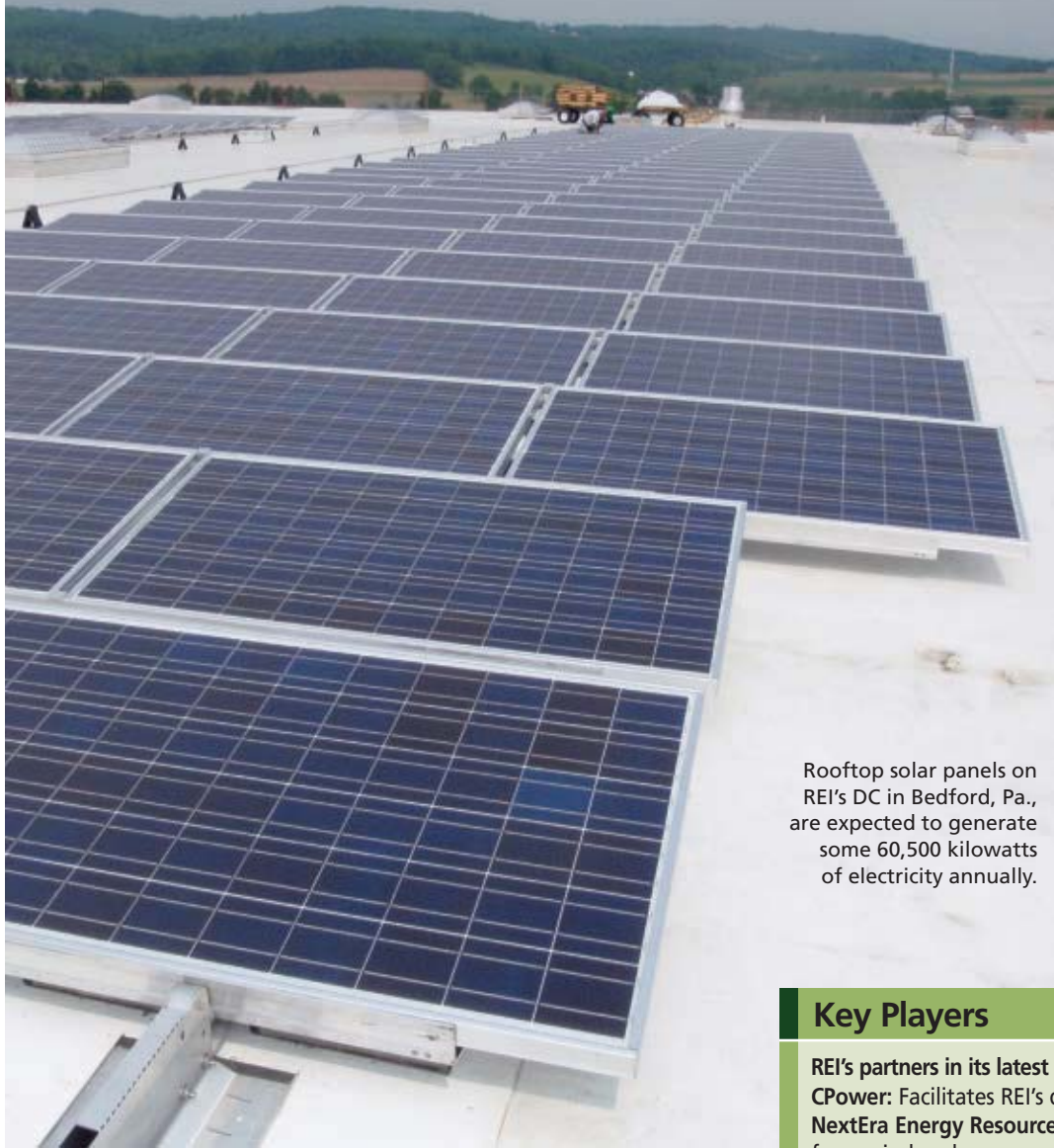


# Energy Alternatives Abound at REI

Retailer aims to be climate neutral by 2020



Rooftop solar panels on REI's DC in Bedford, Pa., are expected to generate some 60,500 kilowatts of electricity annually.

cently embarked on multiple energy-related investments to further reduce its impact on the environment.

"These are very intentional strategic investments in capital that will reduce our energy use," said Sharon Im-Lee, REI's project manager for energy and utilities.

REI is taking advantage of sustainable sources wherever possible. In June, it completed the installation of a rooftop solar-electric system on its eastern distribution center in Bedford, Pa. The system, installed through a power-purchase agreement with an affiliate of Tier I Generation, will generate an estimated 60,500 kilowatts of electricity annually and provide a long-term, fixed-price source of electricity for the 525,000-sq.-ft. facility.

