Planning Board
AGENDA

Thursday, March 20, 2025 - 6:00 PM

Regular Meeting
Agawam Senior Center
954 Main Street
Agawam, MA 01001

A. Planning Board

1) 6:00PM PUBLIC HEARING-ZONING AMENDMENT-"An Ordinance to Amend Chapter 180 of the Code of the City of Agawam regarding Battery Energy Storage Systems"-Mayor Johnson

2) PUBLIC HEARING-FY25 Community Block Grant Application & FY22/23 Community Development Blcok Grant Review

3) APPROVAL OF MINUTES-March 6, 2025

4) Correspondences

AGAWAM CITY COUNCIL

36 MAIN STREET
AGAWAM, MASSACHUSETTS 01001
413-726-9716 Office 413-726-9717 Fax www.agawam.ma.us

COUNCIL PRESIDENT *Rosemary Sandlin* COUNCIL VICE PRESIDENT *Anthony J. Russo*

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George Bitzas – Edward Borgatti – Thomas D. Hendrickson – Dino R. Mercadante - Robert E. Rossi
Gerald F. Smith – Peter Smus - Anthony R. Suffriti- Maria Valego

ADMINISTRATIVE ASSISTANT – *Barbara A. Bard* bbard@agawam.ma.us

February 24, 2025

Agawam Planning Board
36 Main Street
Agawam, MA. 01001

Re: **Referral of Agenda Item**

Dear Members of the Agawam Planning Board:

The Agawam City Council has referred the following items to the Planning Board for their respective Public Hearings and recommendations:

- **TOR-2025-3** - An Ordinance to amend Chapter 180 of the Code of the City of Agawam regarding Battery Energy Storage Systems (Sponsored by Mayor Johnson)

After coordinating with the Planning Office, the City Council plans on having our Public Hearing on April 7, 2025. If you have any questions, please do not hesitate to contact the City Council Office.

Sincerely,

Rosemary Sandlin

Rosemary Sandlin, President
Agawam City Council

RS/bb

cc: Full Council, Mayor, Planning

Town of Agawam

Christopher C. Johnson, Mayor
36 Main Street
Agawam, MA 01001
Telephone: 413-786-0400 | 413-786-4525

Memorandum

To: Agawam City Council
From: Christopher C. Johnson, Mayor
Re: TOR-2025-3 (Battery Energy Storage Systems)
Date: February 13, 2025

Attached please find TOR-2025-3 which is an ordinance to add Article XXIII entitled "Battery Energy Storage Systems" which adds §180-164 to §180-173 to the Code of the City of Agawam regarding Battery Energy Storage Systems (BESS) in Agawam.

Battery storage is a technology that allows for the storage of energy for later use. A battery energy storage system (BESS) is an electrochemical device that charges or collects energy and then discharges that energy at a later time to provide electricity when needed. The battery energy storage system's (BESS) essential function is to capture the energy from different sources and store it in rechargeable batteries for later use. Often combined with renewable energy sources to accumulate renewable energy during an off-peak time and then use the energy when needed at peak time. This helps to reduce costs and establish benefits for the user.

BESS have broad flexibility with small systems available for homeowners and small businesses, distributed generative facilities that are medium in size and scale that connect to the grid, and larger utility grade grid connected BESS with much larger storage capacity.

Ten years ago the Commonwealth launched the Energy Storage Initiative (ESI) which aims to make the Commonwealth a national leader in the emerging energy storage market. The ESI proclaims that energy storage is a significant strategic opportunity for Massachusetts. It can improve grid operations, reduce energy costs, provide backup power through storms, and benefit the local economy. The Energy Storage Initiative aims to make the Commonwealth a national leader in the emerging energy storage market requiring a 1,000 Megawatt hour (MWh) energy storage target to be achieved by December 31, 2025.

The goal of the ESI is to advance the energy storage segment of the Massachusetts clean energy industry by:

- attracting, supporting and promoting storage companies in Massachusetts;
- accelerating the development of early commercial storage technologies;
- expanding markets for storage technologies, and valuing storage benefits to clean energy integration, grid reliability, system wide efficiency, and peak demand reduction; and

- recommending and developing policies, regulations and programs that help achieve those objectives.

Agawam has been approached by several developers seeking to potentially install battery energy storage systems in our community. One developer has recently submitted and received site plan approval for a distributed generative facility to be installed on Silver Street. In anticipation of the potential demand, I began researching and drafting an ordinance to regulate the installation and use of battery energy storage systems in Agawam. The draft ordinance represents our best efforts to reasonably regulation BESS in our community.

Please do not hesitate to contact me with any questions.

Very truly yours,

Christopher C. Johnson
Mayor

MASSACHUSETTS ENERGY STORAGE **FACTSHEET**

The energy storage market in Massachusetts is rapidly expanding. This factsheet provides basic information on the local energy storage market and consumer opportunities. Additionally, it covers specific monetizable services available, the process of interconnecting assets to the power grid, energy costs by utility, and the evolving regulatory landscape. Additional information and resources regarding energy storage are available on the MassCEC and DOER websites.

ENERGY STORAGE OPPORTUNITIES

Because energy storage resources can act as generators, loads, and transmission-type assets, there are many ways to realize their economic benefits in Massachusetts. Table 1 shows a high-level breakdown of key entities that can generate revenue, realize cost savings, or otherwise realize their organizational goals through the development and operation of energy storage assets. Other benefits, including increased reliability and resiliency, are currently non-monetizable in Massachusetts.

TABLE 1. OVERVIEW OF KEY ENTITIES, THEIR ROLES, AND EXAMPLES OF BENEFITS FROM IMPLEMENTING ENERGY STORAGE ASSETS

ENTITY	ROLE	TYPES OF BENEFITS AND GOALS
Customer	System Site, Service Agreements	Provide backup power, retail bill reduction through demand charge reduction and/or time of use (TOU), host-site payment, and wholesale market exposure for commercial and industrial (C&I) buildings
Utility	Programs, Incentives, Data, Interconnection	Receive grid support services, defer investment of distribution and transmission equipment[1]
Independent System Operator New England (ISO-NE)	Wholesale Market Integration	Increase system reliability, improve economic efficiency of wholesale market
Distributed Energy Resource Management System (DERMS) Operator	ISO/Utility Interface	Manage assets and resources to deliver contracts services
Asset Developer	Project Development, Permitting, Interconnection, Financing	Realize financial return on capital investment
Retail Energy Supplier	Manage customer electricity supply options	Profitably deliver energy services to customers

[1]Investment deferral for distribution and transmission equipment ultimately saves money for customers who would have been charged fees to cover the utility's capital expenses.

DOER Massachusetts Department of Energy Resources

MASSACHUSETTS CLEAN ENERGY CENTER®

Energy storage systems can be implemented on varying scales and in different locations with a range of possible use cases and dispatch operations. Energy storage systems are either installed behind a retail customer's meter (i.e., customer-side or behind-the-meter, BTM) or interconnected directly into distribution and transmission infrastructure (i.e., in-front-of-meter, IFOM). Multiple manufacturers are responsible for energy storage system's components, but often a single entity—called the original equipment manufacturer (OEM)—will be responsible for the maintenance of hardware controls. Depending on the ownership model, another, separate entity will often specify the dispatch control strategy. This can be a facility manager, an energy service company, a distribution utility, the ISO, or another wholesale market participant, such as a merchant generator. It is also possible for a third-party aggregator to dispatch a portfolio of BTM energy storage systems in a coordinated dispatch strategy to provide grid services. This aggregator would be responsible for handling financial transactions between the market or purchasing entity and its customers. End-use customers can also use energy storage systems to provide emergency back-up power for islanding microgrids and critical facilities, with similar relationships with a third party for operations and maintenance (O&M) and control.

