



BWC Bogastow Brook, LLC
BlueWave Solar
116 Huntington Ave, Suite 601
Boston, MA 02116

9/21/2023

Holliston Planning Board
703 Washington Street
Holliston, MA 01746

Subject: 600 Central St Proposed BESS Project

Dear Members of the Planning Board:

BlueWave would like to submit the following updates and additional information regarding the Special Permit application for the proposed Battery Energy Storage System at 600 Central St. BlueWave can address any remaining concerns or questions the Board or public may have at the continued public hearing.

1. CMG Stormwater Peer Review

BlueWave and TRC received the July 13, 2023 peer review comments from CMG Environmental Inc, and TRC has submitted a response to CMG's comments on August 14, 2023. In this response, TRC details that as a result of changing technology from Powin to ABS, the equipment footprint is reduced from 1,971 sq ft to 1,606 Sq FT. Due to the minor change in equipment footprint, no updates to the previously submitted stormwater modelling calculations and submittals are necessary. All of the CMG comments have been addressed by TRC in the August 24, 2023 response letter. In their final letter dated August 29, 2023, CMG acknowledged final closeout of their remaining comments and suggested conditions of approval that are further detailed below in Section 4.

BLUEWAVE

2. Recent BESS Fire Events in New York

As has been noted in public news articles and comments received from town residents, there were a number of standalone battery energy storage system (BESS) fires in New York over the summer months. The industry, and BlueWave in particular, takes these incidents very seriously when they occur, in order to assess their impacts, both in terms of any direct impacts of the actual event but also on how BlueWave develops future projects.

While the exact cause of these fires is still to be officially determined through the release of detailed root-cause analyses to be provided by the battery vendor, BlueWave continues to rely on the expert guidance and testing standards detailed in NFPA and UL code and listing certifications in the development of its sites. When incorporated and followed comprehensively, across both the product and site design, both the risk of an event occurring is significantly reduced, and, more importantly, its impacts are mitigated should such an event occur. In the case of the fires in the towns of Chaumont, NY and Warwick, NY, there were no reports of bodily injury or harm to any residents or first responders to the incidents. Based on reports, property damage was limited in both cases to the area inside the project fence and the fires were never at risk at extending beyond the damaged equipment. Furthermore, both towns took measures to monitor potential presence of elevated levels of contaminants or toxic compounds emitted from the fires. In Chaumont, town officials stated “there were no immediate health or safety concerns, there were zero toxic byproducts in the air, and there was no indication of groundwater contamination or runoff contamination posing health risks.”¹ Similarly, in Warwick, a hazardous response consultant was utilized to monitor and sample for both air and surface contamination at the nearby school and administrative buildings, and found “no visible signs of smoke residues on surfaces” or “significant elevations of volatile organic compounds detected” in the indoor locations.²

If the root-cause analyses for the events indicate potential issues with either the design of the systems, the method of installation, or some other factor, BlueWave will ensure and provide proper documentation that any such issue is not present in the system or site design proposed at 600 Central Street prior to construction. Regardless, the New York fires indicate that, while there is the possibility of a fire or thermal event occurring, negative impacts to public safety, health, and welfare can be avoided and sufficiently mitigated when employing modern systems, appropriate site design, and best practice emergency response procedures.

3. Updating Proposed Battery Energy Storage Manufacturer and Associated Project Information

At this time, BlueWave has incorporated an update to the battery system specified in the proposed project, switching from the Powin Centipede system to the AESI TeraStor system. Changes in equipment

¹ https://www.nny360.com/news/publicservicenews/fire-officials-halt-water-at-chaumont-solar-farm-say-fire-is-contained/article_bb347d0f-b1ee-55bc-bd88-b5cae77c2c0e.html

² <https://www.warwickvalleyschools.com/wp-content/uploads/2023/07/WarwickValleySchoolLithiumFire063023ReportwLabsTablePicsLynchFin.pdf>

BLUEWAVE

specification are a standard part of project development and often occur at least once through the permitting and leadup to construction of a project. This is in part due to shifting market conditions for equipment procurement, as well as new products becoming available as the industry continues to evolve and mature. As such, BlueWave always seeks to evaluate and select the best battery manufacturers for all our projects based on site-specific characteristics and needs. Since the initial project application for 600 Central Street, BlueWave has continued to engage with various battery vendors, and most recently with American Energy Storage Innovations, Inc. (previously American Battery Solutions, “ABS”).

