

MEETING OPENING STATEMENT FROM DR. LEACH, SUPERINTENDENT OF SCHOOLS

Introduction

In Warwick, two newly installed Battery Energy Storage Systems (BESS) experienced major failures last week. One incident took place at the BESS on school district property located on County Route 1, while the other occurred on private property on Church Street. These failures occurred during the commissioning process of the BESS installations. Prioritizing the BESS located on County Route 1 is the District's primary focus; however, evaluating both sites is prudent in order to provide a comprehensive assessment.

The development of Battery Storage Units in Warwick can be traced back to 2019 when Orange and Rockland Utilities (O&R) entered into a contract with Convergent Energy. The objective was to identify suitable sites to enhance Warwick's electric system. Given the historical challenges of backup energy and redundancy in the area, O&R opted for battery storage as an ideal solution instead of constructing new transformers. These battery storage systems are designed to improve grid reliability, prevent blackouts, and store and discharge energy from the grid during peak demand. The County Route 1 site provides power for two substations, while the Church Street location serves one substation. Convergent West Warwick LLC, a subsidiary of Convergent Energy and Power, owns and operates the systems after purchasing them from Powin, a battery storage system manufacturer.

Incidents and actions

On June 27, 2023, a fire broke out in one of Convergent Energy's battery storage units. The site is adjacent to Warwick Valley Central School District's Transportation Garage on County Route 1. The fire caused heavy smoke and burning plastics, leading to the evacuation of the district office, Middle School, High School, and Sanfordville Elementary. The fire was contained within the facility's fence line and actively monitored by the Warwick Fire Department and the Orange County Hazardous Materials (HAZMAT) Response Team. As a precaution, all schools, outdoor venues, and offices were initially closed from June 27 - 28. Throughout the incident, HAZMAT measurements indicated that air quality remained within normal parameters at multiple points surrounding the scene. However, it was advised to maintain distance, keep windows closed, and the District promptly turned off all air handling units.

When a problem occurred at the site, the District's engineer present at the scene hired an independent consultant named Dr. Richard Lynch, who is a CIH (Certified Industrial Hygienist). Dr. Lynch inspected the site, examining smoke and fire. To ensure safety, district personnel relocated all buses to the driver's parking lot, away from the affected area.

Dr. Lynch devised a sampling plan to test various surfaces, including schools, buses, transportation, and facilities offices. The samples were promptly sent to a laboratory for analysis. The report, along with the sample results, was forwarded to the District on Friday, June 30, 2023. All the samples came back with levels below detectable limits, including samples taken from inside the buses. The closure was extended to June 29 and 30, while periodic

updates were provided. The district reopened on July 3 upon receiving confirmation from HAZMAT and Dr. Lynch that no concerns regarding air quality or residue were found after thorough examinations.

Power was disconnected and turned off at both sites, effectively disconnecting them from the grid. The site was secured, with access restricted by the fire department, police department, and Powin. The exact cause of the issue cannot be determined conclusively until a thorough assessment is conducted.

The fire at the County Route 1 site continued to burn for a duration of two days, and on Friday, the overheated batteries returned to ambient temperature. To prevent water damage, the other newly installed battery system on the site was securely covered with a tarp.

The District retained an independent consultant, Vertex Engineering, to review the events and conditions. Vertex had two representatives on site on Monday, July 3, 2023 to review the conditions and plans. Brett Saunders from the District's Engineering Firm was also on site inspecting the present conditions. They will issue a memo about their observations and steps moving forward.

These issues occurred specifically with Powin's system, the Centipede battery energy storage platform. Convergent, the purchaser of these systems from Powin, has not deployed this particular model elsewhere. The Centipede systems are the only ones experiencing problems on Convergent's projects in Warwick, NY. At this time, Powin has yet to deploy Centipede modules elsewhere.

The status of the Centipede modules at the District site will remain unchanged until a decision is reached on how to proceed. The modules damaged in the incident will be evaluated and removed from the site. During the inspection conducted by the District's engineer, a thorough analysis of auxiliary power was carried out and the engineer provided proper documentation to facilitate the activation of power from the grid specifically for the air conditioning systems in the containers and the computers. The data stored on the computers will be instrumental in the collaborative review and analysis process. This assessment will help identify the root cause of the incident and develop preventative measures for the future. It is critical to note that the batteries themselves will not be recharged or operated until approved by all involved. At this time, only air conditioning, fire detection systems, and computers will be powered. The District's engineer visited the site on Wednesday to conduct a comprehensive inspection. The District will provide further updates when additional reports become available.

The County Route 1 site provides electricity during periods of high demand for two substations. The unaffected portion of the BESS area consists of eight 53-foot containers that house batteries. These containers have a solid roof, preventing water penetration. The compromised area, on the other hand, consists of two fully modular Centipede strings. Each string contains seven pre-integrated segments, including batteries, thermal management equipment, and safety systems. The Centipede battery storage system is designed with separate modules to protect

batteries from water exposure. Both systems are equipped with smoke/heat detectors and fire suppression systems. During the fire incident, one of the Centipede strings failed all active safety measures. However, the system design effectively mitigated the risk of fire in neighboring stacks exposed to fire.

