## Baker-Polito Administration Awards \$4 Million in Gap II Grant Funding for Energy Efficiency and Renewable Energy Installation at 36 Water Treatment Facilities – May 2019

MassDEP, DOER, and MassCEC continue to work collaboratively in developing a streamlined pathway that leverages technical and financial assistance resources together for implementing energy-saving projects at municipal drinking water and wastewater facilities. In April 2018, MassDEP awarded \$4 million of state 'Gap' grant funding to jump-start over \$17 million of clean energy improvement projects at drinking water and wastewater facilities across the Commonwealth. In total, these 36 clean energy projects will save facilities \$1.3 million annually; generate approximately 9,580 megawatt hours in annual electricity savings or on-site energy generation; leverage .69 million in additional energy utility incentives; and result in a good public return-on-investment (see project listing and details below).

MUNICIPALITY	FUNCTION	TOTAL GRANT AWARD	PROJECT DETAILS
<b>Ayer</b> (Projected savings of \$ 4,877 and 29,688 kWh / year)	Wastewater	\$46,785	For wastewater pumping system control optimization at the Central Avenue station.
Bernardston Fire and Water District (Projected savings of \$58,900 and 208,500 kWh / year) Facility will achieve Zero-Net Energy Status	Drinking Water	\$200,000	Install a 150 kW solar photovoltaic system (ground-mounted) at the Pratt Field Wellhead Area; install a soft start and variable speed drive to Sugar House pumping station.
Blackstone (Projected savings of \$6,657 and 35,108 kWh / year) 42% reduction in annual electricity usage	Drinking Water	\$42,521	Decommission well #5 and install a new variable frequency drive -controlled submersible high-lift pump in Well No. 5A.
<b>Brockton</b> (Projected savings of \$40,994 and 292,812 kWh / year) 26% reduction in annual electricity usage	Wastewater	\$200,000	Install an Aerzen Turbo Blower to the aeration system at the Brockton Wastewater Treatment Plant.
<b>Charlemont Sewer District</b> (Projected savings of \$3,800 and 13,000 kWh of on-site generation / year)	Wastewater	\$45,000	Install a 11.7 kW solar photovoltaic system (roof-mounted), above flood level, at the wastewater treatment plant. New solar system is part of a larger vulnerability preparedness FEMA-funded project.
<b>Chicopee</b> (Projected savings of \$144,430 and 558,450 kWh / year) Better oxygen transfer will increase sludge treatment and reduce disposal costs	Wastewater	\$200,000	Replacement of the existing onsite pressure swing absorption oxygen aeration system (major components 1974 vintage) with a bulk delivered liquid oxygen system.
<b>Dartmouth</b> (Projected savings of \$\$83,509 and 460,675 kWh and 1,341 therms / year)	Wastewater & Drinking Water	\$107,057	For Pumping system optimization (PSO) upgrades (VFD, motor, pump rebuilds) to Municipal drinking water wells A, B,C, D; boiler replacement to the sludge building and installation of 3 emergency generator block heaters at the wastewater treatment plant.
<b>Fairhaven</b> (Projected savings of \$12,038 and 66,876 kWh / year)	Wastewater	\$23,924	Install a variable frequency drive to aeration blower #3 and a new heat pump system to the existing emergency generator at the wastewater plant.







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<b>Fitchburg</b> (Projected savings of \$10,203 and 65,297 kWh of on-site generation / year) Implementation of a 2012 feasibility study	Drinking Water	\$200,000	Replace the existing drinking water pressure reducing valve at Narrows Road with a 10 kW hydroelectric "Pump as Turbine" (PAT) generation system.
<b>Franklin</b> (Projected savings of \$10,329 and 70,686 kWh / year)	Drinking Water	\$79,380	Install 10 high efficiency motors to five drinking water wells and two booster stations.
<b>Groton</b> (Projected savings of \$8,000 and 55,158 kWh / year)	Drinking Water	\$83,295	Install variable speed pumps and electrical controls to Whitney Well drinking water (pumps #1 & #2) for both energy efficiency and peak electrical demand management.
<b>Hatfield</b> (Projected savings of \$32,679 and 217,861 kWh / year)	Wastewater	\$200,000	For energy efficiency solids handling modifications by converting one of the sludge holding tanks (previously served as a digester) to a gravity thickener at the wastewater treatment plant.
Hull (Projected savings of \$18,686 and 118,946 kWh / year) Implementation of a 2004 efficiency study	Wastewater	\$61,685	For aeration blower optimization; installation of a variable speed drive to the odor control fan and an emergency generator block heater at the wastewater treatment plant.
<b>Kingston</b> (Projected savings of \$5,511 and 8,892 kWh and 3,128 therms / year)	Wastewater	\$76,020	Replace the existing cast iron boiler with a new 94% efficient condensing boiler; optimize the circulation of the hot glycol in the heating system by replacing the motors and installing a variable speed drive at the wastewater treatment plant.
Lenox (Projected savings of \$56,221 and 443,093 kWh / year) Improved aeration will improve taste and odor problems	Drinking Water	\$98,542	Install a variable speed drive to a low-lift pump at the Root Reservoir water treatment plant; install new solar-powered mixers to the Lower and Upper Root Reservoirs.
<b>Lynnfield Water District</b> (Projected savings of \$7,348 and 38,470 kWh / year)	Drinking Water	\$79,443	Replace pumps #1 & #2, motors, and variable speed drives at the Lynnfield drinking water booster pumping station.
Massachusetts Water Resources Authority (Projected savings of \$13,284 and 73,783 kWh / year)	Wastewater & Drinking Water	\$81,027	Install variable frequency drives on two circulation water pumps at the Union Park Detention & Treatment and Deer Island Facilities; and install 222 feet of water pipe insulation in an underground vault at Loring Road to reduce the need for dehumidification.
<b>Middleborough</b> (Projected savings of \$5,037 and 14,558 kWh of on-site generation / year)	Drinking Water	\$43,437	Install a 9.75 kW (ground-mounted, dual-access tracker) solar photovoltaic system to the water treatment.
<b>Milford</b> (Projected savings of \$6,259 and 32,941 kWh / year	Wastewater	\$13,380	Install an energy efficient rotary screw air compressor with variable speed drive at the wastewater treatment plant.

