

CLEAN ENERGY RESULTS

Annual Report to the Massachusetts Department of Energy Resources

Covering January 1, 2024 – December 31, 2024



2024

Table of Contents

Annual Report to the Massachusetts Department of Energy Resources	1
EXECUTIVE SUMMARY	3
REGIONAL OFFICE SUMMARIES	7
Western Region 2024 CERP Summary	7
WERO Solid Waste Program	7
WERO Air Permitting Program	8
Northeast Region 2024 CERP Summary	8
Southeast Region 2024 CERP Summary	10
Central Region 2024 CERP Summary	11
BOSTON PROGRAM SUMMARIES	12
Bureau of Air & Waste Updates	12
Anaerobic Digestion/Organics Diversion	12
Recycling Loan Fund	13
RecyclingWorks in Massachusetts	13
Commercial Organics Waste Ban Compliance and Enforcement	13
Residential Food Waste Diversion	13
Energy Efficiency and Clean Energy at Drinking Water and Wastewater Utilities, Food and Agricultural Sites, and Affordable Housing Sites	14
Boston 2024 CERP Summary	20
ACKNOWLEDGEMENTS	30
APPENDIX A: SOCIAL MEDIA SUMMARY IMAGES OF GAP III PROJECTS COMPLETED IN 2024	31

EXECUTIVE SUMMARY

The Clean Energy Results Program (CERP), launched in November 2011, is a first-of-its-kind partnership between the Massachusetts Department of Environmental Protection (MassDEP) and the Massachusetts Department of Energy Resources (DOER). This innovative program builds on MassDEP's regulatory expertise and authority to support DOER in advancing the permitting and development of renewable energy and energy efficiency projects throughout Massachusetts. MassDEP also works closely with the Massachusetts Clean Energy Center (MassCEC) on CERP program activities.

This Annual Report covers MassDEP activities performed from January 1, 2024 – December 31, 2024. It is being provided to DOER pursuant to the Memorandum of Agreement (MOA) executed between MassDEP and DOER, which sets the conditions for the Clean Energy Results Program funding from DOER. Below are highlights from each key program area. More information on each of these can be found under the Detailed Program Progress section of this report.

1. MassDEP made significant progress in the implementation of energy efficiency and clean energy generation projects funded with the \$8.1 million Gap III Energy Grant Round. In 2024, MassDEP's expanded Gap Energy Grant program reached deeper into more communities. A total of 60 organizations moved forward with their grant funding to construct energy efficiency and renewable energy technology projects, including: (38) municipal drinking water and wastewater facilities, (12) non-profit multi-family affordable housing organizations, (7) agricultural and food-producing non-profits and (3) small businesses engaged in food and agricultural distribution and processing are implementing energy efficiency and renewable energy technologies. As of December 31, 2024, 24 of the 60 Gap III energy recipients have completed implementation of their energy-saving projects and received their grant reimbursement payments totaling \$2,264,229. These cost-effective projects are currently saving these organizations up to \$242,297 in annual energy cost savings, over 1,217 megawatt hours (MWh) in annual electricity savings or onsite generation of clean energy and reducing carbon dioxide emissions by approximately 340 metric tons annually. These long-term savings allow these organizations to reinvest their annual energy savings, each year, back into their community or business operations.
2. In early 2024, MassDEP initiated the planning, design and development of a Wastewater Energy Recovery (WWER) Pilot grant program. This implementation effort built off the [Wastewater Energy Recovery Summit](#) held in December 2023. MassDEP secured five million dollars (\$5,000,000) in grant funds from the Climate

Protection and Mitigation Expendable Trust to support this program. Since the Summit was held, MassDEP's CERP program has collaborated with the MassSave® energy efficiency Program Administrators to bring their technical and financial assistance program resources into this pilot and provided targeted outreach to interested municipal wastewater facilities, hospitals, community projects, and other facilities. This initiative will provide critical phased state grant funding for the assessment, design, and construction of wastewater energy recovery pilot projects in Massachusetts. The objectives of this pilot program are to: (1) assess, design, install, and construct this energy recovery technology; (2) evaluate the resultant energy and cost savings and greenhouse gas emission reductions; and (3) develop a replicable WWER partnership model for cost-effective and scaled project development in Massachusetts. See [WWER Program Summary](#). The WWER Pilot grant program is expected to be released for application submissions in the spring of 2026.

3. On May 14, 2024, MassDEP's CERP Project Manager, Michael DiBara presented MassDEP's Gap Energy Grant Program at the 2024 National Grid Municipal Energy Summit at Holy Cross College in Worcester, MA. This event draws in several hundred attendees that include municipal officials, energy and environmental consultants, energy utilities, energy companies and vendors.
4. On October 24, 2024, MassDEP's CERP program staff from the Boston and regional offices toured Boston University's [Center for Computing & Data Sciences](#) AKA "The Jenga Building." The Jenga Building is the largest carbon neutral and 100% fossil fuel-free building in Boston that has earned a LEED Platinum certification. You can click on the [Virtual Tour CCDS | Boston University \(bu.edu\)](#) to get a preview of this 'decarbonization jewel'. This tour provided staff with a living example of sustainability in action and what is truly possible.
5. Between May and September 2024, the Director of CERP worked with DOER, CEC and the Clean Energy States Alliance (CESA), a nonprofit bipartisan coalition of state energy agencies working together to advance the rapid expansion of clean energy technologies to bring the benefits of clean energy to all. Together we produced a 4-part webinar primer on battery energy storage systems with a focus on Massachusetts. The webinar series was designed to provide basic educational information for municipal and state employees, energy and environmental advocacy groups, community associations and the general public. The webinars featured information provided by Massachusetts energy professionals in government, the private sector as well as some national energy professionals all of whom provided valuable information on state and local policies, siting and

permitting, fire safety and environmental considerations, and local considerations. Hourly videos are available:

- a. [Batteries 101, Part 1 An Introduction to Energy Storage and Massachusetts Battery Storage Programs and Policies](#), May 15, 2024

This first webinar featured speakers from the Massachusetts Clean Energy Center, the Department of Energy Resources, and the Massachusetts Executive Office of Energy and Environmental Affairs and was moderated by the Clean Energy States Alliance (CESA). The speakers discussed battery energy storage basics, the role of battery energy storage in the Massachusetts decarbonization plan, and available battery incentives and technical support.

- b. [Batteries 101, Part 2: Benefits and Applications of Battery Energy Storage in Massachusetts](#), May 30, 2024

This webinar built on the foundation laid out in the Part I session. In Part 2, experts from Massachusetts dove deeper into the various benefits and applications of battery energy storage systems. Panelists discussed how batteries can be configured to replace or phase out existing fossil fuel gas peaker plants, provide grid services and benefits, and bolster resilience in communities.

- c. [Batteries 101, Part 3: Safety and Environmental Considerations for Battery Energy Storage in Massachusetts](#), July 11, 2024

Lithium-ion battery projects must adhere to strict fire safety and environmental guidelines to mitigate potential risks. Presenters in this session discussed fire codes, environmental considerations, and security considerations that municipalities and planners should explore when designing a battery storage project in their communities.

- d. [Batteries 101, Part 4: Municipal Considerations for Battery Energy Storage in Massachusetts](#), September 12, 2024

In Part 4 of this webinar series, panelists discussed the municipal planning process for battery storage projects in Massachusetts. Experts provided an overview of the current landscape for energy storage permitting and siting. They discussed zoning considerations, environmental justice and equity considerations for siting energy storage projects, and best practices

for municipalities. We heard recommendations from the Massachusetts Commission on Energy Infrastructure Siting and Permitting, and we also heard from municipal officials who have had direct experience engaging with these processes.

REGIONAL OFFICE SUMMARIES

In addition to the CERP team's work evaluating applications and guiding the implementation of Gap Energy Grant projects, MassDEP's permitting teams across the Commonwealth support renewable energy project development by holding pre-application meetings with developers, reviewing plans, approving permits, conducting inspections, and providing assistance for energy efficiency and clean energy projects.

