The Honorable Buffy Wicks, Chair,
Assembly Appropriations Committee
Committee Members
1021 O Street, Suite 8220
Sacramento, CA 95814

May 9, 2025

Subject: Assembly Bill 526 (Papan): Geothermal Strategic Plan – **SUPPORT**

Dear Chair Wicks and Committee Members,

The undersigned organizations write to express support for Assembly Bill 526 by Assemblymember Diane Papan, co-authored by Assemblymember Chris Rogers. AB 526 will task the California Energy Commission (CEC) with producing a strategic plan for the development of new in-state geoelectric geothermal[1] energy systems in California.

This bill has been designated a fiscal bill, however, the Assembly Utilities & Energy Committee and Natural Resources Committee both found fiscal effects to be unknown.

Conventional geoelectric geothermal energy, where water is run through very hot subsurface rock to generate steam to run electricity-generating turbines, is geographically limited to areas where hot rock is near the earth's surface. In California, the Salton Sea in Imperial County and The Geysers in Sonoma and Lake counties are the two main areas where significant amounts of electricity can be economically generated.

[1] Geoelectric geothermal is where very hot rock is used to produce steam to run turbines to generate electricity, as differentiated from other forms of geothermal energy, such as residential ground source heat pumps or low temperature district heating.

Recent advances in deep and/or horizontal drilling using hydraulic fracturing,[2] closed loop systems, and other geothermal-related technologies, collectively referred to as "Advanced Geothermal Energy Systems," present new opportunities for geothermal resources to be tapped in regions where the resource was previously out of reach. These advances also include technologies that can increase efficiency, reduce water use, and minimize local impacts. A recent US Department of Energy report "Pathways to Commercial Liftoff: Next-Generation Geothermal Power,"[3] highlights research that found that accelerated deployment of next-generation geothermal energy technologies, or advanced geothermal, could lower the cost of eliminating greenhouse gas emissions in the Western Interconnection[4] by as much as 25 percent compared to business as usual.

California has mandated that all retail electricity sales in the state must come from carbon-free energy sources by 2045. Pursuant to this policy, the California Public Utilities Commission recently directed California's load-serving entities to procure significant amounts of new geothermal energy over the years to come. If developed and deployed thoughtfully at scale, new in-state geothermal energy can provide significant energy affordability benefits to the state and to local communities, in addition to advancing California's progress toward its statutory renewable energy and climate mandates and providing air quality benefits. That is what AB 526 aims to ensure.

Geothermal energy is an excellent source of clean, reliable and consistent energy that relies on the earth's heat, which will endure on a scale in the billions of years, and thus is self-sustaining. California is the leader in conventional geothermal energy nationally, as it is the largest generator of geothermal energy in the United States. With the right policies, California can also be a leader in advanced geothermal.

In leading the charge toward clean renewable energy, California has increased its reliance on solar and wind energy paired with battery storage to power the state. Advanced geothermal complements our current clean energy mix by providing 24/7/365 "firm" baseload energy sources that are clean, reliable, and consistent. Geothermal energy will play a key role in California's move toward carbon-free energy, yet the state does not have enough geothermal facilities currently in place. In 2022, geothermal energy accounted for only five percent of California's in-state energy generation. California is not on track to secure the necessary amounts of new in-state geothermal energy to supplement other renewable energies to reach net-zero and net-negative emissions by 2045.

In addition, thoughtfully deployed geothermal energy is one of the rare cases where government, industry, labor, environmental, EJ, and other key stakeholders can all work together Because it involves drilling, pipefitting, electricity, and other technologies closely related to oil and gas extraction, there is a high degree of skill transferability between oil and gas extraction and refining, as well as geothermal electricity generation. This fact can offer high road employment to skilled workforce as we transition away from fossil fuels.

Even with technological improvements, advanced geothermal energy development faces geographic, logistical, and social challenges. Geothermal resources are often located in remote or difficult-to access areas, requiring careful planning and substantial investment in infrastructure. Addressing these challenges will require robust and meaningful engagement with multiple stakeholders including local communities, indigenous tribes, environmental justice communities, and the labor community. It will require close coordination between the relevant governmental agencies and the geothermal industry. It is imperative that the wrongs of the past not be repeated as the state pursues geothermal power.

AB 526 addresses these challenges by requiring the CEC to develop a strategic plan that will engage with labor unions, industry, environmental organizations, Environmental Justice organizations, tribes, and others, to guide the expansion of geothermal energy in the state. By setting clear objectives and providing a roadmap for future advanced geothermal projects, the plan will help attract investment, spur job creation, and stimulate economic development in California's clean energy sector while minimizing environmental impact and maximizing community benefits.

By taking decisive action now, California can position itself to achieve a balanced, resilient, and sustainable clean energy mix that benefits local communities while avoiding harm to communities and the environment. Harnessing advanced geothermal technologies can meet the state's growing energy needs, workforce transition

[2] Hydraulic fracturing (fracking) for geothermal purposes is similar to fracking for oil and gas production, but does not involve oil and gas production.
[3] https://liftoff.energy.gov/next-generation-geothermal-power/
[4] https://www.epa.gov/green-power-markets/us-grid-regions

goals, and long-term climate objectives.

When AB 526 comes to your committee, we respectfully urge you to support it.

Sincerely,

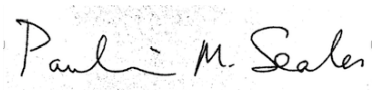
Ellie Cohen, CEO, The Climate Center

Catherine Dodd, PhD RN, Health Advisor, FACTS Families Advocating for Chemical And Toxics Safety

Eli Lipmen, Executive Director, Move LA

Stephen Rosenblum, Energy Policy Team Lead, Climate Action California

Adam Sweeney, Chapter Chair, Climate Reality Project



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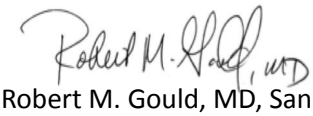

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