

**National Geothermal Collaborative: Steering Committee
Final Meeting Summary: November 16-17, 2004**
CEERT Offices, Sacramento, California

Participants:

Gordon Bloomquist – Washington State University
John Bebout, BLM
Janine Clayton – US Forest Service
Ted Clutter, GRC
Jenifer Smith – National Conference of State Legislatures
Karl Gawell – Geothermal Energy Association
Alyssa Kagel, Geothermal Energy Association
Roger Hill – Sandia National Laboratory, GeoPowering the West
David McClain – McClain Associates
Roy Mink – Department of Energy

Marilyn Semro – Seattle City Light
Charlene Wardlow – Calpine
John White, CEERT

Phone:

Arlene Rocabado – Southern California Edison
Matthew Brown – National Conference of State Legislatures

Guests:

Laurie McClenahan – MHA Environmental Consulting

At this meeting, participants discussed Agency Coordination efforts, the Land Use Situation Assessment, the Public Comment Analysis, Issue Brief recipients, the Environmental Brief, the Jurisdiction and Authority Brief, the Impediments Document, and possible future actions.

Decisions Made:

#	Decision
1.	<p>Public Comment Analysis <i>Organization:</i> The recommendation section will be moved to the front (more prominent), the site selection section will be expanded to include operational outcomes and project summaries, and the comment listing section will be placed in the appendix. <i>Language:</i> The document will reflect language used in EIS and permitting documents (potential impacts).</p>
2.	<p>Issue Briefs –</p> <p>a. Recipients RESOLVE will send a brief email to an expanded RPS recipient list, followed with a hard copy. Press releases/notifications will be sent to a number of venues/trade publications (see Issue Brief section for a full list).</p> <p>b. Environmental Brief The current brief is not amenable to consensus: the group decided to discontinue the process. Environmental issues warrant attention, and will be addressed in new paper/papers in the future.</p> <p>c. Jurisdiction and Authority The group agreed to separate power generation and direct use/district heating.</p>
3.	<p>Impediments Document The working group will complete the document for internal use only, and not as a consensus document for publication.</p>
4.	<p>Future Direction <i>Revised Protocol Objective:</i> The purpose of the National Geothermal Collaborative (NGC) is to advance the development and use of geothermal heat and power in the U.S. by identifying issues that impede the use of geothermal power, establishing dialogue with key stakeholders, and catalyzing problem-solving activities to overcome obstacles to appropriate development. Our vision is that geothermal power is environmentally, economically and politically sustainable and is fully integrated into mainstream energy markets. <i>Issue Areas:</i> Land management policy; Interagency coordination; Transmission issues, Northwest effort, State level</p>

Actions

1. ***Agency Coordination***
 - a. ***CEQ Deputies Meeting*** - RESOLVE will distribute the one-page document passed out at the CEQ-Deputies meeting November 4th.
 - b. ***USFS/BLM MOU Effort*** – RESOLVE will distribute a draft report of the interviews on the MOU and one-stop shopping.
 - c. ***Leasing Panel Event*** – RESOLVE will distribute a summary from the panel event to participants and steering committee members.
2. ***Land Use Situation Assessment***
 - a. RESOLVE will complete the report for distribution to the stakeholders by the end of 2004.
 - b. RESOLVE will work with the working group to plan/host 1-2 meetings in the Pacific Northwest to discuss the results of the Assessment and explore possible future direction.
3. ***Public Comment Analysis***
 - a. MHA will integrate steering committee comments and send the draft to RESOLVE.
 - b. RESOLVE will distribute the draft for final consensus adoption in December.
4. ***Issue Briefs***
 - a. ***Distributing the published documents*** – RESOLVE will send an email with the web link, mail hard copies to identified recipients, and provide press releases/notification the first week of January.
 - b. ***Jurisdiction and Authority for Direct Use*** – NCSL will work with Gordon Bloomquist to complete this brief.
 - c. ***Jurisdiction and Authority for Power Generation*** – RESOLVE will examine the existing budget for funding and explore possible contractors to complete this brief (with the working group) – it was suggested to solicit Laurie McClenahan, MHA Environmental.
5. ***Impediments Document*** – The working group will meet in January (DC) to finalize the document for internal use.
6. ***Future Direction***
 - a. RESOLVE will post the NGC Protocols (revised by the steering committee) on the web and send an announcement email to steering committee members.
 - b. RESOLVE will formulate a future funding plan to submit to DOE based on direction conversations from July and November steering committee meeting.
 - c. RESOLVE will evaluate steering committee membership composition and bring forward a recommendation to group.

