

# Highlights of the 34th GRC Annual Meeting

## *Celebrating 50 Years of Clean, Renewable Power*

by John Galbraith

**C**elebrating a half-century of clean, geothermal energy at The Geysers and buoyed by continued worldwide industry optimism and growth, the 34th GRC Annual Meeting was a stirring success. Held in conjunction with the GEA Trade Show on October 24-27, 2010 at the Sacramento Convention Center, California, the GRC Annual Meeting showcased advancements in geothermal research, exploration, development, technology and policy. Themed, “Celebrating 50 Years of Clean, Renewable Power,” the meeting’s Opening Session gathered local, state and federal officials, along with worldwide industry leaders who discussed current geothermal energy production and delivered inspired perspectives.

GRC Executive Director Curt Robinson welcomed the attendees and acknowledged the 50th anniversary of commercial, utility-scale electricity production at The Geysers.

“2010 also represents the 40th year of the Geothermal Resources Council,” said Robinson. “This is a year when we’ve lost many friends to the geothermal community, but we



*GRC Executive Director Curt Robinson addresses the attendees.*

also have the opportunity to make new ones and I’m happy to report that we have 115 students in attendance — the most in GRC history,” added Robinson.

GRC President Frank Monastero then kicked off the Opening Session on a confident note, citing impressive global meeting attendance, significant

increases in GRC membership, and technical session participation.

“GRC membership is not only increasing; it is diversifying,” said Monastero. “Since 2001, domestic



*GRC President Frank Monastero.*

membership grew from 486 to more than 1,300 in 2009. Our international membership expanded 136% to more than 300 and the trend is continuing,” Monastero added.

“The basic drivers of this diversification are fundamental changes in energy consumption, government support of renewables and increasing awareness of the negative impact of traditional fossil fuel sources. The result is a significant growth in the demand for clean, base load power provided by geothermal energy not only in the U.S., but also in countries worldwide. In short, we are just seeing the beginnings of a burgeoning market for clean energy.”

“There are two basic challenges for this industry to meet this rising

## Annual Meeting Highlights

*"...with your collective ingenuity, vision, and determination, the future of the geothermal industry will be brighter than all of the light bulbs we power."* – GRC President Frank Monastero

demand: technical and financial. It is my hope that, through your experiences over the next few days, you will find seeds to grow the solutions to the technical challenges our industry faces. That accomplished, the financial challenges will be somewhat easier to address. I am confident that with your collective ingenuity, vision, and determination, the future of the geothermal industry will be brighter than all of the light bulbs we power," said Monastero to rousing applause.

Karl Gawell, Executive Director for the Geothermal Energy Association (GEA), presented

an impressive picture of the U.S. geothermal industry and reported positive results of an aggressive and sustained industry advocacy, education and media campaign. "We are seeing the beginnings of important industry recognition – 50 years of production, continued growth, today and tremendous potential for the future," said Gawell.

Jack Fusco, President and CEO Calpine Corporation, described the scope of Calpine's operations at The Geysers and marveled at the past success of the world's largest steam field.

"As I was driving through the Napa Valley to The Geysers for a 50th Anniversary celebration with past and current employees, I was reminded that like a fine wine, The Geysers and geothermal production continues to get better with age," said Fusco.

James Pope, General Manager for Northern California Power Agency, who along with



GEA Executive Director Karl Gawell.



Opening session.