Western Region 2024 CERP Summary

WERO Solid Waste Program

- **2/16/24, Warren Farms Landfill, Dalton (WERO):** MassDEP issued a permit to Warren Farms Solar LLC approving a construction schedule modification for the previously approved solar PV project to be built on the landfill.
- **4/5/24, Pine Island Farm Anaerobic Digester, Sheffield (WERO):** MassDEP issued a renewal of the Recycling, Composting or Conversion ("RCC") permit for the anaerobic digester. The permit will be valid for a five-year term.
- **4/29/24, Chicopee Landfill Gas to Energy Facility, Chicopee (WERO):** MassDEP issued a permit to gas-to-energy operator Ameresco Chicopee Energy, LLC to conduct a short-term test of gas recovery and reformulation equipment developed by Emvolon, Inc.
- **5/2/24, Deerfield Landfill, Deerfield (WERO):** MassDEP inspectors observed test pits at the Deerfield Landfill as part of pre-construction activities for a solar PV system to be built at the landfill.
- **5/9/24, Agawam Organics Recycling Facility, Agawam (WERO):** MassDEP issued a renewal of the Recycling, Composting or Conversion ("RCC") permit to Agawam ORF 1, LLC, for the organics recycling facility, which "depackages" food waste to be processed in anaerobic digestors at other sites. The permit will be valid for a five-year term.
- **7/16/24, Crane Foundry Sand Landfill, Springfield (WERO):** MassDEP issued a permit to Citizens Energy Corporation approving a knotweed control protocol (herbicide) to be implemented at the solar PV system on the closed landfill.

- **9/9/24, Delta Hills Landfill, Springfield (WERO):** MassDEP issued a permit to Citizens Energy Corporation approving a knotweed control protocol to be implemented at the solar PV system on the closed landfill.
- **12/17/24, Hampden Landfill, Hampden (WERO):** MassDEP issued a permit to the Town of Hampden and Hampden Landfill Solar LLC approving a construction schedule modification for the previously approved solar PV project in progress on the landfill.
- **12/20/24, Hampden Landfill, Hampden (WERO):** A MassDEP inspector observed construction progress at this landfill solar project and helped develop a punch list of final tasks before the project could be considered complete. MassDEP also observed construction progress on earlier dates in 2024.

WERO Air Permitting Program

- **11/2024, Mainspring Energy, Inc., WESTFIELD –** Mainspring Energy, Inc. (Mainspring Energy) completed the installation and testing (both emissions and sound) of two (2) new 240 kilowatt electrical (kWe) Linear Generator Packages at the property of Lineage Logistics, a cold storage facility, located in Westfield, MA. Linear-generator technology is a new category of power generation technology that consists of two identical 120 kWe linear generator cores packaged inside a single enclosure. Unlike gas turbines and internal combustion engines, which both utilize a flame and burning from combustion (resulting in high temperatures and thermal NOx emissions), linear generator technology uses a low-temperature reaction that results in high thermodynamic efficiency and near-zero NOx emissions.

Northeast Region 2024 CERP Summary

- **10/2024 Town of Lincoln/HESP Solar, Lincoln Landfill:** MassDEP issued a conditional approval to the Town of Lincoln and HESP Solar which permits the installation and operation of a 1.1825 MW DC (0.699 MW AC) solar photovoltaic power generating facility at the closed Lincoln Landfill, located in Lincoln. The Town owns the landfill; HESP Solar will install and operate the solar facility. The solar facility will be constructed on a 4.5-acre portion of the landfill and will be connected to the electric utility grid. The landfill was previously capped in 1989 and certified closed pursuant to the Solid Waste Regulations in 1990. The developer will maintain the area of the landfill inside the fenced solar facility, and the Town will continue to perform post-closure maintenance and environmental monitoring at the site. Construction is expected to begin in 2025. Below is a photo of current conditions, followed by the site plan with proposed solar facility.

- **10/2024 Glenview Landfill, Progeneration Energy, Pre-Application Meeting, Chelmsford:** MassDEP staff met with representatives of Progeneration Energy to discuss a potential solar photovoltaic power generating facility at the closed Glenview Landfill located in Chelmsford. The landfill was capped and closed in 2016. MassDEP will continue to assist the proponent in the event the project proceeds to permitting.

Southeast Region 2024 CERP Summary

- **7/24/2024 5.63 MW Solar Array on Landfill, Marshfield (SERO):** DEP's Bureau of Air & Waste's (BAW) Solid Waste Management Section issued a (Major) Post Closure Use (PCU) approval to the Town of Marshfield and NextGrid NFF Marshfield LLC (NextGrid) for a 5.63-megawatt (MW) DC photovoltaic (PV) array installation with a 2.5 MW DC-rating battery energy storage system (BESS) at the Marshfield Landfill located at 23 Clay Pit Rd. The Town of Marshfield has entered a long-term ground lease with NextGrid who will develop, build, own, and operate the PV array and BESS on the Landfill. The permit is a modification to the previously approved Major PCU permit issued on December 22, 2020 (Authorization No. SW36-0000028). The application was submitted due to a change in the type of racking system, which is designed by the newly selected manufacturer, TerraSmart. The proposed design is also modifying the system size from a 5.74 MW DC to a 5.63 MW DC, and changes related to the number of photovoltaic modules, the BESS, and the ballast dimensions. MassDEP's review of the proposed design is to ensure that the final cover system and the existing elevation and grade of the Landfill will not be altered, which includes, and not limited to, structural design analysis such as bearing capacity, sliding calculations and overturning analysis to ensure that the solar panels withstand the downward and uplift wind load.
- **8/24/2024 Stump Dump Removal and Solar Redevelopment, Brewster (SERO):** BAW's Solid Waste Management Section issued a permit to NextGrid Patriots, LLC (NextGrid), certifying the removal of a wood waste landfill known as the Daniels Antinarelli Stump Dump at 433 Freemans Way, Brewster ("Site"). NextGrid previously submitted a post-closure use permit application to MassDEP to remove the wood waste landfill and install a 3.2-megawatt solar array on the Site, which was approved by MassDEP on January 12, 2021. The wood waste buried at the Site was a result of past activity associated with the unpermitted landfilling of wood waste and stumps. The landfill removal work commenced in September 2022 and was completed by the end of 2023. Since all wood waste has been removed from the Site, the location no longer meets the definition of a landfill, and no further regulatory action or reporting to MassDEP is required.

- **2/2024 Proposed 4.47 MW Solar Array on Landfill, Taunton (SERO):** In September 2023, BAW's Solid Waste Section received an application for a Post-Closure Use permit application to construct a 4.47 MW DC (2.99 MW AC) solar PV array on the Taunton Sanitary Landfill located at 330 E. Britannia Street. The City of Taunton selected NextGrid to design, permit, construct, own, operate, and maintain a ground-mounted solar photovoltaic (PV) array on the closed landfill. The Landfill stopped accepting solid waste in 2022 and the landfill's final cover system was constructed in November 2022. Excessive settlement may occur in the first few years after landfill closure, which can affect the design of a solar array on a landfill. Therefore, MassDEP requires an in-depth analysis of the settlement mechanisms that may occur (i.e. immediate, primary, and secondary settlement) and the solar array must be designed for the estimated settlement. In February 2024, MassDEP issued a Determination of Administrative Incompleteness, requiring the applicant to submit additional information. No further action can be taken until the project proponent responds to the Determination of Administrative Incompleteness.

