



Xtreme Power's utility-scale energy storage solutions deliver large scale results

Utility-scale energy storage solutions provide cost effective, sustainable integration of renewable energy sources with the grid. Xtreme Power's energy storage and digital power management solutions, enabled by innovative Eaton products, are allowing customers around the world to achieve significant economic and environmental benefits.

Kaheawa Wind Power

When First Wind needed an energy storage and power management system for its Kaheawa Wind Power 30 MW project in Maui, HI, it contacted Xtreme Power for a solution.

Xtreme Power developed a system consisting of its 1.5 MW/1 MWh Dynamic Power Resource™ (DPR) utility-scale energy storage and digital power management system. To meet the unique inverter needs of the wind farm application, Xtreme Power worked with IE Power, which Eaton acquired in 2011, to develop an inverter to meet the installation's high current and voltage requirements, providing the bi-directional power conversion link between the grid and the battery.

Since it was installed in 2009, the utility-scale wind project has generated nearly 563 million kilowatt-hours (kWh) of clean, renewable electricity. The equivalent amount of energy from a traditional fossil fuel facility would have required over 902,604 barrels of oil. The operation powers approximately 11,000 homes on Maui a year—about nine percent of the island's energy. By controlling ramp rates, the Xtreme Power DPR system enabled the integration of the wind project on to the island grid by providing smooth energy flow during wind fluctuation events.



Powering Business Worldwide



Ford Motor Company

With the help of an Xtreme Power energy storage and digital power management solution, Detroit Edison began tapping the sun's energy to help power production of Ford's next-generation Focus and hybrid-electric vehicles in mid-2011. Detroit Edison worked with the automaker to install a 500-kilowatt solar photovoltaic panel system at Ford's Michigan Assembly Plant and integrated it with Xtreme Power's 750-kilowatt DPR energy storage system that can store two megawatt-hours of energy, enough to power 100 homes for a year. Xtreme Power contacted IE Power, acquired by Eaton in 2011, which developed an application-specific inverter for the installation.

The renewable energy collected by the DTE's solar panel system goes directly into Ford's distribution system to help provide power to the facility. The energy storage system recharges from the grid during off-peak hours when energy is available at a lower cost. This in turn provides inexpensive power during peak operating hours when the cost per kilowatt-hour is higher, and reduces peak demand on the grid.

Ford has also installed 10 electric vehicle-charging stations at the plant to demonstrate advanced battery charging technologies using renewable energy and other smart-grid advances. Xtreme Power provided an active power management system on the stations used to recharge electric trucks that transport parts between adjacent facilities.

For more information

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