Provided as attachments to this letter is the following documentation for the TeraStor:

- TeraStor Datasheet
- TeraStor Module-Level UL9540A Test Report
- TeraStor Fire Detection Diagram
- TeraStor Civil CAD Diagram

AESI is a local Massachusetts company headquartered in Hudson, MA with extensive industry experience in energy storage technology and development. The TeraStor, like the Powin Centipede, utilized Lithium-Iron Phosphate cells, stored in groups of four enclosures. As with any battery system that BlueWave procures, the TeraStor system will be NFPA 855 and NFPA 69 Compliant and UL 9540 certified when deployed. The TeraStor includes the same safety features as the technology described in pervious submittals, including 24/7 remote monitoring of temperature, voltage, and abnormal conditions, smoke and hydrogen gas detectors, and a deflagration prevention system. The system will automatically shut down if any abnormal conditions are present in the battery cells or system units. The module-level UL9540A test report shows that thermal runaway did not propagate beyond the targeted test cells, which provides strong mitigation against larger thermal events.

Due to the inherent physical dimensions of the TeraStor system, no other changes to the proposed site plan including no changes to the limit of work, storm water plan or fence location are for the TeraStor system nor have been any other changes to the plan been proposed at this time. The footprint of the battery equipment itself went down slightly, and CMG confirmed that the equipment change did not affect stormwater analysis or their peer review.

Additionally, the following are also provided as attachments to this letter:

- An updated ***draft*** Emergency Response Plan incorporating preliminary information on the AESI TeraStor system

BLUEWAVE

- Visual renderings of the proposed project site³

As has been stated in previous submittals, the ERP is intended to be a draft document, that is not finalized until construction-level design and equipment procurement is underway. It is important to note that the general procedures outlined in the plan are effectively the same regardless of the specific system utilized. These procedures, as evidenced by the fires in New York, are effective at containing emergency events should they occur, and avoiding any negative impacts to public safety or welfare.

Overall, the change from the Powin Centipede to the AESI TeraStor system results in no additional site changes and is the result of a continual process at BlueWave to identify and procure the best available equipment on the market.

4. Proposed Conditions for Approval

As discussed in the updated submittal narrative and attached legal memo dated June 23rd, 2023, BlueWave believes that all primary concerns raised regarding the proposed project and any impacts have been addressed through responses and information submitted to date and in this submittal. BlueWave believes that the Board can impose sufficient conditions to address any remaining questions or details relative to items that are not typically finalized until construction-level design and preparation is underway. As such, BlueWave would like to provide the following list of conditions that the Board could consider as conditions of approval, to be closed out with the Planning Department, Building Department, or other appropriate town staff or Board prior to issuance of a building permit.

The following comments and conditions were recommended by CMG Associates in their letter dated August 29th, 2023:

1. Approve a waiver to utilize HDPE drainage pipe as part of the project's construction.
2. Applicant to revise the plan to specify plunge pool rip-rap size and apron length and width on Site Plan Sheet C2.00 and C4.01 and match the calculations provided as a condition of approval.
3. To complete the EPA NPDES 2022 CGP Registration & SWPPP prior to construction as a condition of approval.
4. Submittal of the easement deed evidencing site access for BlueWave to operate and maintain BMP functions as a condition of approval.

³ The visual renderings provided depict the Powin Centipede system on-site; however, as the site footprint has not changed from the switch in battery system to the TeraStor, and the presence of sound wall is still required, the viewshed of the site remains effectively the same from relevant viewpoints

BLUEWAVE

5. Applicant shall file the Illicit Discharge Compliance Statement with the Notice of Intent prior to the start of construction as a condition of approval.

Additionally, BlueWave proposes the following conditions to be included in the approval of the special permit application. These draft conditions are intended to address the remaining items that are typically not finalized until closer to construction and equipment procurement is finalized. BlueWave welcomes discussion of these and any other proposed conditions during the September 28th hearing.

