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March 18, 2022

CERTIFICATE OF THE SECRETARY OF ENERGY AND ENVIRONMENTAL AFFAIRS
ON THE
EXPANDED ENVIRONMENTAL NOTIFICATION FORM

PROJECT NAME	: Medway Grid Storage
PROJECT MUNICIPALITY	: Medway
PROJECT WATERSHED	: Charles River
EEA NUMBER	: 16525
PROJECT PROPONENT	: Medway Grid, LLC
DATE NOTICED IN MONITOR	: February 9, 2022

Pursuant to the Massachusetts Environmental Policy Act (MEPA; M.G.L. c. 30, ss. 61-62L) and Sections 11.06 of the MEPA Regulations (301 CMR 11.00), I have reviewed the Expanded Environmental Notification Form (EENF) and hereby determine that this project **requires** the submission of an Environmental Impact Report (EIR). In accordance with Section 11.06(8) of the MEPA regulations, the Proponent requested that I allow a Single EIR to be submitted in lieu of the usual two-stage Draft and Final EIR process. I hereby grant the request to file a Single EIR, which the Proponent should submit in accordance with the Scope included in this Certificate.

Project Description

As described in the EENF, the project consists of a 250 megawatt (MW)/500 megawatt-hour (MWh) standalone battery energy storage system (BESS) and a new 345kV/34.5kV¹ electric substation (Project Substation) on approximately 10.6 acres of land off Milford Street

¹ Voltage must be “stepped down” to 34.5kV for storage at the BESS and “stepped up” for transmission to the Eversource Substation 345kV (see further explanation on page 2).

(Route 109) in the Town of Medway (Town). The project also includes the construction of a new, approximately 1,325-foot long underground 345 kV transmission line interconnection (Transmission Interconnection) from the proposed Project Substation to Eversource Energy's existing West Medway Substation (Eversource Substation) to the south. The proposed Transmission Interconnection is located mostly across an adjacent parcel owned by Eversource and will occupy an additional 0.76 acres of land. The project includes a stormwater management system, retaining walls and site grading, 8-ft high security fencing, 22-ft high sound attenuation barrier walls, an access roadway system, and landscaping.

According to the EENF, the BESS will consist of 140 Tesla Megapack (Megapack) enclosed units located on the westernmost portion of the project site.² The Megapacks will be arranged throughout the site in a back-to-back orientation and spaced in compliance with the manufacturer's installation requirements. The coupled Megapacks are placed immediately adjacent to a medium voltage transformer. The site will have 70 medium voltage transformers. Each Megapack and the medium voltage transformers will be supported on concrete slabs and pier foundations and surrounded by crushed stone.

The Project Substation will be located to the south of the BESS and includes a 345kV/34.5 kV main power transformer, switchgear, circuit breakers, disconnect switches, and low and high buses; it will be up to 65 feet high at its tallest point (static mast). The function of this substation is to take the routed power output from the BESS to a 34.5kV collection switchgear and step it up to a transmission voltage of 345kV to allow the power from the BESS to be connected to the Eversource Substation via the proposed Transmission Interconnection. During charging, the proposed Transmission Interconnection will carry electricity from the Eversource Substation back to the Proposed Project Substation where it will step down to 34.5kV. At this voltage it can then be routed to the BESS for storage.

The proposed Transmission Interconnection is located mostly across an adjacent parcel owned by Eversource and will occupy approximately 0.76 acres of land. The Transmission Interconnection will consist of three, 8-inch 345 kV solid dielectric cables within a duct bank conduit system. These cables will be installed in a single duct bank that will be approximately 4-feet wide by 5-feet deep, with the cables buried a minimum of three feet below the existing ground surface. An approximately 12-foot-wide gravel roadway will be installed over the underground transmission line within this 25-foot-wide corridor to provide permanent access to the Transmission Interconnection. The remaining areas within the 25-foot-wide corridor will be allowed to revegetate with low growing vegetation. Areas along the edge of the 12-foot-wide gravel access road would be mowed on a routine basis with the goal of preventing roots from trees to grow deep enough to interfere with the safe and efficient operation of the transmission line.

According to the EENF, the project was awarded a capacity contract via the Forward Capacity Auction³ (FCA) 15, based on its ability to provide needed capacity by June 1, 2024, at

² The Megapack is a standalone modular system with integrated lithium-ion batteries, a bi-directional inverter, a thermal management system, and a Tesla Site Controller with intelligent controls software. Each Megapack is approximately 30 feet (ft) long, 5.5 ft wide, and 9 ft tall with a maximum weight of 84,000 pounds.

³ [Forward Capacity Market \(iso-ne.com\)](https://www.iso-ne.com/forward-capacity-market)

the most competitive price. It is also described as helping the Commonwealth meet its goals of achieving 40% renewable energy by 2030 and to achieve 1000MWh of battery storage by 2025. This project would provide 500MWh towards that goal.

Project Site

The approximately 10.6-acre project site is composed of four parcels, of which approximately 0.85 acres is previously developed with three existing residences and an existing automotive repair facility. The remaining approximately 9.76 acres are forested upland and wetlands. Access is from Milford Street along the northern boundary of the project site. There is an existing Eversource electric transmission corridor to the west along with Eversource Energy's existing West Medway Substation and Exelon Power's West Medway Generating Station to the south. There is a perennial stream (Center Brook) and residences off Little Tree Road and Summer Street to the east, and residences across Milford Street to the north. The closest residences are located to the north of the Project Site on the opposite side of Milford Street (Route 109). There are four separate residences in this area that are between approximately 105-115 feet from the northern parcel boundary of the project site. In addition, there are approximately eight separate residences located to the east of the project site, off Little Tree Road that range in distance from approximately 260 to 595 feet from the project site's eastern parcel boundary. The West Medway Generating Station and the existing Eversource Substation facility are approximately 460 to 500 feet from the project site's southern parcel boundary.

Based on the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) panel No. 25021C0139E (July 17, 2021), the project site is located outside of the 100-year floodplain. State and local wetland resource areas located on the project site and along/adjacent to the proposed transmission interconnection include Riverfront Area (RA), Bordering Vegetated Wetland (BVW), and the 100-foot Buffer Zone to BVW. There are no Outstanding Resource Waters (ORWs) or Areas of Critical Environmental Concern (ACECs), located on or adjacent to the project site. According to Massachusetts Natural Heritage and Endangered Species Program (NHESP) Atlas (August 1, 2021, 15th Edition), the site is not located within Estimated or Priority Habitats of Rare Species. The project is not located within one mile of an Environmental Justice (EJ) population, though the nearest EJ population is located approximately 2.3 miles from the site.

Jurisdiction and Permitting

The project is subject to MEPA review and requires preparation of a mandatory EIR pursuant to 301 CMR 11.03(7)(a)(1) because it requires a State Agency Action and involves the construction of a New electric generating facility with a capacity of 100 MW or more. The project requires Approval from the Energy Facilities Siting Board (EFSB) within the Department of Public Utilities (DPU) pursuant to M.G.L. c.164 § 69J ¼ (for construction of a "generating facility") and § 72 (for the transmission line). The project is subject to MEPA's Greenhouse Gas (GHG) Policy and Protocol (GHG Policy).

A Project Notification Form was submitted to the Massachusetts Historic Commission (MHC) under M.G.L. c. 9, Section 26-27C and/or Section 106 of the National Historic

Preservation Act of 1966. Following review, MHC has recommended that an intensive (locational) archaeological survey (950 CMR 70) be conducted for the project. The project received an Order of Resource Area Delineation (ORAD) from the Medway Conservation Commission on February 27, 2020 and will require an Order of Conditions (OOC) from the Commission (or in the case of an appeal, a Superseding Order of Conditions from MassDEP). It will require a National Pollutant Discharge Elimination System (NPDES) Stormwater General Permit from the United States Environmental Protection Agency (EPA).

Because the scope of EFSB's approval authority is broad and extends to all environmental impacts of the project, subject matter jurisdiction under MEPA is equivalent to full scope jurisdiction, in accordance with 301 CMR 11.01(2)(a)(3). Therefore, MEPA jurisdiction extends to all aspects of the project that are likely, directly, or indirectly, to cause Damage to the Environment as defined in the MEPA regulations.

