



Source: SunEdison

# Mesa Top Photovoltaic Array



U.S. DEPARTMENT OF  
**ENERGY**

Golden  
Field Office

## System Specifications

**System size:** 720 kilowatts (kW) DC

**Characteristics:** Single axis tracker photovoltaic, ground mounted

**Annual output:** 1.2 gigawatt hours (GWh)

**Location:** Top of South Table Mountain, Golden, Colorado

**Start of operation:** December 2008

**System specification and details:**

Item	Quantity	Description/Unit
Modules	3,696	Sanyo HIP-195 BA3 Solar Panels
Inverters	2	AEI Solaron 333 kW Model
Source Circuits	528	Total
Array Combiners	44	Total
DC Disconnects	16	Total
Tracker Posts	1,260	5" Diameter Steel Pipe
DC Rating	720,720	Watts DC
AC Rating	657,870	Watts AC
Land Requirement	5.38	Acres

## Financial Terms

**System ownership:** SunEdison financed, built, owns, operates and maintains the system

**Solar Power and Services Agreement (SPSA):** SunEdison and the Western Area Power Administration (WAPA) entered into a 20-year SPSA to provide Solar Energy Services to the Department of Energy (DOE) for use at the National Renewable Energy Laboratory (NREL)

**Cost to DOE/NREL:** There are no up-front costs to DOE or NREL

- The price per kilowatt hour (kWh) for the power purchased from the array is competitive with current rates
- Rate structure insulates DOE from disruptive cost increases and reduces long-term price risk*

## DOE/NREL Energy Impact

**Fiscal year 2006 NREL electricity usage:** 16.6 GWh

**Amount of total NREL electricity that array provides:** 7.2%

## Environmental Impact

**Annual carbon offset:** 1.92 million pounds of CO<sub>2</sub>

**TEAM Initiative & Executive Order 13423:** System addresses the Transformation Energy Action Management (TEAM) Initiative goal of having on-site renewable electricity generated at all DOE facilities

*The solar renewable energy certificates (RECs) are sold by SunEdison to Xcel Energy to meet Xcel's Renewable Energy Standard solar requirement; NREL purchases replacement RECs to maintain its carbon-neutral status and meet Federally-mandated renewable energy goals*

**Energy Policy Act (EPAAct) of 2005:** With this and existing on-site systems, the NREL campus exceeds the EPAAct goal of 7.5% of a Federal facility's electricity coming from renewable sources

*The NREL campus achieved this goal more than five years ahead of the 2013 requirement*



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Prepared by the National Renewable Energy Laboratory (NREL), a national laboratory of the U.S. Department of Energy, Office of Energy Efficiency and Renewable Energy; NREL is operated by the Alliance for Sustainable Energy, LLC.

NREL/FS-6A4-44785 • July 2009

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