

**PROCEEDINGS**  
**National Geothermal Collaborative**  
**Geothermal Leasing Panel**  
**November 17, 2004**  
**Sacramento, California**

**In Attendance:**

Brenda Aird – Department of Interior  
John Bebout – Bureau of Land Management  
Jennie Bricker – Stoel Rives  
Linda Campion – CA Division of O&G and Mineral Resources  
Dwight Carey – Environmental Management Associates  
Anna Carter – Geothermal Education Office  
Janine Clayton – USDA – Forest Service  
Ted Clutter – Geothermal Resource Council  
Rich Estabrook – Bureau of Land Management-CA

Bob Fujimoto – USDA-Forest Service  
Karl Gawell – Geothermal Energy Association  
Rich Hoops – Bureau of Land Management-NV  
Liz Johnson – CA Division of O&G and Mineral Resources  
Alyssa kagel – Geothermal Energy Association  
Jack Lewis – Bureau of Land Management-NV  
David McClain – McClain & Associates  
Laurie McClenahan – MHA Environmental  
Roy Mink – Department of Energy  
Shuman Moore – Empire Energy  
Charlene Wardlow - Calpine

**BACKGROUND**

The Geothermal Leasing Panel event provided an opportunity for federal agency representatives and consultants to share information about recent successes and ongoing challenges to geothermal leasing and discuss potential solutions to those challenges. Recent legislation qualifies geothermal development for a production tax credit (PTC) that is expected to encourage new leasing applications. Because there has been little geothermal development on federal lands in the last decade, there are a number of challenges that will need to be addressed to ensure successful lease processing. This was the first of what may become a series of meetings/problem-solving sessions to enable field informed discussions on how best to move forward, by identifying recent successes, ongoing challenges, and potential solutions.

The National Geothermal Collaborative (NGC) sponsored the event as part of its ongoing effort to provide support for increased agency coordination, information sharing and problem-solving. Formed in 2002 to identify issues that impede the use of geothermal power, establish dialogues among key stakeholders and catalyze problem-solving activities, the NGC is a consensus-based collaborative. We engage experts in working groups, and are directed by a Steering Committee whose membership to date includes representation from investor and publicly owned utilities, academia, National Conference of State Legislatures, White House Task Force on Energy Project Streamlining, Western Resource Advocates, Center for Energy Efficiency and Renewable Technologies, Council of Energy Resource Tribes, Geothermal Resource Council, Geothermal Energy Association, and Bureau of Land Management, Forest Service and DOE Energy Efficiency and Renewable Energy.

**OBJECTIVE**

The objective of this event was to begin to outline key elements or attributes of success and challenges to geothermal leasing, as well as identify and begin to explore innovative solutions to overcome those challenges.

**WELCOME**

## Geothermal Leasing Panel: Proceedings

John Bebout, BLM Geothermal Program Lead, welcomed participants and set the stage for meeting. Mr. Bebout discussed resource allocation challenges while conducting a war on two fronts: the war on terrorism and building homeland security. With respect to homeland security, Mr. Bebout discussed the need to alleviate reliance on foreign sources to supply the country's energy needs. This could be accomplished through the use of indigenous resources, particularly renewables. In order to focus more on renewable resources it is important to work together, to ensure the same level of priority across agencies, to understand the limitations of each agency and to recognize the concerns from all perspectives – agencies, public and tribes. Mr. Bebout identified education as a critical component; to help people understand geothermal resources, how they are managed and the true impacts, and its usefulness as part of an energy portfolio. Education also includes sharing best practices between agencies.

### **PANEL PRESENTATIONS**

Panelists included two state BLM representatives, Regions Six and Nine of the Forest Service, and three consultants that work with the geothermal industry and are experienced with leasing issues. Their purpose was to begin to outline key elements or attributes of success and challenges to geothermal leasing, as well as to explore innovative suggestions to overcome those challenges.

#### ***Agency Panel (Rich Hoops, BLM Nevada; Rich Estabrook, BLM CA; Bob Fujimoto, USFS Region VI)***

***Successes***  
Rich Hoops' (BLM-Nevada) addressed the conditions for Nevada's recent success issuing geothermal lease applications. Fundamental to their success were two key conditions- a Congressional line item allocation, and management demonstrating their commitment to geothermal as a priority through staff dedication and funding.

