

April 2 meeting

Number 38: 2007-08

PRESIDING: RICHARD CROWE

LED PLEDGE: DAVE DELUZ JR.

INSPIRATION: DOUG PATTERSON

MR. MIKE: BARRY TANIGUCHI

SCRIBE: JAMES LEONARD

GUESTS: WALTER NEKOBA, ALEXA BADER

(HOST: STEVE BADER),

MIKE KALEIKINI (GUEST SPEAKER).

Service
Above
Self



GEOHERMAL ENERGY IN HAWAI'I

This week, the guest speaker was *Mike Kaleikini*, introduced by **Barbara Hastings**. As the Plant Manger of Puna Geothermal Venture (PGV), which has 30 employees, *Mike* is responsible for the operations and maintenance of the 30-megawatt geothermal power plant in the Big Island's Puna district, supplying Hawai'i Island's residents with clean, renewable geothermal energy. PGV has been in commercial operation for over 14 years, and now provides approximately a quarter of the Big Island's electrical needs, equivalent to 120,000 barrels of oil annually. *Mike* joined PGV in 1991 as a plant operator, and now has more than 22 years of combined experience in the operations and maintenance of propulsion plants and power generation industries. Previously, he served in the U.S. Navy as a Gas Turbine Systems Technician, and spent 5 years at sea aboard the U.S.S. David R. Ray. *Mike* is a graduate of Kamehameha Schools and Foothills Jr. College in Los Altos

Hills, California.

Geothermal energy is a top source of renewable energy, better than solar or wind. When the wind doesn't blow and the sun doesn't shine, the heat from the volcano continues to produce a steady flow of power. Heat from Earth's upper mantle continuously flows outward. When temperatures and pressures are high enough, some of the surrounding rock melts, becoming magma. Because it is lighter, the magma rises, moving slowly up toward Earth's crust, carrying with it the heat from below. Most often the magma remains below Earth's crust, heating nearby rock, rainwater and seawater that has seeped deep into the earth. Some of this hot water travels back up through faults and cracks and reaches Earth's surface as hot springs or geysers. Most of it stays deep underground, trapped in cracks

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and porous rock. This natural collection of hot water is called a geothermal reservoir. Once geothermal waters reach the surface, the steam is sent to the power plant and used to drive generators to produce electricity, and the brine and gases are re-injected back into the injection zone below the water table.

In the early 1990s, Puna Geothermal Venture, a partnership between two mainland power companies, received a permit to produce renewable geothermal energy at a site in Puna in the East Rift Zone. The facility went on-line in 1993. Like wells in other volcanic regions (Indonesia, Philippines and Iceland), PGV's wells are prolific. Its five production wells produce an average of 2 million pounds of geothermal fluid per hour! There are three types of power-generating plants: dry steam, flash steam and binary cycle. Dry steam plants, first used 100 years ago, route the steam directly to a power plant to produce electricity. These are used in places such as The Geysers in California, where steam is close to the surface. Flash steam power plants cause the fluid to rapidly vaporize, driving turbines that in turn drive a generator. Binary-cycle plants are similar and the most advanced. Their closed-loop circulation system means that no excess gases or fluids reach the open air. PGV's power plant utilizes the closed-loop binary system.

Under a Power Purchase Agreement with Hawai'i Electric Light Company (HELCO), PGV delivers 25-30 megawatts of firm renewable energy continuously, but the facility could provide much more. Currently, PGV is negotiating with HELCO for 8 additional megawatts of power generation. Despite being restricted to the Big Island, geothermal produces about 31 percent of renewable energy resources statewide. The plant is low-profile (under 24 feet high), has near zero emissions, and 100 percent of its geothermal fluid and gas is re-injected into the deep earth. The plant also uses air-cooled condensers and noise-reduction enclosures, and is quieter than the coqui frogs! PGV has been quietly and steadily producing geothermal-generated electricity for HELCO for years, working to be a good neighbor. The company has initiated an on-going community relations effort to address public concerns, and PGV pays \$2 million annually to the State of Hawai'i in royalties, much of which is returned to the Big Island. It's not oil!