MASSACHUSETTS INITIATIVES ON ENERGY STORAGE

Massachusetts launched the **Energy Storage Initiative** (ESI) in 2015 under Governor Baker to "evaluate and demonstrate the benefits of deploying energy storage technologies in Massachusetts." As part of the ESI, the State of Charge report was published in 2016 as a comprehensive document designed to analyze the storage industry, evaluate market opportunities, and investigate potential policies and programs to support the development of energy storage.

Since the publication of **State of Charge**, Massachusetts has established an **energy storage target** directing its electric delivery companies to procure at least 200 megawatt hours (MWh) by January 1, 2020.

Other programs currently under operation include these:

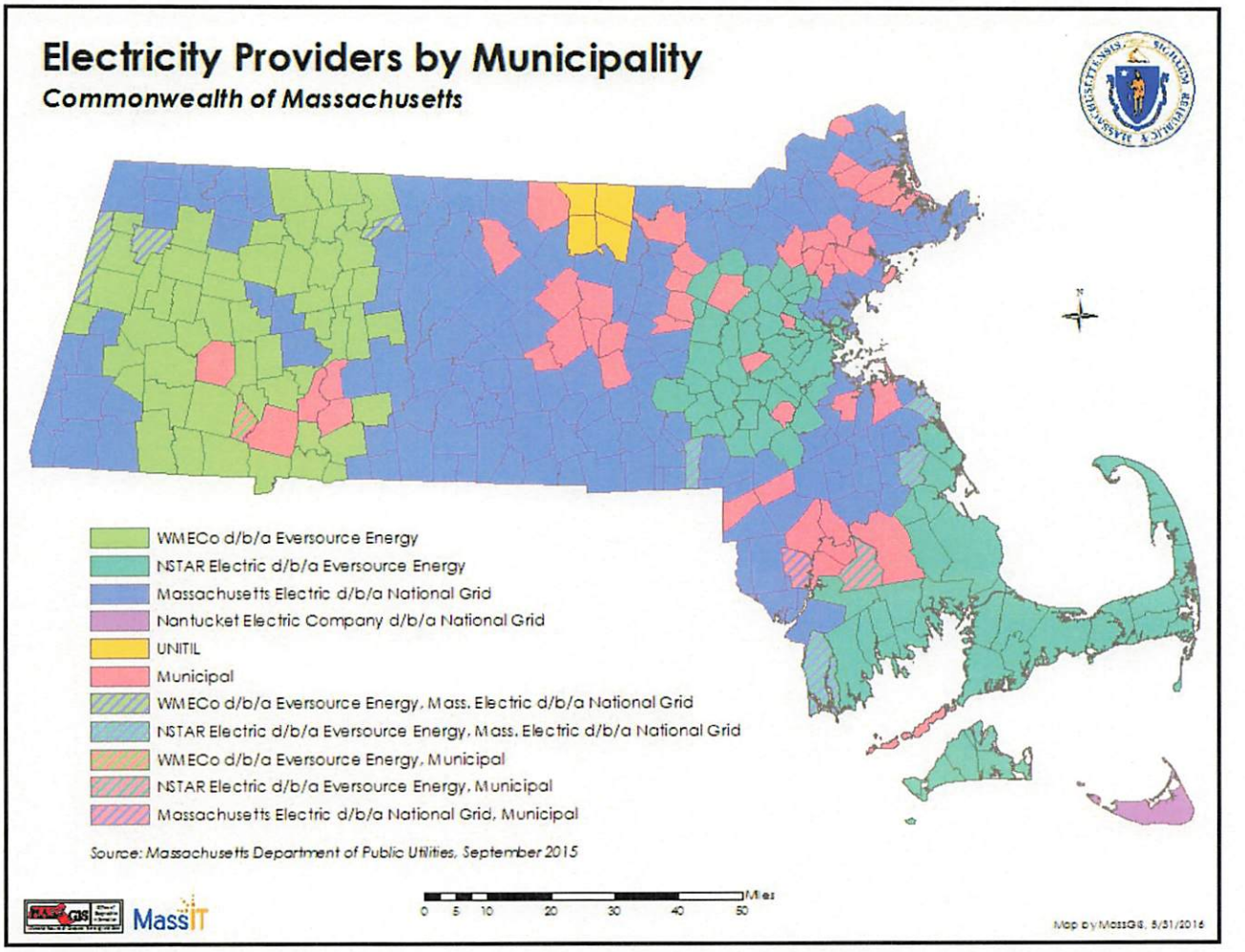
- **Advancing Commonwealth Energy Storage** (ACES): A series of grants for energy storage demonstration programs, with recipients announced in December 2017
- **Solar Massachusetts Renewable Target** (SMART): Incentives for incorporating energy storage into solar PV projects

There are also several initiatives currently in development further covered in the *Shifts in the Regulatory Landscape* section below.

THE MASSACHUSETTS POWER GRID

Massachusetts is served by five investor-owned electric utilities, as well as 41 municipal utilities, dispersed throughout the state. The investor-owned utilities (IOUs) regularly assume legal pseudonyms and are said to be doing business as (d/b/a) their respective holding companies: Eversource, National Grid, and Unitil. Figure 1 and Table 2 outline the location and size of these electric power distribution companies.

FIGURE 1. MASSACHUSETTS ELECTRICITY PROVIDERS BY MUNICIPALITY (2015)



ISO-NE is the regional transmission organization, which also serves Connecticut, Maine, New Hampshire, Rhode Island, and Vermont. The ISO structure enables a connection to New York and Canada, through which electricity can be traded with these markets. Further information on the structure of ISO-NE is included on their **maps and diagrams webpage**.

TABLE 2. SUMMARY OF MASSACHUSETTS INVESTOR-OWNED UTILITIES' CUSTOMER COUNTS AND TOTAL 2017 ENERGY SALES

UTILITY	RESIDENTIAL CUSTOMERS	COMMERCIAL CUSTOMERS	INDUSTRIAL CUSTOMERS	MWH SALES
Fitchburg Gas and Electric (d/b/a Unitil)	25,299	4,301	28	435,410
Massachusetts Electric Co (d/b/a National Grid)	1,154,508	158,129	3,965	19,903,988
Nantucket Electric Co (d/b/a National Grid)	11,761	1,626	5	155,380
Western Massachusetts Electric Co (d/b/a Eversource)	192,609	21,779	823	3,441,445
NSTAR Electric Co (d/b/a Eversource)	1,030,322	175,614	1,527	20,444,344

MONETIZABLE SERVICES

There are a number of monetizable services available to entities installing energy storage in Massachusetts. Table 3 outlines the current and expected monetizable services, including type of service, resource owner, compensation mechanism and price, constraints and relevant regulations, and links to more information. The table also indicates if the system is located BTM or IFOM as the location often informs the kinds of services a system can provide. In general, BTM storage resources can perform the same functions as IFOM resources, though IFOM resources cannot provide BTM services. Some systems can value stack, or provide more than one of these services, which is discussed further in Value Stacking Considerations.

