

## 2005 and Beyond



In times of high energy costs and increased environmental awareness, “renewable energy” is becoming a more familiar term these days. There are several reasons for an electric utility to pursue renewable energy:

- Reduce dependency on the ever-increasing cost of oil,
- Conserve our natural resources,
- Limit the effects of power generation on the environment,
- Comply with state and federal mandates for incorporating renewable energy into utility power generation portfolios.

Kauai’s electric power generation is largely dependent on fuel oil. The environmental impacts and ever-increasing cost of oil are of great concern to KIUC. Renewable energy represents one of the best alternatives to oil-generated electricity. Over the past few years, KIUC staff conducted extensive research into the various renewable technologies and their potential implementation on Kauai. Most recently, KIUC hired a consultant to identify and rank possible renewable energy projects for Kauai. The results of this study, called “ A Renewable Energy Assessment” is available to KIUC’s members through its website at [www.kiuc.coop](http://www.kiuc.coop). The information contained in assessment will play a vital part in KIUC’s development of plans and processes for encouraging renewable energy projects in the near future.

When considering new generation projects, KIUC needs to evaluate generating station ownership options that could be advantageous to its members. At one end of the

spectrum, KIUC would construct, own, and operate renewable energy facilities. This would allow KIUC to take advantage of the low cost financing available to Cooperatives. The other extreme is for KIUC to purchase power from a facility owned and operated by an independent power producer. KIUC may also choose to partner with various developers. In such a partnership, a developer could build and initially own the facility but provide KIUC the option to purchase the facility at a later date. Under this option, the developer would benefit from the various government renewable energy production tax incentives available to “for-profit” entities while allowing KIUC to take advantage of its low cost financing and expertise in operating power generating facilities.

Potential renewable energy projects that KIUC identifies will be evaluated in its Integrated Resource Planning (IRP) process. The purpose of the IRP is to integrate the generation options (supply-side) with energy efficiency options (demand-side) in a plan that best meets the electrical needs of our consumers. Once the IRP determines the best generation options, KIUC will most likely solicit bids to provide the projects under the appropriate ownership model. The timeframes for implementing the various projects are dependent upon the technology selected. For example, landfill gas could be implemented in 1-2 years. Conversely, a municipal-solid-waste facility may take 3-5 years due to siting, environment study and permitting requirements, and finally, construction.