Environmental Impacts and Mitigation

Potential environmental impacts include alteration of 5.26 acres of land and creation of 1.5 new acres of impervious area (1.8 acres total impervious area on site). An additional 0.76 acres of land disturbance associated with the electrical transmission interconnection will occur on an adjacent parcel. Wetland impacts include alteration of 6,996 sf of RA. No impacts to BVW are anticipated. The Proponent completed an acoustic analysis and identified the potential for operational noise to impact the surrounding residences.

Measures to avoid, minimize and mitigate these impacts include implementation of Stormwater Pollution Prevention Plan (SWPP) during the construction period and installation of stormwater management controls to mitigate runoff from increased impervious area. As described in the EENF, mitigation measures to address operational noise include low noise equipment, a sound attenuation barrier, and operational restrictions. The project has been designed in conformance with all relevant fire and public safety codes and standards. The Proponent is requesting that MEPA grant a de minimis exception to the requirement to analyze and quantify the potential greenhouse gas emissions from the project. As noted, the project is asserted to support the Commonwealth's goals of increasing the use of renewable energy, though more information should be provided in the Single EIR. The Proponent will require the contractor to implement best management practices (BMPs) to avoid and or minimize any construction related impacts to air quality. The Proponent is currently working with the MHC regarding the potential for the project to impact cultural resources. During operation, the project will be remotely monitored and any traffic to the facility will be limited to periodic site inspections and maintenance.

Request for Single EIR

The MEPA regulations at 301 CMR 11.06(8) indicate a Single EIR may be allowed provided I find that the EENF:

- a) describes and analyzes all aspects of the project and all feasible alternatives, regardless of any jurisdictional or other limitation that may apply to the Scope;

- b) provides a detailed baseline in relation to which potential environmental impacts and mitigation measures can be assessed; and,
- c) demonstrates that the planning and design of the project use all feasible means to avoid potential environmental impacts.

Consistent with this request, the EENF was subject to an extended comment period under 301 CMR 11.05(8).

Review of the EENF

The EENF includes a project description, an alternatives analysis, existing and proposed conditions plans, estimates of project-related impacts, and a stormwater management report, and identifies preliminary measures to avoid, minimize and mitigate environmental impacts. On February 25, 2022, the Proponent submitted a Petition to Construct to the EFSB. This Petition was submitted as supplemental information to the MEPA Office and circulated to the Distribution List. The project is subject to a mandatory EIR threshold, and, therefore, must undergo EIR level review. However, based on review of the EENF and consultation with State Agencies, I am granting the request to file a Single EIR. The Proponent should submit a Single EIR that provides updated project information and analyses as specified in the Scope below. If the Single EIR fails to adequately respond to the Scope included in this Certificate, additional review in the form of a Supplemental Single EIR may be required.

As stated above, the project is not located within one mile of an EJ community. The nearest EJ community (characterized as Minority) is located approximately 2.3 miles to the southwest of the project site in Milford. In Milford, there are an additional eight EJ communities within 5 miles of the project. Four are characterized as Minority; one as Minority and English Isolation; one as Minority and Income; and two as Minority, Income and English Isolation. There are two additional EJ communities in the Town of Franklin to the south. As described in the EENF, the project will not create any air emissions as the proposed project will store energy, not generate it through burning of fossil fuels. The EENF states the project will not affect air quality and, therefore, is not reasonably likely to negatively affect EJ populations within a 5-mile radius around the project site. Further measures to mitigate noise and construction impacts, and to manage emergency response activities, are discussed below.

SCOPE

Project Description and Permitting

The Single EIR should include a detailed description of the project and describe any changes to the project since the filing of the EENF. The Single EIR should include a detailed description of how the lithium-ion battery systems work (i.e., how they store and release energy into the electrical grid) and how the system will improve reliability and efficiency of the electric grid. As discussed below, the Single EIR should describe in greater detail how the battery storage system is designed to reduce GHG emissions, including through quantitative estimates of the amount of stored energy that can be assumed to have originated from renewable sources and the amount of displacement expected of fossil fuel powered energy that would otherwise be

dispatched during peak demand periods. The Single EIR should include updated site plans for existing and proposed conditions including all limits of work including those for clearing and grading. The Single EIR should identify and describe local and state review and permitting requirements, including a description of future proceedings before the EFSB.

Alternatives Analysis

The EENF included an alternatives analysis which evaluated alternatives against the following criteria: (1) location within the immediate vicinity of the West Medway Substation (point of interconnection to the regional electric system), (2) location on a parcel of land greater than 5 acres with access from a public roadway, (3) location in an area with compatible land uses, (4) whether project avoids or minimizes wetland impacts, (5) utilization of existing developed area and minimizes clearing of forested areas, and (6) whether project avoids or minimizes impacts to Estimated/Priority habitat, certified/potential vernal pools, Outstanding Resource Waters (ORWs) and ACEC. The alternatives included a No Build Alternative and three site location alternatives, namely: the Preferred Alternative, referred to in the EENF as Candidate Site 1 (Milford Street parcels), Candidate Site 2 (Eversource parcels), and Candidate Site 3 (Southwest Medway parcels).

Under the No-Build alternative, the Project would not be constructed. As described in the EENF, the Commonwealth is not currently projected to meet its need for capacity in the Southeastern New England (SENE) capacity zone. ISO-NE procures capacity based on its load forecasts for different capacity zones. As stated above, the project was awarded a capacity contract via the FCA, based upon its ability to provide this needed capacity by June 1, 2024, at the most competitive price. In addition, as stated in the EENF, failing to build the project would delay the Commonwealth's goals to achieve 40% renewable energy by 2030 and to achieve 1000MWh of battery storage by 2025. The Single EIR should provide more information to support the stated need for the project, including quantification of the amount of new capacity the project would enable in the SENE capacity zone and estimated displacement of fossil fuel generation. This information should be consistent with justification provided to EFSB but can be provided in summary form with quantitative support. The Single EIR should continue to carry the No-Build alternative, as dismissal of this alternative relies on the assertion that the purpose and need for the project serve to justify the environmental and public health impacts of the project.

Candidate Site 2 would involve constructing the BESS on two parcels totaling 11.6-acres, one owned by Eversource and the other by a private landowner.⁴ The Eversource parcel is adjacent to the preferred site and accessed from Milford Street. The parcels contain existing electrical transmission infrastructure and a private residence. The remainder of the site is forested upland. While the proximity of these parcels to the point of interconnection made them attractive, the Eversource parcel is not available for lease or purchase. According to the EENF and the Proponent, the previously developed portions of the site are associated with existing electric transmission infrastructure with no potential to utilize them for the project. Therefore, development on this site would be primarily within the existing undeveloped and forested

⁴ Private landowner parcel is one of the parcels included in the Preferred Alternative.

portions of the site making it inferior to Candidate Site 1 due to increased environmental impacts. For these reasons, Candidate Site 2 was dismissed.

Candidate Site 3 would involve constructing the project on a 36-acre site that consists of existing parcels of land owned by multiple landowners, located along the Medway/Bellingham town boundary. As detailed in the EENF, this site is predominantly undeveloped and forested but does have an existing natural gas transmission corridor crossing it and a portion of the site (approximately 3.3 acres) in the southeast corner has been cleared for what appears to be agricultural purposes. Access to this site is potentially available from Tulip Way or Stone End Road in Medway; however, none of the parcels appears to have frontage on those streets. There is an existing dirt access road from Stone End to the agricultural operations and the gas pipeline corridor. There is an extensive wetland system and waterbody in the western portion of this candidate site, which would be altered if the project were located in this area. In addition, this site would require the project's transmission interconnection route to be approximately twice as long (3,000 feet) as the two other candidate sites. For these reasons, this alternative was dismissed.

As described in the EENF, the Proponent also considered alternatives for the Transmission Interconnection, evaluating both underground and overhead transmission corridor options from the Project Substation to the Eversource Substation. The EENF states the Proponent coordinated with Eversource on the alignment across the Eversource property and determined an overhead transmission interconnection would be approximately 1,800 feet long and require clearing of a corridor of approximately 100 feet in width. The transmission line would be supported on 8 steel lattice structures approximately 120 feet tall. The overhead transmission option would result in approximately 4.13 acres of land alteration and would be located within the 100-foot buffer zone to BVW. Instead, the Proponent proposes to construct an underground transmission line that will be 1,325 feet long and require clearing of a corridor of approximately 25 feet in width. In total, approximately 0.76 acres of land alteration would be required with this design alternative. The underground transmission line would also be located outside of regulated wetland areas including RA and the 100-foot buffer zone to BVW.

