Residential Photovoltaics in Hawaii

Andrew Keith

Senior Environmental Scientist, Hawaiian Electric Co.

Location: Holmes Hall 244, Date: Thursday, November 5, 2009, Time: 4:30 – 5:30 pm

About the speaker: Mr. Andrew Keith, MBA, BS, is a Senior Environmental Scientist with Hawaiian Electric Company (HECO) where he provides the Company support in environmental compliance matters. During his tenure with HECO, he has served in electrical engineering, maintenance engineering and power plant operations supervisory positions. Before joining HECO, Mr. Keith was an Engineering Officer in the U.S. Merchant Marine for 10 years; he holds the license of Chief Engineer of Steam, Motor & Gas Turbine Vessels of Unlimited Horsepower. Mr. Keith became interested in PV in the early 1990s, as he was fascinated by the “magic” of making electricity with no moving parts or fossil fuels. In 1995, he began the phased installation of his system; December 2009 will mark the 14th anniversary of its operation.

Abstract

The generation of electricity using photovoltaic (PV) technology has been around for decades, but with concern regarding the burning of fossil fuels, PV and other forms of alternative energy have returned to the forefront of public discussion. One Kahalu‘u homeowner is successfully utilizing this technology and, on an annual basis, self-generates more electricity than his home consumes.

The concept of photovoltaics and nearly 15 years of hands-on experience with the technology will be presented. Included in this presentation will be the basics of how PV works, costs and maintenance, pros and cons of different configurations of residential systems, building-integrated PV and the current status of equipment, suppliers and installers. Also addressed will be Hawaii’s Net Metering law - why it exists, what it does, and how it greatly improves the economics of renewable energy for the customer.