

Press Release

## **Masdar City Testing TVP Solar's High-Vacuum Flat Solar Thermal Panels for Air-Conditioning**

*Swiss Company to Announce Preliminary Results of Pilot Project at WFES 2012*

**Abu Dhabi-UAE: 16 January, 2012** – Masdar City and TVP Solar have announced the completion of installation of a field of TVP Solar's MT-Power high-vacuum flat solar thermal panels for the solar cooling plant at Masdar City.

Masdar City, one of the most sustainable cities in the world and one of the integrated units of Masdar, Abu Dhabi's multi-faceted renewable energy company, is testing TVP Solar's MT-Power panels for potential future use to meet the air-conditioning requirements of the City.

TVP Solar expects the MT-Power panels to provide over 70% solar-to-cooling conversion efficiency operating at 180°C to drive a double-effect absorption chiller. The panels are able to capture diffuse light, thus provide at least 30% higher energy output than any concentrating collector. In addition MT-Power effectively operates in the harsh and dusty environment of the desert, requiring zero maintenance and no precision dust cleaning.

Combining traditional flat plate design with the best thermal insulator possible (high-vacuum), MT-Power panels, invented by Dr. Vittorio Palmieri, suppress convection losses and maintain the fluid-flow entirely within the vacuum envelope, thus providing unrivalled thermal performance while keeping a very low collector cost profile.

Through installing the MT-Power solar panels at Masdar City, TVP Solar aims to demonstrate their performance, cost and energy savings, as well as reductions in CO<sub>2</sub> emissions, matching Masdar City's low-carbon mission. The Swiss company officially unveiled its flagship MT-Power panel in October at the European Future Energy Forum 2011 in Geneva, Switzerland.

Alan Frost, Director of Masdar City, said: "Serving as a test-bed for innovation, Masdar City offers a fertile environment to inspire creativity and growth to organisations operating in the strategic and dynamic renewable energy and clean technologies sector. TVP Solar's innovative, high-vacuum flat solar thermal panels fit well with Masdar's solar cooling plant ambitions and the region's weather conditions."

The field test at Masdar City is the first overseas solar cooling installation for TVP Solar, which designs, develops, manufactures and markets innovative high-vacuum flat solar thermal panels based on patented technology for cooling and heating applications.

"Masdar City is the ideal location to test MT-Power for solar cooling applications, given high sun exposure, high demand and the possibility to immediately compare against previously tested, concentrating solar thermal technologies" commented Piero Abbate, Chief Executive Officer, TVP Solar.



“TVP Solar expects its products to revolutionize the solar industry and renewable technologies, serving large air-conditioning consumers, such as commercial/office buildings and data centres, while significantly saving on utility bills and CO<sub>2</sub> emissions. Without incentives, in select countries, a solar field of MT-Power will have a simple payback period below 6 years” said Abbate.

“There’s no better platform than the World Future Energy Summit to share our innovation with leaders in the renewable energy sector and network with potential business partners” added Abbate.

TVP Solar aims to deploy further MT-Power solar fields during 2012 for solar air-conditioning applications with double stage absorption chiller in a hybrid natural gas/solar system configuration that will operate on a 24/7 basis, covering peak and base loads.

Major global entities are already partnering with Masdar City for pilot projects such as solar and geothermal cooling, solar PV test field, electric vehicles (EVs), Personal Rapid Transit (PRT) pod cars and beam-down solar CSP.

Masdar City is continuously evolving as an attractive destination for the knowledge-intensive industries, companies and organisations operating in renewable energy as well as sustainable and clean technologies globally. As a fertile industry cluster environment, it offers business development opportunities, facilitates access to world-class talent and creates a community of like-minded professionals.

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### **About Masdar**

Masdar is Abu Dhabi’s multi-faceted initiative advancing the development, commercialisation and deployment of renewable energy technologies and solutions. The company serves as a link between today’s fossil fuel economy and the energy economy of the future - developing the “greenprint” for how we will live and work tomorrow. Backed by the stability and reputation of the Mubadala Development Company, the strategic investment company of the government of Abu Dhabi, Masdar is dedicated to the emirate’s long-term vision for the future of energy.

For more information about the Masdar Initiative, please visit: [www.masdar.ae](http://www.masdar.ae)  
Stay connected: [facebook.com/masdar.ae](https://facebook.com/masdar.ae) and [twitter.com/masdar](https://twitter.com/masdar)

### **About Masdar City:**

Masdar City is an emerging clean-technology cluster located in what aims to be one of the world’s most sustainable cities. This special economic zone in Abu Dhabi seeks to become a global centre for innovation, research, product development and light manufacturing in the fields of renewable energy and sustainable technologies. Leading multinational companies in the cleantech sector, as well as small- and medium-sized enterprises and entrepreneurial start-ups will locate R&D labs, marketing offices and headquarters in the city. The International Renewable Energy Agency (IRENA) will base its headquarters in the city, while GE will build its first Ecomagination Centre at Masdar City.

For more information about Masdar City, please visit: [www.masdarcity.ae](http://www.masdarcity.ae)

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### **About TVP Solar:**

**TVP Solar SA** is a Swiss company which designs, develops, manufactures and markets innovative high-vacuum flat solar thermal panels based on patented technology.

TVP Solar is a game-changer in the solar thermal industry, effectively competing with electricity in the cooling and industrial process heat markets, while introducing new thermal energy-producing roofs for the residential market.

For more information please visit: [www.tvpsolar.com](http://www.tvpsolar.com)

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