U.S. Department of the Interior Bureau of Land Management

BLM Idaho Geothermal Program Overview

Blue Mountain Geothermal Power Plant Flow Test, Nevada. *Photo used with permission. 2010-2012*.

Idaho Geothermal Leases Supports the Administration's Priorities

- Executive Order 14154 Unleashing American Energy
- Executive Order 14156 Declaring a National Energy Emergency
- <u>Secretarial Order 3417</u> Addressing the National Energy Emergency
- <u>Secretarial Order 3418</u> Unleashing American Energy Secretarial Order 3419 - Delivering Emergency Price Relief for American Families and Defeating the Cost-of-Living Crisis

BLM Idaho geothermal lease sales:

- Support domestic energy production Benefit Idaho taxpayers Financially boost local Idaho economies



What is Geothermal Energy?



Source: Department of Energy

Conventional Geothermal

- Requires heat, fluid, and permeability (fluid can move through the ground)
- Hot water brought to the surface and converted to steam
- Steam turns turbines generating power
- Water is returned underground and reheated
- Sustainable

What is Geothermal Energy?

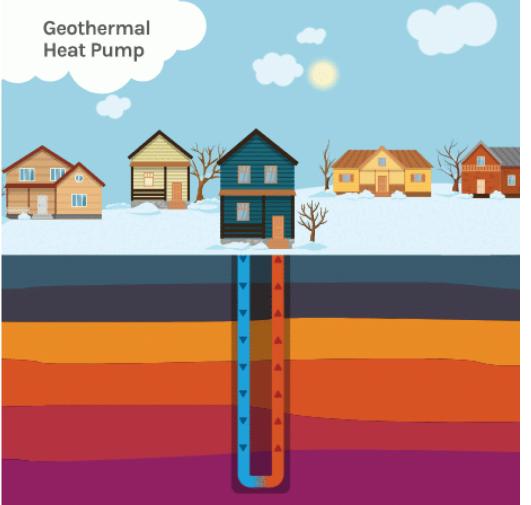


Unconventional

- Requires heat, but may not have: fluid and/or and permeability (fluid can move through ground)
- Fluid (water) is brought into the system and/or
- Permeability is introduced artificially.



What is Geothermal Energy?



Direct Use

- Where heat, fluid, and permeability all exist, but near surface
- Just like conventional geothermal energy, the hot water is used to heat or provide energy
- One example is the Idaho State Capital: the only state capital that is heated by geothermal energy

Photo courtesy: Department of Energy

What does Geothermal Look Like?

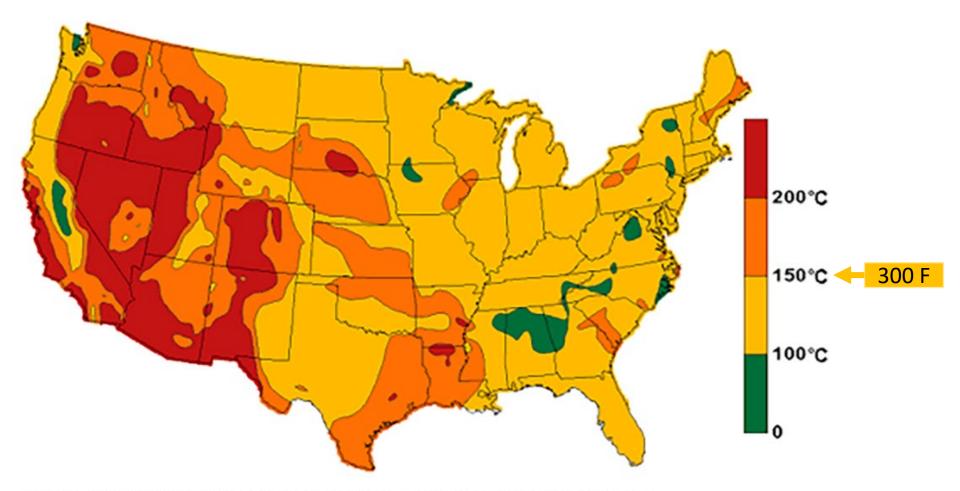


Photo courtesy: ORMAT. Steamboat Power Plant

- 1. Puna Geothermal Plant, Puna, HI
- San Emidio Power Plant, Washoe Co., NV
- McGinness Hills Geothermal Complex, Lander Co., NV
- 4. Salton SeaGeothermal Well,CA

Where is Geothermal Possible?

