

SCP Geothermal Listening Tour Summary

On August 23 and 24, Sonoma Clean Power's CEO and Director of Planning and Analytics met with community members throughout Lake County to better understand and learn about how geothermal energy can impact communities. Lessons from these meetings are informing SCP's process for exploring the development of new geothermal power in Sonoma and Mendocino Counties as part of the "GeoZone". We chose to visit Lake County because that area has a population living closer to geothermal facilities than in Sonoma and Mendocino Counties, despite the fact that most of the existing geothermal facilities are located in Sonoma County.

During our tour, some community members shared specific concerns about how existing geothermal power facilities are operating, but we explained that we were not there to address problems with any existing facilities since we do not own or operate them. Rather, our goal is to plan ahead to build new facilities. For that reason, these notes record comments in a manner that captures concerns without connecting them to the individual who shared it and without details about specific locations.

The listening tour provided us with important background heading into SCP's planning for new geothermal facilities and gives SCP's private development partners insight into likely community concerns when they consider projects in Sonoma and Mendocino Counties.

Themes from these meetings included:

- Transparency and early community engagement is critical.
Experiences of surprises and projects proposed by unknown organizations can lead to distrust, which is difficult to overcome later. Make sure that project proponents are known, visible and available to answer community questions. We were thanked repeatedly for meeting with community members before a project is proposed and encouraged to continue.
- Projects are always evaluated in context, not in isolation.
We were repeatedly reminded that everything SCP is doing in a community - all of the benefits and all of the impacts - are considered when deciding if a project should receive community support or opposition. Advice is to think through the entire relationship with the community near a project. A community's receptiveness to new development can be influenced by the past—as an example, much of Lake County feels a sense of exploitation from the long-lasting environmental impacts of logging, mining, geothermal development, and wetland reclamation.

- Engage early with local tribes.

If projects are likely to be proposed near Cloverdale, engage early with the Cloverdale Rancheria, Hopland, Dry Creek, and even Point Arena. We were advised that tribes often have been engaged too late to effectively evaluate the potential impact to cultural resources.

- Access to experts should extend to the community.

Trusted experts in geothermal operations, seismicity, and air quality are available as part of the existing geothermal facilities, and access to their data and viewpoints are very important to the community. Some of the examples provided included the experts who engage with the existing Geysers area Geothermal Air Monitoring Program and Seismic Monitoring Advisory Committee.

- Air quality monitoring is working.

Existing Geysers area geothermal air quality monitoring and abatement is functioning well, and any new geothermal facilities would be advised to learn from it and potentially duplicate it. Some concerns that local air monitoring stations might be improved by having local power backup were raised, but overall opinion was that the system is working, and that air quality issues are generally addressed well. Decades ago, there were more issues with hydrogen sulfide emissions, so we would be well-served to study how improvements were made.

- Water is (and will always be) complicated.

We heard recognition that when water sources come from more than one basin or supplier, it can get complicated and involve many stakeholders. There was an understanding that the environmentally-preferred disposal of treated wastewater is high value, but also concern that any water supplied to new geothermal operations in the dryer months will be difficult to obtain. Advice to SCP is to work on a sustainable and environmentally-appropriate water supply early in the process, since this will be a key constraint.

- Induced seismicity is a deep concern for close neighbors.

We learned that in residential areas close to existing geothermal production, frequent small earthquakes are common. There was recognition that some of the quakes are naturally occurring because of local faults, but also concern that many of the quakes are created because of the geothermal operations. We learned that sensors allow the seismic monitoring program to evaluate induced seismicity, and that a fund exists to compensate homeowners for damage caused by induced quakes. We took away that limiting induced seismicity on close neighbors and providing an accessible mechanism for reimbursing damages is an important element in good design.

- Plan for end-of-life.
We heard that thinking far ahead to how a facility can be appropriately retired someday is important. What does decommissioning look like?
- Provide communities with multiple ways to provide input.
We heard that public meetings are important, but that providing opportunities for written input both during and outside of public meetings is equally important. Not all people are comfortable speaking. We heard that leveraging local organizations, such as the municipal town councils in Lake County, as a venue for engaging the community is effective.
- Give context for the GeoZone work.
Provide the public with early information about why new geothermal energy is needed, both to provide year-round reliability and to end our existing dependency on natural gas power plants in poor communities. We heard we need to share the context about what the State is requiring, what other power sources SCP is building, and why SCP is looking in certain regions of Sonoma and Mendocino Counties.
- Cracking rock or “fracking” has a bad reputation from oil and gas.
We heard that there is a dislike and a distrust of hydraulic fracturing. There was understanding that there are a wide variety of methods - some better and some worse - but the lesson was that if a new project is going to use any of these techniques in a geothermal project it would be subject to significant skepticism, scrutiny and review. While perhaps something that shouldn't be generalized, the bad reputation from the natural gas industry makes the use of this technique in the geothermal industry harder.
- Traffic and noise in rural areas.
Neighbors reminded us that even impacts like traffic and noise in rural areas can be disruptive. We are advised to care about these impacts early and find ways to minimize them.
- Drawing on community knowledge.
After many decades of living near geothermal facilities, some members of our local community have developed significant knowledge on local geology, water, air quality and seismicity. We would do well to tap into that expertise at the right time by continuing to meet people and learn what they know.
- Make reasonable economic assessments.
Some experiences in the past with developers who made overly-ambitious claims about tax revenues and job creation led to community skepticism. Advice is to get off on the “right foot” by ensuring that claims about community value are reasonable from the start.

■ Learn about other community energy projects and engage.

In our travels throughout Lake County, we learned about community support for other kinds of energy projects, such as tank-to-tank pumped hydropower as a means of energy storage and a small “direct-use” geothermal project for heating. We learned more about how local residents and elected officials view the potential removal of Scott Dam. We learned about concerns that there aren’t nearly enough local electricians to support California’s transition toward electric appliances and the upgrades needed. We learned that the solar potential in some of the Lake County areas we visited is under-appreciated, since the winters are often sunnier than in other parts of California. We learned that local communities want access to the power that is produced in their backyard so they can enjoy the benefits when they are bearing the impacts. More generally, we were encouraged to be fully engaged in the spectrum of local community energy projects in the regions around any potential GeoZone projects to ensure we understand them and can support the community’s ambitions.

We are grateful to the significant time community members from around Lake County shared with us and specifically wish to thank those who sat down with us for extended conversations:

Robert Stark

Supervisor Eddie Crandall

Holly Harris

Chuck Lamb

Former Supervisor Denise Rushing

Anderson Springs Community (six residents)