

Electric Vehicles and the Town of Rochester



BACKGROUND

Rochester is a south coast Massachusetts town with a 2010 population of 5,232, and an area of 36 square miles. Rochester has worked creatively with its neighbors to make being sustainable also affordable.

The Town obtained three Electric Vehicles (EVs) and two charging stations through the Massachusetts Department of Environmental Protection's (MassDEP) Electric Vehicle Incentive Program (MassEVIP) in 2016. Town officials worked with MassEVIP to replace three old, high-mileage, high-maintenance cost hand-me-down police vehicles with modern, energy efficient, and cost saving EVs. Rochester also partnered with its neighboring Town of Marion to obtain an EV for their shared Regional Health District through MassEVIP.

Rochester benefited from the experience of neighboring municipalities that had already updated their fleets with EVs, including New Bedford and Marion. Requests from town employees and the general public spurred Rochester to acquire the EVs and charging stations.

EQUIPMENT AND SITE SELECTION

Rochester leased three 2016 Kia Soul Battery Electric Vehicles (BEVs) with its \$22,500 MassEVIP award. The decision to lease rather than purchase the vehicles was purely monetary. The EVs are mainly used by Rochester's assessors, conservation agent, planner, and building inspector. The Soul fits the needs of users, especially in terms of its roominess and storage.

Rochester chose the charging station model based on research that indicated they would be simple to install. Both stations are located at the Town Hall parking lot because it is centrally located, readily accessible to the municipal officials who use the EVs, and provides for one-stop maintenance and upkeep. The stations are open to the public free of charge, and Rochester advertises this through signage and marking the EV parking spots. So far, neither charging station has required any maintenance.

Rochester got creative with its charging station installation by hiring a local electrician to work with students from the Old Colony Regional Vocational Technical High School. The arrangement not only saved Rochester money, but also gave the students valuable hands-on experience with new technology.

RESULTS AND EXPERIENCES

Rochester leased its Kia Soul EVs from a dealership in Framingham, located a little over an hour away, and reported a smooth transaction. Local media outlets provided news coverage when the EVs were first delivered. Users are pleased to be able to drive advanced technology vehicles. The Kia Souls have met the needs they were acquired for. The EVs perform well, especially in the snow and even off-road. EV drivers note that range is not a concern for routine daily activities. Although the Souls' limited range (90 miles) is not a concern for routine day-to-day activities, it does require town officials to plan ahead to ensure that charging stations will be available when they go on longer trips.

The Souls have travelled a combined total of 12,800 miles on electricity in their first seventeen months on lease and required no maintenance during that time. On average, charging Rochester's three Kia Souls for one month costs only \$27. This saved the Town 528 gallons of gasoline, or about \$1,200 at the pump, and avoided 10,345 pounds of greenhouse gas (GHG) emissions over the seventeen months.

Rochester has been pleased with the cost savings and sustainability impacts of adding the EVs to its fleet, and the municipal officials who drive them have taken every opportunity presented to talk about the benefits of EVs with townspeople.

The Town will assess its fiscal situation at the end of the lease period to determine if buying the Souls is feasible. Town officials appreciate the simplicity of the MassEVIP incentive program. Rochester would like to add more EVs to its fleet through MassEVIP.

Rochester Fast Facts

- Population: 5,232
- Median Household Income: \$85,440
- EVs: 3
- Charging Stations: 2
- Estimated Gas Savings: \$1,200 over 1.5 years
- Estimated GHG Emissions Avoided: 10,345 pounds over 1.5 years

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