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To: Town of Worthington Planning Board

From: BWC Wades Stream, LLC

Date: January 2, 2026

Subject: Response to Questions for the Special Permit Petition and Site Plan Review for BWC Wades Stream, LLC LSGMSPI

Dear Mr. Niswonger and members of the Planning Board:

WSP USA Inc. ("WSP") and BWC Wades Stream, LLC ("BlueWave") has received the preliminary review comment letter dated 11/18/2025 prepared by Beacon Integrated Solutions related to the above referenced project. WSP and BlueWave have prepared the following response narrative and supporting documentation for consideration by the Board. Section headings and numbering correspond to the numbering in the Beacon Letter.

November 18 Letter:

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.

Response: Per Bylaw Sections 2.6.4 and 8.5.3, BlueWave has provided all documents required to deem the Site Plan Review application complete. The Planning Board deemed the application complete on December 16, 2025. The following responses are supplemental to the completion requirements of the Bylaw.

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.

Response: BWC Wades Stream, LLC intends to own and operate the project throughout its lifetime. Systems will be remotely monitored offsite 24/7 and O&M will be completed by applicant or subcontracted providers.

- ii. Please discuss whether the Applicant will be soliciting/choosing an EPC contractor with specific experience constructing on agricultural property.

Response: Yes, the eventual EPC bid will solicit EPC contractors with experience in constructing on agricultural property and agrivoltaic projects.

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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.

Response: The Land Lease and Easement Agreement was provided in Attachment A of the Additional Materials sent to the Board on December 10, 2025. The Notice of Lease was provided in Appendix B of the Site Plan Application and is recorded in the Hampshire County Registry of Deeds in Book 15530, Page 236.

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.

Response: BWC Wades Stream, LLC is a wholly owned subsidiary of 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.

Response: The additional Certificate of Insurance was provided in Attachment B of the Additional Materials sent to the Board on December 10, 2025.

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.

Response: Under G.L. c. 40A, § 3, para. 9 and relevant judicial precedents, the permissible scope of site plan review for solar projects does not extend to project size, scale, or generalized neighborhood character. *See, e.g., Kearsarge Walpole*. The application demonstrates full compliance with all applicable dimensional, performance, and siting standards, but the requested harmony analysis is beyond the scope of permissible review. Notwithstanding, BlueWave has sited and designed the system to ensure that existing farming uses of the site can continue, and to minimize the visual impacts on abutting properties where possible, consistent with applicable standards and best practices.

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- 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.

Response: Our design prioritizes preserving the existing and historically cultivated field for the landowners. In response to community feedback, we have revised the layout to add evergreen vegetative screening along the boundary with Parcel 407-0-29 to provide year-round screening and mitigate winter views, acknowledging that this slightly reduces historically farmed acreage. Following an in-person site visit, the abutter at Parcel 407-0-134.1 did not request screening. Nonetheless, we are amenable to extending evergreen screening along that frontage, if desired, through coordination with other abutters as a condition of site plan approval.

- 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.

Response: A balloon test was conducted on November 22, 2025. Appendix B to this letter contains photos of the test.

- 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.

Response: Single-axis trackers are designed to align the modules with the sun, directing reflections upward (to the sun) rather than toward adjacent receptors. Accordingly, we do not anticipate glare affecting abutting residences, the golf course, or public roadways. After initial feedback on project layout, we can provide a glare analysis for the final layout to confirm the absence of glare impact and, if needed, identify mitigation.

- 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?

Response: We are requesting Planning Board approval for the as-designed, standard utility-acceptable interconnection that we can reliably deliver. We have considered longer underground runs and additional pad-mounted equipment, but utilities frequently deny these options during detailed design

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(or price them prohibitively). The utility will not finalize design until the Interconnection Services Agreement is executed and 100% funded (expected in the middle of 2026).

- Has this option been discussed with Eversource?

Response: See above.