1. The Energy Storage Facility shall comply with 527 CMR 1.00: Massachusetts Fire Safety Code and National Fire Protection Association (NFPA) 855, including subsection 4.16.2 Fire Mitigation Personnel.
2. Prior to issuance of the building permit, the Applicant shall provide the Holliston Fire Department with four (4) Hand Held Hydrogen Fluoride Gas Detectors, Calibration Gas, regulator and adaptor, battery charger, USB/IR Communication Cable, E-Chem Sensor, and Carrying Case and include both guidance on maintenance and recalibration of the systems as needed in their initial Fire Safety training
3. Prior to issuance of the building permit, the Applicant shall consult with the Fire Chief to determine proper personal protective equipment (PPE) needed to respond to an adverse issue. The Applicant shall be required to provide the proper PPE prior to issuance of an building permit.
4. The operator of the facility shall respond on site within two (2) hours of any incidence occurrence.
5. The proposed sound wall surrounding the facility must be fire-rated for at least 2 hours.
6. If a fire or other adverse issue causing property damage to the Site or to the neighboring properties occur on the Site, the Applicant shall immediately cease all operations and shall submit to the Board a full report detailing the reason for the fire or adverse issue within two months of the incident. Operations may not resume without Board approval, which shall not be unreasonably withheld if the Applicant can demonstrate compliance with all conditions. The Board may amend the Decision with additional conditions addressing the cause of the fire or adverse issue to avoid future occurrences.
7. If a fire or other adverse issue causing property damage to the Site or to the neighboring properties occurs on the site, the Applicant shall be responsible for all remediation costs.
8. The Planning Department shall approve any change to the proposed system, and any new system shall have an equivalent battery chemistry and equal or better safety certifications and requirements.
9. All outdoor luminaires to be in compliance with the Zoning Bylaw
10. The Applicant shall be diligent in complying with the erosion and sediment control plan.
11. The Applicant shall not cause or permit the runoff of water or erosion that result in the flooding or siltation of any street, way or drainage facility owned or maintained by the Town. If such runoff or erosion occurs, the Building Commissioner may order the immediate cessation of any excavation, construction and building activities until the conditions that caused the runoff or erosion have been corrected. The Applicant shall be diligent to ensure that no construction debris leaves the site.

BLUEWAVE

12. All construction activity on the property relating to this Site Plan Special Permit, including demolition, shall be limited to the hours of: Monday — Friday: 7:00am — 6:00pm; Weekends & Holidays 8:00am — 5:00pm. The Applicant shall be diligent to ensure that trash and debris be properly managed on the Site at all times.
13. Ensure that all taxes on the Property shall remain paid in full, including all penalties and back charges resulting from the non-payment of taxes, if any.
14. All work on the Site shall be conducted in accordance with the terms of this special permit and shall conform with and be limited to the improvement shown on the Plan as conditioned, modified, and approved herein.
15. At the conclusion of construction and before the issuance of an occupancy permit, the Applicant shall submit an as-built plan including the certification form required per the Rules & Regulations under the Town Bylaws. The as-built plan shall be (1) stamped and certified by a Massachusetts Registered Professional Land Surveyor showing the accurate locations of buildings, pavement, drainage, utilities, and all other site improvement, and (2) stamped by a Massachusetts Registered Professional Engineer (PE) to certify that the site has been completed in accordance with the approved Plan pursuant to this Decision, and that all features required on the Site by the approved Plan and by other governmental entities with jurisdiction, as applicable, have been field inspected by the PE and the systems as built perform as expected from the approved design. Any non-conforming features shall be clearly noted with explanations for the discrepancy and functionality.
16. This Decision shall be recorded at the Middlesex South District Registry of Deeds or the Land Court prior to the issuance of any building permit.
17. All work on the Site shall be conducted in accordance with the terms of this site plan special permit and shall conform with and be limited to the improvement shown on the Plan as conditions, modified, and approved herein.
18. All Safety Data Sheets (SDS's) for any Hazardous Materials shall be maintained on site. SDS's shall be reviewed with employees at the time of their employment and on an annual basis thereafter. SDS sheets must be made available to all employees upon request.
19. All Hazardous Wastes must be disposed of by a Licensed, D.E.P. approved, hauler or be recycled on site.
20. Copies of either all invoices or manifests for any Hazardous Materials or Waste, received or disposed, shall be submitted to the Planning Department annually or as required.
21. All Hazardous Materials Containers shall be labeled and dated when filling first began. Speedy Dry, or its equivalent, shall be kept in the storage area, in case of a Hazardous Materials or Wastes spill.
22. Protective equipment, including at a minimum, chemical resistant gloves, eye goggles and (rubber) boots, in addition to soap and water, portable eye wash, shall be made available to all employees, at all times, in any Hazardous Materials or Waste storage or use area.
23. Appropriate personnel protective equipment must be stored and immediately available for use on site at all times.
24. A portable safety eye wash kit shall be located anywhere Hazardous Materials are stored or used.
25. A fire extinguisher, containing an appropriate fire extinguishing agent, shall be placed in the site if requested and approved by the Holliston Fire Department.

