

Coordinating Permit Offices and the Development of Utility-Scale Geothermal Energy



2013 Geothermal Resources Council Annual Meeting

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October 1, 2013
Las Vegas, Nevada

NREL/PR-6A20-60276

Overview

1. Background and other Analysis
2. Specific Coordinating Permit Office Examples
3. Conclusions—Successful Strategies, Best Practices, Challenges

Background

2011 Islandbanki Report

- Report stated on average developing a geothermal power plant takes five to seven years.

2011 Blue Ribbon Panel Recommendations Report

- Identified inefficiency and length of time in permitting process as a concern in geothermal development.

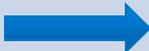
Geothermal Regulatory Roadmap (GRR)

- March 2012 United States Department of Energy initiated the GRR to facilitate the permitting and regulatory process for geothermal development.
- GRR team collected recommendations to combat inefficiency and length of time in permitting process.

Background

Examples of Concerns Raised by Industry and Agencies

Raised during the GRR process and meetings

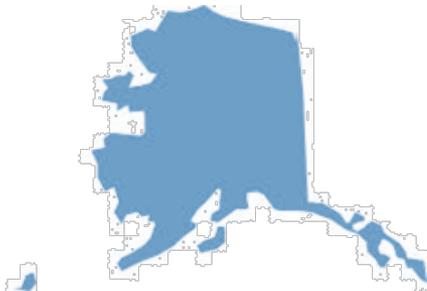
| Concerns | FY13 Analyses |
|--|--|
| Long and numerous NEPA processes | <p>NEPA Database and Analysis <i>Side Meeting (no GRC Registration required)</i> <i>Tuesday, October 1, 9-noon</i> <i>Rm 117, Grand Ballroom</i></p> |
| Competing agency priorities and budgets | <p>Review of Federal Geothermal Funding Mechanisms <i>Tuesday, October 1, 1:50</i> <i>Policy/Market Analysis/Utility Session (Rm 123)</i></p> |
| <p>Unrealistic expectations/uncertain timeframes</p> <p>Lack of agency interaction</p> | <p>Coordinating Permit Offices Coordinating permit offices help to facilitate approvals between the developer and government agencies and set timelines for the process.</p> <p> THIS ANALYSIS</p> |

Coordinated Approaches Reviewed In Detail



Hawaii Department of Business, Economic Development and Tourism (DBEDT)

- Renewable energy projects
- Power Production only



Alaska Department of Natural Resources (DNR) Office of Project Management and Permitting (OPMP)

- Large project coordination
- No specific limitations



Bureau of Land Management

- Oil and gas projects on BLM-administered public lands
- Within the territorial jurisdiction of specific statutorily designated offices

Hawaii Highlights

Creation

- Hawaii State Legislature
- Hawaii Revised Statutes 201N creates the Renewable Energy Facility Siting Process (REFSP)

Funding

- Developer pays all fees associated with the REFSP
- DBEDT still in process of determining developer fees
- Renewable Energy Facilitator funded through EREFS tax

Eligibility

- Renewable energy projects eligible (includes geothermal power)
- 200 MWe automatically eligible to enter the REFSP
- 5-199 Mwe eligible to enter the REFSP at DBEDT's discretion

Oversight

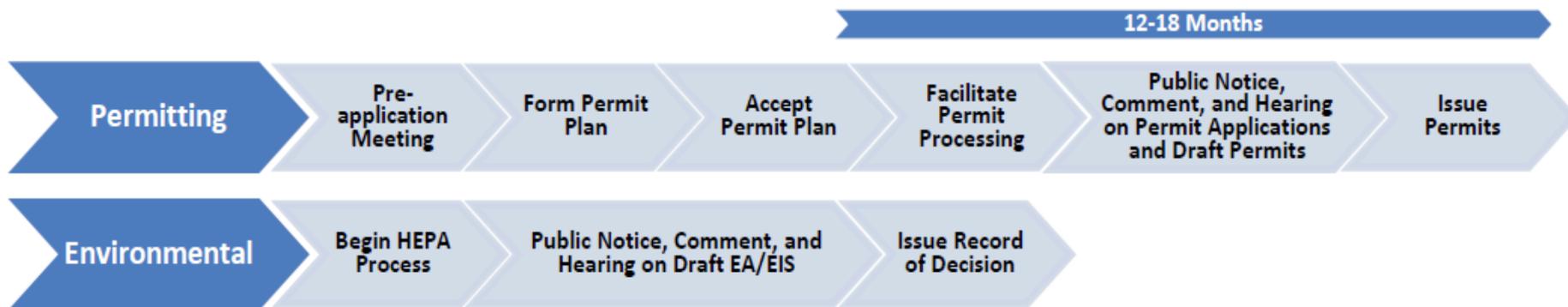
- DBEDT Director acts as Energy Resources Coordinator
- Coordinator designates Renewable Energy Facilitator