- The pole at the POI is expected to be removed and replaced. Will the replacement be in the same location?

Response: See above. Final construction design is pending utility interconnection design.

- Please provide a copy of the utility Impact Study Report with details of the anticipated Eversource infrastructure work in connection with the Systems.

Response: The Interconnection Services Agreement is shared in Appendix L of the Site Plan Application, which includes all infrastructure work details.

- 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.

Response: Please see the MHC submission and Proof of Delivery in Appendix C. Per MHC regulations, no further action is required if MHC does not respond within 30 days, and the project may proceed as planned without further review. BlueWave did not receive a response from MHC.

- vii. Regarding the Access Road and Emergency Access:
- How will the Applicant address seasonal snow removal to ensure public safety access?

Response: The proposed access road is an existing driveway to a residential house. The driveway maintenance will be managed by the landowners or sub-contracted by BlueWave to ensure timely seasonal snow removal, and to ensure emergency response vehicle access.

- Has the Applicant conferred with the Town’s public safety departments to confirm requirements?

Response: This is in progress. Per the bylaw, Section XII – Site Plan Review, E. Review Procedure 2. *“The Site Plan Reviewing Authority shall provide copies of the application and the site plan to the Fire Chief, Police Chief, Conservation Commission, Board of Health, Building Inspector, Highway Superintendent, Board of Selectmen, and Zoning Board of Appeals or Planning Board. These boards and individuals shall have thirty-five (35) days to report to the Site Plan Reviewing Authority their findings and recommendations. The*

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failure of a board or individual to report in the allotted time shall constitute approval by that board or individual.” The Planning Board has circulated materials to the Town’s public safety departments. As each department completes its review, we will respond to all questions and address recommendations as appropriate. We have also had one meeting with the Fire Chief directly and will continue coordinating with him throughout the permitting and post-permitting phases.

- 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.

Response: Under G.L. c. 40A, § 3, para. 9 and relevant judicial precedents, questions regarding potential impacts on property values are outside the permissible scope of site plan review for solar projects. *See, e.g., ASD Three Rivers*. BlueWave does not concede that such impacts are either cognizable or would occur. The application addresses all topics within the Board’s authority.

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.

Response: The BESS to be procured will comply with 527 CMR 12.00 (Electrical Code), 527 CMR 1.00 (Fire Code), NFPA 855, and applicable UL listings. We have no objection to verification of such compliance being required as a condition of the site plan approval, to be provided prior to building permit issuance.

- 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.

Response: An effective Emergency Response Plans must be tailored to project-specific site and equipment specifications, which can be finalized only after permitting is complete. We have no

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objection to a project-specific ERP being required as a condition of the site plan approval, to be provided prior to building permit issuance.

- iii. Please discuss whether the operation or failure of the Systems has any impact on abutter well water.

Response: The operation or failure of the PV or BESS system will have no impact on abutter well water. Also, based on feedback during the public hearing, the BESS has been removed from the Water Supply Protection District entirely. A revised site plan is attached as Appendix A.

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).

Response: Please see Appendix D for the Pre-Determination Application (PDA) submitted to the UMass Clean Energy Center, with updates made since the original PDA submission shown in red. Please see Appendix E for the Department of Energy Resources pre-determination approval letter.

- 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.

Response: The array will be hayed, with potential for livestock grazing. For at least five years following the commercial operation date (and hopefully for the full life of the system but depending on their desire), vegetative management and farming will be conducted by the landowners, Tim and Cathy Sena.

5. Equipment Specifications:

- a. Please discuss when the Applicant anticipates finalizing equipment selection.

Response: Given the time between application submission and start of construction, BlueWave's desire to utilize the most efficient and up-to-date equipment, and potential supply constraints, equipment selection for solar projects is typically finalized as close as possible to applying for the building permit.

- 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.

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- i. Please discuss and provide documentation of the wind analysis undertaken by the Applicant specific to the site selected.

