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MUNICIPAL ORDINANCE CHAPTER 255 Zoning

**AN ORDINANCE RELATING TO AMENDING CHAPTER 255, ZONING BY ADDING A NEW
SECTION 7.9 BATTERY ENERGY STORAGE SYSTEMS**

BE IT ORDAINED by the City Council of the City of Haverhill that Chapter 255, Zoning, of the Code of the City of Haverhill, as amended, being and is hereby further amended as follows by inserting the following new section 7.9 entitled “Battery Energy Storage Systems”;

§7.9 BATTERY ENERGY STORAGE SYSTEMS

§7.9.1. Purpose.

The purpose of this Section is to advance and protect the public health, safety, welfare, and quality of life by creating regulations for the installation and use of free-standing battery energy storage systems (“BESS”), with the following objectives:

- A. To provide a regulatory scheme for the location, construction and operation of free-standing BESS consistent with best practices and safety protocols;
- B. To ensure compatible land uses in the vicinity of the areas affected by BESS and to mitigate any potential impacts on abutting and nearby properties; and
- C. To mitigate the impacts of BESS on environmental resources such as agricultural lands, forests, wildlife, wetlands and other natural resources.

This Section shall be construed to be consistent with state law, including but not limited to the provisions of General Laws chapter 40A, section 3, and state regulations, including but not limited to the provisions of the State Building Code, State Fire Code, and State Electrical Code. In the event of any conflict between the provisions of this section and the provisions of state law or regulations, the state law and regulations shall prevail.

§7.9.2. Establishment of the BESS Overlay District

The BESS Overlay District is an overlay district superimposed over the underlying district set forth in this Zoning Ordinance. Within the BESS, the requirements of the underlying district continue to apply, except when the following uses are proposed then the following provisions of this section 7.9 shall apply:

Tier 1 BESS

Tier 2 BESS and

Tier 3 BESS

§7.9.3 Applicability.

A. The requirements of this ordinance shall apply to BESS permitted, installed, decommissioned or modified after the effective date of this ordinance, excluding general maintenance and repair. BESS subject to this ordinance are only those that exceed the following capacities:

- Lead-acid with a capacity of greater than 70 kW
- Nickel with a capacity of greater than 70 kW
- Lithium-ion with a capacity of greater than 30 kW
- Sodium nickel chloride with a capacity of greater than 20 kW
- Flow with a capacity of greater than 20 kW
- Other battery technologies with a capacity of greater than 20 kW

B. Only BESS that meet the criteria herein shall be permitted under this ordinance. BESS permitted under and subject to this ordinance shall be classified either as a Tier 1, Tier 2 or Tier 3 BESS as set forth herein. All sizes noted in this section shall include the total capacity of the proposed facility and not refer solely as a limitation on total export. For avoidance of doubt, a proposed system which has an export capacity of 50 MW but has a total storage or redundancy capacity of 100 MW shall be treated as a 100 MW system.

1. Tier 1 BESS have an aggregate energy capacity less than or equal to 500 kWh, derive 51% or more of their power from Solar Energy Systems as defined herein, and, if in a room or enclosed area, consist of only a single energy storage system technology.
2. Tier 2 BESS consist of those which meet one or more of the following criteria;
 - a. have an aggregate energy capacity greater than 500kWh and less than 10 MWh, but no greater than 10 MWh;
 - b. are comprised of more than one storage battery facility in a room or enclosed area;
 - c. derive less than 51% of their power from Solar Energy Systems as defined herein.
3. Tier 3 BESS consist of those which meet one or more of the following criteria;
 - a. have an aggregate energy capacity greater than 10 MWh, but no greater than 350MWh;
 - b. are comprised of more than one storage battery facility in a room or enclosed area;

- c. derive less than 51% of their power from Solar Energy Systems as defined herein.

§ 7.9.4. General Requirements

- A. All permits required by state codes, including but not limited to building permit, an electrical permit, and a fire department permit shall be required for installation of all BESS.
- B. All BESS, all Dedicated Use Buildings, and all other buildings or structures that (a) contain or are otherwise associated with a battery energy storage system; and (b) subject to the requirements of the State Building Code, shall be designed, erected, and installed in accordance with all applicable provisions of the State Building Code 780 CMR, State Fire Code 527 CMR 1.00, and State Electrical Code 527 CMR 12.00. All BESS shall comply with NFPA 855, Standard for the Installation of Stationary Energy Storage Systems or subsequent standard.
- C. Energy storage system capacities, including array capacity and separation, are limited to the thresholds contained in NFPA 855 or subsequent standard.