Not included in the table, **non-wires alternatives (NWA)** represent an emerging area for energy storage in Massachusetts, though the financial benefits are recognized indirectly. Utilities use storage as part of a NWA to defer distribution upgrades, saving ratepayers money from forgone distribution upgrade cost recovery. These storage resources can also be sited either BTM or IFOM. White papers by the **Solar Energy Industries Association** and the **Smart Electric Power Alliance** document several examples of NWA projects in United States that rely extensively on energy storage resources. It is also possible to stack other value streams on an NWA project.

Manuals outlining the procedures for market participant responsibilities related to ISO-NE's markets can be found here: **https://www.iso-ne.com/participate/rules-procedures/manuals/**

TABLE 3. EXISTING AND EXPECTED MONETIZABLE SERVICES FOR ENERGY STORAGE IN MASSACHUSETTS

SERVICE	STORAGE LOCATION	PROJECT TYPE AND RESOURCE OWNER	COMPENSATION MECHANISM AND PRICING	CONSTRAINTS AND RELEVANT REGULATIONS	LINKS TO FURTHER INFORMATION
Solar Massachusetts Renewable Target (SMART)	BTM/IFOM	Facility owner or project developer owns the storage system	Coupling of energy storage with distributed solar PV enables an "adder" for compensation for electricity generated. This ranges from $0.025- 0.076/kWh based on ratio of storage capacity to solar capacity	Accompanying solar PV systems must not exceed 5 MW, must be installed at same time, limited space for subscribing for adder	**http://masmartsolar.com/**
Customer Demand Charge Management	BTM	Facility owner or project developer owns the storage system	Customer savings from demand charges on utility bills	Bill savings generally encompasses only commercial and industrial customers with larger loads (>250-300 kW) as this requires interval metering and is best for "peaky" loads.	Refer to **Massachusetts Electric Rates and Tariffs** for demand charges
Utility Demand Response	BTM	Facility owner or project developer owns the storage system and dispatches the system in accordance with program requirements.	Customer payment based on specific program requirements. The 2019-2021 Massachusetts Three Year Energy Efficiency Plan will expand funding for energy storage through Active Demand Response programs.	May require additional metering; program participation could conflict with wholesale market participation	**http://ma-eeac.org/plans-updates/** **https://www.nationalgridus.com/MA-Business/Energy-Saving-Programs/ConnectedSolutions**

SERVICE	STORAGE LOCATION	PROJECT TYPE AND RESOURCE OWNER	COMPENSATION MECHANISM AND PRICING	CONSTRAINTS AND RELEVANT REGULATIONS	LINKS TO FURTHER INFORMATION
ISO-NE Demand Response: Price Responsive Demand (PRD)	BTM	Storage owner offers storage system as a demand response asset (DRA) that is mapped to a demand response resource (DRR) that participates in in the full range of wholesale electricity markets: energy, real-time reserves, and capacity	Payments for energy and reserves based on economic dispatch. DRRs that are Active Demand Capacity Resources (ADCR) receive wholesale market capacity payments comparable to that of generating resources. PRD enables over-performing, energy-only resources in the Forward Capacity Market (FCM) to receive up to $2,000/MWh of additional revenue during scarcity conditions, scheduled to increase to $5,455/MWh	Minimum DRR and ADCR size is 100 kW with aggregation allowed. ADCR must offer requirement in energy market, performance measurement at retail delivery point Required 5-minute real-time telemetry, may not be co-located with other DRA or wholesale market generator at same location. Seasonal audit duration 1 hour, claimed capability audit duration 2 hours	https://www.iso-ne.com/markets-operations/markets/demand-resources https://www.iso-ne.com/static-assets/documents/2017/04/20170411-webinar-energy-storage.pdf
ISO-NE Forward Capacity Market (FCM)	BTM/IFOM	Storage owner offers storage system as a generator or active demand capacity resource (ADCR) three years in advance of the delivery year. Capacity resources have must offer obligation in energy market.	The capacity market is based on a two-settlement system also known as Pay-for-Performance (PFP). Capacity resources receive a base payment based on the primary auction clearing price. The second settlement is based on performance relative to the resource's capacity supply obligation during reserve deficiencies (capacity scarcity conditions). Resources can receive a performance bonus or a penalty based on their performance. Energy only resources can also earn a performance bonus under PFP. Capacity pricing from the latest auction year (2021-22) was $4.63kW-month.	Minimum resource size for generators resource or ADCR size is 100 kW with aggregation allowed for ADCRs. ADCR performance measurement, telemetry and auditing is based on DRR performance (see above). Capacity resources undergo project monitoring until commercialization is demonstrated. Financial assurance is required as security that project will be built.	https://www.iso-ne.com/markets-operations/markets/forward-capacity-market/ https://www.iso-ne.com/about/key-stats/markets#fcaresults https://www.iso-ne.com/static-assets/documents/2018/06/2018-06-14-egoc-a4.0-iso-ne-fcm-pay-for-performance.pdf
Energy Supply Arbitrage	BTM	Facility owner or third party owns and operates the storage resource	Compensation recognized as savings from buying/charging at a lower cost than when selling/discharging, which may result in decreased electricity bills	Requires energy contract with variable pricing	Refer to **Massachusetts Electric Rates and Tariffs** for time of use rates
ISO-NE Installed Capacity (ICAP) Tag Management	BTM	Facility owner or third party owns and operates the storage resource	Avoided capacity charges of ~$4.50 - 5.50/kW/month	Capacity charge must be explicit on bill, must not be profiled class customer, requires interval metering	See Installed capacity tags information for National Grid https://www1.nationalgridus.com/InformationAndForms-MA-RES
ISO-NE Frequency Regulation	BTM/IFOM	The project developer is the resource owner	Receive payment from ISO-NE Two clearing prices for capacity and service mileage. Regulation Capacity Offer ($/MW, not to exceed $100/MW) and Regulation Service Offer ($/MW, not to exceed $10/MW)	Extremely small market in NE: less than 100 MW of daily procurement, oversupplied Sometimes zero dollar offer priced regulation capacity, which may not clear economically Resource must be dispatched by ISO-NE	https://www.iso-ne.com/markets-operations/markets/regulation-market M-REG - https://www.iso-ne.com/participate/rules-procedures/manuals/

SERVICE	STORAGE LOCATION	PROJECT TYPE AND RESOURCE OWNER	COMPENSATION MECHANISM AND PRICING	CONSTRAINTS AND RELEVANT REGULATIONS	LINKS TO FURTHER INFORMATION
ISO-NE Forward Reserves	BTM/IFOM	The project developer is the resource owner	Receive payment from ISO-NE Forward Reserve Market (FRM) has two competitive reserve actions: one for summer reserve (Jun - Sep) and one for winter (Oct - May); payment calculated in $/MW-month Real-time reserve pricing is designed to offset lost opportunity costs for reserve capacity instead of production and compensate for on-line/fast start when system is short on reserves	Reserve market co-optimized with energy market, requires minimum duration of two hours (ISO-NE Tariff MR 1 Section III.1.5.1.3.j)	https://www.iso-ne.com/markets-operations/markets/reserves
ISO-NE Voltage Support	IFOM	The project developer is the resource owner	Resources are compensated for providing voltage support services and qualifying resources may receive capacity compensation	Very small market: $1.13/kVAR-yr, about $20MM/year for 8089 MVAR	https://www.iso-ne.com/participate/rules-procedures/generator-nongenerator-var-capability/
Emergency Islanding/ Backup Power	BTM	Facility owner or project developer own the storage system	Non-monetary compensation: Value is in increased resiliency and energy security in the event of an outage	Resource could also be eligible for other values, such as energy arbitrage, demand shifting, or demand response during non-emergency times	https://www.energy.gov/oe/activities/technology-development/grid-modernization-and-smart-grid/role-microgrids-helping
Eversource Variable Peak Pricing	BTM	Facility owner also owns and operates the storage system	savings in the form of less-expensive electricity at off-peak times On-peak prices are set on a daily basis	Customers must receive service under a time of use rate and have a meter that can measure and record on-peak usage on a daily basis	https://www.eversource.com/clp/vpp/vppqa.aspx

