



Geothermal Opportunity Zone Solicitation Questions & Answers (4/7/2022 Version)

Data Availability

1. Would it be possible to get the digitized version of Figure 1?

SCP has made a zip file with KML files for the layers in Figure 1 available at the URL below:

https://sonomacleanpower.org/uploads/documents/GeoZone_KML.zip

2. Do you have permeability and porosity data? Appendix B mentions permeability/porosity data but there were no results shown.

SCP does not have digitized permeability and porosity data. SCP has uploaded the digitized temperature data used for the study in Appendix B and made it available at the URL below. SCP does caution that the study in Appendix B predominately focuses on potential in Lake County, which is not currently part of the GeoZone. Respondents are encouraged to look beyond the focus of the study for potential opportunities.

For additional data, respondents are encouraged to leverage the California Department of Conservation and Argonne National Lab datasets listed in the Technical Resources section of the solicitation document.

https://sonomacleanpower.org/uploads/documents/Well_Database_For_SCP.xlsx

Technology

3. Should solicitation responses only include technologies with a proven track record? Or can proposals include technologies that are still being tested?

A core objective of the GeoZone is to provide an opportunity to de-risk and commercialize new technologies that lower the impact and reduce the cost of geothermal development. Respondents are encouraged to leverage new technology that they believe is well-suited for application in our region towards meeting these long-term objectives. However, SCP does hope that even early demonstration projects generate power for use in the California grid—albeit at potentially high cost. If necessary, respondents can propose a development plan that includes a transition between conventional and new technologies to satisfy both aims.

4. How specific do we have to be in the Technology Description and Development Plans?

The technology description should contain sufficient detail for SCP to evaluate the feasibility of accomplishing the objectives identified on pages 6 and 7 of the RFI. The technology description should also include operational envelopes (temperatures, depths, flow rates) that can be compared to geologic conditions within the GeoZone. Development plans can be more conceptual but should provide a representative view of how the resource will be de-risked and developed over time to reach a total potential capacity.

Partnership

5. Can selected companies bring external partners later after selection and/or as the project progresses?

Yes, SCP expects situations where incorporating additional partners will become necessary as the project progresses and will be open to reflecting this possibility in a partnership agreement. If there are specific partnerships that will be necessary to accomplish GeoZone objectives that respondents have identified, they are encouraged to describe those in the solicitation response.

6. Would the selected companies be required to stay on as operators for the entirety of the asset operations?

No, selected partners are not necessarily required to operate GeoZone projects. If a respondent does not anticipate operating assets, they should include details in their response on how they envision incorporating a separate entity in the partnership to fulfill this requirement.

7. What is the expected term of power purchase?

While the actual term would be negotiated, respondents can assume a term of 20 years from the COD of each project.

8. Say more about the Redwood Coast Energy Authority offshore wind partnership. How have things progressed since they began in 2017?

Interested respondents are encouraged to visit RCEA's webpage dedicated to their offshore wind partnership at <https://redwoodenergy.org/redwood-coast-offshore-wind/> to learn more. Following the solicitation, RCEA executed a partnership agreement with selected entities. The partnership applied for both interconnection in the CAISO queue and submitted an unsolicited lease application to the Bureau of Ocean Energy Management. The project is currently preparing to participate in a competitive lease auction expected later this year. Meanwhile, RCEA has been engaging the community to identify concerns, including developing a memorandum of understanding with the local fishing industry and pursuing supportive grants like funding to prepare the port of Humboldt to support the necessary infrastructure for offshore wind development.

9. What do you mean by “partner”?

The solicitation protocol includes details on the expectations of partners and a potential structure for a partnership. Private partners should be ready to contribute technology, experience, and capital to mitigate development barriers and meet the objective of the GeoZone to increase the longevity of the current resource and significantly grow capacity. The partnership should include entities that are prepared to build and operate geothermal facilities, but it is also possible that it includes entities that are primarily contributing technology. SCP is open-minded and encourages respondents to propose their own view on their potential role in the GeoZone and the structure for a partnership.

10. How many partners is SCP looking for?

SCP may select one or multiple partners for the GeoZone, depending on the uniqueness and compatibility of solicitation responses and SCP’s evaluation of the best strategy for achieving the objectives of the GeoZone. If multiple Partners are selected, SCP will endeavor to mitigate direct conflicts of interest. This could involve dividing participation geographically or by function. SCP will collaborate with respondents on developing these boundaries consistent with applicable law and best practices. Respondents are also welcomed to proactively identify prospective partners and submit a joint team proposal.

