

Town of Caroline  
Planning Board Meeting  
June 17<sup>th</sup>, 2021

Minutes

(1) Highlights from NYSERDA Battery Energy Storage System (BESS) Fire Safety Webinar

- Underwriter's Labs has been doing destructive testing to explore failure modes of Li Ion batteries. Toxic/explosive gasses are released during failure—has led to ventilation requirements for Li Ion BESSs
- International and NYS fire codes have been recently (2020 and 2021) been updated to cover battery energy storage systems, based on the UL results.
- Li Ion battery fires are very hot fires and tend to be hard to put out, in part because it is often difficult to reach the batteries themselves.
- Li Ion battery fires are put out (really, cooled) with water; other agents may be useful for other parts of the system that catch fire.
- One issue is that in a fire the control and discharge systems are often lost, leaving batteries with “stranded energy” that the fire department needs to figure out how to deal with.
- For large systems (> 600 kWh), NYS fire code (Uniform Code) requires a Hazard Mitigation Analysis of the system. Also requires the system owner to provide a “fire remediation team” that can be called in to assist and inform the local fire department.

(2) Discussion with Fire Chiefs Greg Harrington (Slaterville) and Doug Keefe (Speedsville) about Battery Energy Storage Systems

- Fighting a battery system fire would be a huge strain on the resources of the local volunteer fire departments. As it is, it typically takes six or seven departments to handle a house fire (due to low numbers of volunteer members). Response to any BESS fire would have to be regional in nature—county-wide (and some of the adjacent county departments, perhaps) and hazmat specialists called in from City of Ithaca and Cornell.
- A BESS fire takes a long time to put out; that long-duration effort is unsustainable for our local volunteer departments. Support must be provided by the project owner but since it will take a while for that to arrive the county must be ready to provide the first response.
- All the county code officers will need to be familiar with/trained on the updated codes.
- Site access must be big enough and sturdy enough for heavy fire trucks and must have looped road or a big enough area for fire trucks to turn around. In winter, must be plowed wide enough for fire trucks, not just company pick-up trucks.
- It will take a lot of water so it will be important to have a plan for the water resources. Ponds with dry hydrants in town would good (will help in general). However, running back and forth to the ponds takes significant time and fuel. There should be on-site water adequate (amount per NFPA guidelines) for initial fire-fighting requirements.
- Yes, sites should have a dike, drainage channel, or something to keep water and chemicals from the fire from contaminating the environment.
- A BESS fire will be big news. Someone (from the Town? County? Project Owner?) will need to be the contact person for press and public. This will allow the emergency

crews to focus on putting out the fire and also provide the public with accurate information about risks, emergency precautions, etc.

- Project owner should have a team ready to come in and clean up the site post-fire.

Some specific recommendations:

- Reach out to other towns and the county to make sure this is on their radars and to discuss regional approaches to handling a BESS fire.
- Require project owners to reimburse the volunteer fire departments for material expenses (mostly fuel) due to the huge “hit” a BESS fire would have on the local departments.
- Identify existing ponds with suitable access for fire trucks and add “dry hydrants” (hook-ups for fire hoses). Provide landowner incentives for putting in new ponds set up with dry hydrants and suitable access for fire trucks.

### (3) Next steps for Planning Board

The Planning Board will support the Zoning Commission by working on projects that inform/impact the Zoning Commission’s work but that the Zoning Commission doesn’t have the personnel to take up itself. Initial projects identified are (lead person in parentheses): Critical Environmental Areas (Jonathan); Telecommunications Strategic Plan (Wil); Town Conservation Easements (Bill). Bill will keep in touch with the Zoning Commission to see what other needs they might come up with. Wil will address the Zoning Commission at their next meeting to promote the concept of “social infrastructure” as an important component of town planning.

### (5) Summer and Fall Meeting Schedule

The next Planning Board meeting will be Thursday, July 15<sup>th</sup> at 5:30 pm. After that the meetings will return to the second Thursday of each month, also at 5:30 pm. To keep everyone as safe as possible, the Planning Board will continue to meet virtually for as long as the State allows.

### (6) Initial Discussion and Changes to draft Caroline Battery Energy Storage System Law

- Modified purpose to list broader benefits of battery energy storage systems
- Broadened applicability to make clear battery energy storage systems that are part of a generating facility (that is, a hybrid facility) are also included in the law.
- Decided not to include an extra tier of environmental requirements for particularly large footprint facilities because facilities greater than 2.5 acres (threshold used on the solar law) are very unlikely.
- When we get to that section, make sure language is clear that any mitigation plan must be acceptable to the Review Board in order for the application to be accepted.
- Discussed that the volunteer-based emergency services here (through no fault of their own) would be severely challenged by a BESS fire; key for developer/owner to provide training for the local services and resources to help fight any fire.
- Discussed that battery energy storage systems are small enough (in area) that it should be possible to site them without impacting environmentally sensitive areas. Therefore the law should have strict language in that regard.
- Law should state that training of local fire departments must occur BEFORE the Review Board approves the project.