Response: The tracker specification sheet is illustrative; final equipment selection is subject to market conditions and supply constraints at the time of procurement and is typically finalized during the building permit application phase. The procured tracker will be selected based on site-specific conditions and availability. Wind loading will meet any building code requirements and will be verified and stamped by a Professional Engineer to ensure all requirements are met.

- ii. Please provide OEM documentation of its wind analysis and tolerances.

Response: The tracker specification sheet is illustrative; final equipment selection is subject to market conditions and supply constraints at the time of procurement and is typically finalized during the building permit application phase. Wind analysis and tolerances will meet any building code requirements and will be verified and stamped by a Professional Engineer to ensure all requirements are met.

- iii. Please provide safety documentation of the lithium-ion battery system contained in the tracker controller.

Response: The racking specification sheet is illustrative; equipment selection is subject to market conditions and supply constraints at the time of procurement and is typically finalized during the building permit application phase. As control systems vary by vendor, documentation will be provided prior to filing for a building permit.

- 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.

Response: Attached as Appendix F is a rendering of a typical warning sign to be installed at the gate, and anywhere along the perimeter fencing where deemed necessary or desirable by the Board.

- d. Regarding the BESS:

Response: Answers to several of the BESS questions require equipment-specific information. As noted above, equipment selection is subject to market conditions and supply constraints at the time of procurement, and is typically finalized during the building permit application phase. We have no objection to a condition on the site plan approval requiring that these materials be provided prior to building permit issuance.

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To address the general safety comments raised during the hearings regarding BESS, please see the below-referenced materials. These independent scientific studies form the basis for our proposed site design. Of particular interest is the first link on the list which has been provided as Appendix H.

- **Battery Energy Storage Systems: Frequently Asked Questions on Fire Safety and Public Health:**
The Massachusetts Executive Office of Energy and Environmental Affairs (EOEEA), the Department of Energy Resources (DOER), Department of Environmental Protection (MassDEP), and Department of Fire Services (DFS) recently released a joint FAQ on BESS. The FAQ is highly informative and we encourage reviewing the references cited therein. Below are selected quotations that address questions raised at the hearings:
 - “There are robust standards and codes in place today to which all BESS constructed in Massachusetts must adhere. BESS that are installed, operated, and maintained in accordance with these standards should typically be operated without incident.”
 - “BESS related fires are rare if designed with sufficient safety protections and are installed, operated, and maintained in a manner that maintains the system safely — as demonstrated by the many systems currently operating safely.”
 - “Air sampling from past BESS incidents across the United States found that no incident had contaminant concentrations beyond the immediate fire scene that posed a public health risk.”
 - “Studies show that the chemical byproducts produced in BESS fires have low water solubility, limiting the potential for groundwater contamination. Across 35 documented large-scale BESS fire incidents in the United States that occurred between 2012 and 2024, there has been no evidence of any air, soil, or water contamination at levels that would pose a public health concern or require further remediation.”
- **Initial Findings Released From Inter-Agency Fire Safety Working Group On Emergency Response:** In 2023, the New York Inter-Agency Fire Safety Working Group analyzed the air, soil, and water quality after BESS emergency incidents, and concluded that “available analyses find no reported injuries, no harmful levels of toxins detected at sites of battery storage fires.”
- **Studies of Battery Storage Fires Show No Public Health Impact:** In 2025, the California Energy Storage Alliance compiled several third-party and governmental studies on the Moss Landing fire, all of which found “no air emissions or run-off water contamination exceeding public health thresholds.” *Please note the Moss Landing Battery project used Nickel Manganese Cobalt technology, which is prone to fire propagation and will not be used here. The proposed project is anticipated to utilize Lithium Iron Phosphate technology.*
 - “At the Moss Landing incident, over 100 air quality monitors were set up at the energy storage facility and in the surrounding communities. No airborne readings for carbon monoxide (CO), hydrogen cyanide (HCN), and hydrogen chloride (HCl) were detected.”
 - “Drinking water samples were taken from five tanks in the Moss Landing area. Concentrations of manganese, copper, aluminum, and nickel were below public health exposure thresholds and were in the ranges of samples taken before the incident.”

