

Town of Forest

Ordinance NO 2023-2

Battery Energy Storage System Ordinance

Recitals

WHEREAS, the Town of Forest has carefully studied the dangers of sighting an industrial scale Battery Energy Storage System within the boundaries of the township and the hazards it would pose to the community.

WHEREAS, the town Planning Commission researched various ordinances from other communities, white papers and FEMA documents on fire hazards of lithium batteries and discussed at four separate meetings.

WHEREAS, the Town of Forest Plan Commission members interviewed the Clear Lake and Glenwood City Fires Departments, the primary fire protection service providers for the township, the town was informed by them, that they are not equipped nor trained to engage a lithium battery fire of an industrial scale.

NOW THEREFORE, based on the information concerning the health and safety hazards of Battery Energy Storage Systems and the limitations of local fire protection to suppress or extinguish an industrial scale lithium battery fire, the following ordinance will apply to any BESS project applications for permits within the Town of Forest.

1. Authority – Town of Forest Wisconsin Ordinances & Comprehensive Plan

2. Statement Of Purpose

This Battery Energy Storage System ordinance is adopted to advance and protect the public health, safety, and welfare of the Town of Forest 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, and safety, and quality of life for the residents of the Town of Forest, Wisconsin;

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 agriculture lands, forests, wildlife, water and other protected resources;
- E. To Create synergy between battery energy storage system development and other stated goals of the community pursuant to its comprehensive plan.

3. Definitions

- A. 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 purpose of this ordinance, batteries utilized in consumer products are excluded from these requirements.
- B. Battery Energy Storage System (BESS): One or more devices assembled together, capable of storing energy in order to supply electrical energy at a future time, not to include a stand alone 12-volt car battery or an electric motor vehicle. A battery energy storage system is classified as Tier 1 or Tier 2 battery energy storage system as follows:
  - Tier 1 Battery Energy Storage Systems have an aggregate energy capacity less than or equal to 600kWh and, if in a room or enclosed area, consist of only a single energy storage system technology.
  - Tier 2 Battery Energy Storage Systems have an aggregate energy capacity greater than 600kWh or are comprised of more than one storage battery technology in a room or enclosed area.
- C. Commissioning: A systematic process that provides documented confirmation that a battery energy storage system functions according to the intent design criteria and complies with applicable code requirements.
- D. Dedicated-Use-Building: A Building or Enclosure that is built for the primary intention of housing battery energy storage system equipment.
- E. Non-Participating Property: Any property or residence that is not a participating property.
- F. Participating Property: A battery energy storage system host property or any real property that is the subject of an agreement that provides payment of monetary compensation to the land owner from the battery energy storage system owner (or affiliate) regardless of whether any part of the battery energy storage system is constructed on the property.

4. *Applicability*

- A. *The requirements of this ordinance apply to all battery energy storage systems permitted, installed, or modified in the Town of Forest after the effective date of this ordinance, excluding general maintenance and repair.*
- B. *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 ordinance.*
- C. *If any part of this ordinance is deemed excessive of any county, state, or federal guidelines or laws, this does not negate any of the requirements contained herein.*

5. *General Requirements:*

- A. *Building Permit and an Electrical Permit shall be required for the installation of battery energy storage systems*
- B. *Issuance of permits and approvals by the Town of Forest Board shall include an environmental review of the proposed BESS project.*
- C. *All Dedicated Use Buildings and all other buildings or structures associated with the Tier 2 BESS project will comply with Town of Forest building ordinances and zoning ordinances. All BESS buildings or enclosures will have the following:*
  - *Leak proof structure set on a concrete holding basin to prevent environmental contamination.*
  - *Internal fire suppression system that will prevent the spread of fire outside the enclosure.*
  - *Explosion protection – blast panels*
  - *Ventilation system to prevent the build up of explosive gasses*
  - *Fire and Gas detection system connected directly to St. Croix County Emergency Services Dispatch.*
  - *All openings and conduits from the outside entering the BESS enclosure will be sealed per the NEC Code to prevent water, rodents and explosive gasses from entering from other areas.*
  - *Liquid Cooling system for batteries*
- D. *Permitting requirements for Tier 1 Battery Energy Storage Systems will be required to get a building permit and comply with setback requirements of existing zoning ordinances.*
- E. *Permitting for Tier 2 Battery Energy Storage Systems shall meet the following requirements:*
  - *Apply for Building Permit*

