

Moratorium Ordinance: Battery Energy Storage Systems

Town of Durham, Maine

WHEREAS, the inhabitants of the Town of Durham, Maine, after due consideration, find pursuant to 30-A M.R.S. § 4356 as follows:

- 1. The State of Maine has established goals for the development of large-scale energy storage systems to advance alternative energy viability.*
- 2. Several communities in Maine have reviewed and approved large-scale Battery Energy Storage Systems (BESS) projects and at least one project is under consideration for Durham.*
- 3. Durham has two major CMP powerline corridors that present significant opportunities for development of BESS facilities.*
- 4. BESS facilities generally consist of rows of rechargeable batteries housed in self-contained, interconnected storage units. BESS facilities typically operate by drawing surplus energy from the local power grid during periods of low usage and storing it for later distribution back into the grid during peak demand.*
- 5. Following the third fire at a battery energy storage facility in as many months in New York, that state's governor announced the creation of a State Inter-Agency Working Group tasked with ensuring the safety of Battery Energy Storage Systems across New York.*
- 6. According to New York's study, battery fires are most commonly caused by thermal runaway, when a battery's temperature increases, leading to cell short-circuiting or disintegration. Thermal runaway can be caused by factors including mechanical damage, poor air conditioning and electrical issues such as overcharging.*
- 7. Fire officials have expressed concern with the presence of highly flammable substances in*

BESS systems and the potential for gassing, toxicity, and groundwater contamination in fire events associated with these facilities.

- a. BESS involve relatively new technology which the Town's building, fire and planning officials need time to study in order to recommend and administer appropriate land use controls.*
- 8. A primary concern associated with lithium-ion BESS is the potential for explosion or deflagration due to accumulation of flammable off-gases within a confined space, such as a battery enclosure. Current fire safety codes require that explosion controls be provided for lithium-ion BESS in rooms, areas, or walk-in energy storage units, and is therefore not required for non-enterable BESS units, also referred to as "cabinets." The Town of Durham recently enacted regulations governing the establishment of solar energy systems that did not address the specific issues related to Battery Energy Storage Systems that could be associated with such solar energy system facilities.*
- 9. The Town of Durham has received inquiries about large-scale Battery Energy Storage Systems.*
- 10. The Town of Durham intends to do additional research and enact regulations to address the specific challenges of large-scale Battery Energy Storage Systems.*
- 11. The current Land Use Ordinance of the Town of Durham is inadequate to provide for the effective review and regulation of Battery Energy Storage Systems as a land use in the Town.*
- 12. The Town of Durham has a volunteer fire department with limited resources to respond to high-intensity and large-scale emergencies related to Battery Energy Storage Systems and the Town has no plans for the development of infrastructure to support such intense land uses.*
- 13. The Town of Durham has no public water systems and requires each land use to provide its own water supply for fire protection purposes, which may be inadequate to deal with emergencies related to large-scale Battery Energy Storage Systems.*
- 14. The Town citizens have, on numerous occasions, as stated in the Comprehensive Plan expressed deep concern over the preservation of open space, farmland, and forest cover as*

well as the retention of the rural character.

15. It is intended that the Town's review of this issue will result in additional land use controls and regulations governing the siting and setback of BESS and providing special standards for BESS related to emergency response, fire and explosion control systems and plans, as well as signage, emergency response, first responder training, security and other necessary restrictions to adequately protect the health, safety and welfare of the residents of Durham.

WHEREAS, in the judgment of the voters of the Town of Durham, the foregoing findings and conclusions constitute an emergency requiring immediate legislative action.

NOW THEREFORE, be it ordained by the voters of the Town of Durham, Maine, in Town Meeting assembled, as follows:

During the effective period of this Ordinance, no official, officer or agency of the Town of Durham shall accept or process any application for approval of any Battery Energy Storage System with a storage capacity in excess of 20 kWh. No person shall submit an application for approval of development or construction of the above-described structures to any official, officer or agency of the Town of Durham. For the purposes of this Moratorium Ordinance, the term Battery Energy Storage System shall mean one or more devices, assembled together, capable of storing energy in order to supply electrical energy, of any aggregate energy capacity, at a future time. This Moratorium Ordinance shall not apply to a Battery Energy Storage System that is designed and intended only to store energy produced by a permitted Solar Energy System.

This Ordinance shall become effective immediately upon its adoption and shall remain in full force and effect for a period of 180 days thereafter or until a new and revised set of land use regulations is adopted by the Town of Durham, whichever shall first occur. Notwithstanding 1 M.R.S. § 302, this moratorium shall apply retroactively to any application filed on or after September 4, 2024. The Durham Select Board may extend the duration of the moratorium for a period of an additional 180 days.