



Staff Report - Item 02

To: Sonoma Clean Power Authority Community Advisory Committee

**From: Ryan Tracey, Director of Planning & Analytics
Geof Syphers, Chief Executive Officer**

Issue: Receive Geothermal Opportunity Zone Update

Date: April 20, 2023

Background

The Geothermal Opportunity Zone (GeoZone) was established by the SCP Board of Directors and the Boards of Supervisors in Sonoma and Mendocino Counties to explore expanding local geothermal power capacity. The purpose of the GeoZone is to develop the resources necessary to allow SCP to stop relying on natural gas power plants altogether. To that end, the GeoZone is seeking to sustain existing local geothermal production and add 600 MW of new geothermal capacity.

Ongoing updates, information, and materials about the GeoZone can be found at <https://sonomacleanpower.org/geozone>.

Private Partner Activity

With the cooperation agreements in place, SCP's private GeoZone partners have started early development work in earnest. The initial focus is on securing exploration area site control, which involves building relationships with landowners, confirming title through extensive research, and completing sufficient technical work to evaluate specific land opportunities. SCP is supporting these activities for all three partners through introductions and knowledge sharing. Unlike most conventional geothermal opportunities in the West, land in the GeoZone is predominately privately owned and will not involve interfacing the Bureau of Land Management's lease auction process.

Partners are also working on pursuing applicable grant opportunities described below and characterizing required permitting and the impact on cost and schedule.

Public Engagement

In addition to the opportunity for the public to speak at every SCP public meeting, specific GeoZone community updates and input sessions will be planned as soon as prospective sites and technologies are identified. At that time – likely in the summer of 2023 – SCP will ask the private partners to participate in the next public stakeholder engagement session.

Political Advocacy

The geothermal industry does not currently have a lobby in Sacramento or Washington. Without a dedicated champion, increasing supportive policy for geothermal and research funding is an uphill battle. SCP's Board approved supporting geothermal in its 2023 legislative platform, and staff are actively pursuing advocacy opportunities—particularly if they can directly benefit the GeoZone.

Geothermal Rising, the trade group for the geothermal industry of which SCP is a member, is hosting an [inaugural Capital Hill Day](#) in June, with the aim of educating lawmakers and building a coalition of support. Although SCP will not be in attendance, staff will be providing Geothermal Rising with key talking points relevant to California's delegation. Staff has already had success in separately engaging Congressman Thompson, Congressman Huffman, and Senator Padilla on GeoZone and hopes to deepen those relationships to improve the geothermal industry's traction in federal policy. Staff is also planning on meeting with Geothermal Rising to specifically discuss opportunities for coordination at the state level.

Well Permitting

A near-term activity for both Chevron New Energies and Eavor Inc. will be obtaining well permits for exploration wells that will be required to confirm geologic characteristics before moving forward with project development. Review and permitting can be done through the State's California Geologic Energy Management (CalGEM) Division or by a local agency, such as the County of Sonoma or Mendocino, and staff are exploring which option will provide better opportunities for local input and timely processing. Staff have learned that permitting of oil and gas exploratory wells is routine at the State level and that similar permitting for geothermal wells can be slower because of the State's experience with thousands of oil and gas applications and relatively few geothermal applications. As a result, staff is also looking for legislative opportunities advocating for geothermal permitting that could tilt California's permitting process away from oil and gas wells and toward geothermal wells.

Grant Opportunities

SCP's partner Cyrq is planning to submit a concept paper for the Department of Energy's [Office of Clean Energy Demonstrations' Energy Improvements in Rural or Remote Areas Program](#). This program offers grant funding for projects that can deliver benefits to communities with populations of less than 10,000 people. In the paper, SCP preliminarily identified the City of Cloverdale as a target community for benefitting from the economic and energy infrastructure benefits of a Cyrq project. If DOE encourages Cyrq and SCP to move forward with a full application, staff will finalize selection of target communities and work with them in accurately characterizing the perceived impact and confirming local support for the project in a letter of commitment. Meanwhile, SCP and Cyrq are awaiting a decision from DOE on an application submitted for the DOE's Long-Duration Energy Storage grant, which is expected in Summer 2023.

SCP is also working with Chevron New Energies in evaluating a potential application to the Department of Energy's [Bipartisan Infrastructure Law Enhanced Geothermal System Demonstration](#) grant. The grant offers federal cost share in deployment of new subsurface geothermal technologies with applications due in June.

Transmission Planning

CAISO released its Draft 2022-23 Transmission Plan in early April. The plan calls for a significant increase in transmission capacity to meet statewide environmental and reliability goals—with \$9.3 billion of investment in 46 transmission projects. Much of the transmission build-out is concentrated in Southern California and includes projects to bring renewable energy (including geothermal) from the Imperial Valley, Nevada, Wyoming, Idaho, and New Mexico. The CAISO did not study local geothermal capacity at the scale of GeoZone—only testing up to 79 MW in the base portfolio. At the modeled capacity, no policy-driven upgrades were identified in the area although a sensitivity study suggested significant constraints would occur with faster renewable deployment. SCP is engaged in the current 2023-24 process to advocate for a more significant plan for local geothermal growth.

CAISO also recently released its [2023 Interconnection Process Enhancements Straw Proposal](#). The proposal recommends dramatic reforms to the CAISO's interconnection process starting with the next cluster (Cluster 15), which is accepting applications this month. To better manage the volume of requests and incorporate the results of Cluster 14, the CAISO contemplates delaying the start of Cluster 15's Phase I studies by a year. This would likely delay the acceptance for the next cluster, which is when SCP expects

GeoZone projects to be ready to pursue interconnection. The proposed enhancements also move from the current “open access” model to more of a “central planning” approach—where interconnection requests the CAISO and the CPUC have planned for development and capacity are prioritized. If the CAISO moves forward with the suggested reforms, it will be important for the GeoZone to evaluate options for interconnecting demonstration projects on the distribution system to alleviate schedule delays. It also reinforces the importance of GeoZone advocacy at the CPUC and other venues to ensure it is reflected in statewide planning and receives interconnection prioritization.