## Annual Meeting Highlights



*Jack Fusco, President and CEO of Calpine Corporation.*

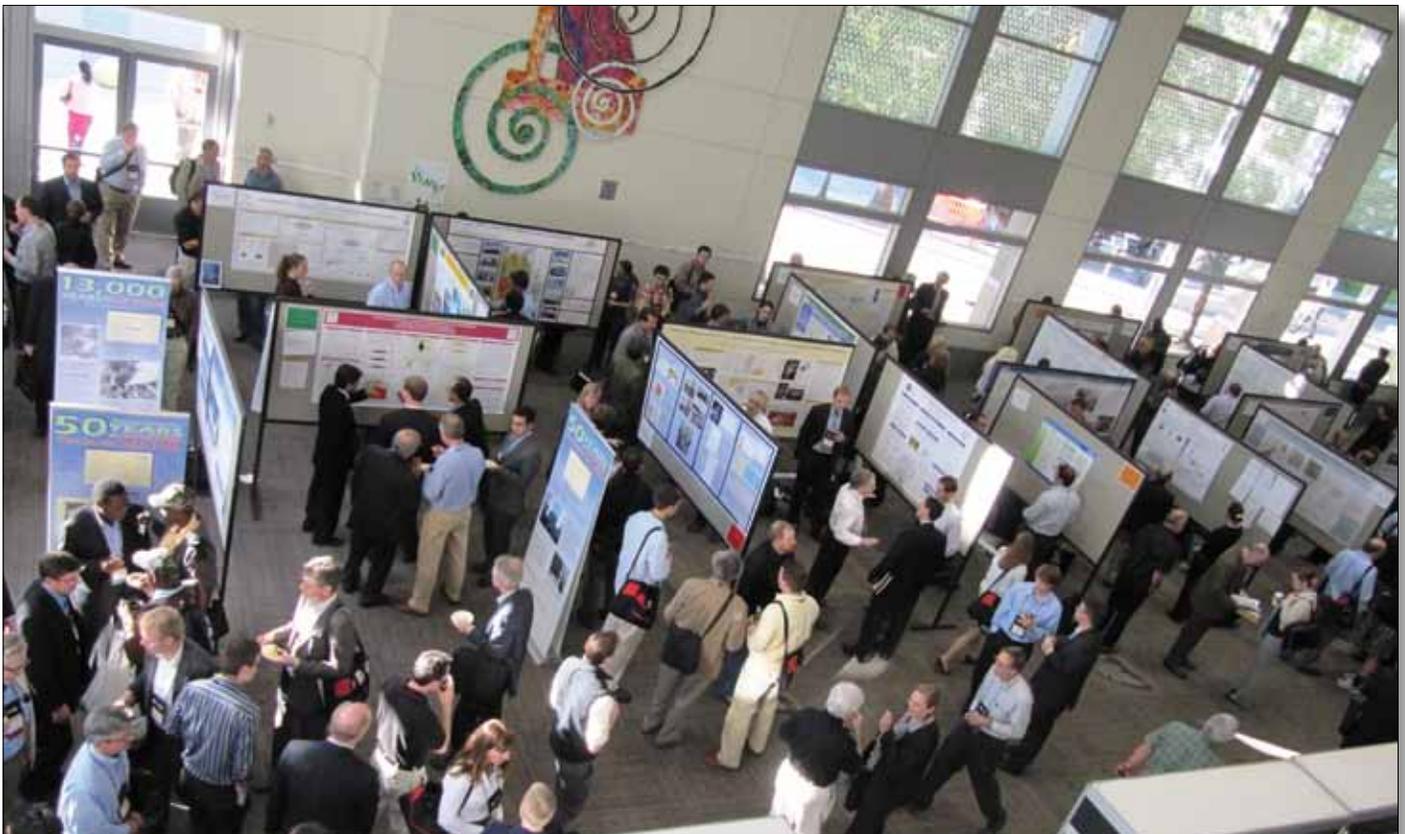
Calpine and others manage The Geysers steam field, echoed Fusco's sentiments. "The Geysers and geothermal energy have been a model of renewable, green energy before it was cool," said Pope. "I commend the Geothermal Resources Council for recognizing this important milestone



*James Pope, General Manager for Northern California Power Agency.*

and coming to Sacramento," added Pope. Sacramento Mayor Kevin Johnson welcomed the world, congratulated the geothermal community on 50 years at The Geysers, and proclaimed it "Geothermal Energy Week" in Sacramento. "This is the world's largest gathering of the geothermal community, so we are excited to be a part of it," said Johnson. "When you talk about renewable energy, your industry has it. There's a lot talk about wind and solar, but we want to reduce our reliance on fossil fuels and you are doing it," added Johnson.

Citing a lack of industry awareness and credit for accomplishments, Johnson encouraged all to "get out there and make sure that we are a voice highlighting the geothermal community," said Johnson.



*Looking down on the Poster Session.*

## Annual Meeting Highlights



Sacramento Mayor Kevin Johnson.

Mayor Johnson, a former National Basketball Association professional and admitted competitive person closed his speech by taking a good natured jab at Nevada – reminding them that U.S. geothermal was founded in California. “I know that Nevada is trying to be the center and I salute them. There are a lot of nice projects in the works, but it’s ok to be runner-up in the geothermal world,” concluded Johnson.

Annual Meeting Speaker Chairman and Emcee Mike Rogers also introduced informative speeches from Barry Andrews, Vice President, Chevron Asia Pacific Exploration and Production, Alexander Richter, Director, Islandsbanki and Editor of ThinkGeoEnergy.com, Elena Miller, Supervisor, Division of



Mike Rogers, Speaker Chairman and Emcee.

Oil, Gas, and Geothermal Resources, California Department of Conservation, Chris Miller, Senior Policy Adviser on Energy and Environment to