Value Stacking Considerations

Value stacking of multiple revenue streams requires consideration of the following:

- Location of the facility relative to the metering interconnection
- Operational requirements of the service delivered and/or savings achieved
- Relative value of the that service or savings.

Value streams can be broken down into two categories: **revenue** and **avoided costs** (shown in Table 4). Revenue streams are values for which the system owner receives payment, while avoided cost streams are those for which usual costs or bills are not incurred due to the specified system service.

TABLE 4. VALUE STREAMS BROKEN DOWN BY REVENUE AND AVOIDED COSTS

REVENUE	AVOIDED COST
• Energy/Reserves • Ancillary Service (Regulation) • Capacity • State Incentives (SMART, Net Metering) • Investment Tax Credits (Federal, State and Local) • NWA • Transmission Services	• Demand Charge Management • Peak Energy • ICAP Tag • Regional Network Service • Emergency Power/ Resiliency

The economics of developing storage facilities often require multiple value streams to provide financial benefits. However, it may be difficult to realize multiple value streams depending on the purpose and configuration of the storage. For a storage system with the capability to deliver certain services, the various sets of services may only be combined under the following constraint levels:

- **Mutually Exclusive:** Storage asset may only serve different, mutually exclusive services
- **Only Stackable Across Time:** Storage asset may perform multiple services, but at different times
- **Stackable Simultaneously:** Storage asset may perform multiple services at the same time

Details of operational requirements, risks, and value propositions should go into any economic model built to justify investment. Energy storage cannot perform all available services at the same time, or within a particular time window (e.g., hour or day). This will restrict what services can be provided and affect the monetary value calculus for the system. An example of the value proposition for multiple value stacks in storage is discussed in a recent publication by **Lazard**.

Energy and Demand Costs by Utility and Service Class

Billing rate schedules and tariffs vary by utility, customer, and service type. Rates vary based on type of customer and application. **Fixed volumetric rates and charges** are the same regardless of when energy is consumed, while **time-of-use rates** vary based on peak and off-peak times established by the utility based on demand. **Demand charges** are additional fees based on peak power usage during a billing period, charged in cost per KW. Current examples for commercial or commercial time-of-use customers are shown in Table 5. For comprehensive lists of rates and tariffs for Massachusetts utilities, see the following links:

- Massachusetts Electric Rates and Tariffs
- National Grid
- Eversource
- Unitil

TABLE 5. EXAMPLES OF COMMERCIAL CUSTOMER RATES

UTILITY	SERVICE CLASS	CHARACTERISTIC	COST
National Grid (Nantucket Electric)	G-3 (Time of Use)	Fixed Customer Charge	$223.00
		Demand Charge	$5.76
		Peak kWh - Summer	$0.05376
		Off Peak kWh - Summer	$0.04776
		Peak kWh - Winter	$0.05168
		Off Peak kWh - Winter	$0.04568
National Grid (Mass Electric)	G-3 (Time of Use)	Fixed Customer Charge	$223.00
		Demand Charge	$5.76
		Peak kWh	$0.04466
		Off Peak kWh	$0.03866
Eversource	G-3 (General Service, Boston)	Fixed Customer Charge	$250.00
		Demand - Summer	$24.09
		Demand - Winter	$17.92
		kWh	$0.01953

Note: kWh charges reflect total delivery charge

Microgrids

Another opportunity for energy storage is in microgrid applications. Microgrids can be characterized as groups of loads and distributed energy resources that can operate connected to the grid or independently in "island mode." In addition to furthering the integration of renewable resources to the energy system, battery storage within the microgrid context provides resilience in the face of grid outages. Storage resources can deliver fast response power supply to critical loads during grid outages, and can continue to supply power for longer durations when coupled with solar PV and other onsite generators.

To support resilience and microgrids, Massachusetts developed the **Community Clean Energy Resiliency Initiative** and **Community Microgrids Program** to finance projects related to clean energy, with an emphasis on resilience throughout the Commonwealth. Additionally, the Municipal Vulnerability Preparedness (MVP) program provides grant funding to municipalities for planning and implementing climate resiliency projects. Energy storage projects may be eligible to receive funding through the Redesign and Retrofit component of the **MVP Action Grant**. For more about opportunities in this area, visit the MassCEC **microgrids** and **energy resilience** websites.

INTERCONNECTING STORAGE RESOURCES

Interconnection of distributed energy resources in Massachusetts involves the system owner, utility, local inspectors, and project contractor. Written approval from utilities is required in the form of an Interconnection Service Agreement and Authorization to Connect. These processes apply to systems connected to investor-owned utilities (IOUs). **Municipal utilities** are not subject to the same regulations, but may have their own requirements on a municipality-by-municipality basis.

As summarized in Table 6, there are three interconnection review paths: simplified, expedited, and standard. As an inverter-based technology, energy storage is evaluated by interconnection location, system size and other characteristics to determine which path can be utilized for a given interconnection application.

TABLE 6. MASSACHUSETTS INTERCONNECTION REVIEW PATHS

	SIMPLIFIED	EXPEDITED	STANDARD
Project Type	Inverter-based technologies served by radial systems, 15 kW or less 1-Phase or up to 25 kW 3-Phase	Inverter-based systems greater than 15 kW 1-Phase or greater than 25 kW 3-Phase and other systems of all sizes that are served by radial systems and meet other requirements	All projects not eligible for simplified or expedited review, including all systems on networks
Typical Projects	Rural residential systems	Rural commercial or industrial systems	Uncertified large projects, unusually complex projects, or projects of any size located on networks
Total Maximum Days of Review Time, Without Delays	15 Add additional 5 days for projects that fail Screen #5 (must be single-phase or all 3-phase)	40 - 60	125-150 If substation modifications are needed, add 20 days. If necessary system modifications are likely to cost over $200,000 in electric power system upgrades, add 45 days
Application Fee	Fixed Fee ($0-$28 per application)	$4.50/kW ($300 minimum, $7,500 maximum)	$4.50/kW ($300 minimum, $7,500 maximum)

Source: **Massachusetts Interconnection Project Review Paths**

The application process time starts on the date that the interconnection application is deemed complete and ends on the date the interconnection agreement is sent. This varies by project and distributed energy resource type. For all resources, this process has taken 25 days or less for 50% of applications. For the only energy storage interconnection request processed to date in Massachusetts, the process took less than 25 days. A running list of interconnection requests is available on the **MA Distributed Generation and Interconnection website**, supported by the Massachusetts Department of Energy Resources and U.S. Department of Energy .

