Case Study | **KAUST**

King Abdullah University of Science and Technology (KAUST) builds largest PV installation in Saudi Arabia

King Abdullah University of Science and Technology (KAUST) is a new international, graduate-level research university in Thuwal, Saudi Arabia. Established in 2009, the University's goal is to drive innovation in science and technology and to support world class research in areas such as energy and the environment.

As part of KAUST's environmental friendly initiatives, a 2 MW photovoltaic (PV) system was installed on the roof of one of the University's main academic campus buildings. The solar power plant, with 9,300 SunPower high efficiency solar panels, is one of the largest PV installations in Saudi Arabia to date.

Benefits

- Reduction of 1,700 tons of carbon emissions annually
- Supports KAUST's goal to become a leading institute in renewable energy science and engineering
- Raises awareness of the benefits of alternative energy

Project Overview

Location:	Thuwal, Saudi Arabia
Completed:	April 2010
System Size:	2 MW
Number of Panels:	9,300
Products:	SunPower 215 W Solar Panel
Covered Surface Area:	11,600 m²
Annual Energy Production:	3.3 GWh

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A powerful commitment to the environment

Because the research and development of renewable resources is an important area of the University's academic mission, sustainable development is integral to KAUST's overall mission. By integrating sustainable measures into the site planning, the community, the building design and the campus operations, KAUST is demonstrating new ways to build in the region and promoting responsible stewardship of the environment.

KAUST will act as a living laboratory by demonstrating that environmentally responsible methods of energy use, materials management and water consumption are viable in the Middle East and across the globe.

Particularly for the University's space-constrained rooftops, SunPower high-efficiency solar modules were chosen as the ideal solution - making the best use of the available space, and resulting in a high energy output per square meter. The actual yield of the system is almost 5% higher than planned and the annual energy production of more than 3,000 MW is used to power the campus facilities.

Certified sustainable development

King Abdullah University of Science and Technology has been awarded the prestigious LEED (Leadership in Energy and Environmental Design) Platinum certification from the U.S. Green Building Council, the highest of five possible environmental certification awards given out by the council.

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