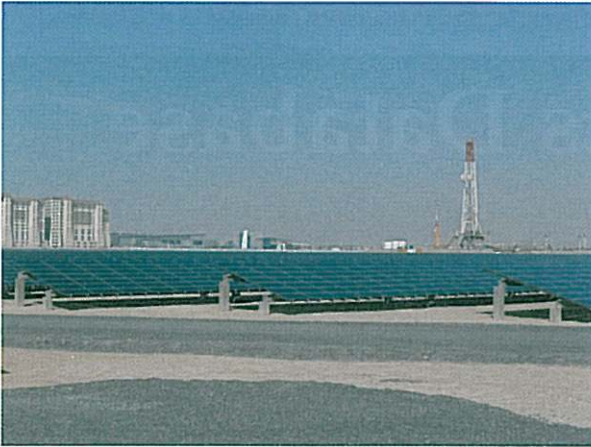


► BENDER

Electrical Safety in Solar Power Plants *Insulation Monitoring in Large Solar Power Plant in MASDAR Near Abu Dhabi, U.A.E.*

Masdar (Arabic: the source) is a city in Abu Dhabi, in the United Arab Emirates. Its core is a planned city, which is being built by the Abu Dhabi Future Energy Company. Designed by the British architectural firm Foster + Partners, the city will rely entirely on solar energy and other renewable energy sources, with a sustainable, zero-carbon, zero-waste ecology. The city is being constructed 17 kilometers east-south-east of the city of Abu Dhabi, beside Abu Dhabi International Airport. It will host the headquarters of the International Renewable Energy Agency (IRENA). The first phase was completed in 2009, the complete city shall be finished until 2014. It will then host 50.000 people and 1500 businesses covering 6 km². It will also be the location of a university, the MASDAR Institute of Science and Technology. There will be no automobiles inside the city-limits, travel will be accomplished via public mass transit and personal rapid transit – all connected to large parking's outside the city limits.



Masdar will employ a variety of renewable power sources. Among the first construction projects was a 10 MW solar power plant (one of the 20 biggest plants in the world), built by the Emirates firm ENVIROMENA together with the German companies CONERGY and SMA, which will supply power for all other construction activity. This will later be followed by a larger facility, and additional photovoltaic modules will be placed on rooftops to provide supplemental solar energy totaling 130 MW. Wind farms will be established outside the city's perimeter capable of producing up to 20 MW, and the city intends to utilize geothermal power as well. In addition, Masdar plans to host the world's largest hydrogen power plant.

Highest Safety Level for solar power plants

The safety level for electrical safety in solar power plants (as

well as in other renewable energies) has to guarantee a high level of personal safety and also a high level for plant safety. In addition a reliable supply from the power plant to the public grid has to be secured. In MASDAR, IT-Systems, equipped with Insulation Monitors (A-ISOMETER®) from Bender, Germany, ensure the electrical safety of the whole System. This becomes possible because an IT-System does not have a connection from life wires to earth. The result is, that MASDAR can still run the electrical system when there is an electrical fault in the System.

In comparison to common power plants, the solar power plants can not be shut off, as long as the sun is shining, the modules are producing a large voltage (600 - 800 V DC). Under these circumstances Insulation Monitors (A-ISOMETER®) are essential. The biggest problem for most of the utility companies is the high capacitance in the whole grid, which can not be handled by standard Insulation Monitors. Bender, Germany, has therefore invented a special series of A-ISOMETER@s which is capable to monitor high voltages in all kinds of solar power plants with all kinds of solar panels (thin-film, thick-film) with very large capacitances.

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► BOLTIGHT

The Tamimi Group is Appointed as Boltight's New Agent in Saudi Arabia

Boltight, a global leader in bolt tensioning systems, has appointed the Tamimi Group to promote its range of high quality British manufactured tools and ancillary equipment in Saudi Arabia.

In response to growing demand for its products, Boltight is expanding its representation overseas quickly. The new arrangement with the Tamimi Group will strengthen the company's presence in the key oil, gas, power generation and industrial markets of the Middle East.

The Tamimi Group was established in 1953 by the founder Sheikh Ali A Tamimi to carry out pipeline and general construction work. Today the organization consists of over 30 companies and divisions employing over 10,000 permanent staff. The Group's many interests include the oil and gas, petrochemical and power generation industries.

Tamimi's technical support teams are currently being trained in the use and maintenance of Boltight's tools and the provision of onsite bolting services to customers. Tamimi will also be responsible for all direct Boltight tool sales in the region.

Said Phil White, Joint Ventures Division Manager: "We are very pleased to be appointed as Boltight's agent for Saudi Arabia. With Boltight as our partner we can offer a very wide range of specialist bolting technology to meet the needs of a number of industries. We have invested heavily in our technical team in Saudi