The Single EIR should provide additional explanation of the criteria used to evaluate both the siting and transmission line alternatives for the project. Specifically, the Single EIR should elaborate on the appropriate distance a facility such as this should be located in relation to residential uses and consistency with local zoning requirements. The Single EIR should reference any industry best practices related to siting such facilities. For instance, the EENF notes that one of the contributing factors in selection of the Preferred Alternative is its compatibility with surrounding land uses but the preferred site is adjacent to residential neighborhoods. As noted, the Single EIR should provide further justification for dismissing the No Build alternative, including a description of potential other energy infrastructure projects that may be proposed in this area due to reliability constraints of the electric grid. The No Build alternative should continue to be considered in the Single EIR until a more complete explanation of the purpose and need for the project is provided. As noted, the Single EIR should provide further explanation of the EENF assertion that battery storage is consistent with the policies and environmental goals of the Commonwealth, including but not limited to achieving 40%

renewable energy by 2030, particularly since the project does not appear to be seeking direct interconnections to renewable energy generation projects.

Fire Hazards and Public Safety

As described in the EENF, the project is designed in strict conformance with all relevant fire safety codes and standards to ensure it is constructed and operated in a manner that remains safe to the public, emergency responders, and operators. This includes a series of redundant safeguards built into the hardware and management systems of the BESS that mitigate the risk of fire and thermal events (both creation of and response to). In addition, the design, construction, installation, commissioning, operation, maintenance, and decommissioning of stationary BESS will conform to National Fire Protection Association's NFPA 855, Standard for the Installation of Stationary Energy Storage Systems. The Single EIR should describe in detail the thermal risks associated with a battery energy storage system and specific measures that will be taken to avoid, minimize or mitigate thermal risks associated with the project. The Single EIR should identify fire incidences associated with such facilities and describe how the proposed project will be designed to avoid similar situations.⁵ The Single EIR should identify consultation with the local fire department including specific requirements that the local fire department have requested to mitigate fire risks. The Single EIR should identify any state agencies that may be involved in a public safety response, including MEMA or State Police.

The EENF states that the BESS is designed to minimize thermal runaway in the unlikely event of a lithium-ion battery failure and that testing has shown that the Tesla Megapack performs in a safe and controlled manner, consuming itself slowly without explosive bursts, projectiles, or unexpected hazards. Tesla recommends that the responding fire service members allow the battery to burn itself out. Applying water directly to the affected enclosure will not stop the thermal runaway event, as the fire will be located behind several layers of steel material, and direct application of water has shown to only delay the eventual combustion of the entire unit. According to the EENF, this protection effectively eliminates the extent to which water could become contaminated with battery elements. However, any limited water runoff that could result from fire suppression activities would be directed to the project's proposed stormwater management system. As infiltration is proposed to recharge stormwater, the Single EIR should describe any shutoff measures to be incorporated into the stormwater management design to prevent contaminants from entering ground or surface water. Comments from the Town express concern for hazardous material releases associated with emergency response events and requests that the Proponent describe the type and quantity of such materials and delineate the area where environmental impacts from spills or releases may occur.⁶ The Single EIR should provide a response to these comments.

⁵ For instance, FEMA has noted battery fires as an emerging issue of concern following a fire in Arizona. See <https://www.fema.gov/case-study/emerging-hazards-battery-energy-storage-system-fires>. A more recent fire also occurred in Australia. See <https://www.reuters.com/world/asia-pacific/fire-breaks-out-tesla-australia-mega-battery-during-testing-2021-07-30/>.

⁶ Comment Letter, Town of Medway, Barbara J. Saint Andre, Director Community and Economic Development, March 10, 2022.

The EFSB filing included draft emergency management plans the project will maintain (or is required to maintain) to respond to unanticipated emergencies, including protocols related to cooperation with local or state public safety personnel, trainings, or drills that the project will conduct, and communication protocols with the public in the event of an emergency. The Single EIR should address whether and how such emergency management plans or protocols will specifically address EJ or other vulnerable populations in the area.

Noise

The EENF included a Sound Level Assessment Report for the project.⁷ Existing condition sound levels were measured around the site, an operational sound level modeling analysis was conducted for the major sound producing elements of the project, and noise controls necessary to meet the requirements of the Massachusetts Department of Environmental Protection (MassDEP) Noise Policy (Policy Statement 90-001 (February 1, 1990)) are proposed. Mitigation measures outlined in the report include limiting cooling fan speeds to 40% (the Tesla Megapacks can be programmed to do this), constructing sound attenuation barriers (22 feet tall and 4 inches thick on the north and east sides of the project), utilizing a low noise power transformer at the substation, and operational restrictions between 6 a.m. and 10 p.m. (limiting charging or discharging to 25% of the total Megapacks). According to the EENF the project would be allowed to charge or discharge at maximum power if ISONE implements “any Actions (2-11) under Operating Procedure 4 of the Tariff, or when a Capacity Scarcity conditions, as defined in the tariff, exists in the Project’s Capacity Zone, or any other Capacity Zone in the ISONE region.” The Single EIR should include an explanation of these situations, the frequency of such events, and the expected impacts on residents in the affected area.

The Town’s comment letter requests a follow-up Sound Level Assessment Report after construction is complete and the facility is operational in order to ensure that the project complies with the DEP Noise Policy. The Single EIR should include the details of a proposed post-construction assessment/monitoring plan and how potential complaints will be addressed once the facility is operational. The Single EIR should address alternatives to the 22-foot high sound wall located 35 feet from Milford Street that would perform in an equivalent manner or improve the efficacy of the sound barrier system. The Town suggests that alternatives might include earthen berms, natural screening, as well as reductions to the height and/or length of the proposed wall if similar levels of noise reduction would be achieved. The Single EIR should address the feasibility of the Town’s suggested alternatives and address its concern for impacts to wildlife in jurisdictional wetland areas from the construction of retaining and sound walls.

Land Alteration

As noted above, the project will result in the alteration of 5.26 acres of land for the BESS and an additional 0.76 acres associated with the Transmission Interconnection. This includes the creation of approximately 1.5 acres of new impervious surface (1.8 total) associated with paved access drives, parking spaces, 2.1 acres of crushed rock surfacing (between megapacks) and roads, and 1.3 acres of vegetation associated with grading, landscaping and the stormwater

⁷ Sound Level Assessment Report: Medway Grid Energy Storage Project Medway, Massachusetts. Prepared by: Epsilon Associates, Inc. January 21, 2022.

management system. The Single EIR should provide a table which quantifies the land alteration by quantifying the type of vegetation that will be cleared (i.e., mature trees, scrub shrub, etc.). To the extent the project proposes to remove mature trees, the Single EIR should discuss measures that the project will consider to mitigate the loss of trees and the benefits they provide for air quality, cooling, and carbon sequestration, including through tree replanting efforts. The grading plan submitted with the EENF indicates there will be 12 to 14 ft high retaining walls constructed to level the site for placement of the Tesla Megapacks. The Single EIR should provide a plan that clearly identifies areas of cut and fill and provides estimates of cut and fill volumes to achieve proposed site grades.

Stormwater

To accommodate the new impervious area and change in runoff at the site, the project proposes a network of perforated curtain drains to collect runoff, deep sump catch basins to pretreat the water, a subsurface infiltration structure to recharge stormwater, a dry detention basin to provide peak flow attenuation, and proprietary Vortex units (or similar) to maximize total suspended solids (TSS) removal prior to leaving the site. The EENF states the facility is not considered a Land Use with Higher Potential Pollutant Loads (LUHPPL) and that the Megapacks are located behind several layers of steel material eliminating the extent to which water could become contaminated with battery elements; however, the Single EIR should detail what contaminants could result from fire suppression activities that might enter ground or surface waters via the stormwater management system.

