

## Solar installations borrow from Tesla's book

Calif. firm to offer technology to N.E. utilities

By [Erin Ailworth](#)

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The battery technology that powers Tesla Motors's electric cars could soon be paired with solar installations across the state, giving commercial utility customers the ability to store power and have a backup supply when they need it.

That means when companies need more power, say during the late afternoon, when power usage and prices often peak, they can draw from the batteries and cut the amount, and therefore the cost, of electricity they buy from utilities. It could also help reduce stress on the regional grid, potentially decreasing chances for brownouts or blackouts when electricity demand surges.

The battery systems are a new product of SolarCity, a California company that plans to first market to commercial customers of NStar and Connecticut Light & Power — both part of Northeast Utilities — as well as those of Pacific Gas and Electric in California.

SolarCity installs solar arrays at no charge for customers, then sells them the electricity generated by sun. The company owns and maintains the solar power systems, which allows it to take advantage of renewable energy tax credits.

SolarCity chief executive Lyndon Rive, the cousin of Tesla cofounder Elon Musk, said his company is targeting customers of the three utilities because of the high fees they charge big power users in order to provide the large amounts of electricity they might need at any moment. Rive said that by getting some of that electricity through the battery system, commercial users could cut their fees by 20 percent.

Michael Durand, a spokesman for Northeast Utilities, said the utility needs to learn more about SolarCity's battery systems before it can assess whether the promised savings would materialize. Durand added that his company doesn't endorse specific energy providers.

"We always advise our customers to do their due diligence when considering any product," Durand said.

Rive said he ultimately sees SolarCity's battery system as an essential part of an advanced electric grid that uses alternative energy resources such as wind and solar. SolarCity has about 2,400 customers in Massachusetts.

Rive compared the battery systems to demand response strategies, which use incentives to get customers to power down nonessential systems when the electric grid is stressed during periods of excessive demand. "We're not turning anything off," he said, "we're just giving you the power you need."

Boston-based EnerNOC is one company that offers demand response services, enlisting companies willing to cut their electricity use and selling those power savings to the grid operator, ISO New England. ISO New England has used demand response to manage energy use during heat waves.

Gregg Dixon, EnerNOC's senior vice president of marketing and sales, said the firm has long recognized the potential of energy storage in managing the power system..

“The wind happens to blow the most or the heaviest in the evening when we need power the least, and of course the sun shines during the day,” he said. “So energy storage technologies can help us take advantage of the intermittency that is part of these renewable energy resources.”

Gordon van Welie, the president of ISO New England, said storage could become a critical piece of the region's energy future, but the technology has not yet achieved its full potential.

“The challenge has been up until now that generally storage technologies have not been as naturally economic as say gas line power generators on the power system,” van Welie said.

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