Timeframes

- Current average permitting time for solar and wind: 2 to 4 years to complete
- REFSP goal : 1 to 2 years to complete power plant permitting
- REFSP ensures all permits issued or denied within 18 months of acceptance of permit plan application (goal of <12 months)

Hawaii HEPA and Permitting Timeline

Timeline for Hawaii Environmental Policy Act (HEPA) and State Permitting Processes



- The Hawaii Renewable Energy Facility Siting Process (REFSP) partially overlaps with the Hawaii environmental review process (Hawaii Revised Statutes, Chapter 343).
- The Department of Business, Economic Development, and Tourism (DBEDT) will begin considering the developer for the REFSP and initiate the permitting process before or during the environmental review process, but by statute cannot accept the permit plan until the environmental review process is complete.
- DBEDT will conduct agency outreach and coordination to discuss federal, state, and county permits required for the project at the earliest practicable time.

Hawaii Highlights (Continued)

Mitigation of Inefficiencies

- DBEDT consolidates public hearings required for federal, state, and county permits onto project island at or around the same time.
- DBEDT identifies agencies with duplicate data and information requirements and negotiates an agreed upon submittal format.
- DBEDT creates a permit plan to concurrently process permits.

Hawaii Highlights (Continued)

Adaptability to Utility-Scale Geothermal Development: Is geothermal development compatible with the REFSP?

- If EIS covers exploration drilling and facility development—yes, REFSP can cover whole project.
- If separate environmental review for exploration drilling—no, REFSP not available for exploration phase because the REFSP is based on power production.

Alaska Highlights

Creation

- Alaska State Legislature–Alaska Land Act (AS 38.05.020(b)(9)) - Large Project Coordination (LPC)
- DNR commissioner to “lead and coordinate all matters relating to the state’s review and authorization of resource development projects.”

Funding

- Developer pays all project specific fees
- DNR OPMP and developer negotiate MOU for costs of LPC

Eligibility

- No specific eligibility requirements to enter LPC
- Generally large and capital intensive projects

Oversight

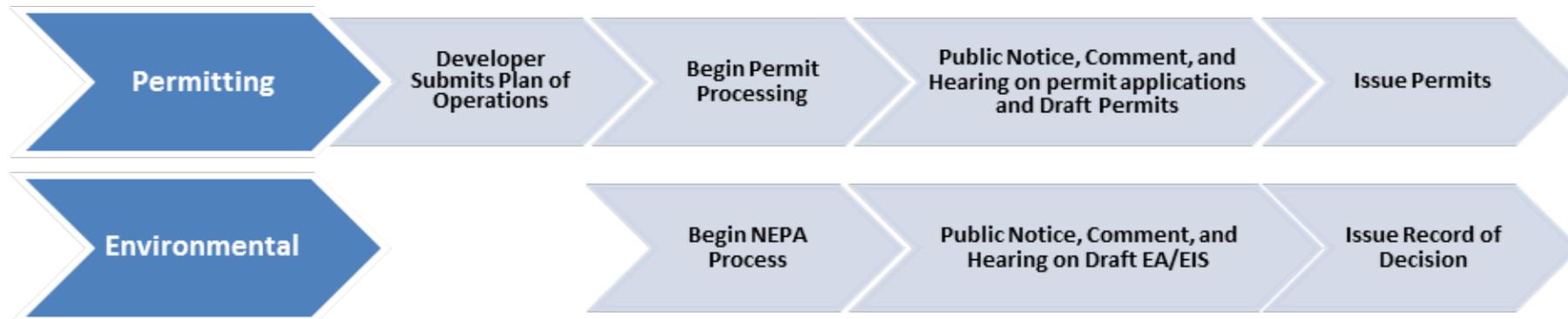
- DNR Commissioner has statutory authority to oversee LPC
- Director of OPMP oversees day to day operation of LPC

