

# UAE opens world's largest CSP solar power plant

March 17 2013, by Ali Khalil

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Sultan Ahmed al-Jaber—the chief executive of Masdar—answers questions during a press conference in Abu Dhabi, on June 9, 2010. Oil-rich Abu Dhabi has officially opened the world's largest Concentrated Solar Power (CSP) plant, which cost \$600 million to build and will provide electricity to 20,000 homes.

Oil-rich Abu Dhabi on Sunday officially opened the world's largest Concentrated Solar Power (CSP) plant, which cost \$600 million to build and will provide electricity to 20,000 homes.

The 100-megawatt Shams 1 is "the world's largest concentrated [solar power plant](#) in operation" said Sultan al-Jaber, the head of [Abu Dhabi's Masdar](#), which oversees the emirate's plan to generate seven percent of its energy needs from [renewable sources](#) by 2020.

"Today, Shams 1 is the largest CSP plant in all terms," said Santiago Seage, [chief executive officer](#) of Abengoa Solar, one of the partners in the project.

CSP uses a system of mirrors or lenses, whereas many other [solar plants](#) around the world use photovoltaic technology to harness solar power.

Masdar now produces 10 percent of the world's [concentrated solar power](#), Seage said during the official inauguration. The company's energy portfolio represents 68 percent of renewable energy produced in the Gulf region, where [clean energy](#) remains at an infancy stage.

The [solar park](#) features long lines of parabolic mirrors spread over an area equivalent to 285 football pitches in the desert of the Western Region, some 120 kilometres (75 miles) southwest of Abu Dhabi.

The 192 rows of loops collect heat that drives turbines to generate power that would save 175,000 tonnes of carbon dioxide every year, equivalent to taking 15,000 cars off the road.

Automatic trucks are deployed to dust the mirrors in this desert location where sand poses a serious challenge to the efficiency of heat collectors. Masdar owns 60 percent of the project, while France's Total and Spain's Abengoa Solar own 20 percent each.

Abu Dhabi is the wealthiest of the seven sheikhdoms that make up the federation of the [United Arab Emirates](#).

It sits on proven oil reserves totalling 98.2 billion barrels—95 percent of the UAE's reserves, which are the world's seventh largest. It also has a large wealth of gas.

The UAE's leaders were on site for the ceremonial opening, led by President Sheikh Khalifa bin Zayad Al-Nahayan and his vice president, Prime Minister and ruler of Dubai, Sheikh Mohammed bin Rashid Al-Maktoum.

"The UAE today is the first in the Middle East and OPEC (oil exporting organisation) to begin producing renewable energy, in addition to having hydrocarbon exports," said Jaber.

Total's head of New Energies, Phillipe Boisseau, said the Shams venture is a natural outcome of the established relation with Abu Dhabi in the energy sector.

"We share the vision of the need to diversify energy sources," he said.

Abu Dhabi has vied over the past years to establish a name as a centre for renewable energy, starting with forming Masdar and then becoming the host of the newly-formed IRENA renewable energy organisation.

"This is an extraordinary moment for us," said IRENA's chief Adnan Amin following the inauguration.

He said Shams 1 is the "first massive step" towards having the oil-rich Middle East becoming also a centre for renewable energy.

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