

HOMER® Energy Helps the City of San Diego Design Microgrids for Emergency Services

HOMER Energy will help San Diego develop an independent center powered by renewable energy and advanced energy storage that can function off the grid in case of fire emergencies.

Boulder CO, November 8, 2010 -- HOMER Energy will be working with the City of San Diego and the California Center for Sustainable Energy to develop an energy independent microgrid at a community recreation center that will serve as a command center for fire and rescue teams. By integrating distributed generation into its emergency infrastructure, the City of San Diego will be able to enhance energy security and improve its crisis response capabilities. The center will be able to function off the grid for up to forty-eight hours in the event of an emergency.

Working under joint funding from the Department of Energy's Solar America Cities Program and the California Public Utilities Commission's Self-Generation Incentive Program (SGIP), San Diego will create an independent microgrid at the Scripps Ranch Community Recreation Center by installing photovoltaic systems and advanced energy storage (AES). HOMER Energy is analyzing alternative microgrid power system configurations to meet the site loads, including emergency response equipment. The HOMER software is being used to identify the most cost-effective combination of PV and battery storage that meets the system design goals, while working within funding and site constraints.

"HOMER has been used for decades to design both isolated grids and grid-connected projects, but microgrids like this are exciting new applications that can operate in both modes," says Peter Lilienthal, HOMER Energy CEO. "Public safety facilities are where microgrids make the most sense right now, but microgrids have widespread potential to make our electricity sector cleaner and more reliable."

Designing reliable hybrid power systems with renewable components is difficult because there are so many possibilities to consider. The HOMER software simultaneously analyzes thousands of different configurations to identify the optimal system and illustrate its sensitivity to changes in input parameters such as equipment costs, energy requirements, or fuel prices.

Aside from its quest for a "reliable, secure, decentralized and resilient energy supply," the City of San Diego anticipates that energy independent centers will save money during normal operation, not only by generating electricity with renewable energy, but



also by using advanced energy storage systems to reduce demand charges and onpeak energy charges by shifting electric loads. California is the first state to grant incentives for advanced energy storage - a relatively new technology - along with the normal incentives for renewable energy technologies.

About HOMER Energy

HOMER Energy is a privately held company located in Boulder, Colorado. It supplies software and services to the rapidly growing international renewable distributed energy market, forecast to be \$80 billion by 2014. In 2009, HOMER Energy received a license from the US National Renewable Energy Laboratory to be the exclusive commercialization agent for enhancing, supporting, and distributing the HOMER software worldwide. HOMER has been downloaded by over 48,000 people in 193 countries worldwide and is used by systems integrators, equipment manufacturers, utilities, facilities managers, governments and non-profit organizations to design hybrid power systems. HOMER analyzes diverse distributed energy applications including grid-tied renewable and cogeneration systems, and situations where the grid is non-existent or insufficiently reliable - such as islands and remote communities. For more information about HOMER and to download the software, please visit http://www.homerenergy.com

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