The Stormwater Report in the EENF states that the rainfall depths used for the stormwater design for the Medway Grid Energy Storage Project were increased in accordance with design methodologies provided in the “MA Climate Resilience Design Standards Tool (“MA Resilience Design Tool”).⁸ It further indicates that rainfall depths for Medway, Massachusetts were obtained from the National Oceanic and Atmospheric Administration (NOAA). The NOAA values were then increased by specific percentages based on the design life of the project (20 years); therefore, the Mid-Century (2030/2050) percent increases were used to design the stormwater systems to accommodate the more frequent and severe storm events occurring with climate change associated with Tier 2 Projects.⁹ As discussed below, the Single EIR should address discrepancies with an updated output report generated from the tool indicating that the Tier 3 methodology, associated with a longer useful life for critical infrastructure, should be used.

As further explained below, the applicant has chosen a 20-year useful life for this energy infrastructure project which presumably is intended for long-term use. I note that, for longer planning horizons of 51-100 years, the MA Resilience Design Tool recommends planning for up to a 100-year storm events for high criticality buildings and infrastructure exposed to extreme

⁸ https://resilientma.org/rmat_home/designstandards/

⁹ See <https://eea-nescaum-dataservices-assets-prd.s3.amazonaws.com/cms/GUIDELINES/20210401Section3ClimateResilienceDesignStandardsOverview.pdf>, at p. 26.

precipitation risks for urban or riverine flooding.¹⁰ Project stormwater BMPs were sized using rainfall data for NOAA 14 and adding 8% for more frequent design storms, including the 2-year, 5-year, 10-year, 25-year, and 50-year storms. For the 100-year design storm, the NOAA value was increased by 11%. However, it is not clear which storm scenario (and associated rainfall volume) was used to determine the size of the stormwater management system. It is also not clear if the detention basin is designed to discharge enough water so that the basin will not overflow under the storm scenarios that were considered. As stormwater contained in the detention basin must flow out through proprietary Vortex units, the Single EIR should address how much water can pass through these units, how long it will take the basins to drain post-storm, and if the detention basins should be designed to have an overflow. The 15-inch outlet pipe for the detention basin is shown in close proximity to BVW. The Single EIR should address alternative locations for the basin or a discharge point farther from wetland resource areas. Scour protection at the basin outlet is needed as none is shown. The Single EIR should clarify and update the storm scenarios used to design the stormwater management system, as further discussed in the climate change section below.

Wetlands

According to the EENF, the project has been designed to avoid any direct impacts to BVW adjacent to Center Brook and states the project will comply with all applicable state and local wetland resource area performance standards, including those for RA. Total RA on the project site is 198,700 square feet with 6,996 square feet (3%) of disturbance proposed towards the edge of the RA boundary within the outer riparian zone (100 to 200-feet) of the RA. No work is proposed within the inner riparian zone of the RA (0 to 100-feet). The Medway Conservation Commission will review the project for its consistency with the Wetlands regulations and associated performance standards. As noted, a Superseding Order of Conditions from MassDEP will be required in the event of an appeal of a local order of conditions.

The Single EIR should quantify all areas of temporary and permanent impacts to wetland resource areas and Buffer Zone and describe how the project will meet the Performance Standards for work in RA. Any replanting, invasive species removal or other mitigation for impacts should be detailed in the Single EIR. Plans should clearly show all resource area boundaries (including mean high-water of Center Brook) and distances from project components to these boundaries where they are in wetlands jurisdiction. The current plans gray out the resource area boundaries, making impacts and distances to resource areas difficult to determine.

Climate Change

Governor Baker's Executive Order 569: Establishing an Integrated Climate Change Strategy for the Commonwealth was issued on September 16, 2016. The Order recognizes the serious threat presented by climate change and direct Executive Branch agencies to develop and implement an integrated strategy that leverages state resources to combat climate change and prepare for its impacts. The urgent need to address climate change was again recognized by

¹⁰ See <https://eea-nescaum-dataservices-assets-prd.s3.amazonaws.com/cms/GUIDELINES/20210401Section3ClimateResilienceDesignStandardsOverview.pdf>, at p. 19.

Governor Baker and the Massachusetts Legislature with the recent passage of St. 2021, c. 8, An Act Creating a Next Generation Roadmap for Massachusetts Climate Policy, which sets a goal of Net Zero emissions by 2050. I note that the MEPA statute directs all Agencies to consider reasonably foreseeable climate change impacts, including additional greenhouse gas emissions, and effects, such as predicted sea level rise, when issuing permits, licenses and other administrative approvals and decisions. M.G.L. c. 30, § 61.

Adaptation and Resiliency

The region's climate is expected to experience higher temperatures and more frequent and intense storms. The Northeast Climate Science Center at the University of Massachusetts at Amherst has developed projections of changes in temperature, precipitation, and sea level rise for Massachusetts. This data is available through the Climate Change Clearinghouse for the Commonwealth at www.resilientMA.org. By the end of the century, the average annual temperature in the Charles River Basin is projected to rise by 3.5 to 10.7 degrees Fahrenheit (F), including an increase in the number of days with temperatures over 90 F from 15 to up to 76 days compared to the 1971-2000 baseline period. During the same time span, the average annual precipitation is projected to increase by 0.7 to 8.2 inches, which may be associated with more frequent and more intense storms.

The Town is a participant in the Commonwealth's Municipal Vulnerability Preparedness (MVP) program, which is a community-driven process to define natural and climate-related hazards, identify existing and future vulnerabilities and strengths of infrastructure, environmental resources, and vulnerable populations, and develop, prioritize, and implement specific actions the town can take to reduce risk and build resilience. The Town of Medway MVP Report dated April 2020 identifies identified heavy rainfall, drought, extreme heat, and wind as the most significant climate hazards facing the Town.

Effective October 1, 2021, all MEPA projects are required to submit an output report from the MA Resilience Design Tool to assess the climate risks of the project. Based on the output of the MA Resilience Design Tool provided in the ENF, the BESS, ancillary equipment and interconnection are rated high risk for the following climate parameters: extreme precipitation (riverine and urban flooding) and extreme heat. Based on the 20-yr self-assessed useful life for the BESS, an updated output report generated from the Tool classifies the project as Tier 3 (for high critical assets) and recommends a return period associated with a 50-year (2% chance) storm event when designing the BESS. The Single EIR should clarify whether the project is designed to be resilient to these storm conditions during the useful life of the project, and if not, what specific rainfall volumes (including the associated return period (10-year, 25-year, 50-year) and planning horizon was used to design the resiliency of the stormwater management system. The Single EIR should apply the Tier 3 methodology¹¹ in the MA Resilience Design Tool, which involves use of downscaled data specific to the project location and discuss the results of that analysis. The Single EIR should address whether planning for a

¹¹ See <https://eea-nescaum-dataservices-assets-prd.s3.amazonaws.com/cms/GUIDELINES/20210401Section3ClimateResilienceDesignStandardsOverview.pdf>, at p. 25.

100-year storm (applicable to projects with a longer useful life of 50-100 years)¹² is feasible for the project, and if not, discuss the reasons why. If designing for these larger storm events or planning horizons is not feasible, the project should provide a justification for dismissing these design options and address whether current design is consistent with flexible adaptation strategies to allow for future retrofits as appropriate. The Single EIR should address guidelines on flexible adaptation strategies available at https://resilientma.org/rmat_home/designstandards/.

The Single EIR should include a comprehensive discussion of the potential effects of climate change on the project site and describe features incorporated into the project design that will increase the resiliency of the site to these changes. The Single EIR should identify the projected climate conditions and assumptions, such as temperature and precipitation rates, that will be used to design the project's resiliency measures. The Single EIR should describe any other resiliency measures added to the project to address periods of intense heat when electric systems may become inoperable. The Single EIR should address whether the project may intensify extreme heat conditions that may impact surrounding areas, and whether fire hazards may be increased during periods of intense heat that may result from the effects of climate change.

. In addressing climate change resiliency as described above, the project should consider incorporating the following climate adaption and resiliency features into the project design to the maximum extent practicable:

- Ecosystem-based adaptation measures to reduce heat island effect and mitigate stormwater runoff, such as integration of tree canopy cover, rain gardens, and LID stormwater management techniques;
- Stormwater management system design that will accommodate rainfall under projected climate conditions;
- Use of on-site renewable energy systems that may provide added resiliency during periods of power loss during storms;
- Protection of emergency generator fuel supplies from effects of extreme weather and flood-proofing of structures.