§ 7.9.5. Permitting Requirements for Tier 1 BESS

Tier 1 BESS are allowed by right in all zoning districts, including the BESS Overlay District, subject to applicable provisions of the State Building Code, Electrical Code, Fire Code, and other applicable codes, and are subject to site plan review in accordance with section 10.8 hereof and such provisions of this ordinance as are applicable.

Tier 1 BESS and appurtenances shall be prohibited in the Zone A and Zone 1 public water supply protection areas.

§ 7.9.6. Permitting Requirements for, Tier 2 and Tier 3 BESS shall be permitted by Special Permit in the BESS Overlay District in accordance with the requirements below.

§ 7.9.6.1 Special Permit Required. Tier 2 and Tier 3 BESS subject to this ordinance require the issuance of a Special Permit in the BESS Overlay District and are subject to Major Site Plan Review pursuant to Section 10.8. Tier 2 and Tier 3 BESS shall comply with the applicable requirements set forth in this ordinance including the General Special Permit Criteria set forth in section 10.4.2, as well as this Section 7.9 , and the Haverhill General Ordinances. The City Council shall be the Special Permit Granting Authority ("SPGA"). The Applicant shall be required to submit all materials required in accordance with the SPGA Rules and Regulations, in addition to any other materials necessary or as may be required in order to support that the Application meets the Design Requirements set forth in section 7.9.6.2 herein.

§ 7.9.6.1.1 Development Review Required As Part of Hearing Process: For the purpose of a Special Permit filed hereunder, the Applicant shall be required to submit a complete application for a Special Permit in accordance with the Requirements hereunder. Following the opening of the Public Hearing by the SPGA, the Application shall be referred to the Development Review Committee as set forth in

§10.1.4 hereof. The Development Review Committee shall meet with the Applicant who shall be required to provide any additional information as the Committee may reasonably request and the Development Review Committee shall provide the SPGA with its recommendations within ninety (90) days of the date upon which the application was thereto referred.

§ 7.9.6.1.2 Prohibitions: Notwithstanding the foregoing, Tier 2 and Tier 3 BESS and appurtenances shall be prohibited in the Zone A and Zone I public water supply protection areas.

§ 7.9.6.2 Design Requirements. The following requirements apply to all BESS subject to this ordinance, except where it is specifically noted to apply only to Tier 2 or Tier 3BESS:

- A. Site Plan Drawings. The Applicant shall provide a full set of Site Drawings stamped by a Massachusetts Registered Professional Engineer inclusive of items set forth in section 7.9.7.K.1 hereof.
- 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.
- C. Signage. Signage shall comply with the requirements of Section 6.2 of this Zoning Ordinance and the following additional requirements; in the event of a conflict between the provisions of Section 6.2 and this section, the requirements of this section shall control.
 - 1. The signage shall be in compliance with ANSI Z535 and shall include the type of technology associated with the BESS, any special hazards associated, the type of suppression system installed in the area of BESS, and 24-hour emergency contact information, including reach-back phone number.
 - 2. As required by the state electrical code, 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.
 - 3. Signage compliant with ANSI Z535 shall be provided on doors to rooms, entrances to BESS facilities, and on BESS outdoor containers.
- D. Lighting. Lighting of the BESS shall be limited to that minimally required for safety, security and operational purposes, shall be shielded from abutting properties, shall be directed downward, shall incorporate full cut-off fixtures to reduce light pollution and shall otherwise be consistent with local, state and federal law. A photometric plan shall be required.
- E. Vegetation and tree cutting. Areas within ten feet on each side of Tier 2 and Tier 3 BESS 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 provided that they do not form a means of readily transmitting fire. Removal of trees should be minimized to the extent possible. No tree or vegetation clearing shall be permitted within the Setbacks as noted below except for the

purposes of the area of ingress and egress to the site. Vegetation control in the Water Supply Protection Overlay District (WSPOD) shall be by mowing or other mechanical means. The use of synthetic pesticides, herbicides, and fertilizers shall be prohibited for BESS facilities within the WSPOD.