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<b>Millbury</b> (Projected savings of \$11,028 and 33,045 kWh of on-site generation / year)	Wastewater	\$155,385	Install a 25 kW solar photovoltaic carport system and install a 1.5 ton air source heat pump to the DPW office / sewer building.
Montague (Projected savings of \$33,823 and 261,061 kWh of on-site generation / year	Wastewater	\$150,000	Install a 200 kW solar photovoltaic system (ground-mounted) at the wastewater treatment plant.
Nantucket (Projected savings of \$21,879 and 91,161 kWh of on-site generation / year)	Wastewater	\$200,000	Install a 75 kW roof-mounted solar photovoltaic system on the wastewater sludge building.
North Carver Water District (Projected savings of \$10,800 and 3,280 gallons / year)	Drinking Water	\$58,230	Replace the existing oversized 350 kW propane Pleasant Street emergency generator with a 125 kW generator at the plant.
<b>Orange</b> (Projected savings of \$11,655 and 77,701 kWh / year)	Wastewater	\$200,000	Replace the existing two 50 HP aeration blowers with energy efficient 35 HP mixer / blowers.
<b>Paxton</b> (Projected savings of \$1,069 / and 8,734 kWh year)	Drinking Water	\$22,814	Replace two existing 20-year-old 100hp motors with NEMA premium efficient motors; upgrade existing dehumidification system; and install ductless mini-split for building heating and cooling at the pumping station.
<b>Rockport</b> (Projected savings of \$77,534 / year and 473,613 kWh )	Wastewater	\$81,081	Perform aeration blower control improvements and optimize the aerobic digester blower control system.
Shrewsbury (Projected savings of \$10,956 and 75,581 kWh of on-site generation / year) Implement a MA DOER-funded solar assessment	Drinking Water	\$200,000	Install a 60 kW solar photovoltaic system (ground mounted) to Home Farm water treatment plant.
Beverly/Danvers/Marblehead/Peabody/ Salem (Projected savings of \$52,600 and 375,700 kWh / year) Better oxygen transfer for biological treatment and decreased maintenance costs	Wastewater	\$200,000	Replace the existing three trains of aeration mixer blades with a higher-efficiency blade system at the South Essex Sewage District.
<b>Southwick</b> (Projected savings of \$3,066 and 11,794 kWh / year)	Drinking Water	\$40,546	Install two heat pump systems to preheat the existing 45kW emergency diesel generators to replace the inefficient electric block heaters at the College Highway and North Longyard pump stations.
<b>Taunton</b> (Projected savings of \$11,158 and 101,435 kWh / year )	Wastewater	\$35,500	Install a variable frequency drive on the aeration blower #1 (100HP) motor at the wastewater plant.
Uxbridge (Projected savings of \$356,4882 and 1,980,485 kWh / year ) Implementation of a 2011 efficiency study will improve the biological treatment process	Wastewater	\$168,613	Convert the existing coarse bubble air diffusers and centrifugal aeration blowers to fine bubble air diffusers and rotary hybrid blowers; upgrade the existing oil heating and electric HVAC system with a natural gas based system.

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<b>Ware</b> (Projected savings of \$46,660 and 259,217 kWh / year)	Wastewater	\$160,783	Install three new motors, variable speed drives, and dissolved oxygen, pH and temperature sensors into the aeration basins.
Wareham Fire District (Projected savings of \$16,500 and 101,300 kWh of on-site generation / year)	Drinking Water	\$200,000	Install a 81 kW ground-mounted solar photovoltaic system at the Maple Springs Water Purification Plant.
<b>Webster</b> (Projected savings of \$15,730 and 78,652 kWh / year)	Wastewater	\$26,351	Perform pumping system optimization by rebuilding 3 Return Activated Sludge (RAS) pumps at the wastewater treatment facility.
Westfield (Projected savings of \$7,820 and 54,684 kWh / year)	Wastewater	\$39,424	Perform pumping system optimization by rebuilding and epoxy coating 4 Influent wastewater pumps.
Worcester (Projected savings of \$161,634 and 1,776,194 kWh / year) 50% reduction in annual electricity usage	Drinking Water	\$200,000	Replace the existing 20-year old ozone generation system with the most current liquid oxygen system (LOX) system for improved treatment while using less electricity.





