Case Study: Massachusetts Water Resources Authority

Leveraging Critical Facilities to Advance Net-Zero Emissions Goals

The Massachusetts Water Resources Authority is a public agency providing wholesale water and sewer services to more than 3 million people in eastern and central Massachusetts. With climate change effects and complications from the pandemic, resilience and redundancy are critical objectives that battery energy storage can address.

This project totals 1 megawatt-hour (MWh) of standalone, behind the meter energy storage at two MWRA sites, a water pumping station and an administrative building. In working with Stem to optimize its footprint, MWRA hopes to further its contribution to Massachusetts' goal of achieving net-zero greenhouse gas (GHG) emissions by 2050.

> "We have been very aggressive in our pursuit of renewable and sustainable energy sources at our water and wastewater facilities. Stem has been a great partner on this new initiative throughout the entire process. Stem's battery storage systems are a perfect addition to our portfolio and will help us continue to reduce our carbon footprint while delivering attractive cost savings."
>
> **Fred Laskey**
> Executive Director, MWRA

Challenge

MWRA sought significant savings on its utility bills, particularly at its pumping station which had a large energy footprint and high demand charges. Stem was tasked with shifting MWRA's pump house and administrative building loads to off-peak hours to capture less expensive energy so that MWRA could optimize its utility costs.

Solution

Stem's Athena smart energy software optimizes utility bills at both sites. And Stem's demand response service automatically discharges batteries to reduce site loads, allowing MWRA to maintain uptime, monitor its demand, and interface with the utility. Athena will also enable the projects to earn wholesale market revenues.

Results

Both projects are in coordination with Eversource, New England's largest utility, which implements energy storage to lessen grid stress and further the region's climate change goals. Stem's expert energy services, empowered by our Athena platform, are helping to sustainably and economically drive the smart energy transition.

Location
Greater Boston, MA

Customer Type
Water District

Facility Type
Water Pump House, Municipal Office Building

Solutions
Energy Storage, Utility Bill Optimization, Demand Response, Sustainability

Energy Storage System Size
1MWh

Commercial Operation Date
January 2021

To learn more about Stem's solutions, contact stem.com/contact-us.