- Provide Environmental Impact Report on the BESS project and surrounding area to include erosion and sediment control
- Provide mapped routes of above ground and buried utility cables and an electrical diagram detailing the BESS layout, associated components, and electrical interconnection methods.
- Signage that includes the type of technology associated with the BESS, any special hazards associated, the type of suppression system installed and a 24 hour emergency contact information, including a reach back phone number, and all such information must be updated with any change in the storage system. 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 pad mounted transformers and substations.
- Lighting of the BESS shall be limited to minimally required for the safety and operational purpose and shall be reasonably shielded and downcast from abutting properties.
- Vegetation and tree cutting shall be areas 200 feet on each side of the BESS to prevent fire spread and allow adequate operational space for emergency responders. The immediate area shall have a base of class 2 lime rock to prevent vegetation growth.
- Noise Restrictions, the one hour average noise generated from the BESS components and associated ancillary equipment shall not exceed a noise level of Fifty(50) dBA during the day and Forty-five (45) dBA during the night, measured 25 feet from the façade of any residence or occupied building.
- F. Provide A Site Plan, Tier 2 BESS require a Special Use Permit, site plan approval shall be required and meet the following requirements:
  - Setbacks for Tier 2 BESS shall be 1800 feet from adjacent Non-Participating property lines. Not to include Participating property lines.
  - Height, BESS shall comply with the building height limitations for structures in the Town of Forest.
  - Fencing Requirements, BESS, including all mechanical equipment shall be enclosed by a 7-foot high fence with a self-locking gate to prevent unauthorized access. Coordination with Clear Lake and Glenwood City Fire Departments for access is required.
  - Screening and visibility, BESS shall have views minimized from adjacent properties to the extent reasonably practicable using architectural features such as earth berms, landscaping and other screening methods that will harmonize with the character of the property and surrounding area. Additionally, all structures must have a visual design standard consistent

*with neighboring structures within the Town of Forest, including agriculture related structures including barns, as determined by the Town Board.*

- *Security, BESS buildings must be protected from vehicular impact by concrete bollards.*
- *Property lines and physical features including roads for the project site mapped out.*
- *Proposed changes to the landscape mapped out.*
- *Establishment of a lined retention pond for contaminated water runoff from the site. This would include rainwater capture and water used for fire suppression.*

*F. Emergency Requirements:*

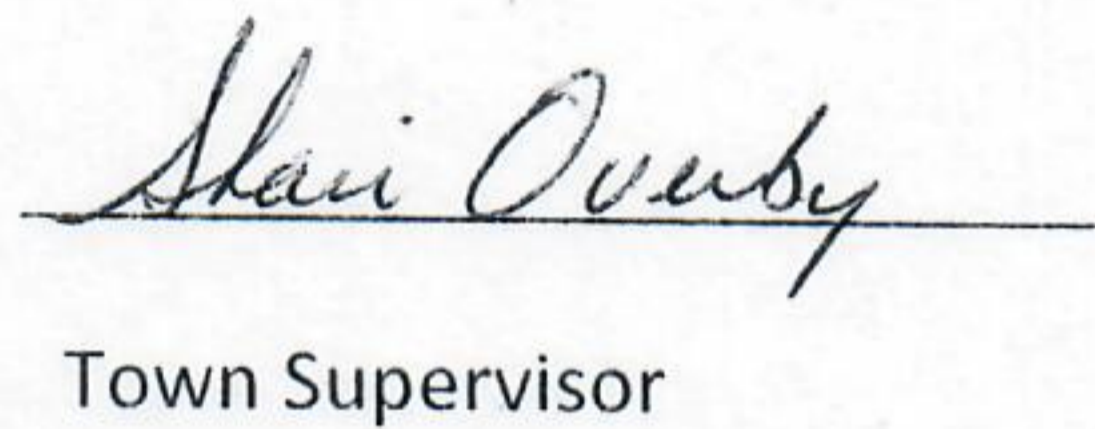
- *BESS owner shall provide funding for a community warning system for the residents of Forest in the event of toxic gas accumulation carried by the wind during a BESS fire or explosion.*
- *Water Supply for Fire Departments, the BESS site shall have a dedicated water supply for the optimum number of hydrants to cover all buildings and structures, either supplied by municipal service or a 100,000 gallon cistern with adequate pressure for fire department use.*
- *Fire Safety Compliance Plan, the BESS owner shall provide prior to issuance of the Building Permit, such a plan shall document and verify that the system and its associated controls and safety systems are in compliance with the Town of Forest BESS ordinance.*
- *Emergency Operation Plan, the BESS owner shall provide a plan to be approved by St. Croix County Emergency Management, Town of Forest, Clear Lake Fire Department and Glenwood City Fire department. Copies of the approved plan shall be provided to each, as well as an approved location that is accessible to BESS facility personnel, fire code officials and emergency responders. The plan will include procedures for safe shutdown and procedures for inspection and testing of associated alarms, interlocks and controls. Potential dangerous conditions, including shutting down equipment, summoning service and repair personnel, and providing notification to fire departments of potentially hazardous conditions in the event of system failure. Emergency procedures to be followed in case of fire, explosion, the release of liquids or vapors, damage to critical moving parts, or other potentially dangerous conditions. Procedures can include sounding the alarm, notifying St. Croix County Emergency Dispatch, Clear Lake and Glenwood City Fire Departments, and the Community Warning System. Evacuating site personnel, de-energizing equipment, and controlling and extinguishing the fire. Safety Data Sheets shall be included in the plan for all chemicals on site – either part of the BESS system or used for maintenance. Procedures and schedules for conducting drills of these procedures and for training first responders on the contents of the plan and appropriate response procedures.*