The detailed requirements vary by utility and can be viewed at the following links:

- **National Grid Standards for Interconnection of Distributed Generation**
- **Unitil Standards for Interconnection of Distributed Generation**
- **Eversource Standards for Interconnection of Distributed Generation**

Interconnection and ISO-NE

The interconnection process for ISO-NE is defined in the **Open Access Transmission Tariff** (OATT) and is integrated with the **Forward Capacity Market** rules as of 2009 to establish Capacity Network Resource Capability. ISO-NE requires interconnection studies to make a determination of "no significant adverse impact" from the addition of new storage resources. An interconnection agreement for energy only, without capacity rights, is also permitted. All generators connecting to the bulk power system must follow one or more interconnection processes administered by ISO-NE each beginning with the **I.3.9 requirements in the OATT**. In general, projects greater than 5 MW will require more substantial information and time for review. The ISO has the right to recover costs for the study process in the form of a fee, which is described in the OATT. Regional transmission planning that includes the Network Capacity Interconnection Standard should follow ISO planning procedures, **available online**.

Relevant documents (available on the **OATT Website**) include the following:

- **Schedule 22: Large Generator Interconnection Procedures (LGIP):** provides terms and conditions for interconnecting large generating facilities (>20 MW) to the administered transmission system.
- **Schedule 23: Small Generator Interconnection Procedures (SGIP):** provides terms and conditions for interconnecting small generating facilities (20 MW or less) to the administered transmissions system.
- **Schedule 25: Elective Transmission Upgrade Interconnection Procedures (ETU IP):** provides terms and conditions for interconnecting other transmission facilities to the administered transmissions systems that are not a Generator Interconnection Related Upgrade, a Regional Transmission Upgrade, or a Market Efficiency Transmission Upgrade.

Additional Interconnection Resources

Additional resources on interconnection in Massachusetts and New England are available at the following links:

- **Distributed Generation and Interconnection in Massachusetts**

- ISO New England Interconnection Planning Procedure for Generation and Elective Transmission Upgrades
- MassCEC Energy Storage Safety

SHIFTS IN THE REGULATORY LANDSCAPE

As energy storage continues to evolve, nationwide and in Massachusetts, regulatory requirements and opportunities for energy storage will also develop. Some examples of upcoming changes for energy storage in Massachusetts are detailed below.

ISO-NE Activities

FERC Order 841

FERC Order 841, set to become effective December 3, 2019, is designed to remove barriers to the participation of electric storage resources in wholesale markets. This expands the opportunities for energy storage to participate in wholesale energy and capacity markets and to provide ancillary services including frequency regulation. Prior to Order 841, ISO-NE had market structures in place that enabled energy storage participation, but these were largely designed for binary storage technologies like pumped hydro, as opposed to continuous storage facilities like batteries. ISO-NE also had rules in place to allow alternative technology regulation resources (ATRRs) but had not developed clearer rules about bidding, scheduling and dispatch for continuous storage resources that co-optimize multiple services delivered coincidentally. Compliance under FERC Order 841 by ISO-NE will require changes to Market Rule 1 to do the following:

- Lower the minimum size requirement for electric storage facilities (ESFs) to 0.1 MW and to allow energy storage resources to set price in ISO administered markets
- Ensure all storage technologies are eligible under the ESF participation model addressing registration, market facing administration, and ISO dispatch
- Expand the existing binary storage facility rules to all storage technologies through the newly defined Continuous Storage Facilities (CSF)

Read More: ISO-NE FERC Order 841 Compliance Filing or the **ISO-NE Energy Storage Device Project Page**

Energy Storage Device Project

The ISO-NE **Energy Storage Device (ESD) Project**, targeted to launch in April 2019, will enable grid-scale energy storage assets (5 MW or larger) to perform in various markets, without requiring major changes to software and processes. Registration as an ESD allows for simultaneous asset registration as the following:

- Alternative technology regulation resource (ATRR)
- Non-regulation capable generator
- Dispatchable-asset-related demand (DARD) asset

Thus, energy storage resources classified as ESDs can continue to operate as a dispatchable energy market resource, while also serving fully in the regulation market. Classification as a DARD excludes the resources from paying transmission or ancillary service fees, making consumption and production costs lower-risk for the storage device. For complete definitions and technical requirements for generators, ATRRs, and DARDs, refer to Operating Procedure 14 (OP-14): **ISO Operating Procedures.**

An overview of registering assets with ISO-NE can be found here: **Asset Registration.**

Massachusetts Activities

Clean Peak Energy Standard

The **Massachusetts Clean Peak Standard** is the product of "An Act to Advance Clean Energy" signed into law in August 2018. The program will be designed to incentivize technologies that can supply clean electricity or reduce demand during seasonal peak demand periods. The Clean Peak Standard is still under development, with the 2019 minimum standard percentage requirement set to 0%. The Clean Peak Standard is anticipated to further incentivize the use of energy storage, which can discharge stored electricity to reduce electrical demand during peak times defined by DOER.

TOR-2025-3

AN ORDINANCE TO AMEND CHAPTER 180 OF THE CODE OF THE CITY OF AGAWAM REGARDING BATTERY ENERGY STORAGE SYSTEMS

(Sponsored by Christopher C. Johnson, Mayor)

WHEREAS, a battery energy storage system (BESS) is an electrochemical device that charges or collects energy and then discharges that energy at a later time to provide electricity when needed; and

WHEREAS, ten years ago the Commonwealth launched the Energy Storage Initiative (ESI) which aims to make the Commonwealth a national leader in the emerging energy storage market; and

WHEREAS, battery energy storage systems have broad flexibility with small systems available for homeowners and small businesses, distributed generative facilities that are medium in size and scale that connect to the grid, and larger utility grade grid connected BESS with much larger storage capacity; and

WHEREAS, Agawam has no zoning ordinance that deals with battery energy storage systems and given the potential for the installation of new BESS, it is important for Agawam to adopt an ordinance to regulate the installation and use of battery energy storage systems; and

WHEREAS, it is in the best interest of the City of Agawam to amend Chapter 180 by adding Article XXIII entitled "Battery Energy Storage Systems" which adds §180-164 to §180-173 to the Code of the City of Agawam to provide local guidance regarding the installation and use of BESS in Agawam; and

NOW THEREFORE, the Agawam City Council hereby amends Chapter 180 of the Code of the City of Agawam by adding Article XXIII entitled "Battery Energy Storage Systems" which is attached hereto and incorporated herein by reference.

DATED THIS _____ DAY OF _____, 2025.

PER ORDER OF THE AGAWAM CITY COUNCIL

_____
Rosemary Sandlin, President

APPROVED AS TO FORM AND LEGALITY

_____
Christopher S. Cappucci, Solicitor

ARTICLE XXIII Battery Energy Storage Systems

§180-164 Purpose.

The purpose of this Article is to promote the reasonable regulation of the installation and use of battery energy storage systems, with the following objectives: (i) to provide a regulatory scheme for the location, construction and operation of battery energy storage systems consistent with best practices and safety protocols; (ii) to ensure compatible land uses in the vicinity of the areas affected by battery energy storage systems and to mitigate any potential impacts on abutting and nearby properties; and (iii) to mitigate the impacts of battery energy storage systems on environmental resources such as agricultural lands, forests, wildlife, wetlands and other natural resources.