CALENDAR:

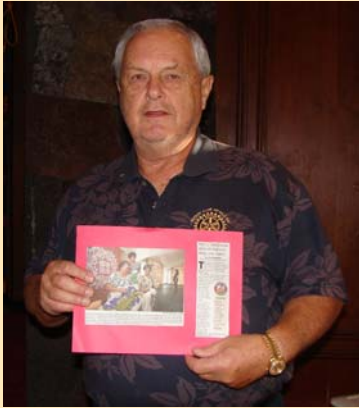
- APR. 5 – District 5000 Assembly for Hawai'i Island, 9:00 a.m.-3:30 p.m., at Waimea Middle School**
- APR. 9 – REGULAR MEETING: Kawika Mattos, Boys & Girls Club of Hilo**
- APR. 9 – BOARD MEETING, 4:15 p.m., Mary Begier Realty**
- APR. 12 – Hilo Central Fire Station Renovation, 8 a.m.-2 p.m.**
- APR. 12 – Rotary Foundation Gala, 5:30 p.m.-9:00 p.m., at Hawai'i Convention Center, Honolulu (\$75 a person)**
- APR. 16 – REGULAR MEETING: Nahoahoa Interact Club (at Ke Ana La'ahana School, Kalaniana'ole, near Yacht Club)**
- APR. 19 – Hilo Central Fire Station Renovation, 8 a.m.-2 p.m.**
- APR. 23 – REGULAR MEETING: Bill Walter, W.H. Shipman**
- APR. 26 – Hilo Central Fire Station Renovation, 8 a.m.-2 p.m.**
- APR. 30 – REGULAR MEETING: Claude Thompson, District New Generations Chair, and East Hawai'i Rotaract Club**

Announcements:

1. **President Richard Crowe** announced that the April Board of Directors meeting will be held on April 9, at 4:15 p.m., at the office of Mary Begier Realty, 1059-B Kilauea Avenue. **Richard** reminded us that there will be a Rotary Foundation Gala on April 12, 5:30-9:00 p.m., at the Hawai'i Convention Center, close to the Ala Moana Hotel, in Honolulu. This will be a sold-out event, and will feature past RI President *Jonathan Majiyagbe* and some beneficiaries of our RF donations. The event is \$75 a person. A fair displaying club projects will start at 3:30 p.m. that day.
2. **Richard Crowe** also announced that the Rotary Club of North Hawai'i is holding a Paniolo Scramble Golf Tournament and Fundraiser on April 12, beginning at 7:15 a.m. (tee-off time is 8:00 a.m.), at the Mauna Lani South Course. Tickets are \$150.
3. **President-Elect Mary Begier** reminded us that this year, the District 5000 Assembly will be held on Saturday, April 5, at Waimea Middle School, from 9:00 a.m. to 3:30 p.m. All members are welcome, but 2008-2009 Board Members are strongly encouraged to attend (you'll be hearing from **Mary** if you don't sign up)! To date, we have 10 members attending, more than all the other East Hawai'i clubs.
4. **Gary Young** thanked those that came to the Boris and Friends Piano Social on Thursday, March 27, at the home of **Richard Crowe**. It was a wonderful event!
5. **Richard Cunningham** continued the spring campaign for the Hawai'i Rotary Youth Foundation (HRYF). A framed mirror will be the drawing prize. Richard today showed off the cocobolo wood to be used for the mirror corners. Members who contribute \$50 or more to HRYF can participate in the drawing for the mirror, to be fabricated by **Richard** before April 23. About \$1000 has been collected so far.
6. **Karolyn Lundkvist** explained our Membership Team table seating today. She has divided our 52 members into 8 teams. Each of these teams is responsible for bringing in at least one new member, designating a team sponsor for that member, and identifying a team mentor for said member. The team will continue to support that new member. The team that brings in the most new members will be rewarded. On May 14, we will hold a special meeting entirely devoted to membership that will feature a special competitive activity. If you have not filled out that card, do it soon!
7. **Paula Uusitalo** read a thank-you letter to the club from the Girl Scouts for our participation in the Weinberg Friends Project at the Kilohana Camp on February 23.
8. Another reminder that Saturday, April 26 has been declared by RI as Rotarians at Work Day. The East Hawai'i clubs are pooling labor and money to renovate the interior of the Hilo Central Fire Station, beginning Saturday, April 12 (8 a.m. to 2 p.m.), continuing at the same time on Saturday, April 19, also on April 26. A sign-up sheet has been circulated by Hilo Bay Community Service Chair **Allen Novak**.
9. The 2008 Rotary District Conference will be held May 23-26 at the Wailea Beach Marriott Resort (special rate of \$229 per night) on Maui. Registration is \$35 per couple. So far, **Mary Begier, Pete Muller, Karolyn Lundkvist, Richard Crowe** (plus 3 spouses) have registered. The total meal package has been reduced to \$255.
10. The 2008 Rotary International Convention will be held June 15-18 in Los Angeles, California (*See the Stars!*). Sign up! The registration cost per person is now \$345.