- F. Setbacks. Tier 2 and Tier 3 BESS shall be set back a minimum of 150 feet from all side, rear, and front lot lines; except that Tier 2 and Tier 3 BESS shall be set back a minimum of 300 feet from side, rear, and front lot lines that abut or are across a street from residential zoning districts or existing single, two-family, or multi-family structures. The minimum setback areas shall include a Buffer Area at least fifty feet wide along all property lines. Access drives and parking are allowed in the setback areas, except emergency access as noted below, but shall not intrude into the required setback areas except where necessary to provide access or egress to the property. In addition, a minimum of 50 feet must be maintained between BESS components and all buildings, stored combustible materials, hazardous materials, high-piled storage, personnel means of egress, and other exposure hazards not associated with electrical grid infrastructure. The Special Permit Granting Authority may waive these setback requirements so long as the approved setbacks protect the health and safety of nearby abutters.
- G. Emergency Access: There shall be a 60-foot-wide paved emergency access road around the complete perimeter of the facility but inside the required setback area which may not exceed a 7% grade at any time. Ongoing maintenance of the access road including snow removal after 3 inches of snow shall be included as part of the Operations and Maintenance Plan required herein.
- H. Lot Size. The minimum lot size for Tier 1 BESS shall not be less than 1 acre. The minimum lot size for a Tier 2 BESS shall be not less than 10 acres and the minimum lot size for a Tier 3 BESS shall be no less than 20.
- I. Dimensional. All BESS shall comply with the dimensional limitations for principal structures of the underlying zoning district as provided in Appendix B, Table 2, of this Zoning Ordinance, unless otherwise provided in this ordinance. No BESS shall exceed 15 feet in height and there shall be no vertical stacking of BESS units.
- J. Fencing Requirements. Tier 2 and Tier 3 BESS, including all mechanical equipment, shall be enclosed by a minimum eight-foot high fence with a self-locking gate to prevent unauthorized access unless housed in a dedicated-use building. All gates shall accommodate a knox box or other accessible means to allow access to public safety personnel. Security barriers, fences, landscaping, and other enclosures must not inhibit required air flow to or exhaust from the BESS and components. Electrical equipment greater than 1,000V require a separate and additional means to restrict access. NFPA 855 requires specialty safety systems to be provided based on the BESS chemistry and installed location.
- K. Screening and Visibility. Tier 2 and Tier 3 BESS shall have views minimized from adjacent properties to the extent reasonably practicable using architectural features, earth berms, landscaping, or other screening methods that will harmonize with the character of the property and surrounding area. Such features may not inhibit required air flow to or exhaust from the BESS and components and must comply with the setbacks established in paragraph G above.
- L. Failure Protection. All Tier 2 and Tier 3 BESS shall include an impenetrable layer beneath the

surface and no closer than four (4) feet to the closest water table which will cause any discharge to flow into a basin located on site which will then capture and/or treat any runoff as a result of a failed battery or fire or other destruction. The Application shall include details of the proposed catchment system along with a detailed stormwater report and stamped detailed engineering plans from a Massachusetts Registered Professional Engineer depicting the stormwater system. All BESS facilities located within the WSPOD shall have full containment to capture all releases, either intentionally from maintenance or accidental in nature. Release and runoff shall not be allowed.

- M. Batteries. Failed battery cells and modules shall not be stored on the site and shall be removed no later than 30 days after deemed failed by the BESS operator or cell/module manufacturer. The operator shall notify the Haverhill Fire Chief in advance if the type of battery or batteries used onsite is to be changed. All failed battery cells and modules shall not be stored outdoors and must be protected from further damage and potential release of contaminants to the environment.
- N. Storage. No equipment or hazardous materials, in liquid, dry, or gas form, shall be stored onsite of the BESS other than those items in quantities necessary for the proper operation of the facility. Any storage for materials deemed necessary shall be properly labeled, covered and contained to protect from release to the environment.
- O. Acoustical Impacts. No system shall cause an increase in acoustical levels over ambient at the Property line. An acoustical study prepared by a Massachusetts Registered Acoustical Engineer shall be provided.
- P. Water Source. A municipal water source shall be provided including a FDC within 100 feet before the entrance to the Hazard Area on the Property. The Applicant shall present evidence including a hydraulic analysis in accordance to the City standard to support that there is adequate volume and pressure for fire suppression on the Property and not have a detrimental impact on the surrounding neighborhood. The applicant shall be required to make any related offsite improvement to achieve the required standard to alleviate any impact on the adjacent users.
- Q. Stormwater Management. The applicant shall submit a stormwater management plan consistent with the Massachusetts Stormwater Management Policy.
- R. Decommissioning Plan. The applicant shall submit with its application a decommissioning plan for all BESS to be implemented upon abandonment and/or in conjunction with removal of the facility. The owner or operator of the BESS shall notify the Building Commissioner in writing at least twenty days prior to when a BESS will be decommissioned. Decommissioning of an abandoned or discontinued BESS shall be completed within six months after the facility ceases operation. The decommissioning plan shall include:
 - 1. A narrative description of the activities to be accomplished, including who will perform that activity and at what point in time, for complete physical removal of all BESS components, structures, equipment, security barriers, and transmission lines from the site;
 - 2. Disposal of all solid and hazardous waste in accordance with local, state, and

federal waste disposal regulations;