DISCUSSION

I. AGENCY COORDINATION EFFORT

1. *CEQ Renewable Energy Development on Public Lands Meeting*

Organized by the White House Task Force on Energy Project Streamlining, the monthly meeting targets Deputy Assistant Secretaries from Departments of Interior, Energy and Agriculture. This meeting was focused on renewables, and included presentations from geothermal, biomass, solar and offshore wind. NGC representatives were Susan Norwood (DOE) and John Bebout (BLM). They believed it was successful, specifically the geothermal presentation which focused on actions the Deputy Assistant Secretaries could take to facilitate geothermal development.

2. *USFS/BLM MOU Effort*

a. *Revisions to CA MOU*

Janine Clayton, Bob Fujimoto (USFS) and Nancy Ketrenos (BLM) met in Portland, Oregon to discuss revising the 1984 California FS/BLM geothermal MOU. The group split the document into a draft implementation guide (the details) and a MOU. The working group will reconvene with the inclusion of John Bebout – BLM to complete revisions to the CA-MOU. Due to FACA, no draft will be distributed to steering committee members until accepted by FS and BLM.

b. *Interviews*

RESOLVE interviewed BLM state directors, deputy directors and program staff about the possibility of one-stop shopping, the California USFS/BLM MOU, a national MOU, barriers to expressions of interest, agency coordination, land use plan updates, and agency coordination. There was strong support for one stop shopping and land use revisions. Of note, the most frequently cited barrier was resources (money and experienced and knowledgeable staff). The most innovative idea was the development of an interagency geothermal SWAT team, deployable to resolve problems as they presented throughout the West.

c. *BLM Strategic Planning Meeting*

Kathleen Rutherford was invited by John Bebout to attend the BLM strategy meeting in Reno (October 19th/20th). She presented updates on NGC activities, the need for BLM engagement, and discussed the panel event and MOU revisions. There was concern about an outside organization working on leasing, on the MOU. Kathleen clarified the NGC is assisting the efforts at the request/direction of the BLM.

II. LAND USE SITUATION ASSESSMENT EFFORT

The situation assessment is a report based on interviews with stakeholders that explore the question of whether, how and under what conditions appropriate geothermal development might transpire in the Pacific Northwest. The working group, comprised of Gordon Bloomquist, Janine Clayton, Karl Gawell, identified 30 stakeholders across three

sectors (industry, consultants, and government) for RESOLVE to interview. RESOLVE interviewed nineteen people from California, Oregon, Washington, and Idaho.

All those interviewed responded that the issue of geothermal development is important, as is a diverse energy portfolio with indigenous resources. Of note, one person made two important distinctions about agencies' *role* (goal is to make lands available) and their *capacity* (knowledge within the agency about geothermal - what is there, how its developed, how its utilized). This person observed that there is much less geothermal capacity at the field level as compared to other natural resources in the Pacific Northwest (e.g. oil and gas, timber).

Responses from sectors interviewed correlated heavily with their professional context. State or federal agencies with minerals jurisdiction focused on policy directions or statutory responsibilities. Environmental/Energy nonprofits recognized geothermal as an important renewable resource. States with Energy Action Plans, Oregon and California, hope that geothermal will be one of the resources that satisfy their respective goals. Utilities believe it is important due to the combined attributes of renewable, high reliability and availability to diversify their mix.

Key Challenges

1. ***Cost/Price*** – geothermal hasn't been cost competitive with other resources. Whether utilities are adequately or fairly addressing value of geothermal compared to other sources of energy is an issue of concern to many. The call is to determine what the real, long term, risk adjusted cost from gas fired combined cycle plants is in comparison to geothermal.
2. ***Power Purchase Agreement (PPA) Conundrum*** – this is a chicken-egg issue. Industry needs PPA's to get financing for exploration and development, utilities want to know the product is identified and will be online by a date certain.
3. ***Siting*** – access to and high potential for land use conflicts on viable locations. Of the known potentially viable sites, most are proximate to or inside of national forests, national monuments, etc. Additionally, many noted that unique to the Pacific Northwest is a culture that is steeped in outdoor recreation and environmental advocacy, stimulating greater scrutiny.
4. ***Transmission*** – lines are at capacity. Renewables are generally remotely located, geothermal definitely is.
5. ***Resource Knowledge*** – called for across all sectors interviewed. Knowledge is seen as extremely limited. Yet to be answered satisfactorily for the utility sector are two key questions: Where is the resource? and Can it be developed?
6. ***Lack of Market/Exploration and Development Synchronization*** – little exploration has occurred in the market vacuum, and some projects licensed only to find no market upon completion (e.g. Newberry)

Interviewees were also asked to discuss solutions to those barriers they identified. The full report will be released to the Steering Committee and interviewees at the end of the year, and meetings will be scheduled to gauge interest in pursuing those identified solutions.