#### ***Challenges***

Rich Estabrook (BLM-CA) presented California's recent challenges with pending lease applications in Southern California. These included high costs and long time frames associated with completing adequate pre-lease NEPA documentation (conservatively, an EIS may cost \$600,000 and take two years to complete. Most of the lease applications in California are within the California Desert Conservation Area, which raises the visibility of leasing and, therefore, would require an EIS before leasing could occur). It is anticipated that two EIS's would be needed to cover the high priority lease application areas. Another challenge is a lack of committed staff to process and manage leases (often staff is pulled off for litigation defense activities), lack of geothermal specific funding, and the expectation of litigation.

Bob Fujimoto (USFS-Region VI) spoke to the challenges associated with a higher level of scrutiny applied to environmental impacts in the Pacific Northwest than elsewhere in the country, costs of NEPA documentation and the time required for forest plan revisions or amendments that include geothermal. He mentioned it was important to produce results from exploration to development.

#### ***Consultant Panel (Dwight Carey, Environmental Management Associates; Jennie Bricker, Stoel Rives, LLP; Laurie McClenahan, MHA Environmental Consulting)***

Dwight Carey discussed the need to have leasing grant the rights *through* development and for industry to advocate for geothermal inclusion in land use plans. He suggested royalties be returned to the agencies completing the work to support geothermal staff.

Jennie Bricker spoke about fragmented ownership and the need for a simple leasing process. She defined success to be when the client generates electricity. Ms. Bricker's also addressed the effectiveness of early and sustained public education/awareness of geothermal resources in order to increase the public's comfort level.

## Geothermal Leasing Panel: Proceedings

Laurie McClenahan addressed the possibility of preparing a prototype geothermal leasing document to create efficiencies where possible, e.g. known standard impacts and mitigation measures. She noted that she's not in favor of programmatic EISs for leasing because of the redundant analysis when site-specific proposals are made. A leasing document should address more activities than leasing (for example, potential exploration well pad sites and a power plant site could be identified and addressed). Site specific MOUs (developed with local agency staff) are valuable to streamline permitting in areas with multiple jurisdictions. The lack of power purchase agreements (PPA) is also key impediments to geothermal development (need the PPA to get financing to explore a resource, need to know resource capacity to acquire a PPA).

### **PARTICIPANT DISCUSSION**

Following the panel presentation conversation was opened up to all. Participants reviewed and confirmed the list of challenges and possible solutions generated from the panel presentations

#### ***Challenges***

Participants included federal agencies (BLM, FS, DOI, DOE), a state agency (California division of Oil and Gas and Mineral Resources), industry associations (GEA, GRC) and industry (Calpine, Empire). Discussion began by verifying and then expanded the list of challenges captured from the panelists' presentations. Follow is the list of challenges identified:

- **Review Processes - Inefficiencies and costs**
  - The cost to conduct the EIS documentation for California's three pending leases would be \$1.5 million (Deep Rose, Truckhaven and Superstition Mountain); to justify spending the money, the return on the resource needs to be substantial
  - Cultural and historic Issues (NV, hot springs)
  - Threatened and Endangered Species/Endangered Species Act – sage grouse habitat
  - Pre-Lease Dilemma – Company's are reluctant to pay without assurances for development
  - Cost of NEPA – in the Pacific Northwest a high degree of adequacy is necessary (spotted owl) because it will be subject to higher level of public scrutiny than elsewhere in the Country.
  - Interagency comments come late in the process
  - Agencies lose money in processing applications
  - Environmental opposition
  - Don't know how to move forward with EA/EIS economically
- **Agency Planning Documents - Lack of inclusion and conflicts with other land use documents**
  - Integration of USGS, assistance in land use plans - USGS has to be paid to provide data (contract)
- **Resources - Lack of Staffing:**
  - Not enough experienced staff to handle increase in applications
  - Not enough dedicated staff to focus on development, current staff is allocated to litigation efforts
- **Public Involvement – Ineffective and costly (time and money)**
- **Consistency of agency capacity/knowledge**
- **Ownership**
  - Patchwork/checkerboard ownership (state, federal, and private)
  - Fragmented ownership/leaseholds
- **Transmission issues**
  - Land ownership – checkerboard

## Geothermal Leasing Panel: Proceedings

- Right of Ways – add capacity analysis
- **PUC can Stop the Process**
- **Appeals processes differ between agencies**