GHG Emissions

The project is subject to the MEPA GHG Policy because it exceeds thresholds for a mandatory EIR. The GHG Policy includes a de minimus exemption for projects that will produce minimal amounts of GHG emissions. GHG emissions are anticipated during the construction period of the project only and are not expected to be ongoing. As such, this project may fall under the de minimus exemption. The EENF included a discussion of how the project meets this exemption.

¹² The useful life is defined as the estimated number of years an asset will be in use before needing reinvestment to continue performing its normal function(s). The anticipated useful life assumes regular and adequate maintenance is implemented. This differs from the design life (or service life), which is typically shorter.

As described in the EENF, the project will not generate air emissions as a point source once construction is complete, as the project will store energy rather than generate energy. While the energy captured by the battery energy storage system will not consist solely of renewable energy, it can allow the capture of excess renewable energy generation during times of low demand for resale during periods of peak demand resulting in more efficient use of both renewable and non-renewable energy. As noted above, the Single EIR should provide a more detailed explanation of how the project is designed to reduce GHG emissions for the system as a whole, including through quantitative estimates of the amount of energy generation that could be attributed to renewable sources and the amount of anticipated displacement of fossil fuel powered peaker plant generation.

The proposed project does not include any climate-controlled office space. Sulfur Hexafluoride 27 (SF6) is anticipated to be used in the circuit breakers in the proposed Project Substation. The equipment to be installed within the Project Substation will comply with any manufacturer-recommended installation and maintenance procedures or industry best practices that have the effect of reducing leakage of SF6 and will be in compliance with the Massachusetts standard of 1.0% per year (310 CMR 7.72). Accordingly, I grant the exemption to the requirement to analyze and quantify the potential annual GHG emissions from the proposed project pursuant to the de minimis exception; however, I require that the Single EIR identify ways that the Proponent will incorporate measures to avoid and minimize GHG emissions (and other air pollutants) during the construction period such as limiting idling and using bio-fuels in off-road construction equipment.

Construction Period

According to the EENF, an erosion and sedimentation control program will be implemented to minimize potential temporary impacts to RA and BVW during the construction of the project. As stated in the EENF, BMPs related to dust control and air quality will also be implemented. Work hours during construction will comply with the Town Zoning Bylaw. The Single EIR should describe all measures to be implemented to mitigate construction impacts, including but not limited, to sedimentation and erosion, noise, air quality and dust. The Proponent should review MassDEP's comment letter, which identified applicable regulations and standards for dust, odor and noise control and the handling, disposal and recycling of construction and demolition (C&D) debris including asbestos and other solid waste. The Single EIR should address potential impacts of identified construction-period truck routes.

Mitigation and Section 61 Findings

The Single EIR should include a separate chapter summarizing all proposed mitigation measures including construction-period measures. This chapter should also include a comprehensive list of all commitments made by the Proponent to avoid, minimize, and mitigate the environmental and related public health impacts of the project. The filing should contain clear commitments to implement these mitigation measures, estimate the individual costs of each proposed measure, identify the parties responsible for implementation, and contain a schedule for implementation. The list of commitments should be provided in a tabular format organized by

subject matter (land, water/wastewater, GHG, environmental justice, etc.) and identify the Agency Action or Permit associated with each category of impact. Draft Section 61 Findings should be separately included for each Agency Action to be taken on the project. The filing should clearly indicate which mitigation measures will be constructed or implemented based upon project phasing to ensure that adequate measures are in place to mitigate impacts associated with each development phase

Responses to Comments

The Single EIR should contain a copy of this Certificate and a copy of each comment letter received. In order to ensure that the issues raised by commenters are addressed, the Single EIR should include direct responses to comments to the extent that they are within MEPA jurisdiction. This directive is not intended, and shall not be construed, to enlarge the scope of the Single EIR beyond what has been expressly identified in this certificate.

Circulation

The Proponent should circulate the Single EIR to those parties who commented on the EENF, to any State Agencies from which the Proponent will seek permits or approvals, and to any parties specified in section 11.16 of the MEPA regulations. A copy of the Single EIR should be made available for review in the Medway Public Library.



March 18, 2022

Date

Kathleen A. Theoharides

Comments received:

02/16/2022	Massachusetts Historical Commission (MHC)
03/10/2022	Town of Medway
03/11/2022	Massachusetts Department of Environmental Protection (MassDEP) Central Regional Office (CERO)

KAT/JH/jh



February 16, 2022

The Commonwealth of Massachusetts
William Francis Galvin, Secretary of the Commonwealth
Massachusetts Historical Commission

Secretary Kathleen Theoharides
Executive Office of Energy & Environmental Affairs
100 Cambridge St., Ste. 900
Boston, MA 02114

Attn.: Jennifer Hughes, MEPA Office

RE: Medway Grid Energy Storage Project, 47-49 and 53-55 Milford Street, Medway, MA.
MHC #RC.70763. EEA #16525.

Dear Secretary Theoharides:

Staff of the Massachusetts Historical Commission (MHC) have reviewed the Environmental Notification Form (ENF) submitted for the project referenced above, and the MHC's files.

Enclosed please find a copy of the MHC's February 1, 2022 comments for the project.

The ENF indicates that an Environmental Impact Report (EIR) will be prepared for the project. The EIR should include a summary of the results of archaeological investigations. If any significant archaeological resources are identified and will be adversely affected by the project, the EIR should summarize the measures that were developed in consultation with the MHC and other consulting parties to avoid, minimize, or mitigate adverse effects. The EIR sections pertaining to the archaeological resources should be prepared in consultation with the archaeological consultant to ensure it does not include any site locational information. As always, documents prepared for public review should never include archaeological site locational information that is confidential and not a public record to protect the sites (54 U.S.C. 307103, 36 CFR 800.11(c), M.G.L. c. 9, ss. 26A & 27C, 950 CMR 70.13(7)).

These comments are offered to assist in compliance with Section 106 of the National Historic Preservation Act of 1966 as amended (36 CFR 800), M.G.L. c. 9, ss. 26-27C (950 CMR 71), and MEPA (301 CMR 11). If you have any questions or need additional information, please contact me.

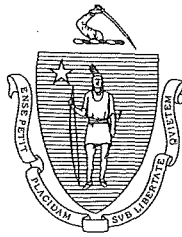
Sincerely,

A handwritten signature in blue ink, appearing to be "E. Bell", written over a blue circular stamp.

Edward L. Bell
Deputy State Historic Preservation Officer
Senior Archaeologist
Massachusetts Historical Commission

Enclosure (MHC 2/1/2022)

xc w/enclosure:
Christina Wolf, Medway Grid LLC
Bettina Washington, Wampanoag Tribe of Gay Head (Aquinnah)
David Weeden, Mashpee Wampanoag Tribe
Marc Bergeron, Epsilon Associates, Inc.
Martin G. Dudek, Commonwealth Heritage Group
Medway Historical Commission



The Commonwealth of Massachusetts

William Francis Galvin, Secretary of the Commonwealth
Massachusetts Historical Commission

February 1, 2022

Christina Wolf
Senior Director, Development, East
Medway Grid LLC
4845 Pearl East Cir., Ste. 118, PMB 83662
Boulder, CO 80301-6112

RE: Medway Grid Energy Storage Project, 47-49 and 53-55 Milford Street, Medway, MA.
MHC #RC.70763.

Dear Ms. Wolf:

Staff of the Massachusetts Historical Commission (MHC), office of the State Historic Preservation Officer, have reviewed the information prepared and submitted by Commonwealth Heritage Group, Littleton, for the project referenced above.

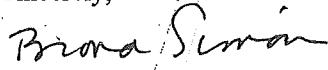
The Project Notification Form (PNF) indicates that the project requires federal and state agency permits from the US Environmental Protection Agency and the Massachusetts Energy Facility Siting Board, and requires review by the Massachusetts Environmental Policy Act office of the Executive Office of Energy & Environmental Affairs.

The information submitted to the MHC indicates that project-related impacts are proposed within an area that Commonwealth Heritage Group evaluated as sensitive for containing archaeological resources. The MHC recommends that an intensive (locational) archaeological survey (950 CMR 70) be conducted for the project. The goal of the investigation is to locate and identify any significant historic and archaeological resources that may be affected by the project, and to provide sufficient technical information to consider feasible alternatives in consultation with the MHC to avoid, minimize, or mitigate any project-related adverse effects.

