

## **Utility sells 'green tags' based on solar water heaters**

Lakeland Electric in Florida said it is the first utility ever to produce and trade renewable energy credits derived from solar water heaters. In September, Sterling Planet, a broker of wholesale tradable renewable energy credits, sold a Lakeland Electric package of 50 MWh of "green tags" made up of 25 MWh from photovoltaic systems and 25 MWh from solar water heaters.

Sterling sold the 50 MWh for \$40/MWh. The broker receives a 20% commission, resulting in \$32/MWh revenue for Lakeland Electric, the municipal utility said. The 50 MWh were sold to Keys Energy Services of Key West and the Democratic National Convention. Keys Energy needed the extra credits to support its retail green pricing program and the DNC used them to fulfill its commitment to use renewable energy, Lakeland said.

While other renewable energy resources, such as photovoltaics and wind turbines, have been used for tradable credit transactions, this is the first time that tradable green energy credits were derived from solar water heaters, Lakeland said.

In order to quantify thermal energy in its kWh equivalent, Lakeland found a thermal metering system that accurately measures the solar energy output provided to the residential end-user. The meters are manufactured by ABB and have proven to be satisfactory as utility-quality measurement devices, Lakeland said. The utility has promoted the concept that solar water heaters are distributed generators, or supply-side devices, in this particular application. A solar water heater traditionally has been viewed as a demand-side measure.

"This market-based purchase of renewable energy credits based on solar water heating validates that all renewable energy resources have roles to play in the green energy market," said Chip Bircher, coordinator of Utility Solar Water Heating Initiative, or USH<sub>2</sub>O, a solar hot water advocacy group. "This transaction is a landmark for the solar hot water industry."

"What makes this transaction extra special is the fact that it did not result from any type of regulatory requirement," Jeff Curry, the green energy coordinator at Lakeland Electric, said. "It was 100% driven by supply and demand market forces."

Earlier this year Lakeland Electric assigned 330 MWh of solar green tags to Sterling Planet to sell. The renewable energy credits are traded like any commodity and sold to other utilities and corporate customers. The prices of the credits follow the standard spot market based on supply and demand, Lakeland said. The green power is not physically delivered to the home or community that signs up, but the credits eliminate the burning of fossil fuels that otherwise would have created the energy, Lakeland said.

