



Staff Report - Item 02

To: Sonoma Clean Power Authority Community Advisory Committee

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Issue: Receive Geothermal Opportunity Zone Update

Date: February 15, 2024

Background

The Geothermal Opportunity Zone (GeoZone) is SCP's initiative to guide the development of local geothermal power that is compatible with community values and enables 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 incorporates 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>.

Exploration Well Permitting

One of the key critical path items for Eavor and Chevron New Energies is obtaining permits for the required exploratory drilling to confirm subsurface conditions are appropriate for developing pilot projects. Currently, permitting for geothermal exploratory projects is led by the California Geologic Energy Management Division (CalGEM), which is severely resource-constrained due to litigation on its role in permitting oil and gas operations. SCP is actively pursuing two paths to mitigate the risk of schedule delays due to permitting: 1) working with Sonoma County to add a geothermal element to its General Plan which enables it to petition CalGEM for lead agency status and 2) legislation that defaults lead agency status back to the counties.

In December of 2023, SCP submitted a letter to the Sonoma County Board of Supervisors asking it add a geothermal element to the scope of its General Plan update process. In the Board of Supervisors' General Plan kick-off on December 12, 2023, Supervisor Hopkins specifically acknowledged SCP's recommendation and asked for consideration of addressing the recommendation within a broader climate-focused element. SCP will continue to work with Sonoma County on exploring the feasibility of incorporating updates to the General Plan that facilitates delegation of lead agency status for geothermal exploration. However, the General Plan update process could take as long as six years—well after the timeframe GeoZone partners anticipate completing exploration activities.

A parallel initiative is being led by staff to pass legislation that restores local jurisdiction of geothermal exploratory project permitting. Research by staff has revealed that the original bill passed in 1978 granting CalGEM lead agency status (AB 2644) was passed with the intention of accelerating the development of geothermal resources. However, in the current environment the designation of CalGEM's lead agency status has the opposite effect due to resource constraints. Staff have met with the Department of Conservation's legislative affairs team and legislative staff to discuss opportunities to address this issue in the current legislative session. SCP has also met jointly with CalGEM and the County of Sonoma to discuss the scope of permitting a geothermal exploratory project.

SCP is also leading an effort within the geothermal trade organization Geothermal Rising to increase the focus on state policy opportunities for supporting geothermal power. SCP staff hosted a workshop with geothermal developers to discuss the key players in the state legislature, opportunities for engagement, messaging for geothermal power, and state policy priorities. SCP and other Geothermal Rising members hope to spend time in Sacramento this year growing awareness amongst legislators and building a broader coalition.

GeoZone Project Updates

Chevron New Energies and Eavor continue to be focused on identifying site acquisition opportunities and Cyrq is working on recruiting an existing geothermal operator to host deployment of its technology. Staff hold bi-weekly meetings with each partner to monitor progress towards requirements in the GeoZone cooperation agreements and identifying opportunities to help with community engagement, transmission planning, grant funding, and policy advocacy.

Grant Funding

The Department of Energy Geothermal Technology Office has not yet announced awards for the Bi-partisan Infrastructure Law's Enhanced Geothermal Systems Demonstration grant. The award announcement was originally expected to occur in October 2023. Chevron New Energies submitted an application for their GeoZone project.

The California Energy Commission (CEC) has released a request for information (RFI) for their Long Duration Energy Storage program—which has a budget of \$330 million. The RFI indicates a funding opportunity will be released in Summer 2024 to fund \$70 million in non-Lithium-ion technologies. SCP will work with Cyrq in responding to the RFI and is scheduled to meet with the CEC to discuss compatibility with the superheat long-duration energy storage system with the parameters of the forthcoming grant.

In late 2023, SCP staff met with the CEC to discuss a potential role for GeoZone in a broader statewide application to the Department of Energy's Grid Resilience and Innovation Partnerships Program (GRIP). The GRIP is a large \$10 billion opportunity with multiple phases. The conversation was a valuable opportunity to socialize the objectives of the GeoZone and how regional investments in transmission could accelerate deployment of new clean generation facilities.

Transmission Planning

Along with exploration permitting, transmission capacity is another early project risk for GeoZone; which has motivated staff to expand SCP's involvement in the state's transmission planning. SCP has been actively engaged in the California Public Utility Commission's approval of the next Preferred System Plan (PSP) as part of its Integrated Resource Plan (IRP) proceeding.

SCP has submitted comments on the importance of investing in additional transmission capacity to enable success in de-carbonizing the grid considering a broad spectrum of uncertainties and risks. The existing IRP process is very focused on identifying the resources and transmission that minimize costs for a very specific set of deterministic assumptions. Lately, this approach has led to transmission investments in Southern California that are very dependent on out-of-state development and the success of offshore wind development in the Central Coast that leverages Diablo Canyon's existing transmission capacity. SCP argues that pursuing strategic projects like upgrading PG&E's high-voltage backbone in the Central Valley that could provide deliverability for GeoZone, North Coast offshore wind, on-shore wind, and solar with storage is prudent to pursue in parallel to avoid overconcentrating the risk of the state's decarbonization goals on a few select types of resources. SCP is in the early stages of exploring a collaboration

with academia to provide modeling results to demonstrate the benefit of incorporating uncertainty into state transmission planning.

SCP also continues to participate in CAISO's Interconnection Process Enhancements initiative, which is expected to release its final proposal in mid-February. SCP is optimistic that its strong advocacy in the initiative will result in several important positive outcomes including prioritizing the interests of load serving entities and long-lead time resources like geothermal.

SCP has also released a job solicitation for a Strategic Energy Resource Policy Manager. The primary responsibility for this position will be to champion SCP's advocacy for policy that supports the required transmission for the GeoZone and SCP's overall resource portfolio.

Community Engagement

In January, SCP met with Swedish geothermal developer Baseload Capital to compare notes on effective community engagement for geothermal development. Early this year, SCP plans to work on growing its network of community engagement practitioners within the geothermal industry and beyond. SCP looks forward to applying lessons learned from others and feedback from our local community in building more proactive community engagement for the GeoZone this year. SCP endeavors to build GeoZone projects that reflect the community's values and become a point of pride for Sonoma and Mendocino counties.