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Lithium was detected in several samples but at concentrations below the Health-Based Screening Level.”

- “Surface water and soil samples were collected from nine locations. Levels of barium and nickel in surface water did not exceed recreational exposure limits at any site and are at levels safe for human consumption. Chromium, cobalt, vanadium, and zinc were detected in some samples, but these metals do not have recreational exposure limits and the levels did not trigger any immediate health recommendations by the Office of Environmental Health Hazard Assessment.”
- [*Solar Photovoltaic \(PV\) Modules Facts and Trends*](#): In 2025, The National Laboratory of the Rockies (formerly National Renewable Energy Laboratory) analyzed potential environmental and human health impacts from PV modules, concluding that “scientific studies to date demonstrate PV module constituents are unlikely to leach in levels that pose a risk to human health and the environment.”
 - “PV modules contain trace amounts of metals including lead solder... Lead is less than 0.1% by weight and may be as low as 0.05%–0.07%. This is comparable to the concentration of lead in an average smartphone.”
 - “Technical experts confirm there is no evidence these materials [toxins such as arsenic, germanium, hexavalent chromium, and harmful per- and polyfluoroalkyl substances (PFAS)] are present in commercially available c-Si or thin film PV modules”
 - “One recent study simulated what would happen if damaged c-Si and thin film PV modules were left sitting outside exposed to rain for 1 year at rooftop and ground-mounted installations. PV module pieces were fully submerged in a solution that mimics acid rain, which provided more exposure than an actual rain event would. The study concluded levels of lead and cadmium from PV modules were below U.S. Environmental Protection Agency published screening levels, demonstrating the PV modules did not pose a risk to human health or the environment even if leaching occurred.”

- 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.

Response: HVAC systems are often included in BESS systems. The cut sheet provided is illustrative; final equipment selection is subject to market conditions and supply constraints at the time of procurement and is typically finalized during the building permit application phase. We have no objection to a condition on the site plan approval requiring

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that that climate control information and specifications (if any) be provided prior to building permit issuance.

- 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.

Response: The cut sheet provided is illustrative; final equipment selection is subject to market conditions and supply constraints at the time of procurement and is typically finalized during the building permit application phase. We have no objection to a condition on the site plan approval requiring that that fire suppression system information be provided prior to building permit issuance.

- Please discuss the type of BESS (i.e., LFP, NMC, lead acid, etc...)

Response: The BESS is likely to be Lithium Iron Phosphate (LFP). The cut sheet provided is illustrative; final equipment selection is subject to market conditions and supply constraints at the time of procurement and is typically finalized during the building permit application phase.

- Please confirm that the fire suppression system does not include PFAS fire suppression foams and whether the BESS contains any hazardous materials.

Response: Confirmed, the fire suppressions system will not include PFAS foams or 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?

Response: The selected BESS design will comply with applicable NFPA and UL standards applicable to the selected product. These standards establish technology-specific safety requirements, including spill control and containment. The battery cells are hermetically sealed containers inside steel factory-fabricated containers delivered as a unit and installed on an impervious concrete pad surrounded by gravel.

- 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?

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Response: The proposed BESS does not require a dedicated water supply or on-site well for normal operations. The system does not rely on water for routine cooling, charging, or discharging, and there is no process water demands associated with standard operation. With respect to fire safety, we will work with the fire department to ensure their requirements are met once the specific battery is selected and would accept the fire Chief's sign off on this prior to issuing a building permit. Any site-specific emergency responses will be documented in an Emergency Response Plan (ERP) prepared for the selected BESS equipment.