Central Region 2024 CERP Summary

- **07/23/2024, New Garden Park Development Public meeting, Worcester (CERO):** The CERO BWSC Deputy Regional Director and Site Management & Compliance Assistance Branch Chief attended an evening public informational meeting at the Unitarian Universalist Church in Worcester held by the Worcester Business Development Corp. (WBDC) regarding redevelopment of the former Saint Gobain property on New Bond Street. Topics of the meeting included an update for the public on the project's progress, the schedule for redevelopment and a discussion of geothermal energy at the Site.
- **12/05/2024, Pre-Permitting Assistance Meeting with New England Power (CERO/WERO):** Wetlands Program staff met with NEP to discuss their proposed Central to Western MA Energy Improvement Project and related permitting requirements.
- **03/27/2024 – Knox Trail Land LLC (CERO):** MassDEP executed an Administrative Consent Order with the owner of the former Agway Kress property at 55 Knox Trail in Acton. The company plans to lease the property for construction of a ballasted solar electric generating array. The company agreed to establish a trust agreement and fund a Financial Assurance Mechanism for the existing engineered barrier at the site; to submit a Release Abatement Measure covering construction of the array, to conduct repairs to the barrier and perform long-term maintenance and monitoring; to submit a

new Permanent Solution for the site; and to register a new Notice of Activity and Use Limitation for the property.

- **12/2024 Solar installation – Wyman Gordon, North Grafton – RTN 2-0000535**
(CERO): BWSC staff met with Wyman Gordon on site to discuss a compliance schedule to return to compliance with Comprehensive Response Actions under the MCP and the potential for installation of a solar array across an approximate 13-acre portion of the property. A solar development company attended the meeting and presented a concept for the potential solar array and discussed logistics needed in consideration of the installation. Wyman Gordon conducted additional assessment of soil in the proposed area in early 2025 in anticipation of eliminating the area and in consideration for the solar array as part of the 36-year-old complex Disposal Site.
- **12/2024 Battery storage – Former Central Steam Plant, Fitchburg – RTN 2-0017405**
(CERO): BWSC staff presented to the City of Fitchburg the results of soil sampling conducted by a MassDEP contractor utilizing CERCLA 128(a) funds provided to MassDEP under the Bipartisan Infrastructure Law (BIL). The City of Fitchburg relayed that an option for the potential reuse of the property included large lithium-ion battery storage system units. MassDEP’s contractor also conducted additional assessments with funds provided under the BIL to sample groundwater, sediment, and surface water at the Site to assist the City toward redevelopment at the Site. The last of three sampling rounds was scheduled for 1/14/2025 and 1/16/2025.

BOSTON PROGRAM SUMMARIES

Bureau of Air & Waste Updates

Anaerobic Digestion/Organics Diversion

In 2024, Massachusetts food waste diversion increased to 370,000 tons from a baseline of 100,000 tons prior to implementing the initial food waste ban. Anaerobic digestion facilities generate renewable energy through a biological process. Digesters on farms mix and co-digest food waste with agricultural materials and manure from dairy cows. A digester at a wastewater treatment facility co-digests with food waste to generate renewable energy. This energy can be used on site, and excess energy can be sent back into the power grid. Anaerobic Digestion at these facilities supports CERP’s mission to promote renewable energy at public, private and nonprofit facilities. In 2024, the AD facilities in MA accepted 264,000 tons of food waste.

Massachusetts’ 2030 Solid Waste Master Plan set a goal to reduce food waste disposal by 780,000 tons on an annual basis by 2030. The 2024 food waste diversion of 370,000 tons is

nearly halfway to this goal. The [Massachusetts Organics Action Plan](#) lays out MassDEP's programs and strategies to achieve this goal.

Recycling Loan Fund

MassDEP continues to support recycling market development through its grant and loan programs. In 2024, MassDEP awarded 20 grants through its [Recycling and Reuse Business Development Grant](#) (RBDG) program for a total of \$1,628,000.

RecyclingWorks in Massachusetts

The [RecyclingWorks in Massachusetts \(RecyclingWorks\)](#) program provides free assistance to Massachusetts businesses and institutions on recycling and waste reduction programs. RecyclingWorks has made food waste diversion a program priority. In recent years, RecyclingWorks also has held forums on practical skills for commercial composting and provided direct assistance to more than 750 businesses on food waste deliveries and compost site assistance.

Commercial Organics Waste Ban Compliance and Enforcement

MassDEP also continues to conduct inspections and issue enforcement related to the commercial organics waste disposal ban, which initially banned the disposal of food materials from any business that disposes of 1 ton or more per week. In 2022 commercial operations were required to meet a lower food waste threshold of ½ ton per week. This change roughly doubled the number of businesses subject to the food waste ban from 2,000 to 4,000. This increase in participation is credited to reducing food waste in landfills and an increase in food recovery. In 2024, approximately 4,150 Massachusetts businesses and institutions contracted for organics hauling. Since the 2014 waste disposal ban, MassDEP has issued 146 notices of non-compliance and 14 administrative consent orders with penalties for disposal of food material. MassDEP is conducting stakeholder discussions to determine whether to lower or eliminate the waste ban threshold by 2030.

Residential Food Waste Diversion

One hundred and sixty (160) of Massachusetts 352 municipalities have established at least a partial food waste collection program. These program models include curbside collection, drop-off locations, and establishing preferred vendor programs for food waste collection on behalf of their residents. These programs have been supported by \$1.3 million in grant funding through MassDEP's Sustainable Materials Recovery Program. In addition, municipalities participating in MassDEP's Recycling Dividends program have allocated \$865,000 of that program funding to establish food waste diversion programs.

Energy Efficiency and Clean Energy at Drinking Water and Wastewater Utilities, Food and Agricultural Sites, and Affordable Housing Sites

Massachusetts' Gap Energy Grant Program, part of the Clean Energy Results Program, is a streamlined funding model that has helped municipal water utilities reduce their energy usage and operating costs, become more resilient, and improve the environment. In early 2023, an expanded Gap program provided \$8.1 million in a third round of funding (Gap III) that is now reaching deeper into more communities. A total of 60 organizations moved forward with their grant funding to construct energy efficiency and renewable energy technology projects, including: (38) municipal drinking water and wastewater facilities, (12) non-profit multi-family affordable housing organizations, (7) agricultural and food-producing non-profits and (3) small businesses engaged in food and agricultural distribution and processing are implementing energy efficiency and renewable energy technologies.

As of December 2024, 24 of the 60 Gap III grant recipients completed implementation of their energy-saving projects and received their grant reimbursement payments totaling \$2,249,770. Each year, these cost-effective projects are currently saving these organizations up to \$220,418 in annual energy cost savings, over 2,134 megawatt hours (MWh) in annual electricity savings or onsite generation of clean energy and reducing carbon dioxide emissions by approximately 234 metric tons annually. **See Appendix A, Social Media Summary Images of Gap III Projects completed in 2024 for more project details.**

Over the course of a 15-year period, these projects will produce over \$3.3 million in energy cost savings, over 32,010 megawatt hours (MWh) in annual electricity savings or onsite generation of clean energy and reduce carbon dioxide emissions by approximately 3,515 metric tons. Overall, these long-term savings will result in an impactful public return on investment for the Commonwealth and allow these organizations to reinvest their annual energy savings, each year, back into their community or business operations.

Below in Table 1 are the awarded Gap III Energy Grants for Projects by municipal drinking water and wastewater utilities; Table 2 contains the awarded Gap III Energy Grants for projects by nonprofit and small businesses.

