

National Geothermal Collaborative

Final Meeting Summary

July 17, 2002

Double Tree Hotel, Denver, CO

In attendance:

Gordon Bloomquist – Washington State University
Paul Dunlevy – Bureau of Land Management (on behalf of the Department of Interior)
Rich Ferguson – Center for EE and Renewable Technology
Dennis Giles – Geothermal Energy Association and Calpine Energy
Peter Goldman – Department of Energy
Stuart Johnson – Geothermal Resources Council and Caithness Energy
David McClain – David McClain Associates
Mike McKinney – Southern California Edison
Susan Norwood – Department of Energy
Marilynn Semro - Seattle City Light

Joe Greco – Caithness Energy
Tod O'Connor - Vulcan Power
Karl Gawell - Geothermal Energy Association
Joel Reiner – INEEL (spell)
Jon Wellinghoff – Beckley Singelton
Ted Clutter – Geothermal Resources Council
Ron Lehr – National Wind Coordinating Committee
Dan Schocet – Ormat

Vision

After introductions, the participants described their visions of a successful collaborative. The ideas included:

- ? 50,000 mega watts of geothermal energy in the grid
- ? Bureau of Land Management regulations that yield direct use applications
- ? Cost-effective generation
- ? A clear Federal mandate for renewable energy
- ? 1000 megawatts in 5yrs.-in the pipe line
- ? Congressional recognition of the viability of geothermal power
- ? Streamlined permitting processes
- ? 10,000 more people understand what geothermal power is
- ? The general public understand the issues
- ? Transmission is available; therefore, geothermal companies can develop their resources
- ? A production tax credit is in place
- ? Measurable improvement in public perception
- ? Land access issues are resolved
- ? Greater exploration of the resource
- ? Increased percentage of the total energy used comes from renewable sources
- ? The direct use doubles in ten years

Issues

The steering committee and the meeting participants listed and briefly discussed the important issues, concerns and questions surrounding geothermal power. Among them are:

- ? Lack of interest on the part of utilities
- ? The need to understand why it isn't succeeding, including understanding the sources of resistance
- ? Cost
- ? Regulatory and economic disincentives
- ? The inability to secure transmission
- ? Lack of well founded, specific data on geothermal resources
- ? Conflicting market drivers
- ? Alternative with lower risk for utilities than long-term geothermal contracts
- ? Regulatory uncertainty
- ? Lack of incentive-financial & regulatory
- ? Regulatory differences state by state
- ? State legislative politics
- ? An uncertain regulatory environment
- ? Lack of Renewable Portfolio Standards
- ? Geothermal developers don't think of themselves as marketers
- ? Public support for geothermal development
- ? Public doesn't see geothermal as green power
- ? The lack of investment incentives for public power companies
- ? Clarity about short and long term costs/long costs
- ? Widely accepted fictions about the long-term certainty and stability in gas prices
- ? The perception of environmental impacts (air, water, local effects)
- ? Time to bring a plant to completion
- ? Lack of new transmission opportunities
- ? Local opposition
- ? Distance between the sources and the demand
- ? Data about the resources
- ? Length of the process to upgrade transmission
- ? Lack of a comprehensive renewable scenario for the west
- ? Lack of funding for resource characterization
- ? Pace of resource characterization efforts
- ? Lack of incentives for direct use
- ? Need for a national portfolio standard
- ? Federal transmission accessibility mandates on Federal Land
- ? Too little Federal procurement of energy from renewable sources
- ? Funding for and pace of USGS data collection efforts
- ? Federal lands permitting processes
- ? Impact of Renewable Portfolio Standards on utilities
- ? Support for (and ability to build wide support for) RPS
- ? The need for a grand plan or road map for geothermal power that integrates all of the major players (DOE, FERC, etc.);
- ? Organizational division between BLM's rights-of-way group and the minerals group

Other geothermal-related organizations – their roles and the role for the NGC

In an effort to define the NGC’s role in achieving the vision and addressing the issues, it is important to acknowledge the work of other organizations and understand their mandates. The steering committee briefly discussed the work of some geothermal-related organizations and associations.