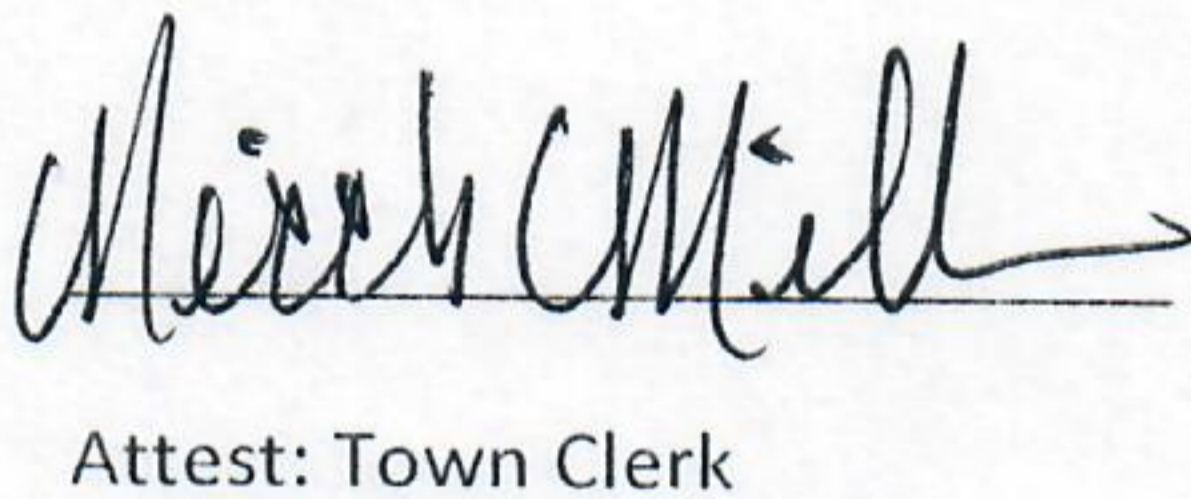
- *The owner of the BESS shall reimburse the Clear Lake and Glenwood Fire Departments for costs of additional equipment needed and training time required to respond and suppress and extinguish a fire at the Battery Energy Storage System.*
  - *Insurance, the BESS owner shall carry adequate insurance on the facility and will be liable for casualties, property damage, evacuation costs within the Town of Forest, and fire department response costs.*
  - *Clean Up Costs, The owner of the BESS facility will be liable for any environmental contamination due to fire or leakage and will bear the responsibility and costs restoring the land on the BESS facility and non-participating properties affected.*
- G. *Decommissioning/Removal, all applications for a Battery energy Storage System shall be accompanied by a decommissioning plan to be implemented upon abandonment and/ or in conjunction with removal of the installation. Prior to the removal of the BESS, a permit for removal activities shall be obtained from the Town of Forest. Decommissioning will require:*
- *Establishment of a decommissioning fund at the time of applying for the Building Permit, the amount will be set based on the size of the BESS project and the amount of money in the fund will be determined by the Town of Forest and funded by the BESS owner or developer.*
  - *The BESS owner, operator, and or his/her successors in interest shall remove any BESS, dedicated use buildings 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 will notify the Town of Forest by certified mail of the proposed date of discontinued operations and plans for removal, within 60 consecutive days of non-operation.*
  - *Physical removal of all battery energy storage system, dedicated use building and all other buildings or structures related thereto, equipment, security barriers, concrete basins, feeders, and branch out circuit wiring from the site.*
  - *Dispose of all solid and hazardous waste in accordance with local state and federal waste disposal regulations.*
  - *Stabilize or re-vegetation of the site to minimize erosion.*
  - *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.*