Additional project details can be found on MassDEP's website:

<https://www.mass.gov/doc/gap-iii-grant-completed-projects-summary/download>

Table 1: Projects supported by grant awards to drinking water and wastewater utilities

Entity	Region	Project Description	Electric Utility Provider	Gap Grant Award (\$)
Dartmouth (WW)	SERO	Installing an Energy Management System and two ductless heat pumps in the lab area at the wastewater treatment plant.	Eversource	87,032
Deerfield (WW)	WERO	Replacing the single existing aging and inefficient floating aerator with four energy efficient floating aerators and two floating mixers.	Eversource	179,173
Edgartown (WW)	SERO	Replacing three primary sludge and three secondary waste pumps at the wastewater treatment plant.	Eversource	200,000
Essex (WW)	NERO	Replacing the existing 40-year-old boiler high-efficiency condensing boiler; replacing the original, 75kVA electrical transformer. Installing variable frequency drives to wastewater pumping stations #1 & #4.	National Grid	109,499
Franklin (WW)	CERO	Replacing existing pumps & installing variable frequency drives at the Grove Street #2, and Milliken wastewater lift stations.	National Grid	67,807

Entity	Region	Project Description	Electric Utility Provider	Gap Grant Award (\$)
Gloucester (DW)	NERO	Installed a Variable Frequency Drive (VFD), motor, mini-split heat pumps, block heater for the emergency generator and SCADA upgrades at the West Gloucester Water Plant and Babson Water Plant.	National Grid	80,203
Groton (DW)	CERO	Installing solar panels at new water treatment facility.	Groton Electric Department	103,500
Ipswich (WW)	NERO	Replacing the existing blowers with four 50 hp blowers (three duty plus one standby) and replacing the fine bubble diffuser system.	Ipswich Municipal Light Department	191,512
Leominster (WW)	CERO	Replacing three transformers at the WWTP. Installing new heat pumps and performing a facility wide update to the weatherization and sealing of the perimeter of the building.	National Grid	88,783
Manchester-by-the-Sea (WW)	NERO	Replacing all four (4) of the exiting dissolved oxygen (DO) probes with new probes, and upgrade of the SCADA systems and controls that regulate DO and blower speed in each of the four (4) aeration basins.	National Grid	60,671

Entity	Region	Project Description	Electric Utility Provider	Gap Grant Award (\$)
Maynard (WW)	CERO	Replacing an old oil-fired standard efficiency hot water boiler with a high efficiency (HE) 3-Pass boiler and new air separator and pumping systems as required.	Eversource	89,075
Melrose (WW)	NERO	Installing variable frequency drives on two pumps at both the Fellsway and Upham pump stations.	National Grid	19,833
Scituate (WW)	SERO	Replacing the aeration blower with high-efficiency compressor blower and replacing the hot water boiler with an efficient condensing hot water boiler at the WWTP.	National Grid	160,735
Stoughton (DW)	SERO	Replacing water pump motors at two pump stations and two lift stations and replacing a natural gas fueled heater with a 93% efficient condensing unit heater. This fuel-switching project will result in 6,211 kWh saved.	National Grid	92,755
Upper Blackstone Clean Water (WW)	CERO	Replacing the chiller with high-efficiency unit in the administration building and replacing 2 belt filter press feed pumps with 2 new units that reduce the motor	National Grid	181,211

Entity	Region	Project Description	Electric Utility Provider	Gap Grant Award (\$)
		horsepower by over 50% at treatment plant.		
Weymouth (DW)	SERO	Installing VFDs on the 2 main 50HP high-efficiency finish water pump motors at the drinking water treatment plant.	National Grid	48,200

Table 2: Projects supported by grant awards to nonprofit and small businesses

Entity	Region	Project Description	Electric Utility Provider	Gap Grant Award (\$)
Dismas House of Massachusetts (Nonprofit/Agricultural Farm), Oakham	CERO	Replacing the existing pellet and combination oil heating system with an energy-efficient air-source heat pump system.	National Grid	43,146
Elliot Farm LLC (Small business/Agricultural Farm), Lakeville	SERO	Installation of a 68.4 kW solar photovoltaic and battery storage system with an Active Demand Response program with Eversource.	Eversource	200,000
Nantucket Boys & Girls Club (Nonprofit/Affordable Housing), Nantucket	SERO	Installation of 34.4 kW of rooftop solar photovoltaic arrays on four buildings to provide affordable staff	National Grid	107,726

Entity	Region	Project Description	Electric Utility Provider	Gap Grant Award (\$)
		housing and maintain a highly skilled based workforce.		
Natick Community Organic Farm (Nonprofit/Agricultural Farm), Natick	NERO	Installing a 13.2 kW solar photovoltaic system on a new barn.	Eversource	36,511
Stratford Street United Church (Nonprofit/Food Pantry), West Roxbury	NERO	Installing a 27.8 kW rooftop solar photovoltaic system that will complement new heat pumps. The Food Pantry serves 650-800 families/month in Boston and delivers food to veterans outside the city.	Eversource	82,764
The Farm School (Nonprofit/Agricultural Farm), Athol	WERO	Installation of a 15.8 kW rooftop solar photovoltaic system on two barns on the Farm School.	National Grid	124,110

Boston 2024 CERP Summary

- **1/18/2024, Multiagency Battery Energy Storage Systems (BESS) Coordination Meeting.** An initial planning and coordination meeting was held with staff from CERP, MA DOER, and DPU to discuss an outreach and training approach that would educate Massachusetts' stakeholders on BESS.
- **1/29/2024, Sewer Thermal Energy Network (STEN) Meeting.** CERP wastewater energy recovery staff met with the Sewer Thermal Energy Network <https://www.sewerheat.org/> to discuss outreach and collaboration opportunities. STEN is a national member-based trade association that provides advocacy, education, information dissemination, capacity building, and networking opportunities for communities interested in using sewage for heating and cooling for the built environment.
- **2/5/2024, Mass Save® Business Partners Meeting.** CERP staff attended the virtual Mass Save® Business Partners Meeting. This event draws in over 500 attendees who are energy contractors, energy utilities, providers, consultants, municipal officials, business leaders, nonprofit organizations and others to learn about the Commercial and Industrial energy efficiency program offerings and incentives offered by Mass Save®.
- **2/26/2024, Gap III Energy Grant Project Completion Site Visits: Manchester-by-the-Sea (MBTS) and Gloucester Water Treatment Facilities.** CERP staff conducted their project completion site visits at the MBTS Wastewater Treatment Plant. This project replaced all four (4) of the exiting dissolved oxygen (DO) probes with new probes and upgraded the SCADA systems and controls that regulate DO and blower speed in each of the four (4) aeration basins. The Gloucester energy efficiency projects included installation of Variable Frequency Drive (VFD), motor, mini-split heat pumps, block heater for the emergency generator and SCADA upgrades at the West Gloucester Water Plant and Babson Water Plant.



Figure 3: Emergency generator (left) and block heater for the emergency generator (right) at the West Gloucester Water Plant

- **2/29/2024, MA DOER Town Hall Meeting.** CERP staff attended the MA DOER Town Hall Meeting (Webinar). This webinar provided a brief introduction to MA DOER, an overview of key initiatives for 2024, a timeline with opportunities for engagement throughout the year, and a Q&A session.
- **3/6/2024, Gap III Energy Grant Project Completion Site Visit – Edgartown Wastewater Treatment Plant.** CERP staff conducted a project completion site visit. This cost-effective energy efficiency project replaced the three primary sludge and three secondary waste pumps that resulted in electrical savings of 177,967 kilowatts per year, saving the Edgartown Wastewater Treatment Plant approximately \$39,707.00 per year.



Figure 4: New Primary Sludge Double Disc Pumps and Variable Frequency Drives at the Edgartown WWTP

- 3/25/2024, Wastewater Energy Recovery (WWER) Coordination Meeting with Eversource and National Grid.** CERP WWER project staff met with energy efficiency representatives who are the points of contact for their Mass Save® customers who are interested in using wastewater as a potential heating and cooling decarbonization option. MassDEP's CERP program has collaborated with the Mass Save® Program Administrators to bring their technical and financial assistance program resources into the upcoming WWER pilot who will provide targeted outreach to interested municipal wastewater facilities, hospitals, community projects, and other facilities.
- 4/12/2024, Worcester Polytechnic Institute 17th Annual Sustainability Project Showcase, Worcester:** For the second consecutive year, Michael DiBara, CERP project manager, served as a sustainability judge in the Annual Sustainability Project Showcase for the Graduate-level project entries. These sustainability-themed projects address environmental, social, and/or economic themes that relate to the UN's 17 Sustainable Development Goals. The WPI administration and sustainability team celebrated the student sustainability project work, winners, and recognized the climate action being done on campus during an event.
- Intern Project – Logan Caruthers:** In 2024 CERP was fortunate to work with Logan Caruthers, a University of Massachusetts student with a bachelor's degree in Natural Resource Conservation and a master's candidate in Geographic Information Systems and Technology (GIS). Logan applied his GIS skills to help CERP staff create an Excel spreadsheet for mapping the Gap I and Gap II Energy Grant information to create the

Gap Energy Grant Story Map. This was a significant and important project for CERP and Logan. Logan credits his internship in helping him advance his professional development, developing excellent “detective skills,” and providing him with the opportunity to apply his GIS skills to a real world program. Logan also assisted staff in MassDEP’s Water Utility Resilience Program, a program that provides free GIS mapping services to municipal water facilities. Logan assisted in data collection, managing data in excel and creation of GIS map layouts of municipal water facility service areas.