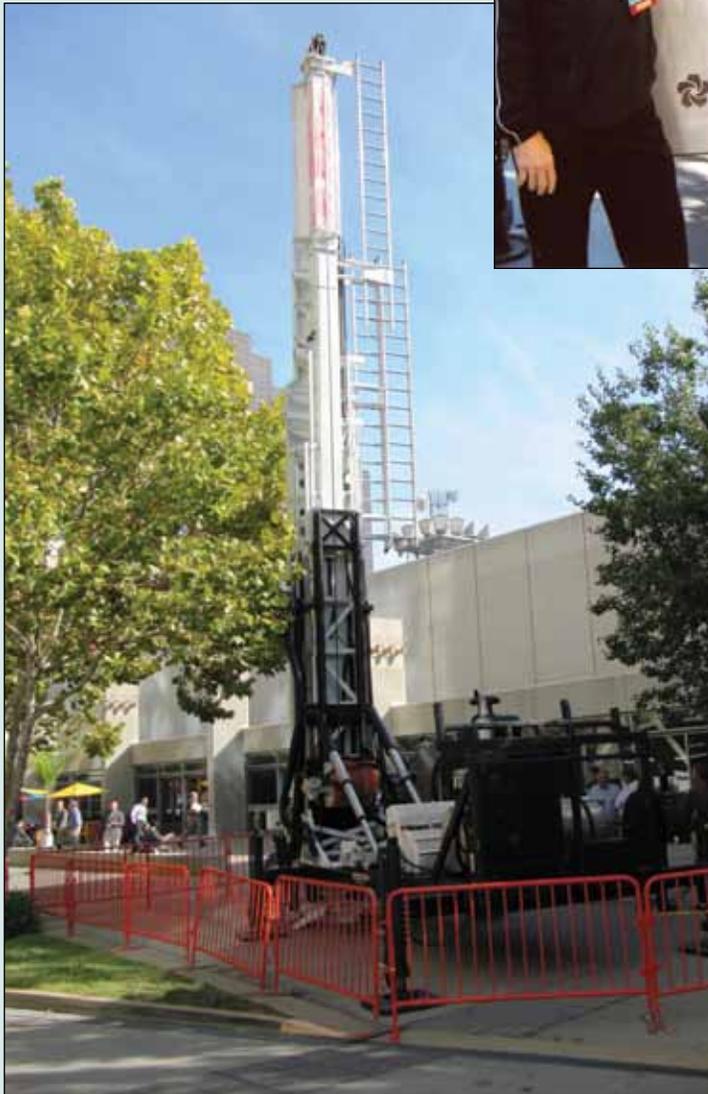
GRC President Frank Monastero is interviewed by Stephen Lacey, producer of Renewable Energy World.

US Senate Majority Leader Harry Reid, JoAnn Milliken, Senior Advisory and Acting Geothermal Technologies Manager, Energy Efficiency and Renewable Energy, US Department of Energy, and James Shetler, Assistant General Manager, Energy Supply, Sacramento Municipal Utility District (SMUD).

Following the Opening Session, GRC members from every corner of the globe working in every facet of the industry participated in a broad variety of technical tracks including: EGS, The Geysers, Power Operations, Reservoir Engineering, Utility and Transmission, Exploration, Environmental, European, Heat pump/Direct Use, Business Development and Economics, Drilling, Geophysics and Geochemistry. A full report of the Technical and Poster Session highlights, GRC Awards, International Luncheon, Photo Contest winners and optional events including workshops, the Charity Golf Tournament, and field trips to The Geysers will be included in the November/December issue of the *Bulletin*.

## Annual Meeting Highlights

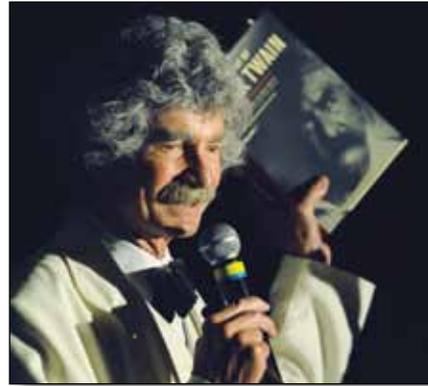
The Boart Longyear LF™230 diamond drill, surface-core rig, displayed at the Annual Meeting, has a relatively small footprint and can core to about 10,000 feet. The rig is designed to explore and delineate a geothermal field. “Costs for this rig are one-third to one-fourth of those charged for a large production hole,” said John Tuttle of Boart Longyear’s Energy Products Group. Tuttle stands to the left of the rotary table unit. PHOTO BY S.F. HODGSON; PHOTOS OF THE ERECT UNIT COURTESY OF BOART LONGYEAR.



## Annual Meeting Highlights

### GRC Salutes Five Decades of The Geysers

More than 325 people were treated to an unforgettable night of geothermal history as GRC saluted The Geysers and five decades of clean, renewable power. Representatives Karen Curry Pettigrew, Ted Wilmsen, Lou Capuano, Tom Box, Charlene Wardlow, and Dennis Gilles from the 1960s, '70s, '80s, '90s and 2000s described the sights, sounds and astonishing accomplishments of each decade leading up to present day. Renowned "Ghost of Mark Twain" impersonator McAvoy Layne emceed the



*"Ghost of Mark Twain" impersonator, McAvoy Layne.*

proceedings and captivated the audience with his remarkable wit and story telling.

*Save the Date! October 23-26, 2011, San Diego, California. ■*



*Members of the five decades panel standing from left to right: Karen Curry Pettigrew, Ted Wilmsen, Lou Capuano, Tom Box, Charlene Wardlow, and Dennis Gilles.*