



Geothermal Resources Council

Geothermal Heat Pump Workshop

April 29-30, 2009
Salt Lake City Library
210 East 400 South
Salt Lake City, UT 84111

Sponsored by



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Geothermal Heat Pump Workshop

April 29-30, 2009
Salt Lake City Library
210 East 400 South
Salt Lake City, UT 84111
(801) 524-8200

The Geothermal Resources Council (GRC) is hosting a Geothermal Heat Pump workshop in Salt Lake City. This workshop is sponsored by the American Public Power Association (APPA), the Energy and Geoscience Institute, the Great Basin Center for Geothermal Technology, the National Rural Electric Cooperative Association (NRECA), the SMU Geothermal Laboratory, SoundGT, the US DOE's Geothermal Technologies Program, the Utah State Energy Program, and Western Area Power Administration (WAPA).

AGENDA and TARGET AUDIENCE – The target audiences for the workshop are interested parties and utility staff who want to learn about geothermal heat pumps, to compare them with other resource options, or to learn how to improve on existing programs. Through presentations, panel discussions, case histories, and demonstrations, attendees will learn about

- Cost effectiveness tests
- Case histories of GHP systems
- New drilling and installation techniques
- Loop leasing and other business services
- Products and services available
- Permitting requirements and other issues

MARKETING – The Sponsors are marketing the workshop to utilities across the country, with emphasis on 800 utilities in the Midwest and West. Nearly all of the utilities are NRECA or APPA members.

SPONSORSHIP OPPORTUNITIES – The GRC is seeking sponsors for the meals, refreshment breaks, and workshop materials. Organizations interested in sponsoring can contact the GRC (www.geothermal.org).

AGENDA

Wednesday April 29

- 9:00 Registration
- 9:30 Welcome and Opening Remarks: Guy Nelson, UGWG; Brad Warren, WAPA, Elise Brown, Utah Energy Office
- 10:00 How Geothermal Heat Pumps (GHP) Work: Cary Smith,
- 10:40 Panel Discussion: "GHP Benefits and Issues" Cary Smith Chair
Paul Bony, ClimateMaster
John Kelly, Geothermal Heat Pump Consortium
Jerry Brown, Palo Alto Utilities
Dewayne Dean, Palace Geothermal
- 11:15 Break
- 11:30 Panel Discussion (continued)
- 12:30 Luncheon Presentation: "Geothermal Technologies and Utility Leadership Roles in Promoting Rural Development; Roger Koon, USDA
- 1:30 Panel Discussion: "Renewable Energy: Visions vs. Regulations and Rulemaking" Bob Blackett Chair
Jeff Niermeyer, Salt Lake Public Utilities Department
Jim Goddard, UT Department of Water Rights
Vicki Bennett, Salt Lake City Sustainability Office
John Lear, Attorney
Candace Cady, UT Department of Environmental Quality
Guy Nelson, Utility Geothermal Working Group
- 3:30 Break
- 3:45 "Risks and Rewards of Including GHP in a Utility's Resource Portfolio"
Brian Walshe, ALTERA Energy
- 4:15 Products and Services Panel, Gary Hoffman, WAPA
- 5:15 Adjourn for the Day

April 30

- 9:00 am Continental Breakfast
- 9:45 “GHP Funding Opportunities”
Economic Recovery Act, Jason Berry, UT State Energy Office
Tax Credits and other Incentives, Elise Brown, UT State Energy Office
- 10:15 “GHP Analytical Tools” Katherine Johnson, Market Development Group
- 10:30 Geothermal Technologies in Waste Heat Recovery Applications, Guy Nelson, UGWG
- 10:45 Break
- 11:00 Case Histories
Eric Heinicke, Clark County School District
Duane Debey, Jordan School District
- 11:45 Group Discussion: “How Do We Get More Cost-Effective Geothermal Projects Into the Market?”
Utility Perspective
Regulatory/Government Perspective
Customer Perspective
- 12:15 Site Visits (sites to be determined)
- 4:00 Adjourn

Workshop Registration Fee: One day - \$30, Two days - \$45

To register for the workshop or offer sponsorship, go to www.geothermal.org

Questions? Contact Guy Nelson at energyguy@utilityforum.com

About some of the Speakers

Jason Berry manages the Utah State Energy Program (USEP), which promotes energy efficiency and renewable energy technologies through various educational and deployment programs. In addition, Jason and his staff collaborate with the Governor's Energy Advisor, the Legislature, state and local government entities as well as the private sector to formulate and implement energy programs and policies to advance renewables and efficiency. Recently, Jason led the development of a report for the Governor's Utah Renewable Energy Zone Task Force, which identified the best locations for the development of utility-scale renewable energy projects. Prior to managing the USEP, Jason was the Renewable Energy Specialist for USEP. Under this role Jason managed the Utah Wind Resource

Assessment Program and administered the State's Renewable Energy Systems Tax Credit. Jason also teaches a class on Utah's energy resources for the University of Utah's Department of Geography.

Katherine Johnson is a Partner with Market Development Group, a woman-owned strategic marketing firm specializing in the energy efficiency field. For more than 15 years, Katherine has conducted marketing analysis activities to determine technical and market potential for a variety of energy efficient technologies. She has also designed, launched, implemented, and evaluated marketing and program activities for energy organizations throughout the United States. She has a Masters in Business Administration from Rollins College with concentrations in Marketing and Finance, an undergraduate degree in Business-Journalism from Indiana University. She is completing her doctoral dissertation for a Doctors in Business Administration from the University of Southern Queensland, Australia.

Guy Nelson is the Team Lead of the Utility Geothermal Working Group and has more than 30 years of utility experience in energy education and training. The training focuses on all aspects of the utility business, including transmission, distribution, power operations, billing, marketing, and rate design. He assists utilities in developing and implementing their future business and resource plans. This assistance includes energy efficiency, renewable energy, resource acquisition, rate analysis, load control and reliability, and energy services program design. He has conducted over 100 workshops and training programs focusing on improving utility performance. Guy holds a BS degree in Chemical Engineering from Oregon State University. He did post graduate studies in education at University of Oregon.

Curt Robinson is the Executive Director of the 1200-member Geothermal Resources Council (GRC), headquartered in Davis, California. The GRC serves as a focal point for continuing professional development for its members through its outreach, information transfer and education services. GRC has members in 37 countries and 33 states. Prior to GRC, Curt was an Assistant Vice President at California State University, East Bay and also served several California state government agencies: the Department of Water Resources, State Teachers' Retirement System Board, and Department of Education. Curt has taught at six universities and colleges. Curt also served as Director of Marketing and Public Affairs at the University of California, Davis. He earned his B.A., M.A., and Ph.D. degrees in Earth Sciences at the University of California, Davis.

Brian Walshe is President of ION Consulting, a utilities management consulting firm based in Denver, Colorado. He has 25 years experience across a wide range of areas within the energy industry. He has main focus is corporate strategy development, including generation asset and market valuation, transaction support services, and business integration planning. In 2005 he co-authored a "Guide to Evaluate the Role of Renewables in Power Portfolio" Guidebook for the APPA. Prior to forming ION Consulting, Brian was employed with McKinsey & Co., Navigant, and Stone & Webster where he worked exclusively on the utilities industries, providing consulting services to over 60 utility clients in seven countries. Brian earned his B.S. in Civil Engineering from Northeastern University and Masters of Business Administration from the University of Michigan.