executed with the Property Owner. A redacted version of the commercial arrangement is acceptable.
- c. Insurance:
 - i. Applicant provided proof of insurance for the following insured: Bluewave Public Benefit Corp.
 - Please discuss the relationship between the Applicant and Bluewave Public Benefit Corp.
 - Does the Applicant intend to provide proof of insurance for the project special purpose entity (BWC Wades Stream, LC) and if not, please discuss how this meets the requirements of the Bylaw.

2. Siting Questions:

a. Regarding the selected site:

- i. Given the rural nature of the neighborhood and its proximity to a golf course, please discuss why Applicant concludes that the scale of this System is in harmony with the historic and rural character of the neighborhood.
- ii. Applicant indicated that there was no additional vegetation needed for screening given the heavy forested canopy.
 - Based on satellite imagery, it appears that much of the forested canopy is deciduous. Please discuss the visual impact on direct abutters (homes and golf course) during seasons in which the deciduous trees have lost their leaves.
- iii. Please discuss whether the Applicant has undertaken a balloon test at various areas within the Systems footprint to demonstrate the visual impact on direct abutters and the neighborhood in general.
- iv. While it is understood that solar modules are manufactured with anti-reflective coatings, please provide technical documentation that the modules and the tracking nature of the Systems will not cause glare on the abutting properties including the golf course and public roadways.
- v. The Site Plan shows seven poles for utility interconnection.
 - Has the Applicant considered increasing underground runs and pad mounted equipment solutions to avoid a pole tree farm?
 - Has this option been discussed with Eversource?
 - The pole at the POI is expected to be removed and replaced. Will the replacement be in the same location?
 - Please provide a copy of the utility Impact Study Report with details of the anticipated Eversource infrastructure work in connection with the Systems.
- vi. Applicant has indicated that it has consulted with the Massachusetts Historical Commission ("MHC") to assess potential impacts to historic or archaeological resources. Please provide documentation of MHC's conclusions/assessment of that request.
- vii. Regarding the Access Road and Emergency Access:
 - How will the Applicant address seasonal snow removal to ensure public safety access?
 - Has the Applicant conferred with the Town's public safety departments to confirm requirements?
- viii. Please provide available studies, specifically from empirical data collected in Massachusetts or more broadly in New England, that addresses the impacts that large-scale solar photovoltaic and battery energy storage systems have on area property values.
 - Please discuss Applicant's experience and approach to address devaluation of property.

3. Water Protection District:

- a. The Stormwater Management Report addresses impacts on the parcel from the solar array only and does not address any potential impacts results of a major casualty of the Battery Energy Storage System ("BESS").
 - i. Please provide documentation that the BESS will comply with the State's Electrical Code (527 CMR 12:00), Fire Code (527 CMR 1:00) and NFPA 855.
 - ii. Please provide an emergency response plan that includes:

- Emergency shutdown/de-energize
 - Emergency procedures in case of a fire, explosion, and release of liquids or vapors.
 - Remediation requirements in case of a BESS failure and release.
- iii. Please discuss whether the operation or failure of the Systems has any impact on abutter well water.

4. Agrivoltaic Certifications:

- a. The Applicant indicated that it planned to qualify the Systems as an ASTGU under the SMART Program and has filed documentation required for that certification.
- i. Please provide a copy of the complete Pre-Determination Letter submitted to UMass Clean Energy Center detailing the agricultural plan (per 225 CMR 28.07(5)(b)3.d).
 - ii. Please discuss the nature of the vegetative management under and around the Systems, and whether that vegetative management plan is undertaken by the property owner or subcontracted farmer.

5. Equipment Specifications:

- a. Please discuss when the Applicant anticipates finalizing equipment selection.
- b. The single-axis tracker specification sheet provided indicated that environmental conditions limitations are up to 130 mph and only 35 mph in the stow position.
- i. Please discuss and provide documentation of the wind analysis undertaken by the Applicant specific to the site selected.
 - ii. Please provide OEM documentation of its wind analysis and tolerances.
 - iii. Please provide safety documentation of the lithium-ion battery system contained in the tracker controller.
- c. While a typical entrance sign that complies with the Bylaw requirements was provided, please provide a rendering of a typical warning sign that will be installed on the perimeter fencing in other locations as required by the National Electrical Code.
- d. Regarding the BESS:
- i. The solar project is paired with a DC-coupled BESS which is integral to operations and economics of the project. It is understood that equipment specification is not final, however, from the cut sheet provided, the BESS includes a liquid cooled temperature-controlled system:
 - Does this system also require traditional HVAC equipment for climate control of the BESS? If so, please provide information and equipment specifications.
 - Discuss the fire suppression system, which according to the cut sheets includes submerged fire extinguishing system, an aerosol fire suppression system and a water sprinkler system.
 - Please discuss the type of BESS (i.e., LFP, NMC, lead acid, etc...)
 - Please confirm that the fire suppression system does not include PFAS fire suppression foams and whether the BESS contains any hazardous materials.
 - Please discuss the design considerations for containment caused by any liquids released during operations, or from an emergency incident. Are any curbs or containment barriers contemplated for the equipment pad?
 - Please discuss how the Applicant will address any water requirements for the Systems. Will the Applicant need a well? In the event of an emergency, is the Applicant fully relying on the provision of portable water by the Town. If so,

what are the water requirements in such circumstances, including capacity and pressure?

- Please discuss the dimensions of the BESS system on the equipment pad including maximum width, height and length.

e. Regarding the fencing:

- i. Please discuss if the fencing is required for the agricultural activities or if it is necessary to meet security and electrical code requirements for the Systems.
 - If the latter, please discuss whether Applicant can relocate the fencing outside of the wetlands, the 100-foot wetland buffer and the 50-foot property line setback.
- ii. It is understood that when in its most upright position (tilt at about 60 degrees) the module height will be approximately 13.5 feet above grade.
 - Please discuss how an 8-foot-high woven perimeter fence will provide sufficient screening of the Systems from view of the Lagoy parcels, the Marich parcel, the Worthington Golf Course property and the public roadway.

6. Noise Considerations:

- a. Please provide documentation from the equipment OEM, including inverters, transformers, BESS and single axis trackers, detailing audible impact of the equipment on a 24 hour and seasonal basis.
- b. Has the Applicant undertaken a noise study on other Agrivoltaic projects paired with BESS in MA? If so, please provide a copy of the study.

7. Decommissioning, Removal and Restoration Requirements;

- a. Please provide a copy of the Decommissioning Plan demonstrating the approach and requirements to remove the Systems and restore the premises.
- b. The provided decommissioning cost estimate does not appear to address scope and costs for removal of the BESS. Please provide an updated cost estimate including the BESS.

Beacon very much appreciates the opportunity to support the Worthington Planning Board in its review of the BWC Wades Stream LLC photovoltaic system paired with a battery energy storage system. If you have any questions or need additional information, please do not hesitate to contact me directly at 617-469-2172.

Best regards,

Beth S. Greenblatt

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