III. PUBLIC COMMENT ANALYSIS DOCUMENT: FIRST CONSENSUS REVIEW

Working group members Charlene Wardlow, Karl Gawell, Alyssa Kagel, Gordon Bloomquist, Dan Schochet and Martin Letourneau met in July and selected MHA Environmental Consulting. Under Laurie Mclenahan's lead, they were selected to review and analyze public comments contained in EIS and permitting documents to discern what categories of interest and sectors got involved and which issues they raised. From this analysis they would design a set of principles for developing effective outreach programs.

In October, the working group reviewed and revised the draft document. The working group recommended this revised draft to the steering committee for consensus review at the November meeting.

Because it is academically rigorous and can be used as a reference, the steering committee found the analysis to be most useful for the outreach principles, and secondly for the summary/overview. The group reorganized the draft accordingly, and worked to create more neutral language in some sections.

There was concern that the Comment Analysis section highlights the negative aspects or misconceptions about geothermal development without links to mitigation. MHA will expand the site descriptions to include information about current operations. This section was moved to the appendix as supporting information for the recommended principles

IV. ISSUE BRIEFS

- 1. Recipients* – In early January, this list will receive an email announcement of the publication of the Issue Briefs and a hard copy in the mail.

RPS Recipients: ♦Legislators/Legislative staff in 13 states (Alaska, Arizona, California, Colorado Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming) ♦Energy legislative aides ♦Members of energy or natural resource committees ♦NCSL's List serve of legislators interested in energy ♦State Energy offices ♦American Public Power Association ♦National Association of Rural Utility Cooperatives ♦National Association of State Energy Offices ♦National Association of State Utility Consumer Advocates ♦National Renewable Energy Laboratory ♦Legislative Librarians ♦Western Governor's Associations ♦Western Interstate Energy Board ♦Geopowering the West state Working Groups

New Recipients: ♦National Association of Regulatory Utility commissioners ♦National Rural Electric Cooperatives Association ♦RNP ♦Northwest Energy Ag Coalition ♦Edison Electric Institute ♦Tribes – CERT ♦Union of Concerned Scientist ♦Sierra Club – Western State offices, and San Francisco ♦Pacific Northwest Economic region ♦Electrical Power Research Institute ♦State Rural Electric Cooperatives – lobbying office ♦Natural Resources Defense Council –

DC & Sacramento ♦Bonneville Power Association ♦Environmental Commissioners of the States ♦American Public Power Association ♦Public Renewables Partnership ♦Public Interest Research Group ♦Environment CO and CA ♦Utility Reform Network

Press Release: ♦GRC magazine ♦Power groups/magazines – Power Magazine ♦Northwest Power Conservation Council ♦Clearing Up ♦Daily Energy Report ♦Megawatt Daily ♦E-Letter (bob Lawrence) ♦Newspapers: La Times, Oregonian, Denver Post, Idaho statesman, Seattle Times, Sacramento Bee ♦High Country News ♦Environmental reporters

2. ***Environmental Brief***

Since the steering committee meeting in July, when almost all documents were finalized as consensus documents, a small working group met three times to discuss unresolved issues in the Environmental Issue Brief. The last meeting of this group, October 14th, was to finalize the document. At the October meeting, and subsequently, concerns were raised that the brief no longer speaks with authority or clarity, and therefore fails to effectively address these important issues. This failure to clearly convey the environmental attributes of geothermal power, as well as the failure to effectively address environmental concerns and the measures by which they are effectively mitigated has rendered the document ineffective. The steering committee agreed to cease working on the environmental brief in its current form and to seek other opportunities to communicate the multifaceted environmental issues in geothermal power.

Possible new document/s focus:

- Positive environmental characteristics
- Factual environmental impacts and possible mitigation measures (including comparisons with natural gas and coal)
- Build off the Public Comment Analysis document to address commonly held environmental issues

3. ***Jurisdiction and Authority Brief (J&A)***

The group discussed discontinuing consensus adoption efforts. They agreed there was educational value to this brief, but that there were differences between jurisdiction and authority for power generation and direct use. The document will be split into a paper on J&A for direct use and one on J&A for power generation (this paper is considered a new paper for the next contract year) and address the complexity of reaching decisions, ownership and status including split estates.

