Battery Energy Storage Systems

To be added as 10.32 in the Special Activity Performance Standards (Section 10)

Battery Storage Facilities

Definitions

As used in this Chapter, the following terms shall have the meanings indicated:

ANSI: American National Standards Institute

BATTERY: A single cell or a group of cells connected together electrically in series, in parallel, or a combination of both, which can charge, discharge, and store energy electrochemically. For the purposes of this ordinance, batteries utilized in consumer products are excluded from these requirements.

BATTERY ENERGY STORAGE MANAGEMENT SYSTEM: An electronic system that protects energy storage systems from operating outside their safe operating parameters.

BATTERY ENERGY STORAGE SYSTEM: 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, not to include a stand-alone 12-volt car battery or an electric motor vehicle.

DEDICATED-USE BUILDING: A building that is built for the primary intention of housing battery energy storage system equipment, is classified as Group F-1 occupancy as defined in the International Building Code, and complies with the following:

1) The building's only permitted primary use is for battery energy storage, energy generation, and other electrical grid-related operations.

2) Occupants in the rooms and areas containing battery energy storage systems are limited to personnel that operate, maintain, service, test, and repair the battery energy storage system and other energy systems.

3) No other occupancy types are permitted in the building.

4) Administrative and support personnel are permitted in incidental-use areas within the buildings that do not contain battery energy storage system, provided the following:

    a. The areas do not occupy more than 10 percent of the building area of the story in which they are located.

    b. A means of egress is provided from the incidental-use areas to a public way that does not require occupants to traverse through areas containing battery energy storage systems or other energy systems.

MUBEC: Maine Uniform Building and Energy Code

1. General Requirements

A. Any structure built in accordance with this law will meet or comply with the following:

1) The Applicant of any Battery Energy Storage System shall provide, at no cost to the City or fire department, fire department training related to potential fire issues that are site specific and could arise from the structure. This training shall be provided when requested by the fire department, but must at least be provided on an annual basis, or when any updated equipment is installed;

2) If specialized equipment is needed by the fire department, the owner of any battery energy storage structures will pay for the costs of such equipment or reimburse the applicable fire department or applicable local government office or agency for the purchase of same. If there is more than one (1) owner, then such owners shall share in the costs on a pro-rata basis in proportion to the assessed value of the properties on which the structure owned by each co-owner is located.

B. Utility Lines and Electrical Circuitry.

All on-site utility lines shall be placed underground to the extent feasible and as permitted by the serving utility, with the exception of the main service connection within the utility company right-of-way and any new interconnection equipment, including any poles.

C. Minimum Lot Size

The minimum lot size for any lot containing a Battery Energy Storage System shall be 0.75 acres, regardless of the dimensional lot requirement of the Land Use Zone in which it is located.

D. Zone Allowance

Battery Energy Storage Systems shall only be permitted in the Rural (R) and Planned Industrial/Commercial (PIC) Zones.

CHANGE TO LAND USE TABLE 7.6.1 Needed to match.

E. Fencing

The Battery Energy Storage Systems and any associated interconnection equipment and dedicated use buildings shall be secured using at least six (6) foot chain link fencing.

F. Buffers and Screening

The development site of a Battery Storage System must provide for the buffering of adjacent uses where there is a transition from one type of use to another use, for reducing the impact of the development site on public streets, and for screening of any equipment and service and storage areas.

a. Buffering must be designed to provide a year-round visual screen in order to minimize adverse impacts. It may consist of fencing, evergreens, berms, rocks, boulders, mounds, or a combination thereof.

b. The development site must provide sufficient buffering when topographical or other barriers do not provide reasonable screening and where there is a need to shield neighboring properties from any adverse external effects of the development or shield the development from the negative impacts of adjacent uses.

G. Special Signage.

1) The signage shall be in compliance with ANSI Z535 and shall include the type of technology associated with the battery energy storage systems, including the type of battery energy storage system, any special hazards associated with the system, the type of fire suppression system installed in the area of battery energy storage systems, and 24-hour emergency contact information.

2) As required by the MUBEC, disconnect and other emergency shutoff information shall be clearly displayed on a light reflective surface. A clearly visible warning sign concerning voltage shall be placed at the base of all pad- mounted transformers and substations.

H. Vegetation and tree-cutting.

Areas within 10 feet on each side of the Battery Energy Storage System shall be cleared of combustible vegetation and other combustible growth. Single specimens of trees, shrubbery, or cultivated ground cover such as green grass, or similar plants used as ground covers shall be permitted to be exempt provided that they do not form a means of readily transmitting fire. Removal of trees should be minimized to the extent possible.

I. Decommissioning.

1) Decommissioning/Removal. All applications for a Battery Energy Storage System shall be accompanied by a Decommissioning Plan detailing the process and estimated costs, to be implemented upon abandonment and/or in conjunction with removal of the installation.