3. The anticipated life of the BESS;
 4. The estimated decommissioning costs and how said estimate was determined, including an allowance for annual cost of living increases or increases due to inflation;
 5. The method of ensuring that funds will be available for decommissioning and restoration;
 6. The method by which the decommissioning cost will be kept current;
 7. The manner in which the site will be restored, including a description of how any changes to the surrounding areas and other systems adjacent to the BESS, such as, but not limited to, structural elements, building penetrations, means of egress, and required fire detection suppression systems, will be protected during decommissioning and confirmed as being acceptable after the system is removed; and
 8. 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.
- S. Decommissioning Fund. The owner and/or operator of the energy storage system, shall continuously maintain a fund or other surety acceptable to the City, in a form approved by the City Council and City Solicitor, for the removal of the BESS, in an amount to be determined by the City, and which includes the City as loss payee, for the period of the life of the facility. All costs of the financial security shall be borne by the Applicant.
- T. Proof of Liability Insurance. The applicant or property owner shall provide evidence of commercial liability insurance in an amount and type generally acceptable in the industry and approved by the Planning Board prior to the issuance of a building permit, and shall continue such insurance in effect until such facility has been decommissioned, removed, and the site restored in accordance with this ordinance.

§ 7.9.6.3 Special Permit Criteria. In addition to the general Special Permit criteria set forth in section 10.4.2 of this Ordinance, an application for Tier 2 or Tier 3 BESS shall meet the following criteria:

A. The project protects the ground water and surrounding properties from catastrophic failure of one or more of the batteries or cells by implementing appropriate catchment and filtration systems for water run off or run off from the system.

B. The project appropriately attenuates sound intrusion beyond the property lines onto adjacent properties so that there is no change in ambient sound after construction and during operations of the system.

C. The project includes only dark sky compliant down lighting which does not intrude beyond the property lines onto adjacent properties.

D. The project is secure and addresses possible trespass or other intrusion by individuals not affiliated with the project.

E. The project meets the public safety needs of the City.

F. The project minimizes visual impacts from utility infrastructure for interconnection.

F. The project is minimally visible from adjacent properties.

§ 7.9.7. Site Plan application.

For all BESS the Site Plan application shall include the following information, in addition to that required by Section 10.8 of this Zoning Ordinance and the applicable Planning Board requirements governing Site Plan Applications:

A. Utility Infrastructure information requirements:

1. A one- or three-line electrical diagram detailing the BESS layout, associated components, and electrical interconnection methods, with all State Electrical Code compliant disconnects and over current devices.
2. The Applicant shall provide certified verification that there is a fully executed Interconnection Services Agreement (“ISA”) with the local utility distribution company. Said certification shall include the cover and signature pages of the ISA.
3. If the ISA has not been issued, the Applicant shall be required to provide a full copy of the Application for Interconnection filed with the local utility distribution company.

B. Preliminary equipment specification sheets that document the proposed BESS 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.

C. Name, address, and contact information of proposed or potential system installer and the owner and/or operator of the BESS. Such information of the final system installer shall be submitted prior to the issuance of building permit.

D. Large-scale fire test data, evaluation information, and calculations, and modeling data. For any of the following, UL 9540A fire test data must be made available to the Planning Board for review:

- BESS systems with a capacity of greater than 50 kW
- BESS systems with spacing between arrays of less than 3 feet

E. Commissioning Plan. The system installer or commissioning agent shall prepare a commissioning plan prior to the start of commissioning. Such plan shall be compliant with NFPA 855 and document and verify that the system and its associated controls and safety

systems are in proper working condition per requirements set forth in applicable state codes. Where commissioning is required by the Building Code, BESS commissioning shall be conducted by a Massachusetts Licensed Professional Engineer 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 by applicable state codes shall be provided to Zoning Enforcement Officer prior to final inspection and approval and maintained at an approved on-site location.

