



Staff Report - Item 03

To: Sonoma Clean Power Community Advisory Committee

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Issue: Receive Geothermal Opportunity Zone Update

Date: December 18, 2025

Background

The Geothermal Opportunity Zone (GeoZone) is SCP's initiative to secure affordable, reliable clean energy for our customers by building 600 megawatts of new geothermal power capacity in Sonoma and Mendocino Counties. This will eventually enable SCP to phase out its dependence on natural gas power plants for reliability. The Community Advisory Committee (Committee) meetings are a regularly scheduled public forum for the community to receive updates and provide input on the GeoZone. The updates provided to the Committee each month, and minutes from any discussion are posted on SCP's website at <https://sonomacleanpower.org/geozone-public-updates>. Staff incorporate any feedback received from the Committee presentation into the monthly updates to the Board of Directors. Additional background on the GeoZone can be found on the GeoZone webpage at <https://sonomacleanpower.org/geozone>.

Partner Updates

Following the Committee's recommendation, the Board approved to move forward with terminating the Chevron New Energies cooperation agreement in their November meeting. The Board also approved executing the Memorandum of Understanding with Chevron for cooperating on geothermal development across the West with the goal of leveraging learnings from other states in de-risking Chevron's property in the GeoZone.

Terminating the Chevron agreement leaves Eavor as the one remaining active GeoZone partner. Staff are continuing to collect lessons learned from GeoZone partnerships to date, as well as collecting feedback from industry, on how to structure a second round of GeoZone partnerships to be successful. Staff are targeting the first quarter of 2026 for the release of a solicitation for new partners.

In early December, Eavor announced first electricity production at its site in Geretsried, Germany. The startup of the Geretsried facility is a landmark milestone for next-generation geothermal projects—representing the first commercial-scale deployment of closed loop technology. Eavor’s project was also featured in an article in the Wall Street Journal ([link to article](#)).

In October, Eavor released a technical paper ([discussed in this article](#)) detailing execution performance and lessons learned from the Geretsried, project. The Geretsried project represents a remarkable technological achievement: Eavor has drilled six well pairs with lateral lengths of over 10,000 feet and bottom-hole temperatures over 300 degrees Fahrenheit, connected them through magnetic ranging, and sealed them with their proprietary Rock-Pipe technology. The paper details a number of unexpected non-technical challenges the project encountered during drilling that increased project costs. But importantly, the paper also details how Eavor demonstrated the ability to respond to challenges and improve drilling efficiency through the course of the project—with the last two well pairs averaging 50 days each—representing a 50% reduction compared to the first well pair.

The Eavor team visited SCP’s headquarters in late October to discuss progress on their GeoZone project. New technologies, coupled with demonstrated performance improvements in drilling efficiency across the geothermal industry, have widened the footprint of viable sites in the GeoZone for siting Eavor’s project. Widening the footprint allows Eavor to focus on criteria beyond just the geothermal gradient, including seismic activity (less active areas being better), proximity to transmission, topography (flatter being better), and compatibility with surface conditions. During their visit, Eavor shared with SCP the tools they are using for identifying candidate sites and SCP and Eavor are now closely coordinating on finding specific siting opportunities. The visited demonstrated significant progress towards Eavor’s first set of milestones for their GeoZone project—which include an updated feasibility assessment by June 2026 and site control strategy by December 2026.

Geothermal Rising Conference

Chief Strategy Officer Ryan Tracey and Legislative Policy and Community Engagement Manager Miles Horton attended the annual Geothermal Rising industry conference in Reno, Nevada at the end of October. While at the conference, SCP staff met with over a dozen geothermal developers. SCP focused on reinforcing the importance of progressing in-state development of geothermal resources—despite industry concerns following the veto of Assembly Bill 527 (CEQA exemption for exploration). SCP worked to assuage industry concerns on the state’s support for geothermal development through discussing future legislative and regulatory opportunities. SCP also used the conference as an opportunity to socialize the expected solicitation for new GeoZone partners early next year—and received significant interest. Members of California Community Power (CC Power) were also at the conference and are coordinating with SCP on managing relationships for their broader statewide initiative to support geothermal development.

While in Reno, SCP staff also had the opportunity to tour Ormat’s Steamboat Hills geothermal power plant (photo below). Steamboat Hills uses a binary power cycle with air condensers and complete reinjection of the produced geothermal fluids—similar to the configuration expected for next-generation geothermal projects anticipated in the GeoZone. The Steamboat Hills plant is unique in that it lies directly adjacent to residential and commercial development on the outskirts of Reno. Ormat shared that the plant goes largely unnoticed by locals, and SCP staff left the tour impressed about the ability of geothermal power to be sited in harmony with both the built and natural environment.



Transmission Planning

On September 30th, the California Public Utilities Commission (CPUC) issued a ruling on its proposed electricity portfolios for the 2026-27 Transmission Planning Process (TPP). The proposed portfolios benefit from two important modeling enhancements: 1) the CPUC's modeling now modeled enhanced geothermal systems (EGS) as a discrete resource with large statewide potential and 2) CPUC modeling now explicitly enforces transmission limitations between PG&E and Southern California. Coupled together, these two adjustments increase the role geothermal is expected to play in the state's future energy mix—particularly in Northern California. The Base Portfolio the CPUC is proposing to use includes 3.4 GW of new conventional geothermal and 1.7 GW of new enhanced geothermal by the year 2036 (5.1 GW total). This is up from the 1.6 GW included in last year's portfolio. In a proposed sensitivity case that tests limited availability of both offshore and onshore wind, 5.6 GW of conventional geothermal and 3.6 GW of enhanced geothermal is needed by 2045 (9.2 GW total).

Including more geothermal in the state's electricity portfolios is the first step towards increasing transmission capacity available for GeoZone projects. The CPUC uses a process called "busbar mapping" to allocate resources in the electricity portfolios regionally, and ultimately to specific substations. For the proposed Base Portfolio, 3.1 GW of the 5.1 GW total is mapped to the North of Greater Bay Area Study Area. The 2026-27 busbar mapping is forecasting a need to address several major bottlenecks to development in Northern California through upgrades—including a 500 kV line between Collinsville and Tesla substations and addressing a 230 kV constraint between Windmaster substation and the Delta pumps. SCP has already been very active in supportive advocacy for more transmission investment in the IRP proceeding—including submitting comments asking the CPUC to apply learnings from the decision-making under uncertainty project with Princeton's ZERO Lab.

In late November, the California Independent System Operator (CAISO) previewed the scope of transmission upgrades it expects to include for the 2025-26 TPP that will be approved next Spring. Staff was disappointed to see the CAISO defer needed upgrades in Northern California that will be needed to support geothermal development. Although staff is optimistic the CPUC changes discussed above for the 2026-27 TPP will support approval of these upgrades, staff are exploring any opportunities to accelerate approval.

Grant Funding & Research

SCP has been assisting Sonoma County with early negotiations with the California

Energy Commission (CEC) on the grant agreement for proactive geothermal planning in the region. The CEC is expected to review and approve moving forward with the grant in their January business meeting, which would activities funded by the grant to begin in early Spring 2026. SCP will be the main subcontractor for the grant and administer subcontracts with the National Lab of the Rockies (NLR - until recently the National Renewable Energy Laboratory), geospatial analysts, and biologists that are supporting the grant. The first major activity from the grant will be an updated high-resolution thermal and geologic model that NLR will create for the region to assess the extent of possible commercial development.