



## Sun power for Big Island schools

Thanks to HELCO's *Sun Power for Schools* program, photovoltaic (PV) electric systems are using energy from the sun to provide electricity to Hilo High School, Kalaniana'ole Elementary and Intermediate School, and Kealakehe High School. In addition a PV lighting system provides exterior lighting at Laupahoehoe High School.



Kealakehe High School was the first Big Island school to receive a photovoltaic electric system, installed in July, 1998.

Each PV electric system produces one kilowatt of electricity, which is enough to meet a small amount of the school's needs, using 14 solar energy collector panels made of a semi-conducting material that converts the sun's energy into electricity. An inverter converts the direct current (DC) produced by the panels into alternating current (AC) for use at the school.

The PV lighting system consists of five solar panels, each creating 50 watts of power that are fed into two batteries. The batteries supply electricity to two 35-watt, low-pressure sodium flood lamps.

In addition to promoting the use of photovoltaic systems to reduce reliance on fossil fuels, a teaching manual was specifically developed, including the Hawaii Content and Performance Standards, for use by middle and high school teachers.

*Sun Power for Schools* is a voluntary partnership among HELCO, its affiliated companies HECO and MECO, the Hawaii Department of Education, participating schools, and members of the community. To become a *Sun Power* partner, fill out and return the enclosed postage paid reply card.

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## Native trees for Keahole Power Plant

If you drive by HELCO's Keahole Power Plant regularly you will start to notice a change in the scenery. That is because HELCO has begun a large beautification project that calls for new landscaping with native, drought-resistant Hawaiian trees and plants. The new landscaping calls for over 2,400 trees and plants, including 13 native species.

The project brings together the wisdom of members of the community, government agencies, and plant specialists. Groundbreaking took place February 15, 2005 with a blessing by Reverend Daniel Akaka, Jr.

The first step in the process is the removal of poorly growing plants and trees along the north and west sides of the power plant, which will be relocated or mulched on site for use in the new landscaping. Afterward, long, continuous planters and tree pits will be created that will hold an abundant mixture of cinder soil and compost to sustain the new plantings.

The final step in the four-month project calls for the planting of vegetation and installation of irrigation systems. All the plants will be shipped from Oahu to eliminate the risk of planting vegetation that would propagate coqui frogs at the site.

When the vegetation is full-grown, all who drive by can admire the beauty of Hawaii's native trees and plants.



Attending the groundbreaking for the Keahole Power Plant landscaping project were (left to right) Keichi Ikeda, member of Keahole Defense Coalition; Dan Giovanni, manager of HELCO's production department; Jim Dupont, representing the Department of Hawaiian Homelands; Reverend Daniel Akaka Jr.; Warren Lee, HELCO president; Joel Kurokawa, landscape architect with Hawaii Design; Mike Matsukawa, attorney representing Keahole Defense Coalition; and Loris McDaniel, with Shaw Group, the Keahole site construction manager.



## Solar Water Heating... A smart choice for your family!

Thinking about how you could save money on your electric bill? By installing a solar water heating system, an average family of four may save up to \$56 a month.

In Hawaii the average cost of an installed solar water heating system is about \$4,500. HELCO's Residential Efficient Water Heating Program offers a \$1,000 instant rebate to qualifying residential customers to encourage the use of solar water heating in new and existing homes. This reduces your cost to \$3,500.

If you include the 35% **Hawaii Renewable Energy Tax Credit**, your net out-of-pocket expense is reduced to only \$2,275. By factoring in the average annual savings of \$672, which is based on a typical family of four, the system may pay for itself in less than four years!

Example:

Gross Cost	\$4500 *
Utility Rebate	- \$1000
<b>Subtotal</b>	<b>\$3500</b>
Tax Credit (35%)	- \$1225
<b>Net Cost</b>	<b>\$2275</b>
<b>Annual Savings</b>	<b>\$ 672 *</b>
(Average for family of 4)	

**Return on investment: Less than 4 years**

\* Values are estimates only. Your actual savings and return on investment will vary. State tax credits and utility rebates are subject to individual qualification.

For more information, call HELCO at 969-0127. Install now and start saving!



## Congratulations Science Bowl winners!

Hawaii's brightest math and science students from 21 schools competed in the 12th Annual Hawaii Science Bowl on January 22, 2005. Taking top honors was the **Mauli High School** team, with Oahu's **Iolani School** team taking second place.

Big Island schools made a great showing, as **Hilo High School** placed third and **Waiakea** and **Konawaena Schools** placed among the top ten finalists. **Kealakehe High School** was the wild-card winner.

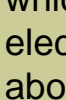
HELCO, HECO, and MECO joined Aloha Airlines; Bank of Hawaii; Honolulu Community College; The Gas Company; Sheraton Waikiki Hotel; Department of Business, Economic Development, and Tourism; and the U.S. Department of Energy, Pacific Liaison in sponsoring the Hawaii Science Bowl.



## Celebrate Mother Earth!

HELCO will be an exhibitor at the **17th Annual Earth Day Fair** to be held **Friday, April 22, from 9 a.m. to 4 p.m.**, at the University of Hawaii at Hilo on the library lanai and at adjacent buildings.

During the morning, HELCO staff will be providing educational sessions on solar power to the school children attending the fair. In the afternoon, the public is invited to stop by HELCO's trailer, which serves as a model solar electric home, and talk to the staff about renewable energy technologies.



### RECIPE OF THE MONTH

## Curried Rice Pilaf



- 2 cups jasmine rice
- 1 tablespoon butter
- 1/2 cup minced onion
- 2 tablespoons curry powder
- 3/4 cup canned coconut milk
- 1 can (14 oz.) chicken stock plus enough water to make 2 cups
- 1/2 teaspoon salt, or more, to taste
- Fresh ground pepper, to taste
- 1/4 cup chopped green onions
- 2 tablespoons chopped peanuts or cashews, for garnish

Rinse and drain rice; cover with water and let sit for about 1 hour. Drain rice thoroughly in a colander and set aside. In a 3-quart saucepan, heat butter and sauté onion until soft and translucent. Add curry powder and cook for 10 to 15 seconds to toast and release fragrant oils. Add drained rice, coconut milk, chicken stock, salt, and pepper. Cover saucepan; bring to boil and reduce heat to lowest setting. Remove lid and continue to simmer for 10 minutes or until rice appears higher than the water surface. Cover saucepan; turn off heat and let sit for another 20 minutes. Do not remove the lid during the last 20 minutes. Just before serving, stir in the green onions and garnish with peanuts. Recipe makes 6 servings.