This Article shall be construed to be consistent with state law, including but not limited to the provisions of Massachusetts 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.

§180-165 Definitions.

As used in this Article, the following terms shall have the meanings indicated. Terms that are not defined herein or elsewhere in this Article shall be as defined by the National Fire Protection Association (NFPA), if applicable.

ANSI: American National Standards Institute.

Battery or batteries: 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 Article, batteries utilized in consumer products are excluded from these requirements.

Battery Energy Storage System (BESS): Electrochemical devices that charge, or collect, energy from the grid or a generation facility, store that energy, and then discharge that energy at a later time to provide electricity or other grid services.

BESS Management System: An electronic system that protects energy storage systems from operating outside their safe operating parameters and disconnects electrical power to the energy storage system or places it in a safe condition if potentially hazardous temperatures or other conditions are detected.

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 complies with the following:

1. The building's only use is battery energy storage, energy generation, and other electrical grid related operations.
2. No other occupancy types are permitted in the building.
3. 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.
4. Administrative and support personnel are permitted in areas within the buildings that do not contain battery energy storage systems, 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 administrative and support use areas to the public way that does not require occupants to traverse through areas containing battery energy storage systems or other energy system equipment.

NFPA: National Fire Protection Association.

This Article: Article XXIII of the Code of the Town of Agawam.

UL: Underwriters Laboratory

§180-166 Applicability.

1. The requirements of this Article shall apply to battery energy storage systems permitted by site plan review, special permit or building permit, installed, decommissioned or modified after the effective date of this Article.
2. Battery energy storage systems that are paired with a building integrated solar energy system are allowable as an accessory use in all zoning districts, provided they comply with the provisions of §180-167 hereof.
2. Battery energy storage systems that are subject to this Article shall be classified as either a Tier 1, Tier 2 or Tier 3 Battery Energy Storage System as follows:
    a. Tier 1 Battery Energy Storage Systems have an aggregate energy capacity less than or equal to 500 KWh.
    b. Tier 2 Battery Energy Storage Systems have an aggregate energy capacity greater than 500 KWh and less than or equal to 50 MWh.
    c. Tier 3 Battery Energy Storage Systems have an aggregate energy capacity greater than 50MWh.

§180-167 General Requirements.

1. 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 battery energy storage systems.

2. All battery energy storage systems, 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) are 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, the State Fire Code, and the State Electrical Code. All battery energy storage systems shall comply with the NFPA Standard for the Installation of Stationary Energy Storage Systems, as amended from time to time.

3. Energy storage system capacities, including array capacity and separation, are limited to the thresholds contained in the NFPA Standard for the Installation of Stationary Energy Storage Systems, as amended from time to time.

4. Any battery energy storage system constructed in the Floodplain District as set forth in §180-68 shall require a special permit granted pursuant to §180-71.

5. Any application to construct a Tier 2 or Tier 3 battery energy storage system where the energy storage units are located within two hundred fifty (250) feet of a sensitive noise receptor may be required to include an acoustic study in order to ensure that any increase in sound complies with Massachusetts DEP requirements.

§180-168 Permitting Requirements for Tier 1 Battery Energy Storage Systems.

Tier 1 Battery Energy Storage Systems are allowed by right in all zoning districts, subject to applicable provisions of the State Building Code, the State Electrical Code, the State Fire Code, and other applicable codes, and such provisions of this Article as are applicable.

§180-169 Permitting Requirements for Tier 2 and Tier 3 Battery Energy Storage Systems.

Tier 2 and Tier 3 Battery Energy Storage Systems are allowed by right in any Industrial zone subject to applicable provisions of the State Building Code, the State Electrical Code, the State Fire Code, and other applicable codes, and subject to site plan review as outlined in §180-13 of the Code of the Town of Agawam and such provisions of this Article as are applicable. Tier 2 Battery Energy Storage Systems are allowed by right in the Agricultural zone subject to applicable provisions of the State Building Code, the State Electrical Code, the State Fire Code, and other applicable codes, and subject to site plan review as outlined in §180-13 of the Code of the Town of Agawam and such provisions of this Article as are applicable. Tier 3 Battery Energy Storage Systems are allowed in the Agricultural zone subject to the issuance of a special permit as outlined in §180-11 of the Code of the Town of Agawam and subject to applicable provisions of the State Building Code, the State Electrical Code, the State Fire Code, and other applicable codes, and subject to site plan review as outlined in §180-13 of the Code of the Town of Agawam and such

provisions of this Article as are applicable. No Tier 2 or Tier 3 Battery Energy Storage System shall be constructed or installed in any Residential or Business zone, except for access or utility interconnection. Tier 1, Tier 2 and Tier 3 BESS shall comply with the applicable requirements set forth in this Article, as well as the Code of the Town of Agawam. The following requirements apply to all BESS subject to this Article, except where it is specifically noted to apply only to Tier 2 or Tier 3 BESS:

1. 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.

2. Signage. Signage shall comply with the requirements of Article XIII of Chapter 180 of the Code of the Town of Agawam and the following additional requirements; in the event of a conflict between the provisions of Article XIII and this Section, the requirements of this Section shall prevail.

    a) The signage shall be in compliance with ANSI requirements 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 twenty-four (24) hour emergency contact information, including reach-back phone number.

    b) 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.

    c) Signage compliant with ANSI requirements shall be provided on doors to rooms, entrances to BESS facilities, and on BESS outdoor containers.

3. Lighting. Lighting systems shall be consistent with local, state and federal law. Lighting of other parts of the installation, such as appurtenant structures, shall be limited to that required for safety and operational purposes, and shall be reasonably shielded from abutting properties.

4. Vegetation and tree-cutting. Areas within ten (10) feet on each side of 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 provided that they do not form a means of readily transmitting fire. Removal of trees should be minimized to the extent possible.

6. Setbacks. Tier 2 Battery Energy Storage Systems shall be set back a minimum of fifty (50) feet from all side, rear, and front lot lines; Tier 3 BESS shall be set back a minimum of one hundred (100) 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 fifteen (15) feet wide along all property lines. Access drives and parking are allowed in the setback areas, but shall not intrude into the required buffer areas except where necessary to provide access or egress to the property. In addition, a minimum of ten (10) 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.

7. Dimensional. Tier 2 and Tier 3 Battery Energy Storage Systems shall comply with the dimensional limitations for principal structures of the underlying zoning district as provided in Table of Dimension Regulations (See 180 Attachment 4, Appendix B to Chapter 180 of the Code of the Town of Agawam, unless otherwise provided in this Article).

8. Fencing Requirements. Battery Energy Storage Systems, including all mechanical equipment, shall be enclosed by a minimum eight (8) foot high fence with a self-locking gate to prevent unauthorized access unless housed in a dedicated-use building. Said fence may be placed within any minimum setback area. Security barriers, fences, landscaping and other enclosures must not inhibit required air flow to or exhaust from the BESS and components. The NFPA Standard for the Installation of Stationary Energy Storage Systems, as amended from time to time, requires specialty safety systems to be provided based on the BESS chemistry and installed location.

9. Screening and Visibility. Battery Energy Storage Systems 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 6 above.

10. Batteries. Failed battery cells and modules shall not be stored on the site and shall be removed no later than thirty (30) days after deemed failed by the BESS operator or cell/module manufacturer. The operator shall notify the Agawam Fire Chief in advance if the type of battery or batteries used onsite is to be changed.

