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**Maui Smart Grid to mobilize a mix of grid technologies to help manage grid operations**

**GE-led technology rollout will show what future Smart Grid looks like, help Hawaii integrate more renewable energy and manage peak circuit loads**

**MAUI, HI, July 14, 2009** – GE is working with the Maui Electric Company to utilize distributed energy resources to help manage grid operations on the island of Maui. In partnership with the Hawaiian Electric Company (HECO), Maui Electric Company (MECO), the Hawaii Natural Energy Institute (HNEI) of the University of Hawaii and the U.S. Department of Energy, GE has formally launched the Maui Smart Grid project which will develop and demonstrate the use of smart grid technologies to help MECO control peak circuit demand, maintain adequate circuit voltage levels, and integrate intermittent renewable energy resources.

“While wind power has been around for some time, relying on a high percentage of wind for day-to-day power generation has been impossible. Wind availability is too unpredictable and uncontrollable,” said Juan de Bedout, global technology leader for power conversion systems at GE Global Research. “The Maui Smart Grid Project will develop grid communications and controls that will assist MECO in the coordination of distributed resources, such as distributed generation, energy storage, voltage controls and residential loads, to help integrate unprecedented levels of wind and solar power into the island’s power grid.”

GE’s Smart Grid management tools will include advanced communications, automation and control technologies and possibly an energy storage system. The management system will control and dispatch several types of power system equipment, customer loads, and energy storage to compensate for sudden changes in wind power and circuit loads.

“Hawaii has phenomenal wind and solar energy potential, so incorporating higher percentages of renewable power makes perfect sense,” said Bob Gilligan, vice president of GE Energy’s transmission and distribution business. “GE Energy’s smart grid technologies will help MECO reliably manage and integrate these renewable energy sources, while increasing the grid’s energy productivity and efficiency.”

“We are strongly committed to meeting our state’s clean energy goals,” said Ed Reinhardt, president of Maui Electric Company. “As we move toward using more renewable energy, balancing system reliability and power quality is a top priority at MECO. Partnering with companies such as GE, that are committed to updating our grid infrastructure, is critical to developing the technology solutions to get us there.”

The island of Maui already meets the definition of high-penetration renewable power. With a peak load of around 200 MW on the island, up to 30 MW can come from wind energy. Right now Maui receives nearly 10% of its energy from wind, with plans to add even more wind-powered generation energy in the future. Even at just 10%, issues with grid reliability can arise due to minute-to-minute wind fluctuations. This project’s smart grid technologies will help integrate more renewable energy into Maui’s power system.

### **About GE Global Research**

GE Global Research was the first industrial research lab in the United States and is one of the world’s most diversified research centers, providing innovative technology for all of GE’s businesses. Global Research has been the cornerstone of GE technology for more than 100 years, developing breakthrough innovations in areas such as medical imaging, energy generation, jet engines, advanced materials and lighting. GE Global Research is headquartered in Niskayuna, New York and has facilities in Bangalore, India; Shanghai, China; and Munich, Germany. Visit GE Global Research at [www.ge.com/research](http://www.ge.com/research).

### **About GE Energy**

GE Energy ([www.ge.com/energy](http://www.ge.com/energy)) is one of the world’s leading suppliers of power generation and energy delivery technologies, with 2008 revenue of \$29.3 billion. Based in Atlanta, Georgia, GE Energy works in all areas of the energy industry including coal, oil, natural gas and nuclear energy; renewable resources such as water, wind, solar and biogas; and other alternative fuels. Numerous GE Energy products are certified under ecomagination, GE’s corporate-wide initiative to aggressively bring to market new technologies that will help customers meet pressing environmental challenges.

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### **About MECO:**

Maui Electric Company (MECO) has been an integral part of the Maui County community powering homes and businesses for over 85 years. A subsidiary of Hawaiian Electric Company, MECO provides electricity to more than 67,000 customers on the islands of Maui, Lana`i, and Moloka`i. MECO is strongly committed to providing reliable service and reducing Hawaii’s dependence on imported oil. Maui

County achieved a Renewable Portfolio Standard of over 20% in part by using wind generation. For more information, visit us at [www.mauielectric.com](http://www.mauielectric.com) .

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