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November 29, 2021

By E-Mail: dpu.efiling@mass.gov ; andre.gibeau@mass.gov

Mr. André Gibeau, Presiding Officer
Energy Facilities Siting Board
Department of Public Utilities
1 South Station, 5th floor
Boston, MA 02110

Re: Public Comments – Cranberry Point Energy Storage 150 MW, Carver MA
Docket # EFSB 21-02

Dear Mr. Gibeau and Members of the Siting Board:

My comments are based in part on a three-year review of a proposed large scale, ground mounted, duel use solar and battery energy storage project I am currently disputing in Land Court.

I urge the Board to not approve the location of the Cranberry Point Energy Storage project above for reasons including the following:

According to the Energy Facilities Siting Board website, "To obtain EFSB approval, a proposed facility must demonstrate that it would provide a reliable energy supply, with a minimum impact of the environment, at the lowest possible cost."

- The proposed Cranberry Point project cannot satisfy the requirements above and would be an unconscionable hazard to the surrounding project area.
    - Present battery energy storage systems are not a reliable energy supply.
    - Large scale lithium-ion battery systems are hazardous and a danger to people and the environment.
    - Battery energy storage systems require subsidy and or tax incentives and are therefore not market ready or cost efficient.

- The Tesla "Gigafactory" in Nevada is the world's biggest battery manufacturing facility. **It's total annual production could store only three minutes worth of annual U.S. electricity demand**.

    - Therefore, it is not reasonable to claim that short lived battery energy storage is a reliable energy supply. For example, one of the biggest battery systems in the world located in Fairbanks, Alaska, using 40 MW (Ni Cd batteries) can provide **electricity to 12,000 residents for 7 minutes**.

- The general composition of lithium-ion batteries includes toxic elements such as cobalt and under fire conditions toxic gases can be generated such as hydrogen fluoride gas (HF), **which when mixed with water creates hydrofluoric acid**.

    - The manufacture of lithium-ion battery storage systems is dangerous and damaging to the environment. Batteries are not a clean energy technology. It takes 50 to 100 pounds of mined, transported and processed materials to produce one pound of batteries.

- Proponents of these hazardous energy storage projects may claim safety systems and mitigation measures can be implemented to make the energy storage systems safe.

    - The problem is that mitigations measures can reduce risk, but not eliminate it. Lithium ion battery storage systems are not safe, as studies have shown a probable failure rate, meaning a failure occurrence is probable. When a system failure occurs, the results can be catastrophic, even with well-intentioned safety systems in place.

    - Since catastrophic risk cannot be removed, these projects do not belong in residential, farming or other sensitive environmental areas such as aquifers, floodplains, ACECs (Areas of Critical Environmental Concern) and well protection zones. Why allow placement of a catastrophic risk to residential, farmland or sensitive environmental areas like water resources? If a case can be made for these projects, at a minimum they belong in industrial areas.

    - If a thermal runaway event occurs with the proposed system, where will the contaminated water used to cool the batteries or to restrain the fire be held or released? It took approximately 32,000 gallons of water to put out only one tesla car fire. How much water would it take to put out a 150 MW fire? (Exhibit A – Tesla Fire)

- A satellite aerial review of the area indicates nearby water bodies including Vaughn Pond, cranberry bog farming, dense residential areas and the Carver Elementary school. Does it make sense to put a dangerous industrial project that could contaminate soil, water and air near these resources? Should food production and residential areas be separated from the risks associated with battery energy storage systems? Should a project with explosive risk be placed near an elementary school?

- Additional considerations:

    - Two thirds of cobalt production is generated from slave and child labor in the Republic of Congo. Should a pursuit of battery energy storage also be supporting slave and child labor?

    - Liability insurance for battery energy storage projects should be at a level to cover a complete system catastrophe with impact to the surrounding environment etc. Standard liability insurance levels may not be sufficient as these large-scale energy storage systems are new in Massachusetts and therefore, we don't know what we don't know. Insurance coverage should be specific to the project and not be spread among multiple projects thereby diluting coverage.

    - A complete and thorough hazard analysis, mitigation analysis and environmental impact analysis should be performed by a competent independent third party. Claims from groups and individuals supporting battery energy storage projects, who may also be benefiting from these projects, may not be reliable.

    - The project developer, property owner and Eversource should assume full liability for any damage to the environment or area caused by this project. If the developer, landowner and Eversource claim this project is safe, they should be willing to assume complete liability for any adverse event.

- A better way:

    - Do not violate historic zoning for use rules. At a minimum, battery energy storage projects belong in industrial areas because they are grid scale utility projects. Avoiding the potential catastrophic risk to people and the environment is more important than the claimed benefit of the proposed system.

    - Stop wasting taxpayer and rate payer funding on subsidizing these projects.

    - If battery energy storage is a desired goal, then put funding into research and development to create better, cleaner battery technology in the US.

Battery energy storage is a recent initiative in Massachusetts, which became incentivized under the SMART Program in late 2018. Since we don't know what we don't know with these systems, why take such an unnecessary and significant risk by placing battery energy storage systems in a residential, farming and environmentally sensitive area?

In my opinion, this project is essentially creating a 150 MW bomb, by placing high density energy enclosed in a container. (See Exhibit B – Bigger Batteries, Bigger Bombs) We should proceed cautiously and learn what we don't know, rather than rush to place these projects anywhere and everywhere because someone has decided that energy storage is a good idea. If the claimed protection systems fail and a catastrophe occurs, what will be the Board's response? We didn't know. We thought it was safe. They told us there were safety systems in place.

A better response would be, because there was a potential catastrophic risk, we placed these projects in industrial areas to limit damage and to save lives.

Very truly yours,

Joseph Cogliano

Joseph D. Cogliano, Jr.

cc (with attachments): Andrew O. Kaplan, Esq., Pierce Atwood at akaplan@pierceatwood.com and Anne O'Hanlon at aohanlon@pierceatwood.com

Attachments:

Exhibit A – Tesla Fire
Exhibit B – Big Batteries Bigger Bombs