The goal is to educate and understand jurisdiction and authority for permitting a geothermal resource, explaining the regulatory process, including awareness of site specific issues, federal specifics, state and local issues, J&A on all levels within agencies, Tribal, and qualify that the process is on par with other energy resources.

Working group for the J&A Briefs: Janine Clayton-FS, Charlene Wardlow-Calpine, Marilyn Semro-Seattle City Light, Gordon Bloomquist-Washington State University

V. IMPEDIMENTS DOCUMENT

The Impediments Document was begun the first year of the NGC to gather existing published material on federal and tribal lands on the impediments to siting and permitting geothermal development. Since the beginning the working group has re-scoped the document several times. The purpose of the document was to identify documented areas/issues that impede geothermal develop to catalyze activities and establish dialogues with key stakeholders to overcome the obstacles.

Although the document remains in draft form, it has achieved its purpose insofar as informing the NGC work plan formation. Second year activities of the NGC can be traced to the current draft, including agency coordination and the situation assessment in the Northwest. Information from the documents was also included in the back ground information presented at the CEQ Deputies meetings.

The group explored options for the best path forward: to continue along a consensus adoption path, or to use as an internal planning document. The agreement was to cease working toward consensus and the working group will complete the document for internal purposes (to be reviewed by the steering committee).

VI. GEA – ENVIRONMENTAL WHITE PAPER

GEA presented a brief overview of their environmental white paper that gathers the basic information published in three areas: socio-economics, technology and the environment. Articles reviewed in these areas were sourced, relevant and current (maximum five years). The purpose is to dispel myths (a list developed by an advisory group), present geothermal energy in a broader context and present comparisons. The environmental white paper will be put out as a technical resource document for public review. GEA requested the steering committee review the document and provide comments. GEA plans to complete the draft by the end of December.

VII. FUTURE DIRECTION

1. *NGC Protocols - Purpose*

The steering committee reviewed the July meeting discussion on future direction of the NGC and revised the purpose in the NGC Protocols to be in alignment.

2. *Issue Areas*

Using the notes from the July meeting discussion on future direction, steering committee members brainstormed issue areas NGC may pursue in the next two to three years. Steering committee members individually brainstormed ideas and these were thematically grouped.

General Issue Areas

- a. Land Management Policy on federal land (land use) – coordination, communication, problem-solving on conflicting mandates and permitting/leasing - find efficiencies, identify problems, communicate issues to policy-makers
 - o Improve interagency coordination - fix conflicting mandates, streamline permitting/leasing
 - o Improve/Clarify the 106 process (agencies don't have the same processes; and education of tribes) – internally and externally (*Need Advisory Council on Historic Preservation on an NGC working group*)
 - o Develop reports with recommendations – from anecdotal basis (factual) develop solid recommendations
 - o Look into developing a SWAT team that handle permitting leasing issues (knowledge of resource and regulations) – centralization of knowledge
 - o Develop a template for EIS processes – gathering experts, including lawyers –to eliminate duplication (what is the best model, state, regionally, etc)
 - o Coordinate land-use planning
- b. Interagency Coordination – focused conversation and role clarification
- c. Transmission issues – develop consensus transmission principles (*look at NWCC version; need a transmission representative on the NGC working group*).
 - o Develop a situation assessment or scoping report on transmission issues (common aspects and specific issues)
 - o Monitor/offer input to ongoing efforts - there are other groups working on transmission planning process and plans – develop a working group to monitor and input the planning efforts
 - o Monitor/offer input/coordinate National activities on transmission – ex. NCSL sample legislation (maybe a point person on this, find the transmission club and join)
- d. Northwest Efforts (continue) – work with the GPW working group
- e. Tribal – develop a document about the issues; internal agency confusion on the process (better to go together, not separate agencies, representing the US to the sovereign nations)
- f. State Level – working with SWGs on state level issues
 - o Present the Situation Assessment to state working groups
 - o NGC land managers coordinate with state level person
 - o Interface, help raise state issues to national level

VIII. POSSIBLE FUTURE DOCUMENTS

Throughout the meeting the steering committee presented several possible future documents:

1. Perceived versus actual impacts – identify the issues of concern prior to operation, then after operations began - what were the *actual* impacts of those initial concerns (issues, monitoring, mitigation measures, etc).
2. Success stories following the EIS/Permitting phase
3. Common comments (concerns) and the rules, regulations, or laws that govern those issues (using the Comment Analysis section of the draft document)
4. Master impact analysis template – including the major issues and standard mitigation measures