

## COMMENTARY

### BEACH HAVEN BATTERY ENERGY STORAGE STATION

#### AT WHAT COST?



By John Hailperin

The Atlantic City Electric (ACE) lithium battery energy storage system (BESS) facility is located in the center of Beach Haven on Second Street. The BESS facility is near many residences, businesses, and tourist attractions. ACE claims it would be used for peak power shaving, a concept of storing energy during low use periods to be put back into the grid during high use periods. However, when ACE received Land Use Board approval in April of 2022, they did not mention these were lithium-ion batteries, or explain the inherent risks associated with a container full of them in the center of Beach Haven, adjacent to the environmentally sensitive Barnegat Bay, and over the state's largest aquifer supplying much of the area's drinking water.

This facility could be a public safety risk, if it goes into a thermal runaway event. A self-sustaining chemical reaction where the batteries produce toxic, explosive gases caused by

variety of factors such as a manufacturing defect, overheating, overcharging, a short, physical damage, extreme temperatures, etc. creating a catastrophic event and the potential of contamination by releasing dangerous nanoparticles from the batteries' composition (Nickel, Manganese, Cobalt, Lithium, Copper, and Aluminum) in the center of Beach Haven and on Long Beach Island. This could potentially negatively impact property values, our businesses; not to mention our quality of life and create health and environmental issues. Baseline testing for these elements should be completed prior to the commissioning this facility.

Is the benefit of this facility for peak power shaving worth these risks? Why not eliminate these risks by having ACE improve the grid on LBI by bringing more power to the south end of the island?

**The Project Detail.** The storage facility collects energy from the local grid during low or normal demand. The energy is stored in Lithium-ion batteries to be released into the grid during high demand.

The current location was selected by ACE due to its proximity to the local energy grid and power lines servicing LBI's energy grid. According to ACE, the location minimize the impact to the larger community. ACE never disclosed if alternative locations were considered. ACE indicates that they have worked with third party fire safety experts related to the technical specifications of the batteries and have implemented fire protection and mitigation procedures (that is, automatic detection and suppression systems and pre-piped water spray systems that can be used by first responders). But as I have learned, these suppression systems are not effective to put out a thermal runaway fire.

**Public Safety.** I contacted the Borough and local Police, Fire, First Aid Squad, and emergency management officers to address public safety concerns. On May 8th and 10th, members of the Beach Haven Fire Department, Beach Haven Police Department, emergency management personnel and Ocean County Hazmat team participated in joint training focused on the facility, its systems, and emergency procedures and a plan is in place according to the Police Chief. However, a more robust Emergency Response Plan (ERP) including evacuation zones, communications protocols, hazard identification, agency responsibilities, and scenario-specific actions has yet to be delivered. The facility is monitored 24/7 with alarms and backup power.

While the Fire Chief, indicated there is a public safety concern, should the facility experience a failure or fire, local Fire and Hazmat teams have been equipped with appropriate gas monitoring equipment. But one has to question how long it would take for the ERP to be implemented on a summer holiday weekend or changeover day? And in reality, how does the ERP really mitigate the impact of a thermal runaway event with a shipping container of lithium-ion batteries on LBI?

**Community Risks.** On **Friday** May 16<sup>th</sup> Atlantic City Electric held an information fair **at 2 PM at the Beach Haven Fire Department** with tables and booths for the public to visit and ask questions about the battery energy storage system facility. **A rainy day with streets flooded**

**very few residents attended.** A better format would have been a formal public presentation with an opportunity for the public to ask questions similar to a forum at a Council meeting. A format that would allow the public to raise concerns that could be addressed by subject matter experts and project managers would provide greater transparency. **ACE has not been willing to entertain this suggestion.** Why the lack of transparency from ACE?

In the case of a thermal runaway event, will emissions, toxins, or contaminants be released into the environment? Lithium-ion incidents provide “unique” challenges according to the Fire Chief. “While certain gases released during a thermal event may be consumed as fuel during a fire, others may be carried upward and dispersed through thermal convection”. I have been told that thermal runaway cannot be extinguished with water, and are generally allowed to burn themselves out which can take days or even weeks. What would be the environmental impact of these heavy metal nanoparticles being released?

Emergency Operation Plans (including evacuation plans), and first responder training makes this a LBI wide issue. An Emergency Management official has indicated all plans are confidential and cannot be released to the public. The Fire Chief indicated that release of Emergency Response Plans, if disclosed, could jeopardize the security and safety of the facility and the public. There needs to be a balance between the “right to know” and public safety. The Captain of the Beach Haven First Aid Squad who is also Vice President of the Beach Haven Taxpayers Association believes public safety-hazmat concerns have not been adequately addressed by ACE. “Having this lithium-ion BESS situated on a barrier island with a single manner of ingress and egress, which may possibly be in the evacuation zone should never been approved, and all efforts must be taken to replace this with a safe fix like bringing another line down to the south end of the island. This is not just a Beach Haven issue but a LBI wide issue that requires the attention of all governing bodies collectively including all taxpayers’ associations (Joint Taxpayers’ Association of LBI), the Ocean County Mayors Association, our state and federal congressional representatives and offices for a coordinated approach and alternative plans. Greater visibility, transparency and advocacy are needed.

Due to the issues raised above, the Borough attorney requested a delay in activation indefinitely. ACE has denied this request even though in its response of June 30<sup>th</sup>, the Emergency Response Plan has yet to be delivered. ACE expects activation August 15th. The Borough is currently working with a vendor to conduct an independent risk assessment. New York has an independent peer group body perform a risk assessment for such projects. Again, Is the benefit of a BESS facility worth the risk?

