

# Aramco installs solar-powered cooling system at HQ

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**Saudi Aramco had a solar-assisted air-conditioning (SAC) system installed at its headquarters in Dhahran by Swiss company TVP Solar.**

TVP installed high-vacuum flat MT-Power panels, designed specifically for desert operation, to power a double-effect absorption chiller. The chiller will in turn cool Saudi Aramco's Al-Munirah Community Library.

TVP's solar panels contribute up to 65% of the chiller's energy needs during daylight hours and has produced a daily average of thermal energy output of 2 kWh per m<sup>2</sup> of active panel area. The system has the potential to supply over 815 kWh per m<sup>2</sup> per year.

Commenting on the system, TVP Solar's CEO, Mr Piero Abbate said that the field of solar air cooling is promising, adding that TVP can help reduce the high energy consumption related to electric air conditioning in Saudi Arabia, substituting oil use with solar.

This is one in a number of solar power initiatives undertaken by the

kingdom's oil giant. Recently, Aramco had its first rooftop solar photovoltaic (PV) installation, now feeding power to the power systems in its main offices.

Aramco said that the solar installation was meant as a test of the performance of the footprint of a commercial rooftop photovoltaic system against energy demand during peak hours in the Eastern province.

“As the Kingdom's demand for energy increases, Saudi Aramco has committed itself to an energy efficiency drive pioneered by the Saudi Energy Efficiency Center, the government body mandated with the promotion of energy efficiency across the Kingdom.

“The company aspires to reduce its nonindustrial energy consumption by 35 percent by the year 2020 through the installation of energy efficient LED lights, the testing and installation of solar panels and other renewable energy sources, and the application of new standards and requirements related to thermal insulation in homes and buildings,” Aramco said in a statement.