

# PRELIMINARY DRAFT - NOT FOR PUBLICATION

## ARTICLE VI, SECTION 666, Battery Energy Storage Systems (BESS)

### 1. AUTHORITY

This Battery Energy Storage System Regulation is adopted pursuant to Article IX of the New York State Constitution, §2(c)(6) and (10), New York Statute of Local Governments, § 10 (1) and sections 261-263 of the Town Law and section 10 of the Municipal Home Rule Law] of the State of New York, which authorize the Town of Clarendon to adopt zoning provisions that advance and protect the health, safety and welfare of the community.

### 2. STATEMENT OF PURPOSE

This Battery Energy Storage System Regulation is adopted to advance and protect the public health, safety, and welfare of the Town of Clarendon by creating regulations for the installation and use of battery energy storage systems, with the following objectives:

- A. To provide a regulatory scheme for the designation of properties suitable for the location, construction and operation of battery energy storage systems;
- B. To protect the health, welfare, safety, and quality of life for the general public;
- C. To ensure compatible land uses in the vicinity of the areas affected by battery energy storage systems;
- D. To mitigate the impacts of battery energy storage systems on environmental resources such as important agricultural lands, forests, wildlife and other protected resources; and
- E. To create synergy between battery energy storage system development and other stated goals of the community pursuant to its Comprehensive Plan.

### 3. DEFINITIONS

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 law, batteries utilized in consumer products are excluded from these requirements.

BATTERY ENERGY STORAGE MANAGEMENT SYSTEM: An electronic system that protects storage batteries from operating outside their safe operating parameters and generates an alarm and trouble signal for off normal conditions.

BATTERY ENERGY STORAGE SYSTEM: A rechargeable energy storage system consisting of electrochemical storage batteries, battery chargers, controls, power conditioning systems, and associated electrical equipment designed to provide electrical power to a building. The system is typically used to provide standby or emergency power, an uninterruptible power supply, load shedding, load sharing, or similar capabilities. A battery energy storage system is classified as a Tier 1 or Tier 2 Battery Energy Storage System as follows:

A. Tier 1 Battery Energy Storage have an aggregate energy capacity that is less than or equal to 600 Kwh and in a room or enclosed area, consist of only a single energy storage system technology.

B. Tier 2 Battery Energy Storage Systems have an aggregate energy capacity greater than 600 KWh or are comprised of more than one storage battery technology in a room or enclosed area.

**CELL:** The basic electrochemical unit, characterized by an anode and a cathode, used to receive, store, and deliver electrical energy

**COMMISSIONING:** A systematic process that provides documented confirmation that a battery energy storage system functions according to the intended design criteria and complies with applicable code requirements.

**DEDICATED-USE BUILDING:** A building that is built for the primary intention of housing battery energy storage system equipment and is classified as Group F-1 occupancy as defined in the International Building Code. It is constructed in accordance with the Uniform Code, and it 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.

**ENERGY CODE:** The New York State Energy Conservation Construction Code adopted pursuant to Article 11 of the Energy Law, as currently in effect and as hereafter amended from time to time.

**FIRE CODE:** The fire code section of the New York State Uniform Fire Prevention and Building Code adopted pursuant to Article 18 of the Executive Law, as currently in effect and as hereafter amended from time to time.

**NATIONALLY RECOGNIZED TESTING LABORATORY (NRTL):** A U.S. Department of Labor designation recognizing a private sector organization to perform certification for certain products to ensure that they meet the requirements of both the construction and general industry OSHA electrical standards.

**NEC:** National Electric Code.

**NFPA:** National Fire Protection Association.

**NON-DEDICATED-USE BUILDING:** All buildings that contain a battery energy storage system and do not comply with the dedicated-use building requirements, including all other occupancy types such as, but not limited to, commercial, industrial, offices, and multifamily housing.

**NON-PARTICIPATING PROPERTY:** Any property that is not a Participating property.

**OCCUPIED COMMUNITY BUILDING:** Any building in Occupancy Group A, B, E, I, R, as defined in the International Building Code, including but not limited to schools, colleges, daycare facilities, hospitals, correctional facilities, public libraries, theaters, stadiums, apartments, hotels, and houses of worship.

**ONE-TO-TWO-FAMILY DWELLING:** A building that contains not more than two dwelling units with independent cooking and bathroom facilities.

**PARTICIPATING PROPERTY:** A battery energy storage system host property or any real property that is the subject of an agreement that provides for the payment of monetary compensation to the landowner from the battery energy storage system owner (or affiliate) regardless of whether any part of a battery energy storage system is constructed on the property.