Timeframes

- Projects generally take longer with using LPC to coordinate, but specific timeframes were not available
- OPMP establishes permitting timelines for projects completing LPC on a case-by-case basis

Alaska NEPA and Permitting Timeline

Timeline for NEPA and Alaska State Permitting Processes



- The Alaska Large Project Coordination process integrates the NEPA process with the state permitting process.
- Typically, the draft permit notice, comment, and hearing is aligned with the EA/EIS notice, comment, and hearing process.
- By integrating the two processes, Alaskan agencies are prepared to issue state permits when the lead federal agency issues the record of decision.

Alaska Highlights (Continued)

Mitigation of Inefficiencies

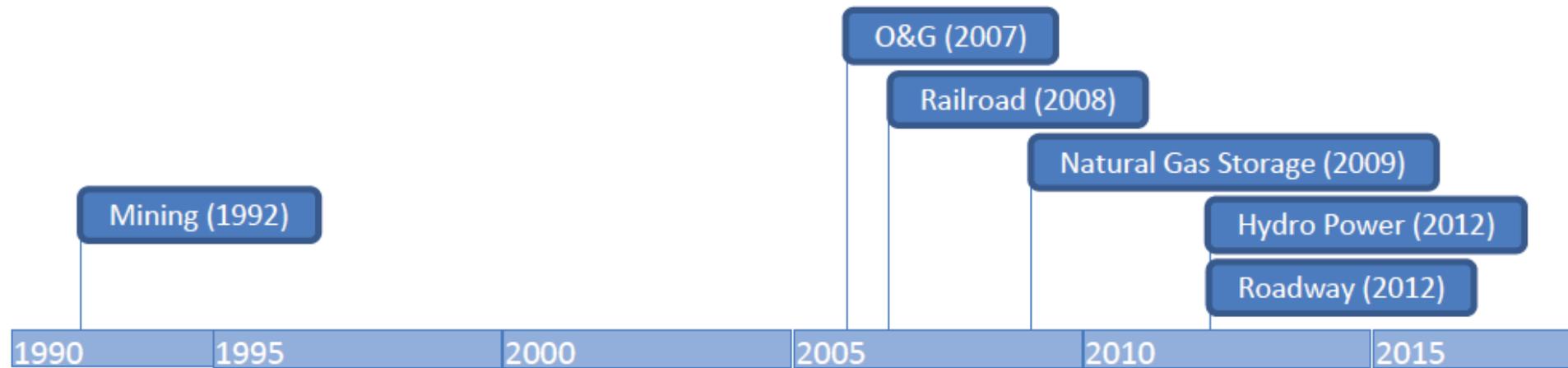
- Large project coordinator consolidates public notice, comment, and hearing for state permits to occur during the NEPA public notice, comment, and hearing period.
- Large project coordinator develops a single plan of operations/development, which allows developer to complete one financial assurance agreement and/or reclamation plan for entire project.
- Developer submits all study data and information to the large project coordinator to distribute to applicable agencies.
- Large project coordinator helps establish roles between federal, state, and local agencies.

Alaska Highlights (Continued)

Adaptability to Utility-Scale Geothermal Development

- Large Project Coordination appears adaptable to multi-layer environmental review process.
- Alaska's statutory scheme is flexible, OPMP has a lot of discretion in implementing Large Project Coordination.

Timeline of Alaska Large Project Coordination



- The Alaska LPC has expanded over the last 20 years to include a diverse group of natural resource projects.
- LPC expansion has been predicated on industry requests to use the streamlined process.
- The increase in project types by industry request, despite additional developer costs, suggests that industry has recognized this coordinated process as being a more efficient way of obtaining the required permits.