Geothermal resources of the United States



Source: U.S. Department of Energy, Office of Energy Efficiency & Renewable Energy (public domain)

How Does a Land Use Plan Affect Geothermal Leasing?

- Resource Management Plans (RMPs) or Management Framework Plans (MFPs) guide all land use decisions, including geothermal leasing.
- RMPs identify lands as
 - Open
 - Open with lease stipulations, or
 - Closed to leasing.
- Stipulation examples: No Surface Occupancy (NSO), No surface disturbing activities within x miles of raptor nests.



Photo courtesy: Jim Shane, BLM

How Does a Land Use Plan Affect Geothermal Leasing?

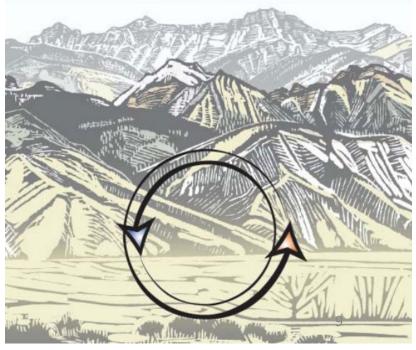
2008 Geothermal Programmatic Environmental Impact Statement (PEIS) and Plan Amendment

- This document is foundational for determining land management decisions for geothermal leasing
- These guiding documents determine where and how we authorize land use (open or closed to geothermal for example, or open with stipulations)

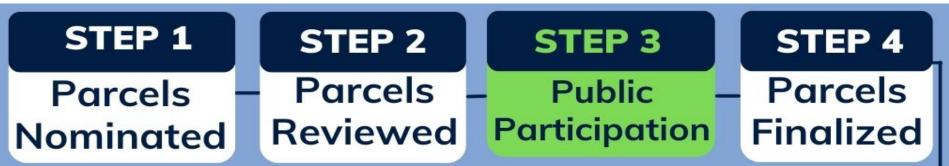
Programmatic Environmental Impact Statement for

Geothermal Leasing in the Western United States

Volume I: Programmatic Analysis October 2008



Geothermal Leasing Process



STEP 7		STEP 6	STEP 5
Lease Sale		Decision otification	Lease Sale Notification
STEP 8		STEP 9	STEP 10
Lease Sale Results	-	Leases	 Site-Specific Analysis

Where Does the Money Go?

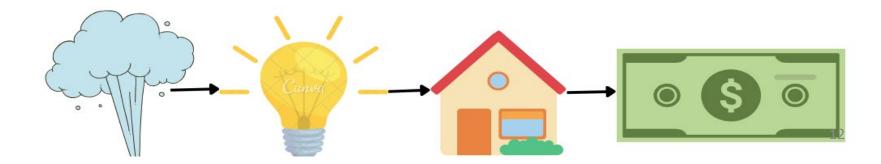
State of Idaho 50% (10% of which goes to counties to fund roads and schools)

Counties 25%

U.S. Treasury 25%

Geothermal Leasing Taxpayer Benefits

- Geothermal is a sustainable energy source
- In 2023, generated 10.2 million megawatt hours (MW/h)
 o 1 MW/h powers 500-1,000 homes for 1 hour
 o DOI-managed lands power 930,000 homes per year
- FY 2024: > \$20.6 million in revenue
- FY 2021: 7,400 jobs; \$1.5 billion in economic boost



What Happens After Lease is Issued?