**UNIFORM CODE:** the New York State Uniform Fire Prevention and Building Code adopted pursuant to Article 18 of the Executive Law, as currently in effect and as hereafter amended from time to time.

#### **4. APPLICABILITY**

- A. The requirements of this Regulation shall apply to all battery energy storage systems permitted, installed, or modified in the Town of Clarendon after the effective date of this Regulation, excluding general maintenance and repair.
- B. Battery energy storage systems constructed or installed prior to the effective date of this Regulation shall not be required to meet the requirements of this Regulation.
- C. Modifications to, retrofits or replacements of an existing battery energy storage system that increase the total battery energy storage system designed discharge duration or power rating shall be subject to this Local Law.

#### **5. GENERAL REQUIREMENTS**

- A. A Building permit, and an electrical permit shall be required for installation of all battery energy storage systems.
- B. Issuance of permits by the Town of Clarendon Planning Board shall include review pursuant to the State Environmental Quality Review Act [ECL Article 8 and its implementing regulations at 6 NYCRR Part 617 (“SEQRA”)].

C. All battery energy storage systems, all dedicated use buildings, and all other buildings or structures that (1) contain or are otherwise associated with a battery energy storage system and (2) subject to the Uniform Code and/or the Energy Code shall be designed, erected, and installed in accordance with all applicable provisions of the Uniform Code, all applicable provisions of the Energy Code, and all applicable provisions of the codes, regulations, and industry standards as referenced in the Uniform Code, the Energy Code, and the Town of Clarendon Zoning Regulations.

**6. PERMITTING REQUIREMENTS FOR TIER 1 BATTERY ENERGY STORAGE SYSTEMS**

Tier 1 Battery Energy Storage Systems shall be permitted in all zoning districts. A building permit is required for all Tier 1 energy storage systems per Article III, Section 301.

**7. PERMITTING REQUIREMENTS FOR TIER 2 BATTERY ENERGY STORAGE SYSTEMS**

Tier 2 Battery Energy Storage Systems are permitted through the issuance of a Special Use Permit within the Residential/Agricultural District (RA), Business/Commercial District (BC) and the Industrial District (I) zoning districts, and subject to the Uniform Code and site plan application requirements set forth in Article III, Section 302 and any requirements specified in this Section.

**A. Applications for the installation of Tier 2 Battery Energy Storage System shall be:**

- 1) Reviewed by the Planning Board for completeness. An application shall be complete when it addresses all matters listed in these Regulations including, but not necessarily limited to, (i) compliance with all applicable provisions of the Uniform Code and all applicable provisions of the Energy Code and (ii) matters relating to the proposed battery energy storage system and Floodplain, Utility Lines and Electrical Circuitry, Signage, Lighting, Vegetation and Tree-cutting, Noise, Decommissioning, Site Plan and Development, Special Use and Development, Ownership Changes, Safety, Permit Time Frame and Abandonment. Applicants shall be advised within 30 business days of the completeness of their application or any deficiencies that must be addressed prior to substantive review;
- 2) Subject to a public hearing to hear all comments for and against the application. The Planning Board of the Town of Clarendon shall have a notice printed in a newspaper of general circulation in the Town at least [5] days in advance of such hearing. Applicants shall have delivered the notice of said public hearing by first class mail to adjoining landowners or landowners within [200] feet of the property at least [10] days prior to such a hearing. Proof of mailing shall be provided to the Planning Board at the public hearing;
- 3) Referred to the County Planning Department pursuant to General Municipal Law § 239-m as required;
- 4) Upon closing of the public hearing, the Planning Board shall take action on the application within 62 days of the public hearing, which can include approval, approval with conditions, or denial. The 62-day period may be extended upon consent by both the Planning Board and Applicant.

**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 at the utility company right-of-way and any new interconnection equipment, including without limitation any poles, with new easements and right-of-way.

**C. 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, any special hazards associated, the type of suppression system installed in the area of battery energy storage systems, and 24-hour emergency contact information, including reach-back phone number.
- 2) As required by the NEC, 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.

**D. Lighting.**

Lighting of the battery energy storage systems shall be limited to that minimally required for safety and operational purposes and shall be reasonably shielded and downcast from abutting properties.

**E. Vegetation and tree-cutting.**

Areas within [10] feet on each side of Tier 2 Battery Energy Storage Systems shall be cleared of combustible vegetation and other combustible growth. Single specimens of trees, shrubbery, or cultivated ground cover such as green grass, ivy, succulents, 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.

**F. Noise.**

The 1-hour average noise generated from the battery energy storage systems, components, and associated ancillary equipment shall not exceed a noise level of [60] dB as measured at the outside wall of any Non-participating Residence and Occupied Community Building. Applicants may submit equipment and component manufacturer's noise ratings to demonstrate compliance. The applicant may be required to provide Operating Sound Pressure Level measurements from a reasonable number of sampled locations at the perimeter of the battery energy storage system to demonstrate compliance with this standard.