- F. Fire Safety Compliance Plan. Such plan shall document and verify that the system and its associated controls and safety systems are in compliance with state codes, including documentation that BESS components comply with the safety standards set forth in subsection 7.9.9. Such plan shall also include a detailed training plan for public safety personnel.
- G. Operation and Maintenance Manual. Such plan shall describe continuing BESS maintenance and property upkeep, as well as design, construction, installation, testing and commissioning information and shall meet all requirements set forth state codes and NFPA 855. Maintenance provisions will be driven by manufacturer requirements for the specific listed system. It shall address maintenance of the access and perimeter roadways, perimeter fencing, and shall include a snow removal plan and 24 hours access requirements by public safety officials. There shall be an annual; acoustical review to assure ongoing compliance with the requirement of no change from ambient at the property line and fire department inspection.
- H. Depending on the location of the BESS in relation to and its interaction with the electrical grid, interconnection will be completed per 527 CMR 12.00. System interconnections into utility grids shall be in accordance with NFPA 855 and the local distribution company standards for interconnection of distributed energy resources. An accessible disconnect is required per 527 CMR 12.00.
- I. Prior to the issuance of the building permit, As Built engineering documents must be signed and sealed by a Massachusetts Licensed Professional Engineer and provided to the Building Commissioner and Planning Department .
- J. Emergency Operations Plan. An Emergency Operations Plan compliant with NFPA 855 is required. A copy of the approved Emergency Operations Plan shall be given to the system operator, the local fire department, local fire code official and police department. For so long as the BESS is operational, the operator shall provide the Fire Department, Police Department, Building Commissioner, and Mayor's office with contact information for personnel that can be reached 24 hours per day every day, and this contact information shall be updated by the operator whenever there is a change in the information. The operator shall also be required to have an official representative be present onsite not later than two hours after notification by the Fire Chief, Police Chief, or their designee. 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:

1. 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.
 2. Procedures for inspection and testing of associated alarms, interlocks, and controls, including time intervals for inspection and testing.
 3. Procedures to be followed in response to notifications from the Battery Energy Storage Management System, when provided, 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.
 4. 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.
 5. Response considerations similar to a safety data sheet (SDS) that will address response safety concerns and extinguishment when an SDS is not required.
 6. Procedures for safe disposal of BESS equipment damaged in a fire or other emergency event, including maintaining contact information for personnel qualified to safely remove damaged BESS equipment from the facility.
 7. Other procedures as determined necessary by the City to provide for the safety of occupants, neighboring properties, and emergency responders.
 8. 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.
- K. Each Application shall be accompanied by the following information:
1. A certified plot plan at a minimum scale of one inch equals 40 feet and a maximum scale of one inch equals 20 feet. The site plan shall contain:
 - a. Date of site plan with all revisions noted and dated. Title of development, North arrow, scale, map and lot number, name and address of record owner, name and address of person preparing the site plan.
 - b. The names of all owners of record of adjacent properties, and the map and lot number of the properties and all buildings.
 - c. Zoning district boundaries and flood zone boundaries shall be shown as they affect the property including limits of the WSPOD and public water supply Zone A and Zone I on the overall site plan.
 - d. Boundaries of the property and lines of existing street, lots, easements and

- areas dedicated to public use, including rights of way.
 - e. A locus map showing the location of the property with reference to surrounding area.
 - f. A table indicating all calculations necessary to determine conformance to Bylaw regulations including current required and proposed regulations.
 - g. Square footage of property to the nearest 10 square feet.
2. All plans must include the location of existing and proposed buildings, walls, fences, culverts, parking areas, loading areas, walkways and driveways.
- a. Location and dimensions of utilities, gas, telephone, electrical, communications, water drainage, sewer and other waste disposal.
 - b. Location, type and dimensions of landscaping and screening.
 - c. Location of existing rock outcroppings, high points, vistas, ponds, depressions, wetlands, major trees (twelve-inch caliper and over) and any other significant existing features.
 - d. Two-foot contours where slopes are less than 15% and five-foot contours when 15% or more. Existing contours shall be indicated by dashed line. Proposed contours shall be indicated by solid line.
 - e. Dimensioned schematic drawings of all proposed buildings. Scale shall not exceed ¼ inch equals one foot nor less than 1/8 inch equals one foot.
 - f. A narrative describing the proposal and addressing the foregoing requirements.
 - g. Location of street numbers indicated on the schematic drawings and/or site plan.
 - h. Surface and water pollution. A report on the impact of Stormwater runoff on adjacent and downstream surface water bodies, subsurface groundwater and the water table.
 - i. Soils. The potential dangers of erosion and sedimentation caused by the operation and maintenance of the proposed development.
 - j. General environmental impact. A report on the relationship of the proposed development of the major botanical, zoological, geological and hydrological resources of the site, and compatibility of the proposed development with adjacent or surrounding land uses and neighborhoods.
 - k. Traffic impact. A report on existing street capacities, estimated average

daily traffic generation, composition, peak hour levels and directional flows resulting from the proposed development, proposed methods to mitigate the estimated traffic impact and methodology and sources used to derive existing data and estimations.