- Lessee Rights & Responsibilities:
 - o Primary Lease term: 10 years (extensions possible with diligent exploration)
 - o Production Lease Extension up to 35 years if producing geothermal energy (extensions possible)
 - o Pay fees, comply with terms of lease or other applicable law
 o Responsible for reclamation
- Next Steps for Development:
 - o Site-specific permitting & NEPA review before drilling
 - o BLM oversees compliance throughout the lease term

Bonding & Reclamation Requirements

Every operator must hold:

- A reclamation bond
 - The operator must either reclaim the land back to its original use, or
 Forfeit the bond
- A performance bond
 - The operator must either meet the requirements of their lease, or
 - \odot Forfeit their bond



Photo courtesy: USDA Forest Service

Idaho Geothermal Nominations

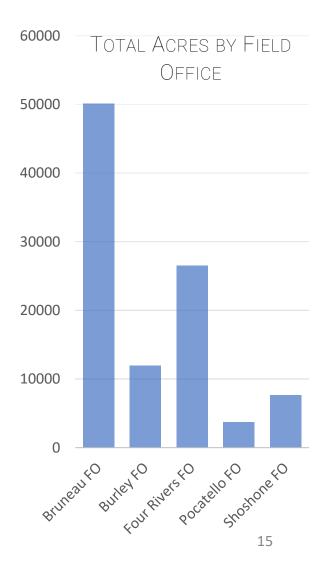
Geothermal leasing nominations received within boundaries of field offices:

- –Four Rivers –Burley
- -Pocatello

– Bruneau – Shoshone

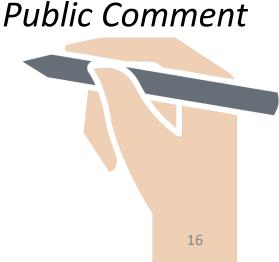
2025 Lease sales: Fall and Winter

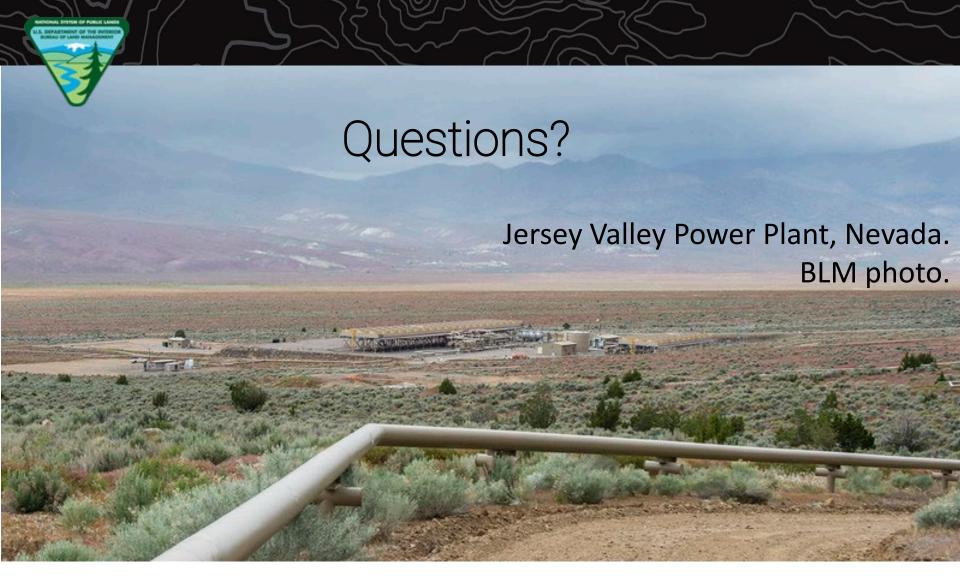
Follow <u>https://ow.ly/T8fL50VB8kU</u> for geothermal leasing updates



How Can I Participate?

- Field Office completes NEPA review includes public participation period
- Public participation period for parcels within the boundaries of Four Rivers and Pocatello field offices starts tomorrow (April 18)
- To provide feedback please visit our website for more information: <u>https://ow.ly/T8fL50VB8kU</u>.





Visit Idaho Geothermal Energy website for information: <u>https://ow.ly/T8fL50VB8kU</u>