- **5/14/2024, National Grid Municipal Energy Summit (Holy Cross College, Worcester):** MassDEP CERP Project Manager participated in this event to expand CERP outreach to municipal officials, Mass Save® representatives, consultants, and energy vendors.
- **5/15/2024, [Batteries 101 Part 1: An Introduction to MA Energy Storage and Massachusetts’ Battery Storage Programs and Policies](#):** Between May and September 2024, the Director of CERP worked with DOER, CEC and the [Clean Energy States Alliance \(CESA\)](#) to produce a 4-part webinar primer on battery energy storage systems with a focus on Massachusetts. The webinar series was designed to provide basic educational information for municipal and state employees, energy and environmental advocacy groups, community associations and the general public.

This first webinar in the series featured speakers from the Massachusetts Clean Energy Center, the Department of Energy Resources, and the Massachusetts Executive Office of Energy and Environmental Affairs, as well as from the Clean Energy States Alliance (CESA). Topics included battery storage basics, the role of battery energy storage in the Massachusetts decarbonization plan, and available battery incentives and technical support. Panelists explained how batteries can be used to create more resilient energy systems, both at the utility scale and at the residential and commercial scale. Panelists also discussed the current economic landscape for battery storage in Massachusetts, including state and federal incentives and market opportunities. The following webinars in this series explored specific energy storage topics more deeply including equity and fossil fuel peaker plant replacement, grid benefits and resilience, safety, siting, permitting, planning and zoning.

Panelists:

- Sarah Cullinan, Senior Director, Net Zero Grid Program, Massachusetts Clean Energy Center
- Melissa Mittelman, Assistant Secretary for Decarbonization, Massachusetts Executive Office of Energy and Environmental Affairs

- Tom Ferguson, Energy Storage Programs Manager, Massachusetts Executive Office of Energy and Environmental Affairs
- Todd Olinsky-Paul, Senior Project Director, Clean Energy States Alliance
- **5/28/2024, MassDEP CERP WWER Coordination Meeting with Eversource and National Grid.** – The CERP WWER project staff met with energy efficiency representatives who are the points of contact for their Mass Save® customers who are interested in using wastewater as a potential heating and cooling decarbonization option. MassDEP’s CERP program has collaborated with the Mass Save® Program Administrators to bring their technical and financial assistance program resources into the upcoming WWER pilot. The Program Administrators will provide targeted outreach to interested municipal wastewater facilities, hospitals, community projects, and other facilities.
- **5/30/2024, [Batteries 101 Part 2: Benefits and Application of Battery Energy Storage Systems in Massachusetts](#):** This webinar built on the foundation laid by the previous introductory session, “[Batteries 101, Part 1: An Introduction to Energy Storage and Massachusetts’ Battery Storage Programs and Policies](#).” In Part 2 experts from Massachusetts addressed the various benefits and applications of battery energy storage systems. Panelists discussed how batteries can be configured to replace or phase out existing fossil fuel gas peaker plants, provide grid services and benefits, and bolster resilience in communities.

Speakers:

- Peter Dion, General Manager, Wakefield Municipal Light Department
- Tom Ferguson, Energy Storage Programs Manager, Massachusetts Executive Office of Energy & Environmental Affairs
- Jason Viadero, Director of Engineering & Generation Assets, Massachusetts Municipal Wholesale Electric Company
- Chris Sherman, Senior Vice President, Cogentrix Energy
- Todd Olinsky-Paul, Senior Project Director, Clean Energy States Alliance (moderator)

- **6/6/2024, Martha's Vineyard Water Resiliency Project Meeting.** Sandia National Renewable Laboratory provided a technical assistance grant to the Martha's Vineyard Commission to help develop sustainable energy resilience options at critical water facilities. MassDEP [Clean Energy Results Program](#) partnered with the Martha's Vineyard team on this innovative project from its inception – providing preliminary resource assistance to help screen the idea of using existing electric vehicle (EV) bus fleet batteries to serve as a mobile back up source of power for its drinking water facilities.
- **6/11-12/2024. Final Gap Energy Grant Inspections.** Clean Energy Results Program staff conducted four final project site visits to close out Gap Energy Grant supported projects at
 - Weymouth's Arthur J. Bilodeau drinking water plant (energy efficiency project),
 - Natick Community Organic Farm (13.2 kW rooftop solar system),
 - Groton's Whitney Wells Treatment Plant (22.5 kW rooftop solar system), and
 - Leominster Wastewater Treatment Plant (energy efficiency project).
- **6/26/2024. Charles River Pollution Control District (CRPCD) Wastewater Energy Recovery (WWER) Technical Assistance Meeting.** CERP WWER project staff met with representatives from CRPCD, Eversource, Uhrig Group, and TNZ Energy to discuss the initial assessment of using the plant's wastewater to provide supplemental heating and cooling to the treatment plant. This potential HVAC upgrade could involve the installation of a stacked heat exchanger into the plant's effluent channel. This upgrade has the potential to address several significant inefficiencies and ventilation issues at the plant.
- **6/28/2024, Gap III Grant Site Visit – The Farm School in Athol.** The CERP Director conducted a site visit to this nonprofit farm to inspect the installation of two rooftop solar arrays on two agricultural barns. One of the arrays was a 15 kW AC and the other a 25kW AC array which will collectively produce 64,754 kWh of energy and save the farm \$20,050 annually.
- **7/11/2024, [Batteries 101 Part 3: Safety and Environmental Considerations for Energy Storage in Massachusetts](#):** Lithium-ion battery projects must adhere to strict fire safety and environmental guidelines to mitigate potential risks. Presenters in this session discussed fire codes, environmental considerations, and security

considerations that municipalities and planners should explore when designing a battery storage project in their communities.

Panelists:

- Kimberly Roth, Wetlands Analyst, Massachusetts Department of Environmental Protections
 - Ken Willette, Executive Director, North American Fire Training Directors (NAFTD)
 - Brian Engle, Amphenol, Advocate for Advanced Battery Technology North America (NAATBatt)
 - Todd Olinsky-Paul, Senior Project Director, Clean Energy States Alliance / Clean Energy Group
- **8/8/2024, Gap III Energy Grant Project Completion Site Visit: Stoughton.** CERP project manager conducted the grant inspection at three pump stations. This energy efficiency project replaced water pump motors at two pump stations and two lift stations and replaced a natural gas fueled heater with a 93% efficient condensing unit heater.
 - **8/21/2024, Gap III Energy Grant Project Completion Site Visit: Deerfield.** CERP project manager conducted the grant inspection at the Deerfield wastewater treatment plant. This energy efficiency project replaced the single existing aging and inefficient floating aerator with four energy efficient floating aerators and two floating mixers.
 - **9/12/2024, [Batteries 101 Part 4: Municipal Considerations for Battery Storage in Massachusetts](#):** This was the final webinar in a four-part series on battery energy storage in Massachusetts. Part 4 follows “[Batteries 101, Part 1, An Introduction to Energy Storage and Massachusetts’ Battery Storage Programs and Policies](#),” “[Batteries 101, Part 2: Benefits and Applications of Battery Energy Storage in Massachusetts](#),” and “[Batteries 101, Part 3: Safety and Environmental Considerations for BESS in Massachusetts](#).”

Experts provided an overview of the current landscape for energy storage permitting and siting. They discussed zoning considerations, environmental justice and equity considerations for siting energy storage projects, and best practices for municipalities. We heard recommendations from the Massachusetts Commission on Energy Infrastructure Siting and Permitting, and we also heard from municipal officials who have had direct experience engaging with these processes.