The DC, which was awarded LEED (Leadership in En-

By Marianne Wilson

**R**ecreational Equipment Inc. is focusing on renewable power sources and energy-reduction measures to help it achieve its goal of becoming climate neutral by 2020.

"Our mission is to make REI stores and buildings incredibly energy efficient and take advantage of sustainable sources of power wherever possible," said Kevin Hagen, director of corporate social responsibility, REI, Seattle, which operates 107 stores.

To that end, the outdoor goods and apparel retailer re-

## Key Players

REI's partners in its latest energy investments initiative include:

**CPower:** Facilitates REI's demand-response programs;

**NextEra Energy Resources:** Generates renewable energy from wind and sun;

**Novar:** Helps REI manage its energy usage to determine how to best reduce consumption; and

**Tier I Generation:** Provides power purchase agreement with REI (for solar-electric system on DC).

ergy and Environmental Design) Silver certification, was built to optimize energy use, and includes more than 360 windows and skylights, along with motion-sensor light fixtures and conveyor belts.

In other solar initiatives, REI retrofitted 11 stores to operate from on-site solar-electric systems in 2008, powering up to 35% of their electricity needs. In addition, nine stores cur-

rently feature solar hot-water systems, which are used to heat 50% to 70% of the water for sinks and employee showers. Two new stores, opening this fall, will use similar systems.

Approximately one-quarter of REI locations are 100% supplied from the purchase of renewable energy, such as wind or biomass. In 2009, six additional stores began using green power sources through NextEra Energy Resources, the largest generator in North America of renewable energy from the wind and sun and a subsidiary of electricity giant FPL Group, Juno Beach, Fla. Consequently, REI now has 23 locations using renewable-energy sources, equaling 23% of its annual retail energy use. NextEra, through its EarthEra Renewable Energy Trust, directs 100% of the proceeds from its partnership with REI to the construction of new wind and solar renewable projects.

**LIGHTING:** REI also is investing in projects to reduce its overall energy consumption. In a major updating of its display lighting, the retailer is retrofitting 50% of its stores this year with self-ballasted ceramic metal-halide (CMH) lamps (from Philips) that are three times more efficient than traditional incandescent bulbs. The remainder of the stores will be retrofitted in 2010.

“Specialty retailers like to make things sparkle, so we have been using incandescent bulbs in our spotlights,” Im-Lee said. “We looked at alternatives for a while. We tested the ceramic metal halide — it goes right into the existing fixture — and were pleased with the results.”

In addition to reducing the energy needed to light REI stores, the CMH lamps last longer and improve lighting quality, according to Im-Lee. She estimated 12,000 hours of life for the new lamps versus 3,000 hours of “real life” for the incandescents.

“We’re not losing the sparkle,” Im-Lee added. “Also, the ceramic lamps provide a much more even display of light.”

The energy savings are dramatic. The retrofit is expected to save REI 1.6 megawatt hours and cut energy costs by \$165,000 annually.

On the general lighting front, REI has been testing T5 fluorescents. It plans to install T5 lamps in future stores, beginning in 2010.

**ENERGY MANAGEMENT:** In 2008, REI signed a service agreement with Novar. The Cleveland-based energy manage-

ment company is providing services and technology to help REI better manage the energy consumed in its lighting and HVAC systems. The contract covers 70 REI locations, with plans to add another 14 this year.

“We’ve been installing Novar energy management systems for some time, but, under this contract, Novar now monitors and services the equipment in all our stores,” Im-Lee said. “They help us determine how to best reduce our consumption, while also creating comfortable environments in our retail locations.”

From fine-tuning set points to monitoring daily alarms, the services provided by Novar have saved REI a considerable amount of energy, according to Im-Lee. The retailer estimates Novar saves REI 1.5 megawatt hours and more than \$200,000 in energy costs annually.



A solar hot-water system at REI’s Boulder, Colo., location will meet 70% of the store’s needs.

“They [Novar] can do things for us on a national scale because of their huge service desk,” she added. “Also, their technology has given us more visibility than we ever had before into what’s going on in our individual stores.”

**DEMAND RESPONSE:** Twenty REI stores are participating in demand-response programs through CPower, a New York City-based energy-management firm. The initiative involves stores nationwide and nine different utilities.

“We had a couple of stores in the San Francisco Bay area that had been participating in demand response on their own,” Im-Lee said. “But with CPower, we were able to implement a national and consistent program. CPower basically does all the communication with the utilities for us. They helped us identify which utilities offered programs, and do all the paperwork and reporting for us, along with processing our checks from the utilities.”

**G4R**

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