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Mitsubishi Electric Launches D-SMiree System for Medium- and Low-voltage DC Distribution

Will realize more efficient and sustainable power distribution with minimum energy loss

TOKYO, July 27, 2016 – [Mitsubishi Electric Corporation](http://www.MitsubishiElectric.com) (TOKYO: 6503) announced today the launch of a newly branded lineup, D-SMiree — Diamond-Smart Medium Voltage Direct Current Distribution Network System for Innovative Reliable Economical Ecology — for medium- and low-voltage direct-current (MV/LV DC) distribution systems of voltages 1,500V DC and below.

Product development and testing, as well as the exhibition and promotion of direct-current distribution systems, will be handled at the DC Development and Demonstration Facility, which was inaugurated in July at Mitsubishi Electric's Power Distribution Systems Center in Marugame, Kagawa Prefecture, Japan. D-SMiree sales for MV/LV DC distribution systems are expected to reach 10 billion yen, or approximately US\$94.1 million, by 2025.



D-SMiree Development and Demonstration Facility

In line with the increasing importance of data centers and cloud services, as well as the business continuity plans of corporations, particularly since the Great Eastern Japan Earthquake in 2011, a growing focus is being cast on solar-power generation systems that incorporate storage batteries and Net Zero Energy Buildings. Consequently, environmentally conscious direct-current distribution systems that combine renewable energy and electrical accumulators are gaining popularity.

Mitsubishi Electric has been contributing to the growing direct-current ecosystem by leveraging technologies that it originally developed for DC power generation, high-speed circuits for railways and data-center energy systems. D-SMiree now unifies these initiatives under a single brand.

The facility in Marugame will develop next-generation MV/LV DC distribution systems for DC power distribution based on enhanced reliability, environmental friendliness and cost effectiveness. Advanced smart-grid technologies and storage-battery systems will be incorporated in enhanced, extra-efficient solutions for purposes including the following:

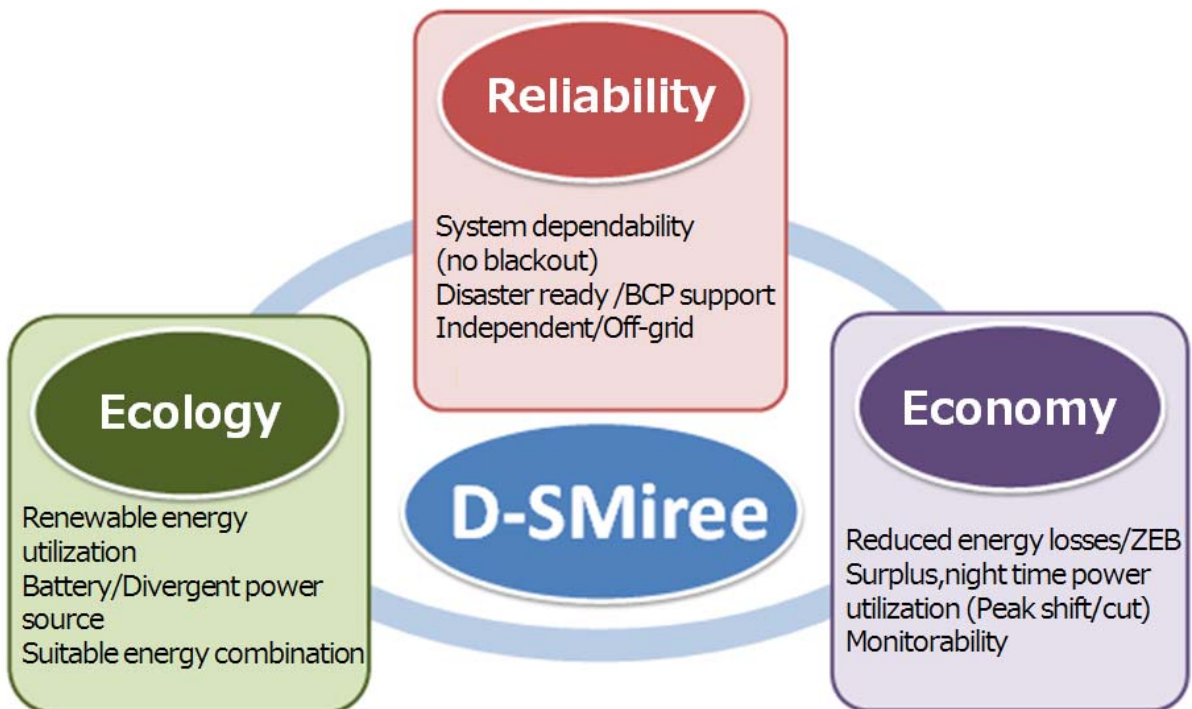
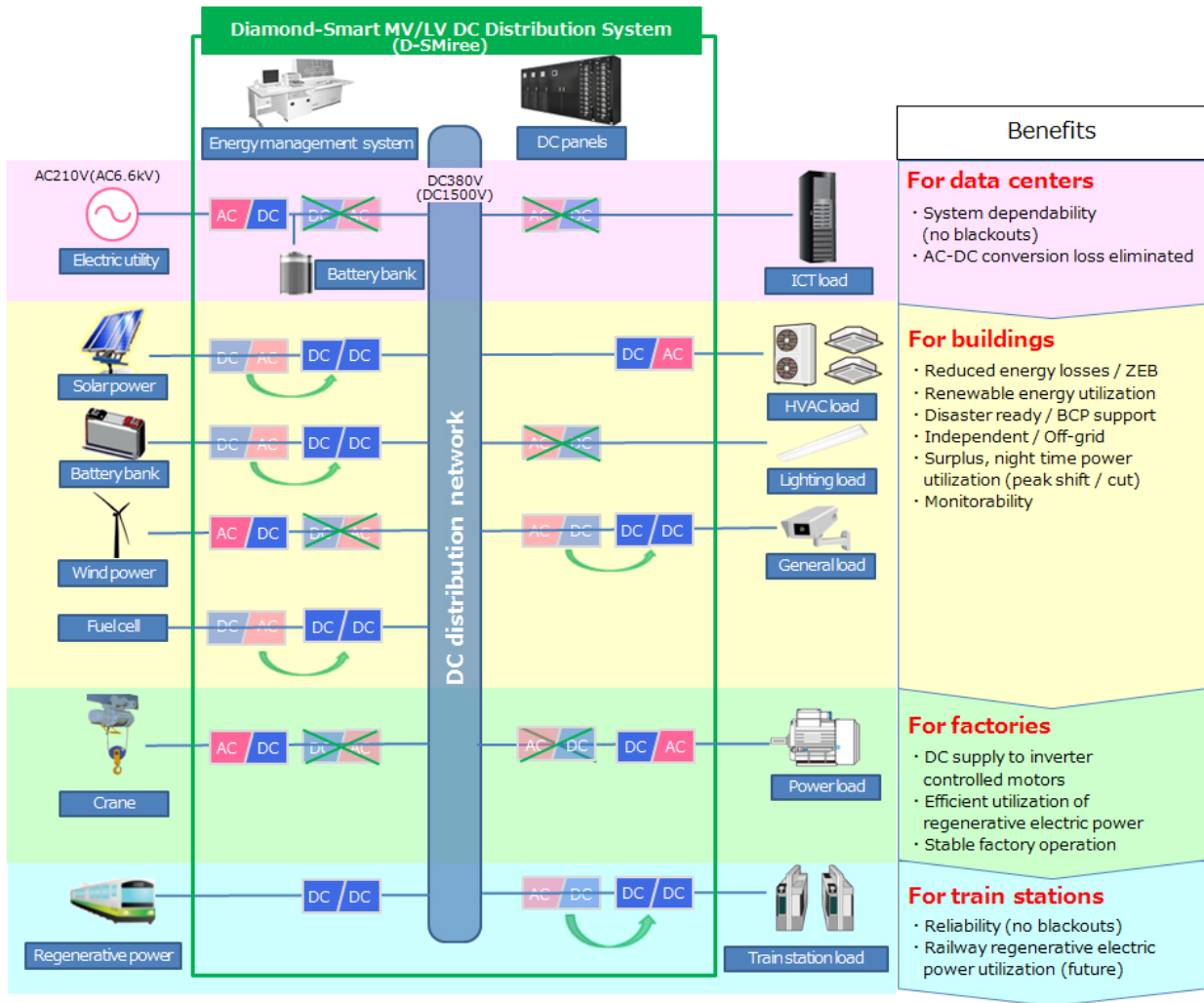
- Power generation — Easy interconnection of diversified renewable energy sources such as solar, wind, and fuel cells, without the need for electrical synchronization
- Energy storage — Highly efficient operation of storage batteries by leveraging Energy Management System power-generation and demand-forecast functions
- Efficiency — Reduced electrical loss through reduced power conversion compared to traditional AC distribution systems

The D-SMiree lineup will feature products and applicable systems, eventually including 380V systems that are undergoing verification testing at the DC Development and Demonstration Facility. 1500V systems also are expected to be introduced to the global market by 2017.

The use of direct-current power systems is rapidly increasing in smart grids incorporating renewable energy sources, such as solar-power generation plants combined with batteries to store influx energy for usage during peak hours. LED, television sets and other appliances use direct-current circuits, and many alternating-current motors use inverters for the one-time internal conversion of AC into DC. Traditional AC distribution systems require power to be converted from AC to DC and vice versa as the power flows to the loads, resulting in energy loss with each conversion.

D-SMiree MV/LV DC distribution systems will enable DC power to be directly supplied without energy loss due to wasteful conversions, resulting in more efficient and sustainable power distribution.

Mitsubishi Electric's Power Distribution Systems Center was established originally in 1979 to manufacture circuit breakers and switchgear. It produced its one millionth circuit breaker in March 2014.



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About Mitsubishi Electric Corporation

With over 90 years of experience in providing reliable, high-quality products, 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. Embracing the spirit of its corporate statement, Changes for the Better, and its environmental statement, Eco Changes, Mitsubishi Electric endeavors to be a global, leading green company, enriching society with technology. The company recorded consolidated group sales of 4,394.3 billion yen (US\$ 38.8 billion*) in the fiscal year ended March 31, 2016. For more information visit:

www.MitsubishiElectric.com

*At an exchange rate of 113 yen to the US dollar, the rate given by the Tokyo Foreign Exchange Market on March 31, 2016