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The Honorable Jennifer Granholm  
Secretary of Energy  
1000 Independence Avenue SW  
Washington, DC 20585

**Subject: FY 2023 Appropriations Recommendation for Geothermal Energy**

Dear Secretary Granholm:

In its first year, the Biden Administration has taken historic action to mobilize our nation to address climate change and to make generational investments in American innovation, infrastructure, and jobs. As you continue these efforts, we at Geothermal Rising write to highlight geothermal's extraordinary promise as a source of 24/7, carbon-free, and job-creating electricity and to recommend important steps the Administration can take to unlock this potential through the support of the Department of Energy (DOE) and accelerate our national progress toward a decarbonized electricity sector by 2035. **We urge the Administration to include at least \$275 million for geothermal technology development in the DOE's upcoming Fiscal Year (FY) 2023 Budget Request.**

Geothermal Rising is the global leader for the advancement of geothermal energy. Our mission is to help the world use the earth to save the earth: to leverage our underground thermal resources to facilitate our nation's transition to a carbon-free economy. Geothermal Rising has nearly ninety corporate members, representing eighteen states and the District of Columbia, along with several countries. Our coalition brings individuals, corporations, universities, national laboratories, government, and other nongovernmental organizations together around a shared vision for American geothermal energy.

Geothermal should be an indispensable part of our electricity mix of the future, providing reliable, dispatchable, carbon-free power that complements variable generation sources such as solar and wind to provide Americans with constant, affordable, and clean electricity. In its GeoVision report, the DOE highlighted geothermal as an "always-on source of secure, reliable, and flexible domestic energy that can be utilized across industrial, commercial, and residential sectors."

There is immense potential for American geothermal generation. GeoVision estimated that geothermal generation could provide over 120 GW of 24/7, clean electricity by 2050. But



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GeoVision's estimates are just the start: since the report's 2019 release, pioneering companies and federally funded projects have started to unlock shallower, lower-temperature geothermal resources, supplementing the GeoVision-projected amount with over 30 GW of additional geothermal generation. The right blend of federal investment, sound public policy, and bureaucratic streamlining could unleash this and more.

On top of generation, geothermal projects are an engine for job creation and economic growth across the country. In 2020, the geothermal industry employed [over 8,000 people](#) in the United States. There is massive potential for growth: the National Renewable Energy Laboratory's (NREL) JEDI model has estimated each new geothermal plant creates tens of thousands of construction and operational jobs, including many positions that require workers with oil and gas skill sets.

Today, as GeoVision noted, our nation has "tapped only a fraction of its abundant geothermal resources." Now is the time for the federal government to take action to unleash geothermal's future by providing the resources and shaping the policies necessary to demonstrate and deploy these technologies, create jobs, and spur economic growth across the country.

Many promising geothermal technologies, including those developed with support of the DOE and its successful Frontier Observatory for Research in Geothermal Energy (FORGE) program, are on the cusp of commercialization and could bring this power production capacity and job creation into reality. But the demonstration projects necessary to scale FORGE-developed innovations are highly capital-intensive, and additional federal support is necessary to bridge the innovation 'valley of death' that can prevent promising innovations from reaching the market.

The requested \$275 million would help position geothermal energy to serve as a key enabling technology for the Biden Administration's climate and job creation goals. In particular, this investment would support several next-generation geothermal technology demonstration projects. Such projects are necessary to provide FORGE-developed innovations with a pathway to market but can require equity investments of over \$50 million to unlock the technological advances necessary for commercialization.

It also would facilitate substantial progress at FORGE, encourage large-scale direct use demonstrations, and create support for geothermal projects that incorporate critical mineral extraction or other innovative and job-creating technological approaches. And while the requested \$275 million would represent a significant increase over prior year geothermal appropriations, this investment would accelerate geothermal's ability to play a key role in the grid of the future, complementing intermittent resources, facilitating retirement of dirtier generation, and creating good paying jobs that are accessible to hard working Americans, including many with oil and gas backgrounds.

Geothermal energy is the Earth's most plentiful and sustainable energy source and should power America's renewable energy future. We urge the Administration to invest in geothermal



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through its FY 2023 request and look forward to working with you to help achieve the President's decarbonization goals, to create jobs and help communities across our country Build Back Better.

Sincerely,

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