

# Energy Management Success Story



## Xanterra Parks & Resorts® Harnesses Death Valley Sun to Bring Renewable Energy and Enhanced Sustainability to Furnace Creek Resort

### Estimated Savings by Managing Energy

**Location:** Death Valley National Park

**Industry:** Tourism

**System Size:** 1 MW

**Type of Installation:** Elevated single-axis tracking covering four acres

**Number of Modules:** 5,740 panels

**Results:** Generates more than 2.2 million kilowatt-hours (kWh) annually, and is expected to reduce greenhouse gas emissions by about 58 million pounds over the next quarter century

In Southern California's Death Valley National Park—quite possibly the nation's sunniest place—national park and resort concessionaire Xanterra Parks & Resorts® is tapping into the power of the sun's rays with a 1 megawatt (MW) solar energy generating system covering four acres. Operational since the summer of 2008, the single-axis tracking system meets one-third of the annual electricity needs of Xanterra's Furnace Creek Resort facilities, including the historic Inn at Furnace Creek.

One of the largest solar energy systems in the U.S. tourism industry, the 5,740-panel Xanterra solar energy system generates more than 2.2 million kilowatt-hours (kWh) annually, and is expected to reduce greenhouse gas emissions by about 58 million pounds over the next quarter century. When the system began operation, Xanterra reported an immediate 4 percent drop in greenhouse gas emissions corporate-wide.

### Economic Viability + Ecological Responsibility

Speaking of his company's century-long legacy of environmental stewardship, Joel Southall, Xanterra's director of environmental health and safety in Death Valley National Park, says, "Our company is very privileged to work in one of the most beautiful places on Earth and we take that responsibility very seriously. We focus on balancing economic viability with ecological responsibility. Our success lies in surpassing guest expectations while achieving energy savings."

He adds, "It is Xanterra's goal to set the pace in the tourism industry by establishing the standards by which other tourist-related organizations can measure themselves. Our solar facility is part of that mission, but by no means the full extent of our industry-leading performance. We're making the case for other companies to follow in our footsteps."

Though Xanterra's case for solar focused primarily on the importance of sustainability, it required the convergence of financial, technological, regulatory and related factors.



**Joel Southall, Director of Environmental Health and Safety, Xanterra Parks & Resorts**

After working with Southern California Edison Company (SCE) for a few years to examine the project's economics, the project timing finally made sense given rebate levels from the California Solar Initiative (CSI) and advances in solar technology, which consequently led to an improved rate of return. A new renewable energy rate available from SCE will provide additional cost benefits starting in 2010. Long term, Xanterra expects the system to operate 40 percent more productively than a typical stationary solar facility, because of the considerable amount of sunlight the system tracks throughout the day in Death Valley.

"Solar energy's environmental benefits drove this project but financial benefits made it viable," says Xanterra Vice President of Environmental Affairs Chris Lane. "This project allows Xanterra to show that large-scale renewable energy



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Xanterra Parks & Resorts**



generation can be not just feasible, but also extremely successful on a variety of fronts—with a facility that is surpassing projections, reducing our peak loads, and will pay back in just a few short years."

## **An Energy-Efficient Oasis**

Xanterra brings the same exemplary approach to all energy management initiatives for its Furnace Creek Resort hotels, restaurants, golf course and other facilities. Besides operating its solar energy system every day, Xanterra participates in SCE's Demand Bidding Program (DBP), which provides the opportunity to receive bill credits for voluntarily reducing power during program events. Through the DBP, Xanterra further reduces load, with savings of more than 6,000 kWh in one year alone.

Additional energy management efforts include tapping into SCE rebates to offset costs for more efficient equipment (such as lighting), using ENERGY STAR® air conditioners exclusively and replacing golf course irrigation motors with premium efficiency motors and variable speed drives. Xanterra also continues to use a hot-dry climate super-efficient five-ton air conditioner installed in 2006 in a partnership with SCE to help gather data on the effectiveness of this emerging technology, with savings of about 500 kWh per summer month.

"It's just been such a positive partnership and a pleasure to work with SCE," Joel says. "We've always found them to be really good advocates for what we're trying to get accomplished."

## **The CSI Program Helps Drive Costs Lower with Solar Power**

**Go Solar California!** Energy customers like you are part of California's campaign to create 3,000 MW of renewable solar-produced electricity—the equivalent to taking six natural gas-fired power plants offline—and moving the state toward a cleaner energy future.

The CSI program provides up-front or performance-based incentives for commercial, industrial and agricultural properties. Business owners are eligible to take a 30% Federal Investment Tax Credit (U.S. Federal ITC) on the net cost of their system after the CSI rebate and may claim accelerated depreciation on the solar energy system. The combination of the CSI rebate, Federal ITC and accelerated depreciation can cover as much as 50% of the average installed costs of a solar system for the business owner. And with so much solar coming online, system costs are competitive and the

systems themselves have become a reliable investment. By choosing to "Go Solar," business customers can reduce annual operating costs while demonstrating a genuine commitment to "greening" their company's corporate brand and bottom line.

## **Earn Even More Savings with Other SCE Programs**

- Find out how **SCE's Demand Response Programs** can reward you for reducing your electricity usage during peak hours. (866) 334-7827, [www.sce.com/drp](http://www.sce.com/drp).
- **Switch to a time-of-use (TOU) rate and shift electricity usage to off-peak hours**, to take advantage of lower energy rates.
- **Take free SCE classes** in lighting, HVAC, energy management and more at an Edison Energy Center (800) 336-2822, [www.sce.com/ctac](http://www.sce.com/ctac), (800) 772-4822, [www.sce.com/agtac](http://www.sce.com/agtac).
- **Take the Online Business Survey** at [www.sce.com/\\_Tools/Business/online-energy-guide.htm](http://www.sce.com/_Tools/Business/online-energy-guide.htm) to calibrate your building for savings.

## **Start Saving Now**

### **California Solar Initiative**

[www.sce.com/csi](http://www.sce.com/csi)

[www.gosolarcalifornia.ca.gov](http://www.gosolarcalifornia.ca.gov)

### **General Questions**

**(800) 799-4177**

### **Program Administration**

**(866) 584-7436**

Southern California Edison offers a range of programs such as cash incentives, energy surveys and payment options to help you better manage your electricity costs. To learn more, please contact your SCE account representative, call **(800) 990-7788**, or visit us at [www.sce.com](http://www.sce.com).

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