



## CASE STUDY: LOCAL GOVERNMENT ENERGY ACTION

# Solar Projects Popping Up Along the Energy Innovation Corridor

Written by Ryan Sparrow • September 2012

Minneapolis has big hopes for renewable energy in the city, with a goal of 1MW installed renewable capacity by 2014. A large step toward this goal was completed in 2011 with six individual solar projects installed along the Energy Innovation Corridor. The projects were made possible thanks to Energy Efficiency Conservation Block Grant (EECBG) funding from the U.S. Department of Energy as part of the American Recovery and Reinvestment Act, as well as utility rebates from Xcel Energy. Combined, these projects result in a total of 229 kilowatts of electric solar potential and 240 square feet of solar hot water.

The "Energy Innovation Corridor" is a showcase of energy efficiency, renewable energy, transportation and smart technology along the new Central Corridor light rail line through Minneapolis and St. Paul. This is a highly visible, public area which makes it ideal for projects like this to showcase Minnesota's energy potential. "When you're choosing a public energy project," said Energy Manager for the City of Minneapolis, Brian Millberg, "you have to clearly identify your objectives. If your objective is to reduce your carbon footprint, especially from electricity, and to showcase technology or create jobs, then solar is a great option."

The project was funded almost entirely with EECBG money allocated through the State of Minnesota. Three million dollars appropriated by the legislature was split by Minneapolis and Saint Paul for the Energy Innovation Corridor. In order to choose the site locations for the installations, the city logged every public building within a half mile of the light rail line. To be considered for an installation, the buildings had to be publicly owned (city, state, or county owned buildings, including park and rec, etc.). This process yielded fourteen candidates, not all of which would be the most suitable for a solar installation. The options were further narrowed by Innovative Power Systems, the company hired to conduct solar assessments and create proposals for



Solar PV and solar hot water arrays on Fire Station No. 19  
Photo Credit: City of Minneapolis

each building. Innovative Power Systems analyzed each potential building to determine which sites would be most effective, considering factors such as structural roof support, age of the roof, and the willingness of the public entity that owned the building to carry out the project. Of the original fourteen, six were selected for solar projects.

Five buildings owned by the city of Minneapolis (including several fire stations and the Hoff parking Garage) and one University of Minnesota building

### Project Snapshot

**Location:**

City of Minneapolis, Hennepin County

**Type of Technology:**

Solar energy; solar photovoltaic; solar hot water

**Description of Project:**

Installation of 25 electric vehicle (EV) charging stations, including six solar-powered charging stations. Replacement of four fleet vehicles with two hybrid electric and two all-electric vehicles.

**Funding:**

\$1.35 million EECBG grant; Xcel Energy rebates

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### FUNDING

This project was made possible by a grant from the U.S. Department of Energy and the Minnesota Department of Commerce through the American Recovery and Reinvestment Act of 2009 (ARRA).



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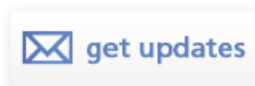
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were chosen for the projects. In total, these installations will save \$909,000 in energy costs over their lifetimes of 30 years and 4,830 metric tons of carbon dioxide pollution over the same period, the equivalent of taking 30 cars off the road every year.

Three of the installations—including two solar hot water arrays and a solar electric array on top of Fire Station No. 19—utilize panels manufactured right here in the state of Minnesota. These installations qualified for Xcel Energy’s Minnesota-Made Bonus PV Solar Rebate Program. This program provides additional funding through Xcel’s Solar\*Rewards to encourage the development and use of solar PV panels manufactured in the state. The total combined rebates for the panels came to about \$216,000. The entire project cost slightly more than the appropriated \$1.35 million and these utility rebates served to cover the difference with any surplus funding being returned to the state. As a requirement for EECBG funding, all of the panels installed by Minneapolis were made in the U.S., and all of the installing contractors are based in Minnesota or Wisconsin.

Minneapolis’ renewable energy efforts will continue as it works toward its goal of 1MW installed renewable capacity. By the end of 2012, the city already had 810-820kW installed.

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