The MHC looks forward to reviewing a State Archaeologist's field investigation permit application for the survey that will be submitted by your consultant.

These comments are provided to assist in compliance with Section 106 of the National Historic Preservation Act of 1966 as amended (36 CFR 800), Massachusetts General Laws, Chapter 9, Section 26-27C (950 CMR 71), and MEPA (301 CMR 11). If you have any questions or require additional information, please contact Edward L. Bell, Deputy State Historic Preservation Officer and Senior Archaeologist at the MHC.

Sincerely,


Brona Simon
State Historic Preservation Officer
Executive Director
State Archaeologist
Massachusetts Historical Commission.

xc: Martin G. Dudek, Commonwealth Heritage Group

220 Morrissey Boulevard, Boston, Massachusetts 02125

(617) 727-8470 • Fax: (617) 727-5128

www.sec.state.ma.us/mhc



TOWN OF MEDWAY
COMMONWEALTH OF MASSACHUSETTS
**COMMUNITY AND ECONOMIC
DEVELOPMENT**

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Medway, MA 02053
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bsaintandre@townofmedway.org
www.townofmedway.org

Director

Barbara J. Saint Andre

March 10, 2022

Secretary Kathleen Theoharides
Executive Office of Energy and Environmental Affairs
100 Cambridge Street, Suite 900
Boston, MA 02114

Attn: Jennifer Hughes, MEPA Office

Re: Medway Grid, LLC Energy Storage Project, 47-49 and 53-55 Milford Street
EEA #16525

Dear Secretary Theoharides;

The Town of Medway Department of Community and Economic Development has reviewed the Environmental Notification Form (ENF) submitted for the above-referenced project, and submits the following comments. The well-being of our residents, particularly those in the vicinity of the proposed project who will be most directly impacted, as well as protection of the environment, are very important to the Town. We appreciate the opportunity to provide comments, and look forward to continuing to work with the applicant and state officials to mitigate the potential effects of this project on the Town and its residents.

I. In order to be able to fully assess the potential environmental and public health impacts from the project, the plans and project description should be clarified to contain additional details, including:

- A. Details of the proposed sound attenuation wall, including a grading plan.
- B. Details of the retaining walls shown on the plans, including height, setbacks from other structures including the sound wall, grading, and construction details.
- C. For the entire project, including the proposed transmission line: limit of work; cut and fill calculations; existing trees with a diameter of 18 inches or more at 4 feet above grade that will be removed; and overall grading plan.
- D. Areas for snow storage should be shown on the plans so as not to impact the environment.
- E. The distance between modules should be shown.
- F. Elevation plans showing the sound wall and retaining wall along the eastern side of the project, and the sound wall as seen from Milford Street.

II. The project will need to comply with the Town's Stormwater regulations, Land Disturbance by-law, and General Wetlands By-law provisions

III. Environmental and public health impacts.

A. Noise. The project will be located in proximity to residential neighborhoods, which are located across Milford Street from the site, and along Little Tree Road to the east. A plan showing the distances from the project site to the property lines of the residential properties and the residential houses should be included, and these distances should be taken into account in the noise evaluation. Attachment H of the ENF (Sound Level Assessment Report) indicates that there will be substantial noise generated by the facility, particularly when operating at full capacity, which will impact neighboring properties, especially during the night time hours, and will exceed the DEP Noise Policy limit. Exposure to excessive noise levels, particularly at night when most residents are expected to be seeking to sleep, could impact the public health by affecting those residents.

The applicant proposes the following mitigation measures: limit the fan speeds of the Tesla Megapacks to 40% of capacity; construct a 22 foot high sound wall along Milford Street and the eastern side of the facility; and agree to an operational restriction, limiting the number of Megapacks that can charge or recharge during the time period from 10 p.m. to 6 a.m. to 25%. It is not explained in the ENF how it was determined that this operational restriction would bring the facility into compliance, or how the 25% limit would be distributed across the Megapacks. In addition, this operational restriction can be overridden if ISONE implements any of Actions [2-11] under Operating Procedure 4 of the Tariff, or when a Capacity Scarcity Condition exists in the Project's Capacity Zone, or any other zone in ISONE. A further explanation is needed as to the conditions under which the operational restriction can be overridden, and for how long. Data should include how often Actions [2-11] under Operating Procedure 4 of the Tariff, or a Capacity Scarcity Condition exists in the Project's Capacity Zone, or any other zone in ISONE on an annual basis. If there are other similar BESS facilities in operation, then perhaps data can be obtained as to how often those facilities are required to operate at full capacity during night time hours, which may provide some measure of comparison for this proposed facility.

A follow-up Sound Level Assessment Report should be conducted after construction is complete and the facility operational in order to ensure that the project complies with the DEP Noise Policy. The environmental and public health impacts of the 22 foot high sound wall located 35 feet from Milford Street should be addressed in the EIR. Additional and alternative mitigation measures should be considered, including earthen berms, landscaping, and other natural screening to mitigate both noise and the visual impact of the sound wall. Other

Secretary Kathleen Theoharides

March 10, 2022

Page 3

mitigation provisions that would reduce the height and/or length of the proposed sound wall should be fully explored.

B. Wetlands Protection. The Town's General Wetlands Bylaw includes the following, these should be addressed in the EIR:

- Section 33 requires meeting NOAA Atlas 14 when designing the stormwater management system
 - Section 31 requires evaluation of Climate Change Resiliency – this will include the removal of vegetation, carbon sequestration
 - Section 23 – Vegetation Replacement requirements, the Commission will evaluate all vegetation loss within jurisdictional areas for this project. This will require evaluation of reducing the impacts to trees and vegetation within jurisdictional areas. Native plantings are required for all work within jurisdictional areas. Native plantings do not include cultivars
- Impacts to Center Brook, a Perennial Stream, should be addressed in the EIR.
 - 310 CMR 10.58(4)(d) requires an alternative analysis; although stormwater systems are exempt from the WPA regulations within 0-100', the applicant must evaluate options for design. Simply maxing out the site and then placing the stormwater management system within the 0-100' is not acceptable, this has to be the only viable location.
 - The Medway General Bylaw Regulations require a 0-25' No Disturb Zone. Based on the plans reviewed during the MEPA Review Meeting, the grading and limit of work seem to extend into the 0-25' No Disturb Zone for the BVW. It is not clear from the plan at this time. The Commission recommends ensuring all work is outside the 0-25' No Disturb Zone for submittals.
- Dry detention basin
 - It is recommended that all options for the stormwater management system are evaluated for the proposed work, including reducing impacts to the Riverfront and 0-100' buffer zone of BVW by installing subsurface infiltrators instead of infiltration basins. This will be reviewed under the Alternative Analysis, 310 CMR 10.58(4).
- Snow storage needs to be addressed. Snow shall not be stored within jurisdictional areas or stormwater management systems. This shall be incorporated into the SWPPP and the O&M or LTPPP.
- The EIR should review impacts to wildlife within jurisdictional areas from the construction of the retaining walls and large noise walls, more information is needed.
- Medway requires testing of all fill prior to it being brought onto the site. This is to ensure all materials are not contaminated within jurisdictional areas. This should be included in

Secretary Kathleen Theoharides

March 10, 2022

Page 4

the EIR. The following requirements should be incorporated: Any soil, including loam, brought into the resource areas, buffer zones, or other jurisdictional area should be free of trash and deleterious material and free of any chemical contaminants in excess of Massachusetts Contingency Plan (MCP 310 CMR 40.0000) RCS-1 Reportable Concentrations. Soil should also be free of invasive species. While the MCP as a regulation at the State level may or may not apply to the project, soil characterization shall be completed in a manner consistent with this regulation. Prior to delivering to the project soil, material should be characterized by sampling the soil as outlined below and a certification shall be provided to the Conservation Commission or its agent. The certification shall include a letter signed by a Licensed Site Professional (see MCP) describing the Site history of the originating soil location and certifying sampling collection procedures, quality control, results, and compliance with RCS-1 Standards. Soil containing concentrations of contaminants in Exemptions from reporting outlined in the MCP including but not limited to lead paint, emissions, arsenic, and ash, shall not be allowed in jurisdictional areas. Sampling and classification of soils shall also be consistent with MassDEP Policy # COMM-97-001.

