Award-Winning Energy Innovation and Climate Protection: The City of Schenectady in Schenectady County, NY

Mayor Gary McCarthy was recognized in June as the nation’s top winner of the 2018 Mayors’ Climate Protection Award in the Small City category for his work to increase energy efficiency, expand renewable energy and reduce carbon emissions in the City of Schenectady.¹ The Mayor’s efforts have resulted in the Bevis Hill solar farm, a waste water filtration system upgrade, the addition of electric vehicles to the City’s fleets and charging stations around the City, and a partnership with National Grid on a Smart City streetlight initiative. “Schenectady has a proud history of innovation and it is more important than ever that we upgrade our technology and infrastructure to tackle climate challenges while improving the efficiency of services and increasing the quality of life for residents,” said Mayor McCarthy when accepting the award. “Emerging technologies have incredible potential to create real value while also making our communities more sustainable.”

The City of Schenectady, the county seat in Schenectady County, NY, does indeed have a history of technological innovation. Located on the south side of the Mohawk River near its confluence with the Hudson, about 15 miles northwest of Albany, it developed rapidly in the 19th century from a farming community to a trade, manufacturing and transportation corridor. Industries included a cotton mill and the American Locomotive Company. Thomas Edison moved his Edison Machine Works there, which eventually became General Electric. After a period of decline, the City is now emerging with a reinvigorated waterfront and downtown area.

The Bevis Hill solar array has a 711 kilowatt capacity from 3,029 panels. It has already reduced the City’s energy costs by about $80,000 over the last two years and is projected to save about $840,000 over the lifetime of the array. The electricity is obtained through a power purchase agreement, so the City did not have to lay out any money to build the array. Since the solar site is isolated and not very visible, neighbors did not object and the project was not too controversial. Solar City was the installer, and the project took over a year from start to finish, mostly because interconnection arrangements had to be made with the local utility. The City of Schenectady is also partnering with the County on another 3 to 5 megawatts of solar energy for the area.

In addition to saving $30,000 per month on the City’s energy consumption by upgrading its waste water filtration system, Schenectady has received approval from the New York State Department of Public Service to partner with National Grid on installing advanced streetlight technology. As part of this “smart city” demonstration project under NYS’s Reforming the Energy Vision program, National Grid will replace approximately 4,220 streetlights with energy-efficient LEDs and smart controls that will allow remote operation to maximize lighting effectiveness under different conditions to reduce lighting costs. Mayor McCarthy appointed a Smart City Commission in 2016 to research the project, which took a year, and the lights, controls and associated equipment will be installed over three years in total.² The LED lighting


² http://www.cityofschenectady.com/DocumentCenter/View/2145/Schenectady-Smart-City-Announcement?bidId
will save 2 million kilowatt hours annually in electricity.

The City fleet currently has 8 plug-in hybrid electric vehicles, funded in part by NYS grants. Charging stations are now available at City Hall, two municipal parking lots, Central Park and the library. New vehicles are being phased in as fleet vehicles need replacing. The City had to make some legal modifications to allow businesses to get Property Assessed Clean Energy (PACE) financing for charging stations, which then made them eligible for more grant money.

How did McCarthy get cooperation for all these energy and cost saving innovations? Many were accomplished through the help of his office staff and the support of the City Council. These changes were implemented internally in a thoughtful manner, including holding some neighborhood meetings so the community understood and supported the work. His team at City Hall and partners in the community were keys to the success of these projects.

The team collaborated with various entities, including the University of Albany and Clarkson University’s graduate school, Smart Cities partnerships, and a broad coalition of AT&T, General Electric, Intel, Simcon, Itron and National Grid. The NYS Department of Transportation and several boards at the Capital District Transportation Committee worked together to keep communication clear and open. The team contacted local Assembly members and NYS Senators to support their efforts. Though not required, they kept the school board in the loop, which helped to get community agreement.

Mayor McCarthy’s suggestions for other communities interested in undertaking similar projects are to be creative, persevere on paperwork for grants, and tailor all these plans to determine how they fit best for your community. For further information about Schenectady’s energy and climate protection initiatives, contact Director of Operations Alex Sutherland at asutherland@schenectadyny.gov or 518-382-5000.

When awarding the 2018 Mayors’ Climate Protection Award to Mayor McCarthy, Stephen K. Benjamin, Mayor of Columbia, SC and President of The U.S. Conference of Mayors, said, “As the nation struggles to find a common vision to the growing challenges of a changing climate, Mayor... McCarthy show[s] how local leadership and action offer a pathway to a broader national consensus and response to our climate challenges.” The work done by the City of Schenectady proves that municipalities can not only lower their carbon footprint but save money in the bargain!

For more information contact Director of Operations Alex Sutherland at asutherland@schenectadyny.gov or 518-382-5000.

Photos sent by the City of Schenectady below, used with permission.
Bevis Hill Solar Array  (City of Schenectady)

Mayor Gary McCarthy winning 2018 Mayors’ Climate Protection Award (City of Schenectady)
6 of 8 Chevy Volts in Schenectady’s Electric Vehicle Fleet (City of Schenectady)

EV Destination Logo (City of Schenectady)
City of Schenectady
Electric Vehicle Destination

21 EV PARKING SPACES FOR PUBLIC USE

Schenectady’s “Electric Vehicle Destination” initiative is aimed at driving Electric Vehicle (EV) growth in the community as well as in the region through expanded access to charging stations. Charging stations have been strategically located throughout the city so that residents and visitors driving EVs can find a convenient location to park and charge—allowing them to experience and enjoy the many great restaurants, parks, shops and activities that Schenectady has to offer!

Locations include:

- 54 Erie Blvd
- City Hall
- Central Park
- Tennis Courts
- Upper Union St.
- miSci Museum
- Rivers Casino
- SCCC

More information:
www.cityofschenectady.com/539/Electric-Vehicle-Destination
Public EV Charging Station Locations (City of Schenectady)
Smart City Public Wi-Fi Sign (City of Schenectady)
Mayor Gary McCarthy speaking about Schenectady’s Smart City project (City of Schenectady)