### ***Possible Solutions***

Participants began by reviewing the panelist's suggested solutions and then developed others to address the challenges discussed. From this list participants prioritized a few key solution areas and discussed possible implementation needs for one. The following is the expanded list of possible solutions:

#### ➤ **Increase Efficiency in Environmental Review Processes**

- Clarification of congressional intent for NEPA
- Forest Plan revisions that include all energy resources (a strategy would be to tie geothermal with oil and gas)
- Make plans eligible for leasing decision documents
- Programmatic EIS – the programmatic EIS for wind drove land management plan revision with DOE funding *How to focus spending – vis a vis NEPA inadequacy (prelease)*
- Produce one environmental document – a NEPA template that identifies common issues and impacts, outline the known effect and usual mitigation, then apply those to different environments (site specific tailoring), and include the universal public concerns
- Update Land Use plans to include geothermal
  - Plan Updates – time sensitive vis a vis energy potential (BLM prioritized planning cycle in synch with national energy policy)
  - Prioritize revision to land use plans where there is high geothermal potential
  - Utilize area wide conservation plans – California Desert Conservation Area plan
  - Agency and Industry advocate for geothermal in land use plan development (*easier to complete a land use amendment*)
- Budget for lease management - to look beyond lease issuance
- Rewrite regulations if geothermal steam act amendments are passed
- Clarify “lease position” – if a company has a pending lease what right do they have

#### ➤ **Program Resources – royalty return/cost recovery**

- Money and resources - Increase program budgets to field offices for lease management (beyond issuance to operations)
- Return royalty money to agencies to fund lease management

#### ➤ **Effective Public involvement**

- Early and frequent communication between proponents and agencies
- Effective Public Involvement
  - Community advisory groups for a project
  - Early (pre-lease) stakeholder identification and analysis
  - Education of effects/impacts and stories/examples of real outcomes
- Consistent and sustained geothermal education (*cost/inefficient*)
- Increase the level of public comfort with geothermal development

#### ➤ **Agency capacity/knowledge and interagency collaboration**

- Project Specific MOUs (where there are multiple jurisdictions)

## Geothermal Leasing Panel: Proceedings

- Standardization of information (best practices, procedures, measurement and decision processes) – BLM/FS, BLM-CA/BLM-NV
- Effective interagency consultation and coordination – especially with plan revisions
  
- Industry advocates for completion of leasing decisions
- A sense of urgency is needed from industry to issue leases

Following the discussion of possible solutions participants focused on one priority solution:

### **INCREASING EFFICIENCIES IN ENVIRONMENTAL REVIEW PROCESS**

Participants discussed how to increase efficiencies in the environmental review process, including what was already being done and suggested the following:

- Prioritize land use plan revisions
  - USFS completed plan revision and did not factor for geothermal
  - BLM prioritized resource management plan revisions with the energy policy and geothermal did not factor
  - Plan amendments – FS has no resources for minerals
- Standardize a NEPA template/framework – outline impacts and usual mitigation, to be used as a guide and tailored for each site’s unique aspects
- Increase information sharing – including where the resource is located (INEEL map) and seek out everyone at scoping
- Appeals process – USFS is quick, BLM is not
  - Take NEPA out of IBLA process
  - CEQ adopt admin appeals process (just procedural)
- Bring an USGS representative onto the NGC
- Increase Education for:
  - Industry
  - Agency – (currently there is a self-study CD on minerals process/procedure for geothermal leasing/development)
  - Tribes (particularly on section 106 process)
  - Public – including energy literacy

The participants focused in on one these suggestions and began to develop potential implementation strategies.

**STANDARDIZED NEPA TEMPLATE/Framework** – this would outline common impacts and concerns and the usual mitigation measures taken (from inception through development)

To complete a framework outlining impacts and mitigation:

- Develop a joint BLM/FS/DOE effort to produce and review the framework
- Establish a “SWAT team” – a team of knowledgeable, experienced agency representatives (across agencies)
- Encourage approval and support on a national level; although not necessary for authorization to use the document in the field.

### **NEXT STEPS**

## Geothermal Leasing Panel: Proceedings

RESOLVE will distribute the proceedings from this event to participants and the NGC steering committee. Following the event, the NGC will explore the interest and usefulness of reconvening a similar meeting to discuss pursuing some of the solutions proposed.