2) Prior to removal of the Battery Energy Storage System, a permit for removal activities shall be obtained from the Code Enforcement Officer. For all other Battery Energy Storage Systems subject to regulation under this Ordinance, the Decommissioning Plan shall include the following provisions:

a. The owner, operator, or their successors in interest shall remove any Battery Energy Storage System, Dedicated-Use Building and all other buildings or structures related thereto which have reached the end of their useful life or have been abandoned. The owner or operator shall physically remove the installation no more than one hundred fifty (150) days after the

date of discontinued operations. The owner or operator shall notify the City Code Enforcement Officer by certified mail of the proposed date of discontinued operations and plans for removal.

b. Physical removal of all Battery Energy Storage System, Dedicated Use Building, all other buildings or structures related thereto, equipment, security barriers, feeders and branch circuit wiring from the site.

c. Disposal of all solid and hazardous waste in accordance with local, State, and Federal waste disposal regulations.

d. Stabilization or re-vegetation of the site as necessary to minimize erosion. The Planning Board may allow the owner or operator to leave landscaping or designated below-grade foundations in order to minimize erosion and disruption to vegetation.

e. Absent notice of a proposed date of decommissioning and written notice of extenuating circumstances, the Battery Energy Storage System shall be considered abandoned when it fails to operate for more than one (1) year without the written consent of the Planning Board ("Abandonment"). If the owner or operator of the Battery Energy Storage System fails to remove the installation in accordance with the requirements of this section within one hundred fifty (150) days of Abandonment or the proposed date of decommissioning, the City may enter the property and physically remove the installation using the applicants financial security funds.

f. Upon the decommissioning of the project and removal of all equipment, the soils at the site shall be restored to the condition and classification that existed prior to the construction of the project, identified in the soil survey plan of the original application.

g. As part of the decommissioning plan, the owner or operator of a Battery Energy Storage System shall provide the City with an irrevocable standby letter of credit or other form of security reasonably acceptable to the City attorney, which shall be in an amount sufficient to ensure the good faith performance of the terms and conditions of the permit issued pursuant hereto and to provide for the removal and restoration of the site subsequent to removal. The amount of the letter of credit or other security shall be in the amount of one hundred percent (100%) of the cost of removal (to be detailed and provided) of the Battery Energy Storage System and restoration of the property, which shall be renewed every five (5) years. Delivery of the letter of credit or other security to the City shall occur prior to the commencement of operations.

h. In the event of default of performance of such conditions, after proper notice, the letter of credit or other security shall be forfeited to the City, which shall be entitled to maintain an action thereon. The letter of credit or other security shall remain in full force and effect until restoration of the property as set forth in the decommissioning plan is completed.

3) Costs of Decommissioning/Removal. The operator of an installation and the owner of the real property on which such installation is located shall be jointly liable for all costs and expenses of the City incurred during and relating to the removal of an installation under Section (I)(1). Notwithstanding the foregoing, the City shall first attempt to secure payment for such costs and expenses from the operator of the installation; however, in the event the City is not made whole following reasonable attempts to collect such costs and expenses from the operator of the installation, the City reserves all rights under this ordinance to pursue payment for such costs and expenses from the owner of the real property on which the installation in question is located.

J. Additional Site plan application materials.

For a Battery Energy Storage System requiring a Special Use Permit, site plan approval shall be required. Any site plan application shall include the following additional information:

1. An electrical diagram detailing the battery energy storage system layout, associated components, and electrical interconnection methods, with all National Electrical Code compliant disconnects and over current devices.

2. A preliminary equipment specification sheet that documents the proposed battery energy storage system components, inverters and associated electrical equipment that are to be installed, to the extent those equipment specification sheets are available. A final equipment specification sheet shall be submitted prior to the issuance of building permit.

3. Fire Safety Compliance and Emergency Operation Plan. Prior to issuance of the building permit, the plan shall document and verify that the system and its associated controls and safety systems are in compliance with MUBEC. A copy of the approved Emergency Operations Plan shall be given to the system owner and the local fire department. A permanent copy shall also be placed in an approved location to be accessible to facility personnel, fire code officials, and emergency responders. The emergency operations plan shall include the following information:

    a. Procedures for safe shutdown, de-energizing, or isolation of equipment and systems under emergency conditions to reduce the risk of fire, electric shock, and personal injuries, and for safe start-up following cessation of emergency conditions.

    b. Procedures for inspection and testing of associated alarms, interlocks, and controls.

    c. Procedures to be followed in response to notifications from the Battery Energy Storage Management System, that could signify potentially dangerous conditions, including shutting down equipment, summoning service and repair personnel, and providing agreed upon notification to fire department personnel for potentially hazardous conditions in the event of a system failure.

d. Emergency procedures to be followed in case of fire, explosion, release of liquids or vapors, damage to critical moving parts, or other potentially dangerous conditions. Procedures can include sounding the alarm, notifying the fire department, evacuating personnel, de-energizing equipment, and controlling and extinguishing the fire.

e. Response considerations similar to a safety data sheet (SDS) that will address response safety concerns and extinguishment when an SDS is not required.

f. Procedures for dealing with battery energy storage system equipment damaged in a fire or other emergency event, including maintaining contact information for personnel qualified to safely remove damaged battery energy storage system equipment from the facility.

g. Procedures and schedules for conducting drills of these procedures and for training local first responders on the contents of the plan and appropriate response procedures.