Speakers:

- Ben Hanna, Senior Advisor, Massachusetts Department of Environmental Protection
 - Crystal Johnson, Assistant Secretary of Environmental Justice, Massachusetts Office of Environmental Justice & Equity
 - Jeremy Koo, Assistant Director of Clean Energy, Metropolitan Area Planning Council
 - John Mangiaratti, Town Manager, Acton, MA
 - Todd Olinsky-Paul, Senior Project Director, Clean Energy Group / Clean Energy States Alliance
-
- **10/1/2024, City of Northampton Wastewater Energy Recovery (WWER) Technical Assistance Meeting.** CERP WWER project staff met with representatives from the city of Northampton and National Grid to discuss the potential of using the city's wastewater collection system to heat and cool several municipal buildings in the center. National Grid has engaged a technical service provider to perform an initial assessment to evaluate this potential thermal energy recovery opportunity.
 - **10/2/2024, Gap III Energy Grant Project Completion Site Visits: Essex and Ipswich.** CERP project manager conducted the grant inspection at the Ipswich Wastewater Treatment Plant and the Essex Water Treatment Plant and two drinking water pump stations. In Ipswich, the town replaced two energy-intensive 75 hp blowers at the end of their useful life with four new 50 hp energy-efficient aeration blowers. These aeration upgrades provide more efficient delivery of oxygen for biological treatment and reduce aeration system electrical usage by 56,989 kWh and save \$9,054 annually. In Essex, the town replaced their existing 40-year-old boiler with a high-efficiency condensing boiler; replaced the original, 75kVA electrical transformer and installed variable frequency drives to wastewater pumping stations #1 & #4.



Figure 5: New Aeration Blower Equipment at the Ipswich Wastewater Treatment Plant

- 10/24/2024, Boston University Data and Computer Science Building “Jenga” Tour:** MassDEP’s CERP program staff from the Boston and regional offices toured Boston University’s [Center for Computing & Data Sciences](#) AKA “The Jenga Building.” The Jenga Building is the largest carbon neutral and 100% fossil fuel-free building in Boston that has earned a LEED Platinum certification. You can click on the [Virtual Tour CCDS | Boston University \(bu.edu\)](#) to get a preview of this ‘decarbonization jewel’. This tour provided staff with a living example of sustainability in action and what is truly possible.

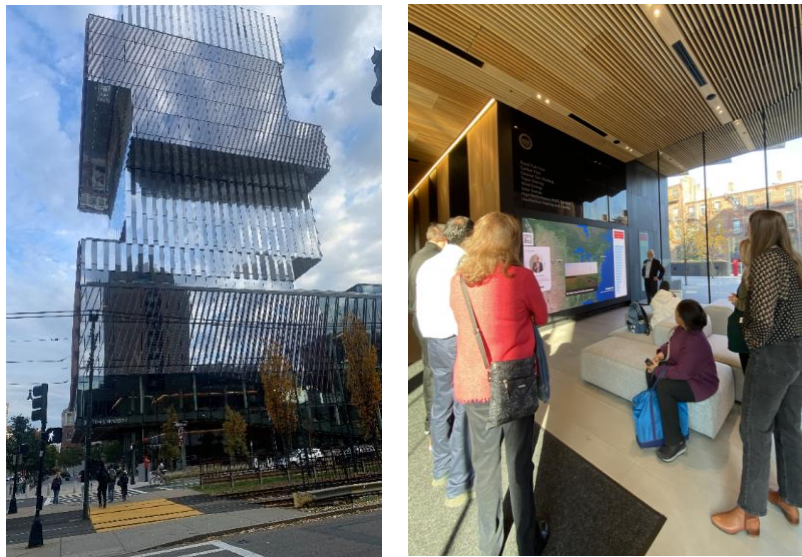


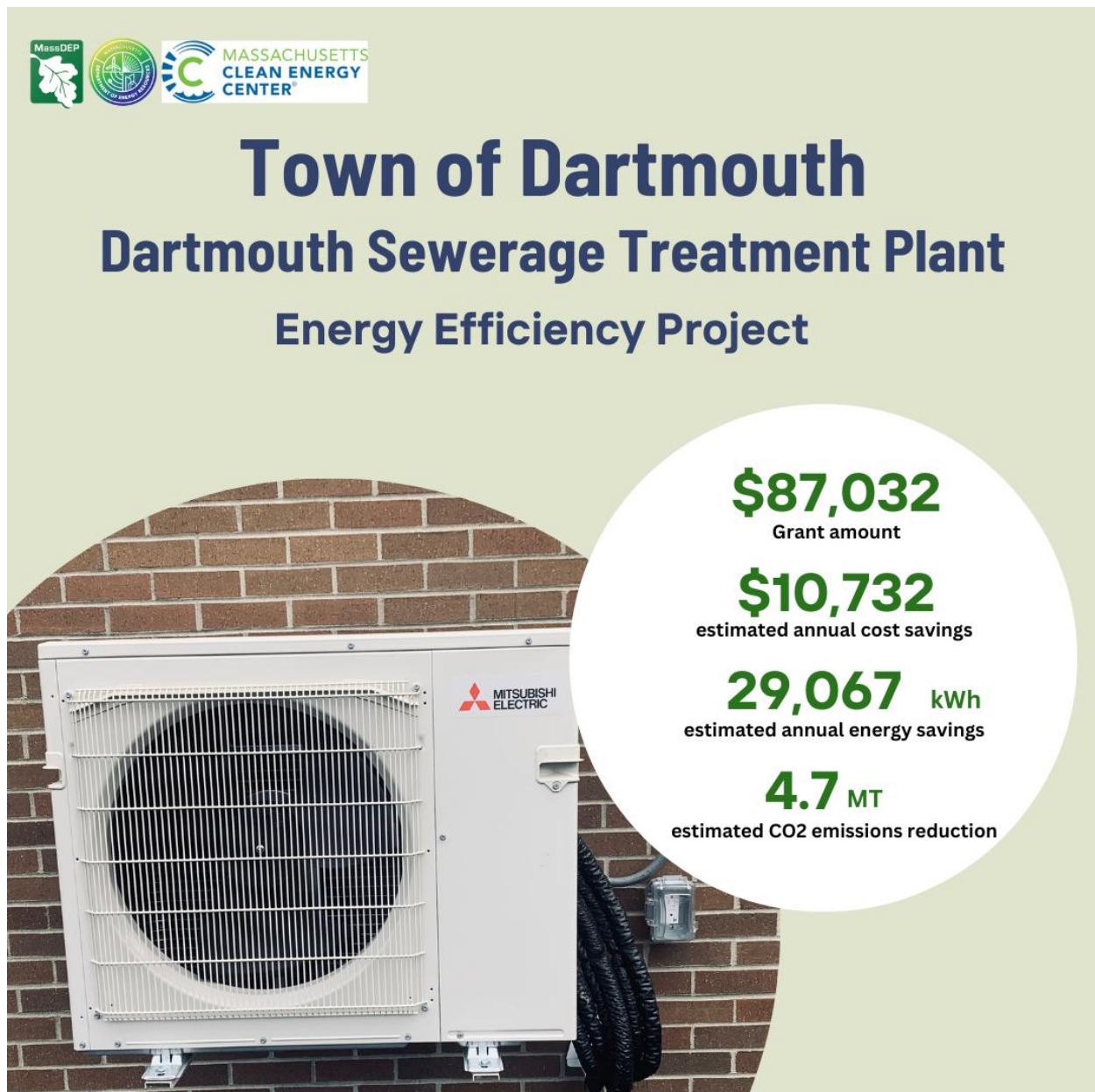
Figure 6: The Boston University Center for Computing and Data Sciences, Boston, MA (left) and MassDEP staff gathered inside the building (right)