1. Renderings showing the proposed project in relationship to its surroundings.

§ 7.9.8. Ownership Changes.

If the owner of the BESS changes or the owner of the property changes, the Special Permit shall remain in effect, provided that the successor owner or operator assumes in writing all of the obligations of the Special Permit, Site Plan approval, and decommissioning plan. A new owner or operator of the BESS shall notify the Building Commissioner of such change in ownership or operator within 14 days of the ownership change. A new owner or operator must provide such notification to the Building Commissioner in writing.

§ 7.9.9. Safety

System Certification. BESS and equipment shall be listed by a Nationally Recognized Testing Laboratory to UL 9540 (Standard for BESS and Equipment) or approved equivalent, with subcomponents meeting each of the following standards as applicable:

- A. UL 1973 (Standard for Batteries for Use in Stationary, Vehicle Auxiliary Power and Light Electric Rail Applications),
- B. UL 1642 (Standard for Lithium Batteries),
- C. UL 1741 or UL 62109 (Inverters and Power Converters),
- D. Certified under the applicable electrical, building, and fire prevention codes as required.
- E. Alternatively, field evaluation by an approved testing laboratory for compliance with UL 9540 (or approved equivalent) and applicable codes, regulations and safety standards may be used to meet system certification requirements.

Site Access. BESS 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.

BESS, components, and associated ancillary equipment shall have required working space clearances, and electrical circuitry shall be within weatherproof enclosures marked with the environmental rating suitable for the type of exposure in compliance with NFPA 70.

§ 7.9.11. Abandonment

The BESS shall be considered abandoned when it ceases to operate consistently for more than one year. If the owner and/or operator fails to comply with decommissioning upon any abandonment, the City may, after compliance with any applicable state and federal constitutional requirements, enter the property and utilize the available bond and/or security for the removal of any BESS and restoration of the site in accordance with the decommissioning plan.

And further add the following new definition to § 11.1 of Chapter 255

§ 11.1

AGGREGATE ENERGY CAPACITY: Total amount of energy stored that can be stored in all batteries that are a part of the BESS measured in kilowatt-hours (kWh) or megawatt-hours (MWh).

BATTERY or BATTERIES: A single cell or group of cells connected electrically in series, in parallel, or 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.

BATTERY ENERGY STORAGE SYSTEM (“BESS”) – A system containing one or more battery modules for storing electrical energy, any equipment needed to support the safe and proper function or usage of the battery modules, and one or more physical container(s) providing secondary containment to any of the above. It may be a primary use or an Accessory Use to a solar generating facility, power generation facility, electrical substation, or other similar uses. For the purposes of this bylaw, BESS are comprised of three (3) types as further described in § 7.9.3.B. of this bylaw; Tier 1 BESS, Tier 2 BESS and Tier 3 BESS.

And further to amend section 3.1.3, Table of Use and Parking regulations by allowing Tier 1, Tier 2 and Tier 3 BESS in the districts as follows:

BESS Overlay District - OD

	RS	RR	RL	RM	RH	RU	CN	CH	CG	CC	CM	OP	BG	BP	BESS OD	PC
I. MISCELLANEOUS COMMERCIAL USES (cont'd)																
22. Kennel or veterinary hospital in which all animals, fowl or other forms of life are completely enclosed in pens or other structures	BA	BA	N	N	N	N	N	BA	N	N	N	N	N	N		D
23. Commercial communications and/or television tower, provided that it shall be at least 500 feet from any R District	BA	N	N	N	N	N	N	BA	BA	BA	N	BA	BA	BA		None
24. Battery Energy Storage Systems: Tier 1	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	None

25. Battery Energy Storage Systems: Tier 2	N	N	N	N	N	N	N	N	N	N	N	N	N	N	CC	None
26. Battery Energy Storage Systems: Tier 3	N	N	N	N	N	N	N	N	N	N	N	N	N	N	CC	None

And further to amend the City of Haverhill Zoning Map to include the BESS Overlay District as set forth below:

