

**RENEWABLE ENERGY:****First microgrid reliant on solar to provide backup power for Vt. town**

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When the next hurricane slams into the small, rural town of Rutland, Vt., more families will have access to emergency power thanks to the nation's first solely solar-powered energy storage microgrid, Green Mountain Power announced today.

The utility said construction started on 7,700 solar panels that can generate 2 megawatts of electricity that will be hooked up to 4 MW of battery storage at the Stafford Hill Solar Farm.

The system can be used to power a public emergency shelter at nearby Rutland High School -- an important feature as the city experienced lengthy power outages and damage after Hurricane Irene and was deemed "ground zero" in the state for Superstorm Sandy's fury. The system can power up to 2,000 homes in full sun or 365 homes year round with average weather conditions, and it is the first grid storage project for the company, the utility said.

The project is also located on an old city landfill, making it one of the first microgrids on a repurposed brownfield site, and will be the first microgrid project powered with no other fuel besides solar and battery storage in the nation, according to the Energy Department.

There is a growing call for renewable energy and energy storage to support "power resiliency" for vulnerable populations, as well as to provide economic benefits, especially in the wake of significant power outages during intense storms and hurricanes ([Greenwire](#), July 3).

"Stafford Hill is a major milestone in creating more resilient and strong communities throughout Vermont," Green Mountain Power President and CEO Mary Powell said in a statement. "As part of our commitment to provide reliable, clean and cost-effective power to customers, GMP recognizes how important it is to power critical infrastructure such as schools and shelters in an emergency."

The project is scheduled to be completed in mid-December. It is being developed by Green Mountain Power with support from DOE, the state of Vermont and Dynapower, a local company that provided custom multiport inverters to help transform the solar power into usable electricity. Other partners include developer groSolar and the Energy Storage Technology Advancement Partnership, a project managed by Clean Energy States Alliance (CESA) and Sandia National Laboratories, which helped obtain federal funding.

Green Mountain Power said it is using projects in Rutland to test innovative energy solutions for other parts of its service territory in Vermont that includes 250,000 customers. The utility also housed its Energy Innovation Center in the town and is rolling out a successful heat pump rental program, started in Rutland, to Montpelier and other cities in Vermont later this year.

Green Mountain Power is seeking to establish Rutland as the "Energy City of the Future" and the "Solar Capital of New England," as part of a merger two years ago with Central Vermont Public Service, which was headquartered in Rutland.

The projects are an important boost for this town of about 16,500 people, which CESA describes as "an economically challenged, urban community that is targeted for revitalization, and that suffers frequent power outages due to storms."

Advances in the technology and price of solar panels and battery storage have enabled the possibility for backup power and "power resiliency" in disadvantaged communities, which is as important as other emergency services, according to a report released earlier this year from the Clean Energy Group, which manages CESA.

Lew Milford, president and founder of the Clean Energy Group, said the project could serve as a model not only for Vermont but for the nation.

"It does everything that a resilient power project should do," he said, having combined solar power and storage, serving a school and an emergency shelter, and being located on a brownfield and in a vulnerable community.

It is also a utility-owned system, which suggests a future path for this business, and "has all of the elements of an emerging market model," he said.

Rutland Mayor Chris Louras said the Green Mountain Power projects and partnership have been important to the ongoing revitalization of Rutland.

"GMP's Energy Innovation Center has already breathed new life into our downtown and inspired many of our newest businesses to open," Louras said in a statement. "Similarly, this project is creating energy and income for the city on property that has no real development opportunity. Equally important, projects like this are putting Rutland on the map in the renewable energy world. That will have positive long-term impacts on the city and greater-Rutland community."

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