The Conservation Commission is generally concerned about the following items with increased development, impervious area, and loss of trees, which should be addressed in the EIR:

- Loss of carbon footprint
- Storm water management
- Climate change impacts
- RMA – extreme heat

C. Other Environmental. The ENF does not address the scope of tree removal, which impacts air quality in the immediate area, potential creation of a heat island, and climate change, all of which should be addressed. Thus, while the project may not emit greenhouse gases, there will be long-lasting effects from the tree removal. As noted above, existing trees with a diameter of 18 inches or more that will be removed should be marked on the plan. The applicant should present an explanation as to the justification for the extent of tree removal, and steps to minimize the removal of existing trees and other flora. It should also be required to propose mitigation, such as planting of trees elsewhere on the site, or other locations in Medway, to offset the environmental effects of tree and vegetation removal. The RMA Climate Resilience Design Standards report states that the project promotes decarbonization, but does not take into account the release of carbon due to tree removal.

The RMA states that “spills and/or releases of hazardous materials are expected with relatively easy clean-up.” The type and quantity of hazardous materials that are expected to be

Secretary Kathleen Theoharides

March 10, 2022

Page 5

spilled should be delineated, along with any environmental impacts. Attachment A states that batteries will be disposed of in accordance with applicable regulations, but are there potential environmental impacts from batteries leaking while on site, or if there is a thermal runaway event?

Thank you for your consideration of these comments.

Very truly yours,

A handwritten signature in black ink, appearing to read 'B. Saint Andre', written in a cursive style.

Barbara J. Saint Andre

March 11th, 2022

Via Email

Jennifer Hughes, Environmental Analyst
MEPA Office
Executive Office of Energy and Environmental Affairs
100 Cambridge Street, Suite 900
Boston, MA 02114
Jennifer.Hughes@mass.gov

**Re: Expanded Environmental Notification Form for Medway Grid Energy
Storage Project Medway
EEA No. 16525**

Dear Jennifer:

Charles River Watershed Association (“CRWA”) submits the following comments on the Expanded Environmental Notification Form (“EENF”) for the proposed Medway Grid Energy Storage Project in Medway filed with the MEPA Office on January 28, 2022. The project consists of a 250 megawatt standalone battery energy storage system (“BESS”) and an ancillary structure on approximately 10.6 acres of land off Milford Street (Route 109) in Medway, Massachusetts. The project will create approximately 1.5 acres of new impervious surface resulting in a total impervious cover of 1.8 acres on site. The project will also involve installation of an approximately 1,325-foot-long new underground 345 kV transmission line interconnection from the proposed new electric substation on the Project Site to Eversource Energy’s existing West Medway Substation (“the Eversource Substation”) to the south. As proposed, the ENF states that this project currently meets/exceeds an Environmental Impact Report (“EIR”) threshold per 301 CMR 11.03, and therefore will be preparing and submitting an EIR.

CRWA appreciates that this project will contribute towards the Commonwealth of Massachusetts’ environmental goals, including but not limited to achieving 40% renewable energy by 2030 and 1000 MWh of battery storage by 2025. However, there are a few concerns that CRWA would like to address. Creating nearly 1.5 new acres of impervious surface will increase stormwater runoff and decrease groundwater recharge. Loss of trees and alteration of riverfront area negatively impacts wildlife habitat, hydrology, and natural flood storage. Trees, vegetation, and wetlands are also critical to maintaining air and water quality and providing cooling—loss of these resources has a direct impact on human and environmental health. And all of these impacts will only be exacerbated as climate change brings increased heavy rainfalls, more drought, and hotter temperatures. At the same time, minimizing impervious surfaces, maximizing the functioning of natural ecosystems, and employing green infrastructure can help to mitigate the effects of climate change. It is important to ensure that efforts to promote clean

energy and reduce emissions do not simultaneously undermine our ability to effectively adapt to changing climate conditions.

Impervious Surface and Stormwater Management

This project will result in an increase in impervious cover on the project site for a total impervious area of 1.8 acres of the 10.6 acre site. Impervious surfaces exacerbate stormwater pollution, flooding, and contribute to heat island effects. Creation of new impervious surfaces should therefore be avoided and existing impervious area should be reduced wherever possible. Where impossible due to necessary uses, impervious cover impacts should be mitigated through modern stormwater management. The EENF does not say whether the proponent has considered alternatives to impervious surfaces such as porous pavement for walkways to reduce the volume of runoff generated by the project. The proponent should investigate the feasibility of, and maximize use of, these alternatives.

MassDEP is about to release an updated stormwater handbook and regulations; it is not clear from the EENF whether the project will comply with the updated requirements. Importantly, the changes MassDEP is proposing more accurately reflect current and future precipitation conditions, which this project's stormwater systems should be designed to handle.

Water Quality

Any stormwater runoff discharged from the project site will ultimately reach the Charles River, which is an impaired waterbody according to the Massachusetts Year 2016 Integrated List of Waters. Two Total Maximum Daily Loads (TMDLs) apply to this segment of the river:

- TMDL for Nutrients in the Upper/Middle Charles River, 2011; and
- Final Pathogen TMDL for the Charles River Watershed, 2007

There is no discussion in the ENF about how the project will comply with these TMDLs. Under the nutrient TMDL, significant reductions in phosphorus loading are required in order to meet water quality standards—there is no “room” for any additional phosphorus loading to the Charles River. The pre- and post-development annual phosphorus load from the site should be provided, along with calculations showing that the project complies with the phosphorus TMDL.

As a reminder, the Town of Medway is regulated by the General Permit for Stormwater Discharges from Small Municipal Separate Storm Sewer Systems (MS4s) (MS4GP). The MS4GP requires Medway to reduce its phosphorus load and achieve a total allowable load of 662 kg/yr (Town-wide in Charles River watershed), or 647 kg/year (Urbanized Area only in Charles River watershed) to comply with the TMDL for nutrients in the Upper/Middle Charles River. Rather than being a target or a goal, achieving the total allowable load is a legally-binding requirement under the MS4GP, with which failure to comply would be a violation of the permit and the Clean Water Act. Reduction requirements contained within Appendix F of the MS4GP are based on the TMDL; the baseline phosphorus load, load reduction requirement, and

allowable phosphorus load follow the assumption that (1) commercial, industrial, high density residential, and medium density residential land uses will achieve or exceed an average annual phosphorus load reduction of 65%, (2) low density residential land uses will achieve 45% load reduction, (3) agriculture and open land will achieve 35% load reduction, and (4) forest/undeveloped areas will not increase the load. The Town's requirements of any public or private project should match these reductions in order to achieve the allowable phosphorus load under the MS4GP. It is much more efficient and cost-effective to accomplish phosphorus reductions at the time projects are constructed, rather than going back and retrofitting projects later on. It is not clear that Medways's local stormwater management code and requirements are requiring reductions consistent with the TMDL.

Trees & Vegetation

Trees and other vegetation improve air and water quality, help control stormwater runoff and flooding, and provide natural cooling. The EENF indicates that vegetation will be cleared up to 25-foot-wide along the 1,325 foot corridor of the proposed Transmission Interconnection, while further clarification is needed on the area of trees and vegetation that will be cleared for the BESS. Additionally, the EENF does not specify the density, and age of trees and vegetation on the site, and it is unclear how many trees and of what size will be cut down. It also indicates any remaining areas within the 25-foot-wide corridor will be allowed to revegetate with low growing vegetation, but it is unclear what specific species will be able to grow back. In the list of predominant vegetation the EENF provides of the area where the transmission interconnection will run through, two out of eight species are considered invasive in Massachusetts: the Japanese barberry (*Berberis thunbergii*) and the multiflora rose (*Rosa multiflora*). Invasive plant species threaten our watershed's ecosystems by degrading water quality, reducing biodiversity, and minimizing flood storage capacity. The EIR should include a plan for removing and managing these invasive species. There is also no analysis of the impacts of clearing trees and vegetation on the site. These impacts, as well as mitigation options for preserving the benefits provided by mature trees, should be evaluated in the EIR. This assessment is critical to understanding the impacts of this project on the overall climate resilience of both the project and the surrounding area.

