

List of Sustainability Initiatives in Partnership with Framingham Public Schools

22-03-28

- **Coordination on Green Communities Competitive Grant Projects**
 - 10 energy projects across schools through the Green Communities Program.
 - **2019:** 21,480 kWh of electricity & 4,760 therms of natural gas of projected savings
 - Stapleton Elementary School - Insulation
 - Juniper Hill Elementary School – Variable Frequency Drive (VFD) Installation
 - **2020:** 243,803 kWh of electricity & 9,121 therms of natural gas of projected savings
 - Barbieri Elementary School – Walk-In Refrigeration Upgrades
 - Cameron Middle School – Walk-In Refrigeration Upgrades
 - Framingham High School –
 - Heat Recovery Unit (HRU) and Rooftop Recovery Unit (RTU) Upgrades
 - Kitchen Hood Controls Upgrade
 - Walk-In Refrigeration Upgrades
 - Walsh Middle School –
 - Steam Trap Replacement
 - Walk-In Refrigeration Upgrades
 - **2021:** 23,118 kWh of electricity & 15 therms of natural gas of projected savings
 - Cameron Middle School – Variable Frequency Drive Installation (VFD)
- **Retrocommissioning (RCx) Scoping Studies of School Facilities**
 - **RCX background:** Buildings change over time, undergoing structural and mechanical changes that alter their function in ways that were not anticipated from an operational perspective. Retrocommissioning studies have helped identify opportunities to enhance energy efficiency at municipal facilities to make sure that equipment is functioning optimally for current operations.
 - Through Municipal Energy Technical Assistance (META) Grants, RCx scoping studies have been conducted at Framingham High School and Barbieri Elementary School (2018) and will also be done at Juniper Hill Elementary School and King Elementary School (2022).
- **Electric Vehicle Charging Stations (EVCSs)**
 - EVCSs have been applied for and installed through the Eversource Make Ready Program. 12 level-II EVCS ports have been installed at FPS locations:
 - McCarthy Elementary School: 4 Ports
 - Harmony Grove Elementary School: 2 Ports
 - Fuller Middle School: 6 Ports
- **Renewable Energy Projects**
 - Fuller Middle School – 350 kW AC solar PV & 250 kW AC battery energy storage system.
 - The system currently in development includes solar panels on the building’s rooftop, solar PV canopies over the eastern parking lot, as well as a small battery energy storage system.
 - Brophy Elementary School – 250 kW AC solar PV system.
 - The system is comprised over solar PV canopies over the facility’s main parking lot, as with Fuller Middle School, power generated by the panels will offset the facility’s energy consumption.

- **Energy Resiliency**
 - **Massachusetts Clean Energy Center (CLEAR) Studies**
 - Framingham Public Schools is coordinating with CPFM to conduct energy resiliency design studies that incorporate FPS facilities in two Framingham neighborhoods. These include:
 - **Concord Street Community Resiliency System:** Fuller Middle School, McCarthy Elementary School, Farley Building.
 - **Winch Park Municipal Resiliency System:** Framingham High School.
 - While still under development, the studies are showing promising potential for the development of clean energy resiliency systems that use solar PV and battery storage at school and other community facilities to provide local economic, environmental, and resiliency benefits.
- **Demand Response**
 - FPS is participating in demand response for four eligible schools with CPFM:
 - Barbieri Elementary School
 - Cameron Middle School
 - Framingham High School
 - Wilson Elementary School
 - Through the program, energy consumption at these facilities is reduced by B&G staff during periods of peak electricity use on the grid. Lowered energy consumption at schools benefits the City and also reduces emissions and costs at the electric grid level.
- **Energy Management System Upgrades**
 - Comprehensive upgrades of the City's energy management systems included almost all School facilities. As part of new upgrades, CPFM is coordinating with Buildings & Grounds to ensure implementation of occupancy overrides at gyms across schools that will help reduce HVAC equipment runtime and save energy over the course of the year.