28 Church Street BESS

On Monday evening, June 26, 2023, a smoke/heat detector was triggered, prompting a Powin representative to inspect both locations. No issues were observed, and the detector was reset without further response. Another alarm sounded on Thursday afternoon, June 29, but no fire was detected, and investigations are ongoing.

As a precaution, the affected module at the Church Street location has been completely disconnected and disassembled. Additionally, starting July 3rd, the battery modules from the impacted unit were removed from the site. Powin, the responsible party, has taken the necessary precautions to safely package and remove the batteries from one module at the Church Street site.

These incidents occurred concurrently with severe weather conditions, including heavy rains, lightning, and high winds. Powin is currently determining the root cause of the incidents. They will actively involve both Convergent and the community in the review process. Convergent has also enlisted an independent consultant named Paul Rogers to evaluate the situation.

Approval Process

The Battery Energy Storage System located on County Route 1, specifically on school district property, was reviewed by the district's engineering firm. The design was approved by O&R Utilities and the New York State Education Department (NYSED). Given the nature of the school district's work, it falls under the NYSED's scrutiny, which includes a thorough examination of the BESS design. The NYSED engineers reviewed the unit's design and approved it. This process ensured compliance with all relevant codes and regulations. This approval process included factors such as distance from the school, bus garage, and flood plain considerations.

When approving the location and design of Convergent's projects, it was required to provide sufficient space between the battery storage units and adjacent areas. This was to ensure that this type of event did not threaten adjacent areas.

The project in question was reviewed during District Facility meetings and Board of Education meetings, all open to the public. Board of Education meetings provide an opportunity for the public to comment on both agenda and non-agenda items at each regular gathering. All contracts and agreements related to this project underwent the normal approval processes during Board of Education meetings over the last three years. The agreements have been archived on the District's website (BoardDocs) and were all made available for public review prior to their approval.

On May 18, 2020, the District approved a ten-year lease agreement with CONVERGENT ENERGY SOLUTIONS, which includes two renewal terms of ten years each. The first renewal term of ten years is subject to the reasonable approval of the New York State Commissioner of Education. The second renewal term of ten years is contingent upon approval from the District's voters and the reasonable approval of the Commissioner of Education.

On June 20, 2020, the Board of Education granted approval for the District to act as the Lead Agency for the project. The District was responsible for completing all necessary applications, forms, notices, and correspondence related to the State Environmental Quality Review Act (SEQRA). The District Clerk has been directed to distribute and mail all required notices to the relevant agencies.

On May 5, 2022, the Board of Education approved the first amendment to the lease agreement. This amendment expanded the leased area to approximately 25,000 square feet. This includes two parcels, one measuring around 12,000 square feet and the other around 13,000 square feet. These parcels total about half an acre of land from the original 31.5-acre site located at 225 West Street.

The lease has a potential duration of thirty years, with the following minimum annual rents for the half-acre:

- For the first ten years: \$100,000 minimum annual non-tax revenue
- For the next ten years (assuming approval): \$120,000 minimum annual non-tax revenue
- For the final ten years (assuming approval) of the agreement: \$140,000 minimum annual non-tax revenue

Therefore, the potential non-tax revenue over the thirty-year lease period is over \$3,600,000.

As part of the NYSED approval process, the Warwick Fire Department was asked to review the project. The Warwick Fire Department specified the need for a fire hydrant near the BESS system entrance. This step was required by the Village of Warwick. Convergent Energy Solutions agreed to reimburse the District for the Fire Hydrant Relocation costs.

On October 6, 2022, the Board of Education approved the Utility Easement and Right-of-Way.

The Village site, situated at 28 Church Street is private property. This project underwent a thorough review by the local Planning Board. This plan also involved engineer approval, a presentation to the Planning Board, and the completion of the State Environmental Quality Review. It also involved a hearing and examination by Planning Board members. The Planning Board approved the site application.

Conclusion

In conclusion, the recent failures of the Battery Energy Storage Systems (BESS) in Warwick during the commissioning process have prompted thorough investigations. These incidents resulted in a fire at the County Route 1 site and triggered alarms at the Church Street location. As a result, both sites have disconnected and disassembled the affected units, and independent

consultants have been engaged to assess the situation. It is pertinent to note that both sites were equipped with Battery Energy Storage Systems (BESS), including the Centipede battery energy storage platform manufactured by Powin, which failed. However, Convergent Energy has not encountered similar problems with the other battery storage systems (non-Centipede) deployed on County Route 1. The District is eagerly awaiting the completion of the root cause analysis and the development of a plan to address the situation moving forward.