11. Are there any restrictions for a potential business entering into a Public-Private-Partnership with Sonoma that is owned or controlled by a foreign entity? And/or does Sonoma have a preference in the evaluation process for non-foreign owned businesses?

SCP has not imposed any specific restrictions on entering into a public-private partnership with an entity owned or controlled by foreign entity. Nor has SCP identified an upfront preference for domestic versus foreign ownership of partner entities. However, there may be limitations to grant, tax credit or other funding eligibility for foreign partners. The eligibility of projects within the GeoZone for these types of incentives is a key concern, so potential respondents should highlight if their ownership structure will create a limitation or strategies to address this issue. This response is provided as a courtesy to prospective proposers and SCP does not warrant or guarantee the eligibility of any individual proposal. Each proposal would be evaluated based on its unique circumstances. Proposers should contact their legal counsel for additional information.

Transmission

12. It is quite likely that new geothermal capacity would be added in a phased approach. Based on SCP’s assessment, what portion of the 500 MW can be delivered to market without new transmission infrastructure?

Available transmission will be difficult to ascertain before a CAISO interconnection study. SCP has been informed that the existing transmission infrastructure was constructed for approximately 2 GW of geothermal capacity, however, SCP has also been informed that the rated transmission capacity has declined significantly and CAISO’s deliverability assessment has changed in the last few decades. Building more understanding on this figure will be a priority very early in the GeoZone partnership.

13. Would it be correct to assume that the new geothermal generation interconnections will be proposed as part of the CAISO cluster 15 interconnection study in 2023? Could SCP share its perspectives on a typical interconnection study timeline?

Yes, the hope is that at least some initial capacity in the GeoZone is entered into the CAISO cluster 15 study. The interconnection process is designed to be navigated in two years (from application to deliverability), but CAISO's latest clusters are significantly delayed due to the scale of project requests. The CAISO is currently pursuing process enhancements that is intended to improve the timeline for cluster 15.

Non-Disclosure Agreement

14. Is the NDA negotiable?

Yes, the NDA is negotiable. The NDA included in the RFI package was included to provide an indication of SCP's initial expectations for terms of a NDA, but we are open to discussing revisions.

15. What is the process for initiating an NDA?

If the provided NDA language is acceptable, respondents can partially execute the provided NDA and send it to geozone@sonomacleanpower.org. If respondents are requesting changes to the NDA, they may submit redlines to geozone@sonomacleanpower.org for SCP's review. A Word version of the NDA is [available here](#) for convenience. Respondents requesting changes to the NDA should plan at least a week of lead time to facilitate negotiation. As detailed in the solicitation document and draft NDA, information that is confidential must be specifically marked as confidential and submitted as a separate attachment.

Miscellaneous

16. In SCP's experience, what are the major environmental impacts and potential barriers that operators need to consider when planning power generation projects?

Major environmental impacts can include land use, air quality, water usage, water quality impacts, seismicity, and construction traffic and noise—but that list is not all-inclusive and respondents are encouraged be familiar with the scope of review under the California Environmental Quality Act and discuss any additional impacts and potential mitigations they've identified in their response. Barriers could include land ownership, permitting, transmission, organized political opposition, and financing—although this list is also not all-inclusive.

17. What are the land ownership configurations in the GeoZone? What percent of it is in private versus public land? What challenges do you anticipate in this space?

A majority of the land in the GeoZone is privately held, although there are large areas with geothermal potential that are held by the federal government or State of California. Near the Geysers, there was a fair bit of severance of land and mineral rights and leasing activity that may complicate securing site control in certain areas.

18. What grant sources has SCP identified so far?

SCP has been tracking grant activity from the federal and state government and started conversations on potential sources of funding with lawmakers and staff from state and federal agencies. Specifically targeted grant opportunities are not yet determined and will be significantly informed by the types of technologies we pursue and the structure of the partnership formed for the GeoZone.

19. You mention a need to sustain the existing geothermal output. To what extent are current operations involved?

SCP has had several discussions with current operators on the GeoZone initiative. A key consideration in the GeoZone is that new geothermal capacity should not come at the expense of existing capacity. Accordingly, SCP wishes to continue engaging current operators whether or not they are part of the GeoZone partnership. Other than holding a supply contract for 50 MW from Calpine geothermal facilities, SCP has no specific agreements or relationships with current operators yet.