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

Response The cut sheet provided is illustrative; final equipment selection is subject to market conditions and supply constraints at the time of procurement and is typically finalized during the building permit application phase. However, we anticipate having one battery container, as a rough approximation it will be similar in size to a 20 foot shipping container (240in x 95in x 115in). We have no objection to a condition on the site plan approval requiring confirmation of dimensional information prior to building permit issuance.

- 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.

Response: It is required for both.

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.

Response: The fence layout prioritizes continued use of the historic farm field. On November 17, 2025, the Conservation Commission determined that installing the proposed fence within the wetland would be work subject to the Wetlands Protection Act. In coordination with the landowner, BlueWave has relocated the fence entirely outside the 100-foot wetland buffer along Ridge Road. No work is proposed within the wetland or its buffer; the fence will be set 5 feet off the buffer. A new RDA has been submitted to the Commission to confirm no additional wetlands permitting is required.

It is neither required nor feasible to relocate the fencing inside the 50-foot property line setback. Section 5 of the Bylaw establishes that minimum setbacks apply to “buildings, dwellings and structures.” All project structures, including the panels, are outside the required 50-foot setback established in Section 8.5.4. Under the Bylaw, fencing is not treated as a “structure,” and is therefore not subject to the setback requirement. See Section 2.6.4 (describing fencing as a “landscaping

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feature” along with plantings and screening); Section 8.5.6 (distinguishing between “structures” and “security barriers” (i.e., fencing)). As a practical matter, moving the fence 50 feet from the property line would also make proper hay management unreasonable and impractical. Doing so would create a variable-width 20- to 40-foot strip between the fence and the tree line across much of the site, rendering a significant portion of historically hayed acreage difficult to mow.

- 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.

Response: Under G.L. c. 40A, § 3, para. 9 and relevant judicial precedents, aesthetic screening judgments are outside the permissible scope of site plan review for solar projects. *See, e.g., Summit Farm Solar*. The proposed 8-foot woven-wire fence is included to allow for future animal grazing and satisfy safety and electrical code requirements and is not intended for screening the system. Screening has been added to the Lagoy side of the project after feedback received.

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.

Response: The project will comply with all local and state noise regulations. Final equipment selection is subject to market conditions and supply constraints at the time of procurement and is typically finalized during the building permit application phase. We have no objection to a condition on the site plan approval requiring submission of OEM acoustic data (including 24-hour operating profiles and seasonal conditions) prior to building permit issuance, or a condition requiring pre-construction baseline and post-construction noise studies to verify compliance.

- 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.

Response: The Applicant has commissioned noise studies on agrivoltaics sites with BESS, although the studies themselves are site-specific. However, results indicated minimal increases: at approximately 40 feet from the equipment pad, evening levels rose only about 8-13 dBA over pre-construction baseline sound levels, and daytime levels rose about 15 dBA. At the fence lines farther from the equipment pad, increases were even lower: approximately 1-3 dBA both day and night. The project

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will conform to all local and state noise regulations. We have no objection to a condition on the site plan approval requiring pre-construction baseline and post-construction noise studies to verify compliance.

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.

Response: Decommissioning will return the land to its pre-project condition, with all project materials removed. The Decommissioning Plan and Cost Estimate were initially provided in Appendix K to Site Plan Review application. Since the initial submittal, NYSDERA released its *2025 Solar Guidebook for Local Governments* with updated decommissioning cost benchmarks. Please see the attached updated decommissioning plan at Appendix G, which utilizes the 2025 NYSDERA costs and separately itemizes BESS removal for clarity.

- 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.

Response: In the initial Site Plan Review application, the Decommissioning Plan (Appendix K) included “Task 4: Remove Electrical Equipment (Inverters, Transformers, Switchgear, Storage Containers),” which encompassed BESS removal. Since the initial submittal, NYSDERA released its *2025 Solar Guidebook for Local Governments* with updated decommissioning cost benchmarks. Please see the attached updated decommissioning plan at Appendix G, which utilizes the 2025 NYSDERA costs and separately itemizes BESS removal for clarity.