**G. Decommissioning.**

- 1) Decommissioning Plan. The applicant shall submit a decommissioning plan, developed in accordance with the Uniform Code, containing:

- (a) a narrative description of the activities to be accomplished for removing the energy storage system from service, and from the facility in which it is located. The decommissioning plan shall also include: (i) the anticipated life of the battery energy storage system;
- (b) the estimated decommissioning costs;
- (c) how said estimate was determined;
- (d) the method of ensuring that funds will be available for decommissioning and restoration;
- (e) the method that the decommissioning cost will be kept current;
- (f) the manner in which the battery energy storage system will be decommissioned, and the site restored;  
and
- (g) a listing of any contingencies for removing an intact operational energy storage system from service, and for removing an energy storage system from service that has been damaged by a fire or other event.

2) Decommissioning Fund. The applicant, or successors, shall continuously maintain a fund or bond payable to the Town of Clarendon, in a form approved by the Town of Clarendon for the removal of the battery energy storage system, in an amount to be determined by the Town of Clarendon, for the period of the life of the facility. This fund shall be adjusted for inflation on an annual basis based on the consumer price index. This fund may consist of a letter of credit from a State of New York licensed-financial institution. All costs of the financial security shall be borne by the applicant.

**H. Site plan application.**

For a Tier 2 Battery Energy Storage System requiring a Special Use Permit, site plan approval shall be required. Any site plan application shall include the following information:

- 1) Property lines and physical features, including roads, for the project site.
- 2) Proposed changes to the landscape of the site, grading, vegetation clearing and planting, exterior lighting, and screening vegetation or structures.
- 3) A one- or three-line electrical diagram detailing the battery energy storage system layout, associated components, and electrical interconnection methods, with all National Electrical Code compliant disconnects and overcurrent devices.
- 4) A preliminary equipment specification sheet that documents the proposed battery energy storage system components, inverters and associated electrical equipment that are to be installed. A final equipment specification sheet shall be submitted prior to the issuance of building permit.
- 5) Name, address, and contact information of proposed or potential system installer and the owner and/or operator of the battery energy storage system. Such information of the final system installer shall be submitted prior to the issuance of building permit.

- 6) Name, address, phone number, and signature of the project Applicant, as well as all the property owners, demonstrating their consent to the application and the use of the property for the battery energy storage system.
  
- 7) Zoning district designation for the parcel(s) of land comprising the project site.
  
- 8) Commissioning Plan. Such plan shall document and verify that the system and its associated controls and safety systems are in proper working condition per requirements set forth in the Uniform Code . Battery energy storage system commissioning shall be conducted by a New York State (NYS) Licensed Professional Engineer or NYS Registered Architect after the installation is complete but prior to final inspection and approval. A corrective action plan shall be developed for any open or continuing issues that are allowed to be continued after commissioning. A report describing the results of the system commissioning and including the results of the initial acceptance testing required in the Uniform Code shall be provided to the Planning Board prior to final inspection and approval and maintained at an approved on-site location.
  
- 9) Fire Safety Compliance Plan. Such plan shall document and verify that the system and its associated controls and safety systems are in compliance with the Uniform Code .
  
- 10) System and Property Operation and Maintenance Manual. Such plan shall describe continuing battery energy storage system maintenance and property upkeep, as well as design, construction, installation, testing and commissioning information and shall meet all requirements set forth in the Uniform Code .
  
- 11) Erosion and sediment control and storm water management plans prepared to New York State Department of Environmental Conservation standards, if applicable, and to such standards as may be established by the Planning Board.
  
- 12) Prior to the issuance of a building permit or final approval by the Planning Board, but not required as part of the application, engineering documents must be signed and sealed by a NYS Licensed Professional Engineer or NYS Registered Architect.
  
- 13) Emergency Operation Plan: A copy of the approved Emergency Operations plan shall be given to the system owner, the local fire department, and local 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 injury, and 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, when provided, that could signify potential 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 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 concern 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 equipment from the facility;
- (g) Other procedures determined to be necessary by the Planning Board to provide for the safety of occupants, neighboring properties, and emergency responders;
- (h) 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.