- **10/31/2024, Fall River Wastewater Energy Recovery (WWER) Technical Assistance Meeting.** CERP WWER project staff met with representatives from the city of Fall River and National Grid to discuss the potential of using the city's wastewater system as a heating and cooling sink to transfer thermal energy. National Grid is having discussions with the city to evaluate this potential thermal energy recovery opportunity.
- **11/7/2024, Gap III Energy Grant Project Completion Site Visit: Franklin.** This energy efficiency project replaced existing pumps & installed variable frequency drives at the Grove Street #2, and Milliken wastewater lift stations.
- **11/8/2024, University of Massachusetts Medical Wastewater Energy Recovery (WWER) Pilot Meeting (CERP):** The Clean Energy Results Program WWER project team met virtually with the sustainability and facility directors from the University of Massachusetts Medical Campus and National Grid to discuss their interest in MassDEP's planned Wastewater Energy Recovery Pilot Program. The group discussed several possible wastewater energy recovery project areas that could provide an opportunity for heating and cooling several buildings with wastewater at the Worcester Campus. The Medical Center is planning several water and energy decarbonization projects in the future which may also lead to using wastewater energy recovery systems on the campus.
- **11/25/2024, Gap III Energy Grant Project Completion Site Visit: Scituate.** CERP project manager conducted the grant inspection at the Scituate Wastewater Treatment Plant. This energy efficiency project replaced the aeration blower with high-efficiency compressor blower and replaced the hot water boiler with an efficient condensing hot water boiler.
- **11/26/2024, MassDEP CERP WWER Coordination Meeting with Eversource and National Grid.** -The CERP WWER project staff met with energy efficiency representatives who are the points of contact for their Mass Save® customers who are interested in using wastewater as a potential heating and cooling decarbonization option. MassDEP's CERP program has collaborated with the Mass Save® Program Administrators to bring their technical and financial assistance program resources into the upcoming WWER pilot who will provide targeted outreach to interested municipal wastewater facilities, hospitals, community projects, and other facilities.

ACKNOWLEDGEMENTS

This report was written with information provided by the Clean Energy Results Program Team. These program activities have helped to advance MassDEP's environmental and energy results at many facilities across the Commonwealth. Special thanks to MassDEP's Clean Energy Results Program staff: Ann Lowery, Danah Tench, Michael DiBara, and Sharon Lee with assistance from Jesse Grant and MassDEP intern Logan Caruthers.

APPENDIX A: SOCIAL MEDIA SUMMARY IMAGES OF GAP III PROJECTS COMPLETED IN 2024





MASSACHUSETTS
CLEAN ENERGY
CENTER

Town of Edgartown Wastewater Treatment Plant

Energy Efficiency Project

\$200,000

Grant amount

\$39,707

estimated annual cost savings

177,967 kWh

estimated annual fuel savings

41 MT

estimated CO2 emissions reduction





MASSACHUSETTS
CLEAN ENERGY
CENTER

City of Gloucester Babson and West Gloucester Water Treatment Plants

Energy Efficiency Project



\$80,203

Grant amount

\$9,312

estimated annual cost savings

54,778 kWh

estimated annual fuel savings

13 MT

estimated CO2 emissions reduction



MASSACHUSETTS
CLEAN ENERGY
CENTER

Town of Groton Whitney Pond Water Treatment Plant

Clean Energy/Solar Project



\$103,500

Grant amount

\$15,000

estimated annual cost savings

23,652 kWh

estimated annual fuel savings

6 MT

estimated CO2 emissions reduction

City of Leominster Wastewater Treatment Plant

Energy Efficiency Project



\$88,783

Grant amount

\$4,746

estimated annual cost savings

12,282 kWh

estimated annual fuel savings

43 MT

estimated CO2 emissions reduction



City of Melrose Wastewater Department Energy Efficiency Project



\$19,833

Grant amount

\$4,034

estimated annual cost savings

23,667 kWh

estimated annual energy savings

3.7 MT

estimated CO2 emissions reduction



MASSACHUSETTS
CLEAN ENERGY
CENTER

City of Weymouth Bilodeau Water Treatment Plant

Energy Efficiency Project

\$48,200

Grant amount

\$4,080

estimated annual cost savings

24,000 kWh

estimated annual fuel savings

6 MT

estimated CO2 emissions reduction

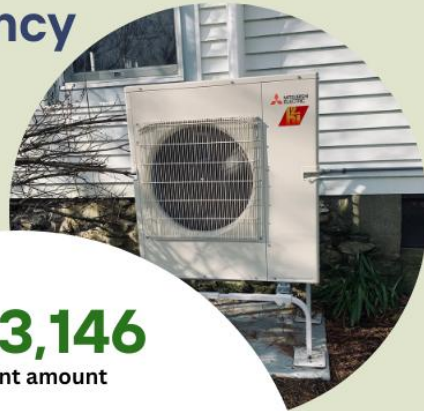




MASSACHUSETTS
CLEAN ENERGY
CENTER

Dismas House (Oakham, MA)