BLUEWAVE

26. The operation of this facility shall be in compliance with all present and future regulations of E.P.A. and D.E.P. at all times. Nothing in this permit allows or requires non-compliance with all present and future applicable laws or regulations of the Federal or State Governments.
27. The Planning Department shall conduct a site inspection prior to use and at least once per year.
28. Fire Safety training must be provided by the applicant to the Holliston Fire Department and other Town response personnel prior to operation and once post-commissioning, at Town designed times to accommodate different shifts. These safety trainings shall be recorded and provided to the Holliston Fire Department for future reference and use.
29. Full Compliance with DEP Guideline Bureau of Resource Protection Drinking Water Program for Proposed Solar and Wind Energy Projects is required.
30. Updated sound studies incorporating final system design shall be submitted to the Planning Department for review and approval prior to construction. The sound studies, including frequency and background levels at night, must be completed to ensure that any potential noise generated from this site shall be in compliance with the State of Massachusetts Noise Ordinance 310 CMR 7.10. Sound measurements shall also be conducted six (6) months after start-up to document operational compliance.
31. Provide a sound barrier acceptable to the Planning Department to help mitigate any potential noise to abutters prior to start up. A noise mitigation plan shall be submitted for approval by Planning and other Town departments prior to permit issuance which shall include at a minimum additional screening and sound mitigation measures to be implemented in the event of exceedance.
32. Provide the Planning Department prior to startup with a complete contact list, response time and phone numbers of qualified list of technicians in the event of an emergency prior to start up.
33. A complete Hazard Mitigation Analysis (HMA), combined with a final Emergency Response Plan, shall be submitted to the Planning Department, Fire Department and other town departments for review and approval prior to start up and issuance of a building permit. The plans shall include, at a minimum, a section regarding any potential impact to all sensitive receptors and abutters (both residential and tenants of 600 Central St) in the event of a spill, fire or off gassing event and plans to address this event and identify levels and plans that may be required. The plan shall specify the response time for technicians to arrive at site in the event of any issue or emergency.
34. Evidence of all relevant UL, NFPA, and other listing certifications shall be submitted to the Planning Department prior to operation or use and prior to issuance of a building permit.
35. A site and equipment decommissioning plan must be submitted to the Planning Department and other Town departments for approval prior to issuance of a building permit. Upon termination of the project, the site must be fully restored according to the details of the plan. A licensed Professional Engineer shall provide a decommissioning cost estimate to the Town departments, and a decommissioning bond issued annually in an amount equivalent to the estimate. This bond shall be callable by the Town for the duration of the project.
36. Safety Data Sheets (SDS) shall be updated to the Planning Department yearly and immediately upon use of any new hazardous materials and must remain current all times.
37. Provide insurance documents, types of insurance and amounts must be submitted to the Town and Planning Department for approval prior to issuance of a permit.
38. A copy of the O & M contract must be submitted to the Town for approval prior to issuance of a permit.

BLUEWAVE

39. Provide 24/7 remote alarm monitoring to be approved by the Fire Department and any other applicable Town Departments prior to issuance of a building permit.

The information provided in this submittal as well as in previous submittals dated November 10th, 2022; March 9th, 2023; April 27th, 2023; and June 23rd, 2023, along with the above list of proposed conditions, provide the basis for an approval wherein the Board can levy any additional conditions that they feel are necessary to address all remaining questions and ensure public safety, health, and welfare. We kindly request that the Board move to close the hearing and take the aforementioned information into a deliberation on a project approval with conditions.

We look forward to discussing these responses and additional materials provided in greater detail at the September 28th hearing.

Sincerely,

A handwritten signature in cursive script that reads "Josh Lariscy". The signature is written in black ink and is positioned above a horizontal line.

Joshua Lariscy – Director of Energy Storage Development