Existing mature trees should be preserved, except those with health issues or those that pose a public safety risk. We urge the Project Team to consult with an arborist to evaluate trees for suitability of presentation and that as many trees as possible be maintained (specifically those whose suitability is determined to be moderate or high). By preserving more wooded area and the ecosystem processes it provides, the area will be more climate resilient and better able to withstand extreme precipitation, heat, and drought.

Conservation and Restoration Opportunities at this Site

A GIS analysis of the Charles River watershed conducted by CRWA and The Nature Conservancy (<https://maps.coastalresilience.org/massachusetts/>) indicates that there are important conservation and restoration opportunities on this site. This site offers significant conservation opportunities on the undeveloped portions of the site that would benefit water

resource protection, and alleviate inland flooding. Specifically, this site is in an area within the watershed where there are good opportunities to recharge groundwater to support local water supply and environmental health. Conserving intact land and ecosystem processes on the undeveloped portions of the site may also help alleviate flooding. Additionally, the portion of the site that is currently developed is an upland area within the watershed where restoration is needed. This parcel is also located within a green space desert, meaning that maximizing trees and open space on the site would provide critical environmental benefits in an area where they are particularly needed.

Climate Resilience

An analysis using the RMAI Climate Resilience Design Standards Tool demonstrates that this project is at “high risk” for extreme precipitation/riverine flooding, and extreme heat. Minimizing impervious surface and preserving mature trees would further reduce the risks posed by both flooding and extreme heat. As discussed above, creation of new impervious area should be avoided/existing impervious area should be reduced and trees should be preserved to the maximum extent possible. Stormwater management systems should be designed to not only accommodate current storms, but future storms as well. Progressive approaches, including green roofs and rainwater harvesting or greywater reuse, as well as cool pavements,¹ should be considered.

Thank you for considering these comments.

Sincerely,



Iris Seto
Rita Barron Fellow

¹ <https://www.epa.gov/heatislands/using-cool-pavements-reduce-heat-islands>



Commonwealth of Massachusetts
Executive Office of Energy & Environmental Affairs

Department of Environmental Protection

Central Regional Office • 8 New Bond Street, Worcester MA 01606 • 508-792-7650

Charles D. Baker
Governor

Karyn E. Polito
Lieutenant Governor

Kathleen A. Theoharides
Secretary

Martin Suuberg
Commissioner

March 11, 2022

Secretary Kathleen A. Theoharides
Executive Office of Environmental Affairs
100 Cambridge Street, 9th Floor
Boston, MA 02114

Attention: MEPA Unit – Jennifer Hughes

Re: Expanded Environmental Notification Form (EENF)
Medway Grid Energy Storage Project
Medway
EEA #16525

Dear Secretary Theoharides,

The Massachusetts Department of Environmental Protection's ("MassDEP") Central Regional Office has reviewed the EENF for the Medway Grid Energy Storage Project (the "Project"). Medway Grid, LLC (the "Proponent") proposes to construct a 250 megawatt/500 megawatt-hour standalone battery energy storage system and a new electric substation on approximately 10.6 acres off Milford Street (Route 109). The Project will include installation of an approximately 1,325-foot-long new underground 345kV transmission line interconnection from the proposed new electric substation on the Project Site to Eversource Energy's existing West Medway Substation to the south. The Project will include four parking spaces for periodic inspections of the facility.

The Project involves the demolition of three residential structures and one automotive repair shop. The Proponent is requesting approval to file a Single EIR for the Project.

The Project is under MEPA review because it meets or exceeds the following review threshold:

- 301 CMR 11.03(7)(a)(i) - Construction of a New electric generating facility with a Capacity of 100 or more MW.

This information is available in alternate format. Contact Michelle Waters-Ekanem, Director of Diversity/Civil Rights at 617-292-5751.

TTY# MassRelay Service 1-800-439-2370

MassDEP Website: www.mass.gov/dep

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The Project requires the following State Agency Permits:

- Energy Facilities Siting Board - Approval of Petition to Construct;
- MassDEP - Superseding Order of Conditions (if local Order of Conditions is appealed);
- Massachusetts Department of Public Utilities - Exemption from Local Zoning Bylaws.

MassDEP offers the following comments:

Wetlands

The Medway Conservation Commission issued an Order of Resource Area Delineation on February 27, 2020 for the Project. Wetland boundaries were established, and the Proponent has designed the Project around these boundaries. Impacts from the Project are limited to wetland buffer zone only.

Bureau of Waste Site Cleanup

The Project includes demolition of a former automotive repair shop. The EENF does not discuss whether the Proponent has or intends to investigate that location for the presence of oil or hazardous materials. The Proponent is advised that excavating, removing and/or disposing of contaminated soil, pumping of contaminated groundwater, or working in contaminated media might fall under the jurisdiction of G.L. c.21E (and, potentially, c.21C) and OSHA. Excavating contaminated soil or pumping contaminated groundwater could be considered response actions under c. 21E. Conducting response actions without MassDEP approval may result in a penalty.

If oil and/or hazardous materials are identified during the implementation of the Project, notification to MassDEP may be required. A Licensed Site Professional (LSP) should be retained to determine if submittals to MassDEP are required to conduct the work or if notification is required. The Proponent should contact the BWSC in the Central Regional Office for guidance if questions arise regarding contaminated material.

Asbestos

The Project involves the demolition of four existing structures on the property. Before beginning any demolition or renovation, the Proponent is required to have the structures inspected by a licensed asbestos inspector to identify the presence, location, and quantity of any asbestos-containing material (ACM) and to prepare a written asbestos survey report. At least 10 working days before beginning work, the Proponent must submit to MassDEP an Asbestos Removal Notification Form AQ04 (ANF-001) and/or a Construction/Demolition Notification (Form BWP AQ06). The removal of asbestos from the buildings must adhere to the special safeguards defined in the Air Pollution Control regulations (310 CMR 7.15). If any ACM need to be abated through non-traditional methods, the Proponent must apply for and obtain approval

from MassDEP through Application BWP AQ36-Application for Non-Traditional Asbestos Abatement Work Practice Approval.

Except for vinyl asbestos tile and asphaltic-asbestos felt and shingles, the disposal of ACM within the Commonwealth must be at a facility specifically approved by MassDEP, in accordance with 310 CMR 19.061. Materials containing any amount of asbestos as well as materials contaminated by asbestos are defined in 310 CMR 7.15 as asbestos-containing waste material. No ACM or asbestos containing waste material, including VAT and asphaltic-asbestos felts and shingles may be disposed at a facility operating as a recycling facility in accordance with 310 CMR 16.05 and are classified as a special waste as defined in the Solid waste Management regulations (310 CMR 19.061). MassDEP Asbestos, Construction and Demolition Notifications can be found at: <https://www.mass.gov/guides/MassDEP-Asbestos-Construction-Demolition-Notifications>.

Demolition activities may generate asphalt, brick and concrete (ABC) debris. If ABC debris will be crushed at the site of generation and used for fill in accordance with 310 CMR 16.03(2)(b)5, the Proponent must notify MassDEP and the Board of Health at least 30 days before beginning the crushing operation. If the debris is not crushed on-site and used for fill, then other requirements may apply. Asphalt paving, brick, concrete, and metal are banned from disposal at Massachusetts landfills and waste combustion facilities. Wood wastes are banned from Massachusetts landfills. For more information see <http://www.mass.gov/eea/agencies/massdep/recycle/solid/massachusetts-waste-disposal-bans.html> and <http://www.mass.gov/eea/docs/dep/recycle/solid/a-thru-cd/cdbanfaq.pdf>.

Environmental Justice

No Environmental Justice populations were identified within a one-mile radius of the Project. There were several environmental justice populations within a five-mile radius of the site, but this Project does not meet or exceed MEPA review thresholds under 301 CMR 11.03(8)(a)-(b) or generate 150 or more new average daily trips (adt) of diesel vehicle traffic, excluding public transit trips, over a duration of one year or more.

MassDEP appreciates the opportunity to comment on the Project. If you have any questions regarding these comments, please do not hesitate to contact JoAnne Kasper-Dunne, Central Regional Office MEPA Coordinator, at (508) 767-2716.

Very truly yours,



Mary Jude Pigsley
Regional Director

cc: Commissioner's Office, MassDEP