Energy Efficiency Project



\$43,146

Grant amount

\$7,676

estimated annual cost savings

6,587 kWh

estimated annual fuel savings

2 MT

estimated CO2 emissions reduction



The Farm School

Athol, MA

Clean Energy Project



\$124,110

Grant amount

\$20,050

estimated annual cost savings

66,849 kWh

estimated annual energy savings

10.5 MT

estimated CO2 emissions reduction



Natick Community Organic Farm

Clean Energy/Solar Project



\$36,511

Grant amount

\$2,200

estimated annual cost savings

12,149 kWh

estimated annual fuel savings

42 MT

estimated CO₂ emissions reduction



MASSACHUSETTS
CLEAN ENERGY
CENTER

Nantucket Boys and Girls Club

Clean Energy/Solar Project



\$107,726

Grant amount

\$10,178

estimated annual cost savings

126,154 kWh

estimated annual fuel savings

30 MT

estimated CO2 emissions reduction



Rose's Bounty Stratford St. United Church

Clean Energy/
Solar Project



\$82,764

Grant amount

\$9,625

estimated annual cost savings

35,565 kWh

estimated annual fuel savings

8 MT

estimated CO2 emissions reduction

**Energy
Efficiency
Project**

\$25k+

GAP III GRANT AWARD

\$3,374

EST. ANNUAL COST SAVINGS

16K+ KILOWATT HOURS

EST. ANNUAL
ENERGY SAVINGS

4 METRIC TONS

EST. CO2
EMISSIONS REDUCTION

**CATHOLIC
CHARITIES OF
WORCESTER**

Southbridge, MA

Replaced a 40+ year-old oil-fired
boiler with new high-efficiency
appliances

**Energy
Efficiency
Project**

\$179k+

GAP III GRANT AWARD

\$23,727

EST. ANNUAL COST SAVINGS

138K+ KILOWATT HOURS

EST. ANNUAL
ENERGY SAVINGS

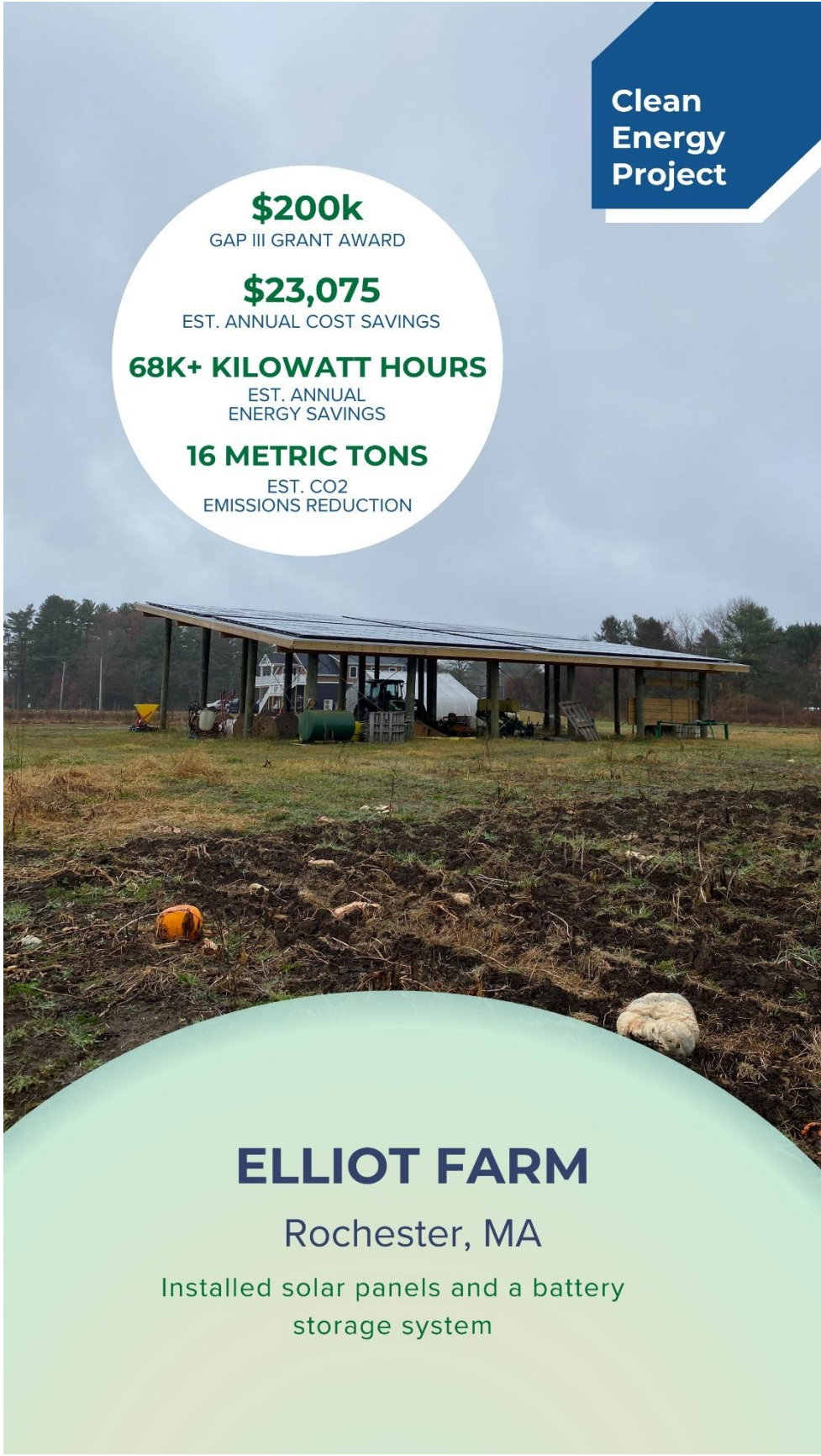
32 METRIC TONS

EST. CO2
EMISSIONS REDUCTION

TOWN OF DEERFIELD

Wastewater Treatment Plant

Replaced aging infrastructure with energy
efficient floating aerators and mixers

The background of the entire page is a photograph of a farm. In the foreground, there is a large, dark, irregular pile of soil or mulch. In the middle ground, a long, low structure with a flat roof covered in solar panels is visible. Underneath the structure, various farm equipment and materials are stored. In the background, there are trees and a cloudy sky. A large white circle is overlaid on the upper left, and a blue banner is in the top right corner.

Clean Energy Project

\$200k

GAP III GRANT AWARD

\$23,075

EST. ANNUAL COST SAVINGS

68K+ KILOWATT HOURS

EST. ANNUAL
ENERGY SAVINGS

16 METRIC TONS

EST. CO2
EMISSIONS REDUCTION

ELLIOT FARM

Rochester, MA

Installed solar panels and a battery
storage system

Energy
Efficiency
Project

\$109k+

GAP III GRANT AWARD

\$4,806

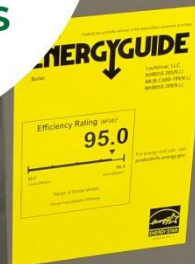
EST. ANNUAL COST SAVINGS

42K+ KILOWATT HOURS

EST. ANNUAL
ENERGY SAVINGS

10 METRIC TONS

EST. CO2
EMISSIONS REDUCTION



TOWN OF ESSEX

Drinking Water Department

Replaced a 40-year-old boiler with a high-efficiency condensing boiler, replaced the original outdated electrical transformer and installed variable frequency drives two pump stations

**Energy
Efficiency
Project**

\$67k+

GAP III GRANT AWARD

\$809

EST. ANNUAL COST SAVINGS

2,500 KILOWATT HOURS

EST. ANNUAL
ENERGY SAVINGS

2 METRIC TONS

EST. CO2
EMISSIONS REDUCTION

TOWN OF FRANKLIN

Wastewater Pump Stations

Upgrades pumps and the addition of variable frequency drives to allow for precise control of motor speed, which reduces energy consumption and costs

**Energy
Efficiency
Project**

\$191k+

GAP III GRANT AWARD

\$9,054

EST. ANNUAL COST SAVINGS

56K+ KILOWATT HOURS

EST. ANNUAL
ENERGY SAVINGS

13 METRIC TONS

EST. CO2
EMISSIONS REDUCTION

TOWN OF IPSWICH

Wastewater Treatment Plant

Replaced outdated blower motors and upgraded the aeration system; Modern blower motors are designed to be more energy-efficient, reduce energy consumption and lower utility bills

Clean
Energy
Project

\$200k

GAP III GRANT AWARD

\$47,000

EST. ANNUAL COST SAVINGS

133K+ KILOWATT HOURS

EST. ANNUAL
ENERGY SAVINGS

31 METRIC TONS

EST. CO2
EMISSIONS REDUCTION

HOUSING NANTUCKET

Nantucket, MA

Installed rooftop solar panels on 22-units
of multifamily affordable housing across
eight buildings

Energy
Efficiency
Project

\$89k

GAP III GRANT AWARD

\$3,200

EST. ANNUAL COST SAVINGS

20K+ KILOWATT HOURS

EST. ANNUAL
ENERGY SAVINGS

5 METRIC TONS

EST. CO2
EMISSIONS REDUCTION

TOWN OF MAYNARD

Wastewater Treatment Plant

Replaced an old oil-fired boiler system with a high efficiency boiler and new air separator and pumping system

**Energy
Efficiency
Project**

\$60k+

GAP III GRANT AWARD

\$2,639

EST. ANNUAL COST SAVINGS

15K+ KILOWATT HOURS

EST. ANNUAL
ENERGY SAVINGS

11 METRIC TONS

EST. CO2
EMISSIONS REDUCTION

MANCHESTER BY THE SEA

Wastewater Treatment Plant

Upgrades to allow for precise control of
motor speed, which reduces energy
consumption and costs

**Energy
Efficiency
Project**

\$160k+

GAP III GRANT AWARD

\$8,047

EST. ANNUAL COST SAVINGS

72K+ KILOWATT HOURS

EST. ANNUAL
ENERGY SAVINGS

17 METRIC TONS

EST. CO2
EMISSIONS REDUCTION

TOWN OF SCITUATE

Wastewater Treatment Plant

Replaced outdated blower motors; Modern blower motors are designed to be more energy-efficient, reduce energy consumption and lower utility bills

Energy
Efficiency
Project

\$92k+

GAP III GRANT AWARD

\$4,060

EST. ANNUAL COST SAVINGS

25K+ KILOWATT HOURS

EST. ANNUAL
ENERGY SAVINGS

5 METRIC TONS

EST. CO2
EMISSIONS REDUCTION

TOWN OF STOUGHTON

Drinking & Wastewater Plants

Replaced water pump motors and replaced a
natural-gas fueled heater with a 93% efficient
condensing unit heater

**Energy
Efficiency
Project**

\$181k+

GAP III GRANT AWARD

\$10,210

EST. ANNUAL COST SAVINGS

60K+ KILOWATT HOURS

EST. ANNUAL
ENERGY SAVINGS

14 METRIC TONS

EST. CO2
EMISSIONS REDUCTION

UPPER BLACKSTONE CLEAN WATER

Millbury, MA

Replaced chiller system with a high-efficiency unit. Newer systems are designed to minimize downtime and conserve energy