**I. Special Use Permit Standards.**

- 1) Setbacks. Tier 2 Battery Energy Storage Systems shall comply with the setback requirements of the underlying zoning district for principal structures.
- 2) Height. Tier 2 Battery Energy Storage Systems shall comply with the building height limitations for principal structures of the underlying zoning district.
- 3) Fencing Requirements. Tier 2 Battery Energy Storage Systems, including all mechanical equipment, shall be enclosed by a [8 foot-high] fence with a self-locking gate to prevent unauthorized access unless housed in a dedicated-use building and not interfering with ventilation or exhaust ports.
- 4) Screening and Visibility. Tier 2 Battery Energy Storage Systems shall have views minimized from adjacent properties to the extent reasonably practicable using architectural features, earth berms, landscaping, plantings or other screening methods that will harmonize with the character of the property and surrounding area and not interfering with ventilation or exhaust ports. Screening and Visibility plan shall be determined by the Planning Board as part of the site plan review. Vegetative screening shall be maintained and replaced as necessary for the life of the facility.
- (5) Utility lines and electrical circuitry. All on-site utility lines shall be placed underground to the extent possible and as permitted by the serving utility, with the exception of the main service connection at the utility company right-of-way and any new interconnection equipment, including without limitation any poles with new easements and right-of-way.
- (6) Signage shall comply with ANSI Z535 and NFPA 70 (NEC).
- (7) Lighting shall be limited to that minimally required for safety and operational purposes and shall be reasonably shielded and downcast from abutting properties.



(8) The maximum one (1) hour average noise generated shall not exceed 60 dB as measured at the outside wall of any non-participating residence or occupied community building.

**J. Ownership Changes.**

If the owner of the battery energy storage system changes or the owner of the property changes, the special use permit shall remain in effect, provided that the successor owner or operator assumes in writing all of the obligations of the special use permit, site plan approval, and decommissioning plan. A new owner or operator of the battery energy storage system shall notify the Ordinance Inspection Officer (OIO) of such change in ownership or operator within 30 days of the ownership change. A new owner or operator must provide such notification to the OIO in writing. The special use permit and all other local approvals for the battery energy storage system would be void if a new owner or operator fails to provide written notification to the OIO in the required timeframe. Reinstatement of a void special use permit will be subject to the same review and approval processes for new applications under this Local Law.

**8. SAFETY**

**A. System Certification.**

Battery energy storage systems and Equipment shall be listed by a Nationally Recognized Testing Laboratory to UL 9540 or CAN 9540 (Standard for battery energy storage systems and Equipment) with subcomponents meeting each of the following standards that are applicable based on the storage type (electrochemical, thermal, mechanical):

- 1) UL 1973 (Standard for Batteries for Use in Stationary, Vehicle Auxiliary Power and Light Electric Rail Applications),
- 2) UL 1642 (Standard for Lithium Batteries),
- 3) UL 1741 or UL 62109 (inverters and power converters),
- 4) Certified under the applicable electrical, building, and fire prevention codes as required.
- 5) Alternatively, field evaluation by an approved testing laboratory for compliance with UL 9540 and applicable codes, regulations and safety standards may be used to meet system certification Requirements.

**B. Site access.**

Battery energy storage systems shall be maintained in good working order and in accordance with industry standards, Site access shall be maintained, including snow removal at a level acceptable to the local fire department and, if the Tier 2 battery energy storage system is located in an ambulance district the local ambulance corps as well.

**C. Miscellaneous.**

Battery energy storage systems, components, and associated ancillary equipment shall have required workspace clearances, and electrical circuitry shall be within weatherproof enclosures marked with the environmental rating suitable for the type enclosure in compliance with NFPA 70.

**10. PERMIT TIME FRAME AND ABANDONMENT**

The Special Use Permit and site plan approval for a battery energy storage system shall be valid for a period of 12 months, provided that a building permit is issued for construction and/or construction is commenced. In the event construction is not completed in accordance with the final site plan, as may have been amended and approved, as required by the Planning Board, within 12 months after approval, the Applicant may request the Planning Board to extend the time to complete construction for 180 days. If the owner and/or operator fail to perform substantial construction after 6 months, the approvals shall expire.

If the owner and/or operator fail to comply with decommissioning upon any abandonment, the Town of Clarendon may, at its discretion, utilize the available bond and/or security for the removal of a Tier 2 Battery Energy Storage System and restoration of the site in accordance with the decommissioning plan.

**11. ENFORCEMENT**

Any violation of this Battery Energy Storage System Regulation shall be subject to the same enforcement requirements, including the civil and criminal penalties, provided for in the zoning or land use regulations of the Town of Clarendon.

**12. SEVERABILITY**

The invalidity or unenforceability of any section, subsection, paragraph, sentence, clause, provision, or phrase of the aforementioned sections, as declared by the valid judgment of any court of competent jurisdiction to be unconstitutional, shall not affect the validity or enforceability of any other section, subsection, paragraph, sentence, clause, provision, or phrase, which shall remain in full force and effect.