Geothermal Resources Council

The GRC is an international educational association. Through its workshops and its annual conference, it provides a platform for disseminating information about geothermal power and a forum for research and training.

Geothermal Energy Association

The GEA is a trade association dedicated to improving business conditions for the geothermal community. The GEA advocates for public policies that will promote the development and use of geothermal power

Geopowering the West

Geopowering the West, organized through the Department of Energy, is an outreach effort. The participants include DOE outreach grant recipients, geothermal-related organizations and renewable energy-related organizations.

Operating Protocol

The steering committee moved to a discussion of the role of the National Geothermal Collaborative, and did so in the context of a draft operating protocol that describes the NGC’s purpose and process. (The draft protocol was circulated to the steering committee for final editing and is [will be] attached to this meeting summary.)

Steering Committee

As a part of the protocol discussion, the participants discussed the composition of the steering committee. At present the committee members represent these organizations/stakeholder groups:

- Council on Environmental Quality
- Public Utilities
- Investor-owned Utilities
- Geothermal Developers
- Geothermal Energy Association
- Geothermal Resources Council
- Environmental and Public Interest Groups
- Tribes
- Academia
- Department of Energy
- Department of Interior

The participants discussed the need for balance and the need for representation from other sectors. After reviewing the composition of the National Wind Coordinating Committee’s steering committee, agreed

that industry should comprise approximately three of the twenty-two seats. The steering committee agreed that RESOLVE would seek to add a representative from the following categories (with the meeting participants recommending specific individuals to RESOLVE):

- Utility Commissions
- Western Governor's Association
- State Energy Offices
- State Land Commissions
- National Conference of State Legislatures
- Consumer Advocates

In addition, GEA and GRC representatives agreed to meet to confirm or alter their representation.

Objectives and Workgroups

Finally, the participants discussed specific project objectives for the NGC. The options included:

- ? Examine a typical geothermal project; define the hurdles; and develop solutions that remove or reduce the hurdles
- ? Focus on institutional, regulatory and siting barriers
- ? Focus on financing, economics
- ? Provide a forum for ongoing utility/industry communication
- ? Take on near-term projects first (Renewable Portfolio Standards and Tax Credits); then move to mid-term issues (Development in the post-tax-credit environment and Siting); only then move to long-term questions (Vision, The next group of geothermal resources)

The participants agreed to establish the following work groups:

Renewable Portfolio Standard Work Group

Possible Topics:

- How RPS works and how it ought to work
- What kind of RPS approach would work for all stakeholders?
- Principles
- Perhaps state-specific recommendations
- The appropriate place for geothermal in a renewable portfolio standard
- What works and doesn't in existing RPS systems
- Pros and cons
- Credit trading
- Start by developing and disseminating a bibliography

Audience:

- Internal education for the steering committee and the NGC
- States

Work Group Members

- Jon Wellinohoff, Dan Schocet, Tod O'Connor and Marilyn Semro

'Research' Work Group

Topic:

Review existing NWCC consensus reports looking for those that the NGC might be able to adopt

Audience:

NGC Steering Committee

NGC membership

Work Group Members:

Ron Lehr, Karl Gawell, RESOLVE

Impediments to Siting on Federal Lands Work Group

Topics:

Tribal lands and native & tribal values on Federal lands

Environmental issues

Products and recommendations of the Federal Interagency Task Force

Workshop to build NGC recommendations

Audience:

Federal agencies

NGC members

Work Group Members

Gordon Bloomquist, Mike McKinney, Karl Gawell, Susan Norwood, David McClain and Paul Dunlevy

Wrap Up and Next Steps

1. Send draft protocols and meeting summary by July 24th
2. Return edits and corrections by e-mail to RESOLVE by August 12th
3. Final documents from RESOLVE on August 14th
4. Steering Committee conference call August 15th — 1pm East Coast, 11pm Denver, 10pm West Coast
5. Work plan – RPS – Jon, Dan, Marilyn, Tod
6. Work plan – Fed. Land– Paul, Gordon, Mike, David, Karl, Susan
7. Research from NWCC – Ron, Karl, Mike Hughes
8. Blueprint for the NGC including budget – Susan, Mike
9. Outreach to potential NGC members – All
10. Logo