11. Decommissioning Plan. The applicant for Tier 2 and Tier 3 BESS shall submit with its application a decommissioning plan for the 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 (20) days prior to when a BESS will be decommissioned. Decommissioning of an abandoned or discontinued BESS shall be completed within six (6) months after the facility ceases operation. The decommissioning plan shall include:

a. 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 battery energy storage system components, structures, equipment, security barriers, and transmission lines from the site;

b. Disposal of all solid and hazardous waste in accordance with local, state, and federal waste disposal regulations;

c. The anticipated life of the battery energy storage system;

d. The estimated decommissioning costs and how said estimate was determined;

e. The method of ensuring that funds will be available for decommissioning and restoration;

f. The method by which the decommissioning cost will be kept current;

g. 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 battery energy storage system, 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

h. 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.

12. Decommissioning Bond. The owner and/or operator of a Tier 2 or Tier 3 BESS shall continuously maintain a bond or other surety acceptable to the Town, in a form approved by the Mayor, for the removal of the battery energy storage system, in an amount to be determined by the Town, for the period of the life of the facility. All costs of the financial security shall be borne by the applicant.

13. Proof of Liability Insurance. The applicant for a Tier 2 or Tier 3 BESS or the property owner shall provide evidence of commercially liability insurance in an amount and type generally acceptable in the industry and approved by the Mayor 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 Article.

§180-170 Site plan application.

For Tier 2 and Tier 3 Battery Energy Storage Systems, the site plan application shall include the following information, in addition to that required by §180-13 of the Code of the Town of Agawam:

1. A one-line or three-line electrical diagram detailing the battery energy storage system layout, associated components, and electrical interconnection methods, with all state 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. A final equipment specification sheet shall be submitted prior to the issuance of building permit.

3. 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.

4. Large-scale fire test data, evaluation information, and calculations, and modeling data. For any of the following, UL fire test data must be made available to the Town for review: BESS systems with a capacity of greater than 50kWh - BESS systems with spacing between arrays of less than three (3) feet.

5. 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 the NFPA Standard for the Installation of Stationary Energy Storage Systems, as amended from time to time, 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, battery energy storage system 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.

6. 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 §180-172.

7. 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 state codes and the NFPA Standard for the Installation of Stationary Energy Storage Systems, as amended from time to time. Maintenance provisions will be driven by manufacturer requirements for the specific listed system.

8. Depending on the location of the BESS in relation to and its interaction with the electrical grid, interconnection will be completed per the State Electrical Code. System interconnections into utility grids shall be in accordance with the NFPA Standard for the Installation of Stationary Energy Storage Systems, as amended from time to time. An accessible disconnect is required per the State Electrical Code.

9. Prior to the issuance of the building permit, engineering documents must be signed and sealed by a Massachusetts Licensed Professional Engineer.

10. Emergency Operations Plan. An Emergency Operations Plan compliant with the NFPA Standard for the Installation of Stationary Energy Storage Systems, as amended from time to time, is required. A copy of the approved Emergency Operations Plan shall be given to the system owner, the local fire department, and local fire code official. 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 twenty-four (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:

    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, including time intervals for inspection and testing.

    c. 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.

    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 safe disposal of 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. Other procedures as determined necessary by the Town 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.

§180-171 Ownership Changes.

If the owner of a Tier 2 or Tier 3 battery energy storage system changes or the owner of the property changes, the site plan approval and 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 battery energy storage system shall notify the Building Commissioner and the Mayor of such change in ownership or operator within fourteen (14) days of the ownership change. A new owner or operator must provide such notification to the Building Commissioner and the Mayor in writing.

§180-172 Safety.

1. System Certification. Battery energy storage systems and equipment shall be certified by a Nationally Recognized Testing Laboratory to UL standards for battery energy storage systems and equipment or approved equivalent, with subcomponents meeting each of the following standards as applicable:

   a. UL standards for batteries for use in stationary, vehicle auxiliary power and light electric rail applications;

   b. UL standard for lithium batteries;

   c. UL standards for inverters and power converters;

   d. certified under the applicable electrical, building, and fire prevention codes as required; and

   e. alternatively, field evaluation by an approved testing laboratory for compliance with UL (or approved equivalent) and applicable codes, regulations and safety standards may be used to meet system certification requirements.

2. 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.

3. Battery energy storage systems, 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 the NFPA Standard for the Installation of Stationary Energy Storage Systems, as amended from time to time.

§180-173 Abandonment.

The battery energy storage system shall be considered abandoned when it ceases to operate consistently for more than one (1) year. If the owner and/or operator fails to comply with decommissioning upon any abandonment, the Town of Agawam 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 a BESS and restoration of the site in accordance with the decommissioning plan.

Kevin Duquette
Inspector of Buildings
inspections@agawam.ma.us

Town of Agawam

Inspection Services Department

1000 Suffield Street, Agawam, Massachusetts 01001
Telephone - (413) 821-0632

February 24, 2025

To: Office of Planning and Community Development:

Planning Board Meeting- March 20, 2025:

Re: TOR-2025-3- Battery Energy Storage Systems (BESS) Ordinance Amendment;

Inspection Services has no zoning issues or concerns for the proposed Zoning Ordinance Article amendments for the Battery Energy Storage Systems (BESS)

Respectfully,

Kevin Duquette
Kevin Duquette
Inspector of Buildings
Town of Agawam

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Respectfully,

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MEMBERS PRESENT:
Violet Baldwin, Chair
Frank DeStefano, Vice Chair
Charles Elfman
Michael DiLullo
Michael Cleavall

MEMBERS ABSENT:

ALSO PRESENT:
Taryn Egerton
Stefanie Kesecker

Ms. Baldwin called the meeting to order at 6:00pm.

1. 6:00PM PUBLIC HEARING-ZONE CHANGE-Old River Street, 27 Walnut Street, 17 High Street-Calabrese Construction, LLC

Filipe Cravo, with R. Levesque Associates Inc., and applicant Charles Calabrese were present for this agenda item. Mr. Cravo stated the applicant wishes to create zoning on the subject properties to allow for future development and improvements upon existing conditions at the site. He stated a zone change would also lend itself to the continuity of the neighborhood. Mr. Cravo stated the parcels are currently zoned Industrial-A and Business-A and the petitioner is requesting that all 3 parcels be changed to Residence-B.
Mr. DiLullo asked if condos would be developed. Mr. Cravo stated multi-family units, which are similar to what's in the area now.
Mr. Elfman asked what is on the property currently. Mr. Cravo stated it is vacant land.
Ms. Baldwin asked if duplexes would be built. Mr. Cravo stated yes.

Ms. Baldwin opened the meeting for public comment.

Jason Collingnon, 33 Walnut Street, stated he did not have a problem with the zone change and his concern is to ensure things are done correctly. He does not want any new construction too close to his residence.
Mr. Cravo stated tonight's meeting is just for a recommendation for the zone change, and that any proposed projects would need to come before the Planning Board in the future.

Ms. Baldwin stated professional comments have been received and there was no opposition to this proposal.

Motion was made by Mr. Cleavall and seconded by Mr. DiLullo to close the PUBLIC HEARING-ZONE CHANGE-Old River Street, 27 Walnut Street, 17 High Street-Calabrese Construction, LLC.