WEDDING ANNIVERSARIES: RICHARD CUNNINGHAM AND MICHELLE JODOI (3/31), 35 YEARS.

BIRTHDAYS: RON SCHURRA (3/31). (RIGHT)



RECOGNITIONS: PETE MULLER (LEFT), FOR HIS WIFE ROBERTA BEING PICTURED ON PAGE 1 OF THE 4/2 HAWAI‘I TRIBUNE-HERALD (HT-H), MAKING QUILTS FOR THE MERRIE MONARCH FESTIVAL THIS WEEK. AS A RESULT, PETE CONTRIBUTED \$100 MORE TO ROTARY FOUNDATION.



At Wednesday’s meeting, two more of our club Paul Harris Fellows (PHF) were recognized by **Jay Curlee** for their Rotary Foundation (RF) contributions. **Jay** argued for peaceful solutions to conflict, and how our RF contributions contribute to that effort. Right, **Jay** presents new PHF+1 pins to **Dave DeLuz Jr.** (far left) and **Yu Yok Pearing.**



VOCATIONAL PRESENTATION:

Ted Hong (left), Attorney-at-Law, said “I’m a lawyer and I play one on TV”. **Ted** practices Employee Relations and Labor Law; he represents clients who are defending themselves against employers or who are suing employers for what they consider unfair or disrespectful labor practices against them. He gave Rotarian managers and CEOs some advice: “Listen to your Human Resources (HR) people. These problems in employee relations come up when corporations and companies don’t listen to their HR officers.”

MAHALO to **DOUG PATTERSON**, who donated a \$50 gift certificate to **KTA**, won by **RON SCHURRA**.

QUOTE FOR THE DAY: “The shortest distance between any two points on a golf course is a straight line through the center of a large tree.”

– Unknown

4-WAY TEST: **RICHARD CUNNINGHAM**

PHOTOS: **NADIA RANNE**

PRE-MEETING MUSIC: **OUT OF THE WOODS – OREGON**

HAPPY DOLLARS:



DAVE DeLUZ JR. \$7, FOR \$3 MILLION IN FUNDING FROM **HRYF** FOR **BIG ISLAND STUDENT SCHOLARSHIPS**.

TED HONG \$20, FOR INSPIRING TRIP TO **WASHINGTON, D.C.**, WITH FAMILY.

RICHARD CUNNINGHAM \$1, FOR \$1000 IN MEMBER DONATIONS TO **HRYF**.

JAY CURLEE, \$5, FOR SON **SAM** (WHO IS SERVING IN IRAQ) BEING IN A LOCATION THAT HAS NOT BEEN SHELLED FOR ONE YEAR.

RON SCHURRA \$10, FOR **HILO MEDICAL CENTER** HAVING BEEN NAMED AS ONE OF **THOMSON'S TOP 100 IMPROVING HOSPITALS**.

YU YOK PEARRING \$10, FOR HER SON'S PARTICIPATION IN THE RECENT STATE-WIDE **ROBOTICS COMPETITION** ON **O'AHU**. **WAIAKEA HIGH** PLACED IN THE TOP 5, AND **HILO HIGH** PLACED IN THE TOP 7.

STEVE BADER \$10, FOR DAUGHTER **ALEXA** HAVING BEEN ACCEPTED INTO **KAMEHAMEHA SCHOOLS**.

ALAN OKINAKA \$10, FOR EXCURSION TO **LAKE WAIU** TO DEPOSIT HIS GRANDSON'S **PIKO**, AND FOR **BARRY TANIGUCHI**, THE BEST "MR. MIKE"!

BARRY TANIGUCHI \$10, TO MATCH **ALAN'S** DONATION.

JON MIYATA \$20, FOR HIS RECENT VACATION TO THE **U.S. WEST COAST**.

RICHARD CROWE \$10, FOR THE SUCCESSFUL **PIANO SOCIAL** AT HIS HOME.