BLM Highlights

Creation

- United States Congress
- Energy Policy Act of 2005 section 365 established the Federal Permit Streamlining Pilot Project

Funding

- EAct 2005 section 365 establishes BLM Permit Process Improvement Fund
- Secretary of Treasury must deposit 50% of any rentals received from oil and gas leases (other than Alaska) on or after the enactment of EAct 2005

Eligibility

- Oil and gas projects on BLM-administered public lands
- Project must be within territorial jurisdiction of seven BLM pilot project offices (locations in CO, MT, NM, WY, and UT)

Oversight

- Secretary of the Interior
- BLM field managers within each pilot office

Timeframes

- 2008 BLM report stated that the average APD approval timeframe increased 64 days from before the pilot project started (BLM stated complex PODs, land use decisions, and NEPA actions caused increase)
- NEPA time decreased from 81 to 61 days

BLM Highlights (Continued)

Mitigation of Inefficiencies

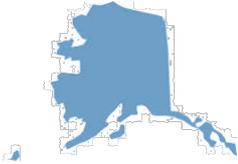
- BLM reduced duplication through better coordination between state and federal agencies.
- BLM established working relationships with state historical preservation offices as well as natural resource, environmental, and oil and gas agencies.
- BLM reached data sharing agreements through MOUs.
- BLM Improved interagency consultations
 - BLM and United States Fish and Wildlife Service work together on Endangered Species Act Section 7 consultations

BLM Highlights (Continued)

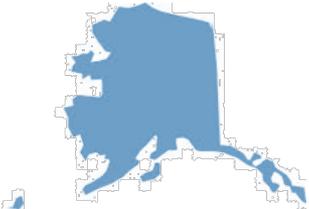
Adaptability to Utility-Scale Geothermal Development

- Pilot project is only for oil and gas development
- Conceptually the use of data sharing agreements between federal and state agencies, co-location of federal personnel, and state-federal partnerships in developing single environmental review documents are all adaptable to geothermal development.
- BLM Renewable Energy Offices can employ many of the same techniques as the pilot project offices.

Coordinating Permit Offices - Summary

| Jurisdiction | Year Started | Authorization | Geothermal Tested |
|---|--------------|--|-------------------|
| Hawai'i  | 2008 | 14 statutory sections 19 sections of administrative rules | Not yet |
| Alaska  | Early 1990s | 1 line within one section of the statute for guidance. | Not yet |
| BLM  | 2005 | 1 section in EPAct 2005 | Not applicable |

Coordinating Permit Offices - Summary

| Jurisdiction | Challenges to Implementation | Key Successful Strategies |
|---|--|---|
| <p>Hawai'i</p>  | <ul style="list-style-type: none"> • Less flexibility in implementing the approach due to extensive and detailed statues and rules • Appears to be targeted and wind and solar development | <ul style="list-style-type: none"> • Provide a central point of contact for developer to ask project questions |
| <p>Alaska</p>  | <ul style="list-style-type: none"> • Establishing roles between local jurisdictions and state agencies (Alaska has addressed this through monthly teleconferences and quarterly meetings) | <ul style="list-style-type: none"> • Flexibility in implementing the approach (i.e., less statutory requirements for the approach) • Less dependence on a final environmental review for information sharing and permit coordination • Coordination of all public comment and review periods |
| <p>BLM</p>  | <ul style="list-style-type: none"> • Not applicable to geothermal | <ul style="list-style-type: none"> • State and federal partnerships developed through memorandum of understanding to define roles and share data and/or developer information. |

Coordinating Permit Offices—Lessons Learned

Key Successful Strategies

- Flexibility in implementing the approach (i.e., less statutory requirements for the approach)
- Less dependence on a final environmental review for information sharing and permit coordination
- State and federal partnerships developed through memorandum of understanding to define roles and share data and/or developer information.

Best Practices Identified

- Provide a central point of contact for developer to ask project questions
- Schedule pre-application meetings with the coordinating permit office
- Mitigate duplication of information, effort, and public involvement
- Establish permit schedule or timeline to set expectations, process in parallel, and provide certainty.

Challenges to Implementation

- Funding: either developer fees and/or government funding
- Transferring of funds between state agencies for services rendered
- Federal and state cooperation: negotiating MOUs to guarantee buy-in
- Adaptability of coordinating permit offices to state and/or federal environmental review process.

THANK YOU!



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Thomas Crafford, Alaska Department of Natural Resources, Office of Project Management and Permitting