



# GEOTHERMAL RISING POLICY

## POWERING OUR RENEWABLE FUTURE.

Answers for Rep. Dingell from Dr. Bryant Jones, Executive Director, Geothermal Rising.

1. Dr. Jones, Department of the Interior has a goal of licensing 25,000 MW of renewables on public lands by 2025. How could next-generation geothermal energy help DOI achieve these goals?

Geothermal energy has several unique characteristics that set it apart as a clear “winner” to achieve DOI renewable energy goals.

- Unlike intermittent renewables, geothermal provides 24/7 baseload power, contributing to grid stability and reliability.
- Geothermal plants have a small footprint, allowing for significant power generation with minimal land disruption, making them ideal for public lands.
- Geothermal energy has the smallest environmental footprint of all energy technologies, including wind and solar, according to the National Renewable Energy Laboratory.
- Next-generation geothermal technologies can access deeper, hotter resources more efficiently, increasing the potential power output per project and the geological range of geothermal projects. I.e., next generation projects can be deployed virtually “anywhere” and not be constrained to where conventional hydrothermal geothermal resources are easily accessible.
- Geothermal energy's low carbon footprint aligns with DOI's sustainability goals, providing a clean energy source while preserving natural landscapes. Geothermal energy has the lowest lifecycle greenhouse gas emissions of all renewable energy technologies, according to the National Renewable Energy Laboratory.

2. Dr. Jones, deploying a significant amount of new geothermal projects on federal land will take collaboration and innovation. Just this fall, leaders from several industries and agencies, including federal, state, and local governments, came together to celebrate the groundbreaking of the Fervo Energy Cape Modern Geothermal Exploration Project in Beaver County, Utah. Mr. Jones, could you please tell us more about how your members are working with public lands managers to ensure there is community engagement and smart siting for geothermal projects.

The Fervo Energy Cape Modern Geothermal Exploration Project in Beaver County, Utah, is indeed an excellent example of the collaborative efforts needed to deploy new geothermal projects on federal lands successfully – however, the permitting and tenure process was more arduous than necessary. It is a partnership between Google, Fervo, and Cyrq Energy, another geothermal developer with geothermal power plants and geothermal direct use systems in New Mexico, Utah, Nevada, and Oregon.

Other examples of geothermal developers working to enhance grid reliability within a geothermal facility footprint include Calpine's development projects at The Geysers. The projects include a 25 MW North



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Geysers geothermal incremental development, two energy storage installations on repurposed geothermal sites totaling 38 MWs, and Calpine's partnership with Greenfire Energy to test a closed-loop geothermal system in conjunction with a California Energy Commission grant. Calpine continues to explore new geothermal technologies that will enhance its geothermal output and efficiency at the Geysers. Yet another example is Eavor Technologies testing closed-loop geothermal drilling technologies at Cyrq Energy's Lightning Dock power plant in New Mexico. Eavor successfully drilled and completed the deepest closed-loop geothermal well.

In general, our members have had to be extremely patient in their efforts to get boots on the ground and projects started, contributing to undue stress, cost, uncertainties, and added risks. Our members are passionate about geothermal and willing to take such risks because they care about the environment and are seeking to do their part to draw down the climate crisis. The geothermal community is not seeking to skirt environmental law, but advocating that environmental adherence processes can be streamlined significantly. To aid our national environmental goals and interests, it is critical that emission-reducing and environmentally low-impact clean energy projects are not unnecessarily (and ironically) stalled in the name of environmentalism.

Our members prioritize community engagement, ensuring local stakeholders are involved and informed throughout the project lifecycle. This involves public meetings, transparent communication, and addressing local concerns and interests. Geothermal Rising members also focus on smart siting practices. This includes identifying locations with minimal environmental impact, high geothermal potential, and community support. Collaborations extend beyond local communities, involving state and federal agencies, to streamline permitting processes and align projects with broader energy and environmental goals. These approaches exemplify how geothermal projects can be developed responsibly and sustainably, benefiting both the energy grid and local communities.

### 3. Dr. Jones, what else can the Bureau of Land Management do to advance geothermal energy and create jobs in rural communities?

- Simplify and expedite the permitting process for geothermal development, especially for projects on previously disturbed or studied lands. This includes adopting categorical exclusions for geothermal exploration.
- Establish a geology and science fellows program between BLM and a non-profit, perhaps Geothermal Rising, to augment BLM's geothermal permitting review staff with independent geologists and researchers from academia, retired professionals, or national lab staff.
- Allow hybrid energy leasing on BLM lands so that other renewables can development on BLM geothermal leases so long as geothermal is also being developed as a means of sharing transmission costs and potentially bring investment from other renewables to geothermal.
- Allow BLM staff to work remotely rather than physically relocating to spots such as Winnemucca, Nevada or Battle Mountain, Nevada. This would attract more candidates to help alleviate staffing issues that the geothermal industry experiences at all BLM field and district offices. With the new language in the debt ceiling bill around Environmental Assessment / Environmental Impact



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Statement timelines, BLM is going to need to hire new staff to meet the condensed schedules.

- Equalize BLM decision making across offices/states with a set of standard geothermal-specific operating procedures for geothermal permitting would greatly speed up development of geothermal resources on federal lands.
- Increase frequency on of BLM geothermal lease sales on federal lands. Nevada is currently the only state holding regular lease sales. All other western states are years behind congressionally mandated geothermal lease sale timelines.
- Provide technical support and resources to local BLM offices, enhancing their capacity to manage and review geothermal projects effectively. Hire more staff, train them adequately in standard geothermal technical vernacular, and allow them to work remotely so that rural areas can be served effectively.
- Encourage partnerships between the private sector, local communities, and BLM to develop projects that align with local economic and environmental objectives. The BLM can aid in this by supporting flexible financing structures and mitigating exploration risks.
- Increase awareness and understanding of geothermal energy's benefits, potential, and dispel misconceptions through educational programs and community outreach.