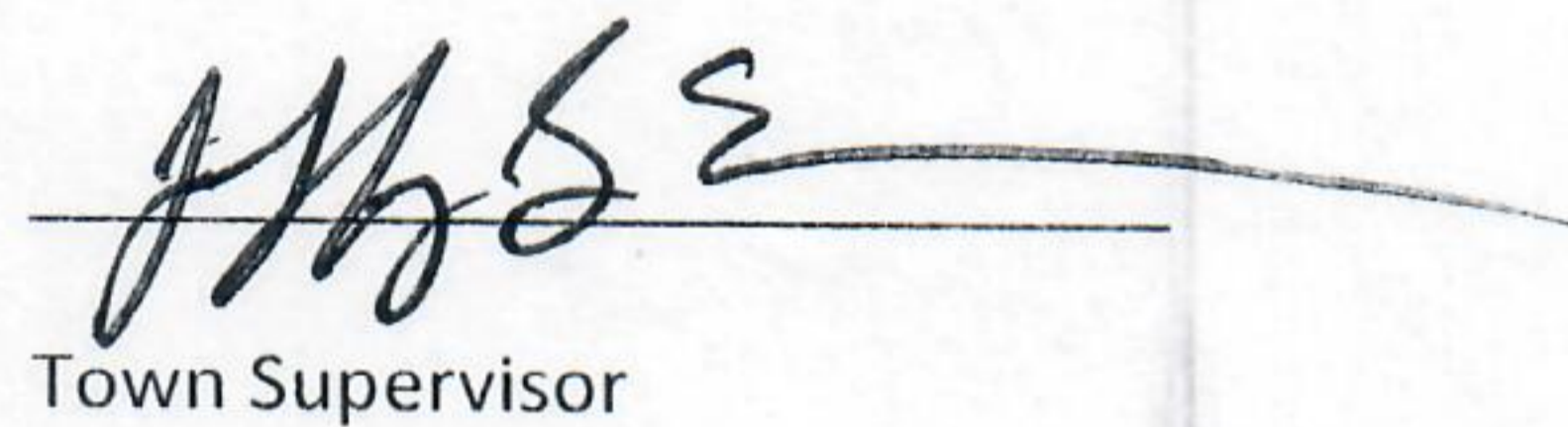
- In the event of default upon performance of such conditions, after proper notice and expiration of any cure periods, the letter of credit or other security shall be forfeited to the Town of Forest, which shall be entitled to maintain the action thereon. The letter of credit or security shall remain in full force and effect, until restoration of the property as set forth in the decommissioning plan is completed.
- In the event of default or abandonment of the BESS, the system shall be decommissioned. The costs of decommissioning/removal will be liable to the operator of the installation and the owner of the real property on which such installation was located
- EFFECTIVE DATE: This ordinance shall be in effect upon adoption by the Town Board and publication and/or posting as required by law.
- This Ordinance Number 2023-2 was passed and adopted by the Town of Forest on this 15<sup>th</sup> day of October 2023

Town of Forest

  
Town Chairman

  
Town Supervisor

  
Attest: Town Clerk

  
Town Supervisor

Published and posted this 15<sup>th</sup> day of October 2023