VOTE 5-0-0

Motion was made by Mr. Elfman and seconded by Mr. Cleavall to send a Positive Recommendation to the City Council for the Zone Change-Old River Street, 27 Walnut Street, 17 High Street from Industrial-A and Business-A to Residence-B.

VOTE 5-0-0

Motion was made by Mr. Cleavall and seconded by Mr. Elfman to take the agenda out of order.

VOTE 5-0-0

3. SITE PLAN-207 Bowles Road-RHM Realty, LLC

Luke Showalter, Furrow Engineering was present for this agenda item. Mr. Showalter stated that the proposed project is for an 11,100 sq. ft. addition to Litron's existing manufacturing office facility and expansion of the parking lot for 37 parking spaces. He stated they had received several Engineering comments, which mostly concerned stormwater. He stated a revised Site Plan and Stormwater Report have been submitted, and all outstanding Engineering comments have been satisfied. He also stated Police, Fire, and Inspection services had no concerns.

Motion was made by Mr. Elfman and seconded by Mr. DiLullo to approve the SITE PLAN-207 Bowles Road-RHM Realty, LLC.

VOTE 5-0-0

Motion was made by Mr. DeStefano and seconded by Mr. Cleavall to put the agenda back in order.

VOTE 5-0-0

2. SITE PLAN-760 Cooper Street-Town of Agawam

Mayor Johnson stated this project is a collaborative effort between various town employees, Flansburgh Architects, and all the various experts they have employed. He stated this is an ongoing process and the planning stage is entering year four. Mayor Johnson went on to say the school will be fully operational during construction.

Kent Kovacs with Flansburgh Architects stated this project consolidates the school and makes it easier to maintain and operate, while improving educational aspects. He stated the bulk of bus drop-offs will occur at the front of the school. He stated the addition from 1996 will remain and an old vocational wing will be converted into a Pre-K. Mr. Kovacs stated the building is based on two wings. The first is the community wing which houses the gymnasium, cafeteria, auditorium, vocational innovative spaces, and an enclosed link that connects to academics and an enclosed outdoor courtyard. He stated an entire vehicular circulation goes around the school in a 24 ft. wide loop road that goes in two directions. The Mill Street access will be widened. He stated the Pre-K will have its' own distinct drop-off and parking. The new elements include:

new parking, Pre-K building/playground, greenhouse, parent drop off, new soccer field, new softball field, new track fields, and 559 parking spaces.

Johnathan Charwick, Activitas, Inc., stated they will be renovating the athletic fields north of the facility. The existing baseball field will be left in place, and no work will be done to it. He stated there will be two softball fields on west side. Between the softball fields and the parking lot adjacent to Pre-K will be a large natural grass soccer field that can be used for multiple sports.
Mr. Charwick stated the high end of the grading is on the west side of the facility and everything pitches toward the parking lot. He stated a majority of the athletic fields are surrounded by ball guards and fencing.
He stated there is a full sub-surface drainage along the field and water will be taken off the athletic fields quickly.
Mr. Elfman asked if the turf was natural grass. Mr. Charwick stated yes.

Elizabeth Thompson, Terraink, Inc., stated the landscaping design focused on accessibility, visibility, and safety. She stated there are bollards near the drop off area, and there is a direct access for students to enter the school. She stated there is also an artificial turf area and a spill out area from the cafeteria for students to enjoy outdoor dining during warmer months. She stated in the south west corner there is a plaza for students. The north side of the school will be for parent drop-off, with vehicular bollards for safety. She went on to say closer to the Pre-K building there is a new greenhouse and planter beds. There will be a new playground area near the Pre-K. She stated the existing planting beds north of the Pre-K building will be preserved.

Mr. Kovacs stated they will be meeting with the tree warden and DPW to further discuss planting shrubs and ground cover. Mr. Kovacs shared the overall concept for site lighting, which included parking lot lights, pedestrian lights, and building lights. He stated per LEED and MA State code, EV provision for charging stations will be included.
Mr. Kovacs also showed the floor plan along with circulation and security, and pictures of the exterior changes and elevations.

Vinod Kalikiri, VHB, stated a traffic study was performed and an onsite review of vehicular circulation/parking, pedestrian traffic, as well as offsite traffic flow. He stated the queueing of vehicles at drop-off and pick up times was also evaluated. He stated the current design is ineffective because there is no continual circular flow, which causes back-ups. He went on to say that the 4 intersections along Mill Street were studied as well as the one at Cooper Street. The study found about 2,565 vehicles enter the location each day, and the study has taken into consideration the increased traffic for the Pre-K. He stated the driveways have been widened. There will be stacking and it will reduce the load of traffic at the intersections. He stated the onsite circulation will reduce a lot of the current problems with vehicular flow.
Ms. Baldwin asked about the driveway that abuts the library, as kids come out of school and down the hill to the library on foot and it is a safety issue. Mr. Kovacs stated with the new design most of the traffic will be focused on new main entry, which has shifted from the current design.

Drew Garvin, Samiotes Consultants, stated the drainage system has been designed to capture all the impervious areas. He stated the site has excellent soils and lends itself to infiltration systems. He stated this is a standard catch basin system, and is an improvement to the current drainage system. There will be a release overflow in extreme weather conditions. Mr. Garvin stated they have coordinated with MEP and Agawam Fire Chief and the fire hydrants will be 500 ft. apart.

Mr. Kovacs stated they had received Engineering comments, most of which focused on stormwater. They submitted a response, and will continue to work with Engineering. He stated most of the comments focused on stormwater.

John Kastrinos, Haley & Aldrich gave an overview of the geothermal aspects of heating/cooling, which is intended to eliminate fossil fuels. He stated the heat is exchanged between indoors and outdoors. He stated heat is extracted out of the water in the winter and heat can be taken out of the building and rejected to the subsurface.

Jason Boudreau, Fontaine Brothers, stated the proposed construction will occur in three phases. Phase 1 will occur between April 2025-December of 2026 which will include enlarging the entrance, temporary fencing, the community wing, and some parking. Phase 2 will take place between January 2027-June 2028 and includes the academic space and Pre-K building. Phase 3 will take place between June 2028-November 2028 and will include the rest of the demolition of existing high school, the fields, and finishing the Pre-K building. He stated none of the school operations will be impacted and the school will be fully operational during the construction phases.

Mr. DeStefano asked if Mill Street could be widened to include a left turn for cars entering the school. Mr. Kalikiri stated as part of the traffic study the operations at the intersections were studied. He went on to say the proposed design will improve traffic, due to the circulation.

Mr. DiLullo asked if the school would be open in September 2028. Mr. Boudreau stated yes, but the Pre-K building (which will be completed by January 2029).

Mayor Johnson stated the community wing will be operational by January of 2027.

Motion was made by Mr. Cleavall and seconded by Mr. Elfman to approve the design concept of the Site Plan for 760 Cooper Street, with the understanding that the Engineering details will be worked out between Engineering and the project consultant.

VOTE 5-0-0

4. APPROVAL OF MINUTES-February 20, 2025

Motion was made by Mr. DeStefano and seconded by Mr. Elfman to approve the February 20, 2025 minutes as written.

VOTE 5-0-0

5. Correspondences

None

Motion was made by Mr. Elfman and seconded by Mr. DiLullo to adjourn the meeting.

VOTE 5-0-0

Meeting adjourned at 7:10pm.

DRAFT