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Mitsubishi Electric Develops New Photovoltaic Inverter Technology to Maximize Solar Power Output

Tokyo, February 16, 2010 – Mitsubishi Electric Corporation (TOKYO: 6503) announced today it has developed the world's first technology to maximize output power in photovoltaic (PV) systems by incorporating a new maximum power-point tracking (MPPT) system in PV inverters. The technology, which works with a single PV inverter, achieves the maximum power point even when part of a PV array is hidden by shadow or dust.

PV system characteristics such as output power are greatly influenced by the amount of sunlight and temperature. Conventional PV arrays, which are groups of PV modules connected either in series or parallel, use MPPT systems to help achieve their maximum output-power points. But if part of a PV array is hidden by shadow and the rest is still in sunlight, resulting in multiple peak points, a conventional MPPT system has difficulty tracking the maximum point. Especially in urban areas where PV systems are likely to be installed near buildings or other obstructions of sunlight, shadow can greatly decrease output power.

The technological breakthrough by Mitsubishi Electric allows the MPPT system to automatically measure the PV array's output power characteristics and then control the array to operate at its maximum output-power point, thereby ensuring that the PV system receives maximum output power from the array. In some cases, this technology will be able to more than double the output power compared to a PV inverter equipped with a conventional MPPT system.

Mitsubishi Electric will continue its research and development with aims to incorporate this technology in its products in the near future.

Output power of PV arrays

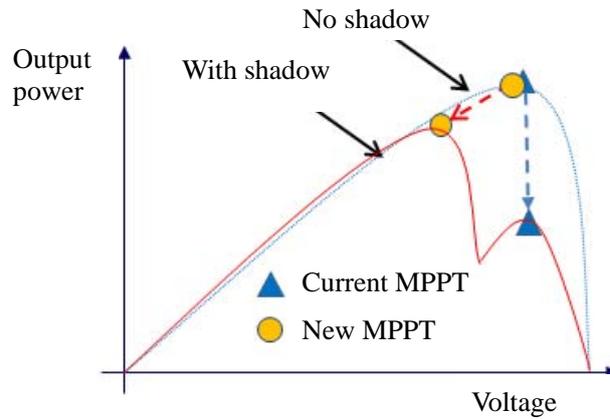
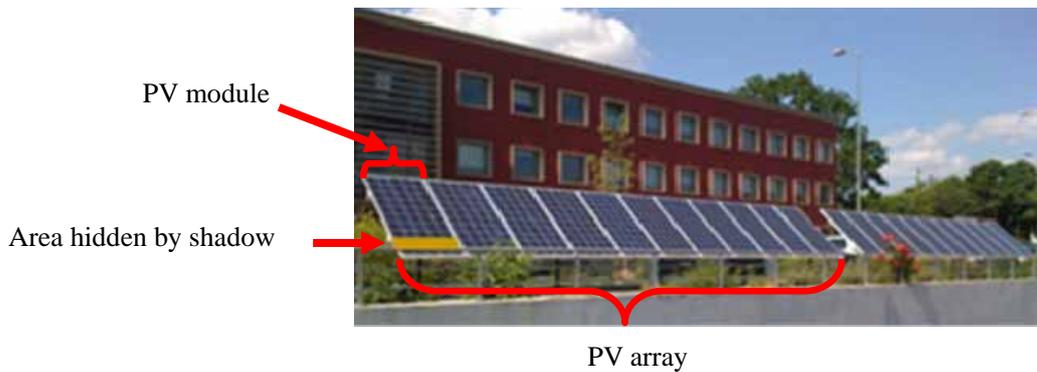


Photo of simulation



About Mitsubishi Electric

With over 85 years of experience in providing reliable, high-quality products to both corporate clients and general consumers all over the world, Mitsubishi Electric Corporation (TOKYO: 6503) is a recognized world leader in the manufacture, marketing and sales of electrical and electronic equipment used in information processing and communications, space development and satellite communications, consumer electronics, industrial technology, energy, transportation and building equipment. The company recorded consolidated group sales of 3,665.1 billion yen (US\$ 37.4 billion*) in the fiscal year ended March 31, 2009. For more information visit <http://global.mitsubishielectric.com>

*At an exchange rate of 98 yen to the US dollar, the rate given by the Tokyo Foreign Exchange Market on March 31, 2009.

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