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California Grid Holdings - 2026 IEPR Geothermal Workshop Comments

Additional submitted attachment is included below.

CALIFORNIA GRID HOLDINGS LLC COMMENTS ON THE TWO-DAY WORKSHOP ON CALIFORNIA’S GEOTHERMAL ENERGY RESOURCES HELD JUNE 19, 2026 AND JULY 9, 2026

I. Introduction

California Grid Holdings LLC (“CalGrid”) submits the following comments in response to the California Energy Commission (“CEC”) geothermal workshop held as part of the 2026 Integrated Energy Policy Report (“IEPR”) Update proceeding (“Geothermal IEPR Workshop”). CalGrid is a wholly owned subsidiary of Viridon Holdings LLC and is the Approved Project Sponsor to construct, own, and operate the New Humboldt 500 kV Substation, with a 500/115 kV transformer, the new Humboldt to Collinsville 500 kV line, and the new Humboldt to Fern Road 500 kV transmission line (together, the “California Gateway Connector Projects” or “Gateway Projects”)¹ and the Manning to Metcalf 500 kV transmission line (“Manning-Metcalf”).² The observations and recommendations set forth below are informed by CalGrid’s ongoing work on the Gateway Projects, broad stakeholder engagement with geothermal developers, industry organizations, load-serving entities, and state agencies, as well as preliminary power flow analyses based on the California Public Utility Commission’s (“CPUC”) most recent Integrated Resource Plan (“IRP”) portfolios.

CalGrid appreciates the CEC’s leadership in evaluating geothermal as a key component of California’s clean, reliable, and affordable electric system. The Geothermal IEPR Workshop provided a valuable forum for stakeholders to share technical expertise and discuss the opportunities and practical challenges associated with expanding the state’s geothermal development. Among the key themes highlighted during the workshop was the important role transmission planning and development will play in ensuring California can fully realize the benefits of its extensive geothermal resource potential. The Gateway Projects, in particular, are

¹ See the California Independent System Operator’s (“CAISO”) June 2, 2025 Project Sponsor Selection Reports for the Humboldt Projects at <https://stakeholdercenter.caiso.com/InitiativeDocuments/New-Humboldt-Fern-Road-500kV-Line-Approved-Project-Sponsor-Selection-Report.pdf> and <https://stakeholdercenter.caiso.com/InitiativeDocuments/New-Humboldt-Collinsville-500-kV-Line-And-Substation-project-Project-Sponsor-Selection-Report.pdf>.

² See the CAISO’s May 19, 2026 Project Sponsor Selection Report for the Manning-Metcalf at <https://stakeholdercenter.caiso.com/InitiativeDocuments/Manning-to-Metcalf-500-kV-Transmission-Line-Project-Project-Sponsor-Selection-Report-May-20-2026.pdf>.

strategically positioned to support the integration and delivery of new geothermal resources from resource-rich areas in far Northern California through new 500 kV infrastructure connecting to the Greater Bay Area.

II. Discussion

A. California's geothermal opportunity increasingly depends on transmission planning and development

Geothermal development and transmission planning are inherently interdependent. Large geothermal projects require many years to explore, permit, finance, and construct. Identifying and developing transmission solutions and potential new interconnection points is critical to guide exploration and inform geothermal development and financing decisions. Ensuring timely and predictable transmission development also reduces the likelihood that transmission availability constrains commercial deployment.

Although the Geothermal IEPR Workshop highlighted a rapidly evolving geothermal landscape, participants consistently identified transmission and interconnection among the principal barriers to broader geothermal deployment. As California's geothermal strategy continues to evolve, transmission planning will play an increasingly important role in ensuring the state can efficiently develop geothermal resources at scale and on a timely basis, consistent with the 5.1 GW of geothermal resources assumed in the CPUC's most recent IRP over its 10- and 15-year planning horizons to achieve California's long-term reliability and clean energy objectives. Thoughtful transmission planning will also be necessary to ensure access to locations with high geothermal potential and genuine commercial interest.

Given the long development timelines for geothermal resources, least-regrets transmission solutions that preserve flexibility across a range of potential resource development pathways can maximize the value of transmission investments while reducing the potential for stranded costs.

B. Northern California is emerging as a significant opportunity for geothermal development at scale

The Geothermal IEPR Workshop highlighted the rapid pace of innovation in next-generation geothermal technologies, including enhanced geothermal systems, advanced drilling

methods, artificial intelligence-assisted resource characterization, and closed-loop systems. Collectively, these advances expand the range of commercially viable geothermal resources beyond California's traditional hydrothermal fields. As a result, regions with significant untapped geothermal potential, particularly Northern California, are emerging as increasingly important in-state opportunities for future geothermal development.

CalGrid has engaged with several geothermal developers that are pursuing in-state opportunities and are interested in leveraging the Gateway Projects to deliver Northern California resources to the state's load centers. Collectively, this level of developer interest reflects growing industry momentum across Northern California. Developers increasingly view the region as a promising area for geothermal development, supported by improving technologies, abundant untapped resources, and growing offtaker interest.

C. Preliminary analyses highlight the need for regional backbone transmission reinforcement

CalGrid's preliminary power flow analyses indicate that accommodating Northern California development at the scale contemplated during the Geothermal IEPR Workshop will require reinforcing the region's bulk transmission system beyond the already approved Gateway Projects. The CPUC's most recent IRP portfolios include more than 2 GW of incremental geothermal resources mapped in Northeast California, which create thermal overloads across more than 375 miles of existing 500 kV transmission backbone. In addition, existing constraints limit deliverability from the region, making it difficult for such resources to interconnect or efficiently deliver to load centers. Despite significant resource potential, lack of deliverability certainty makes it challenging for developers to secure purchase power agreements and finance these projects.

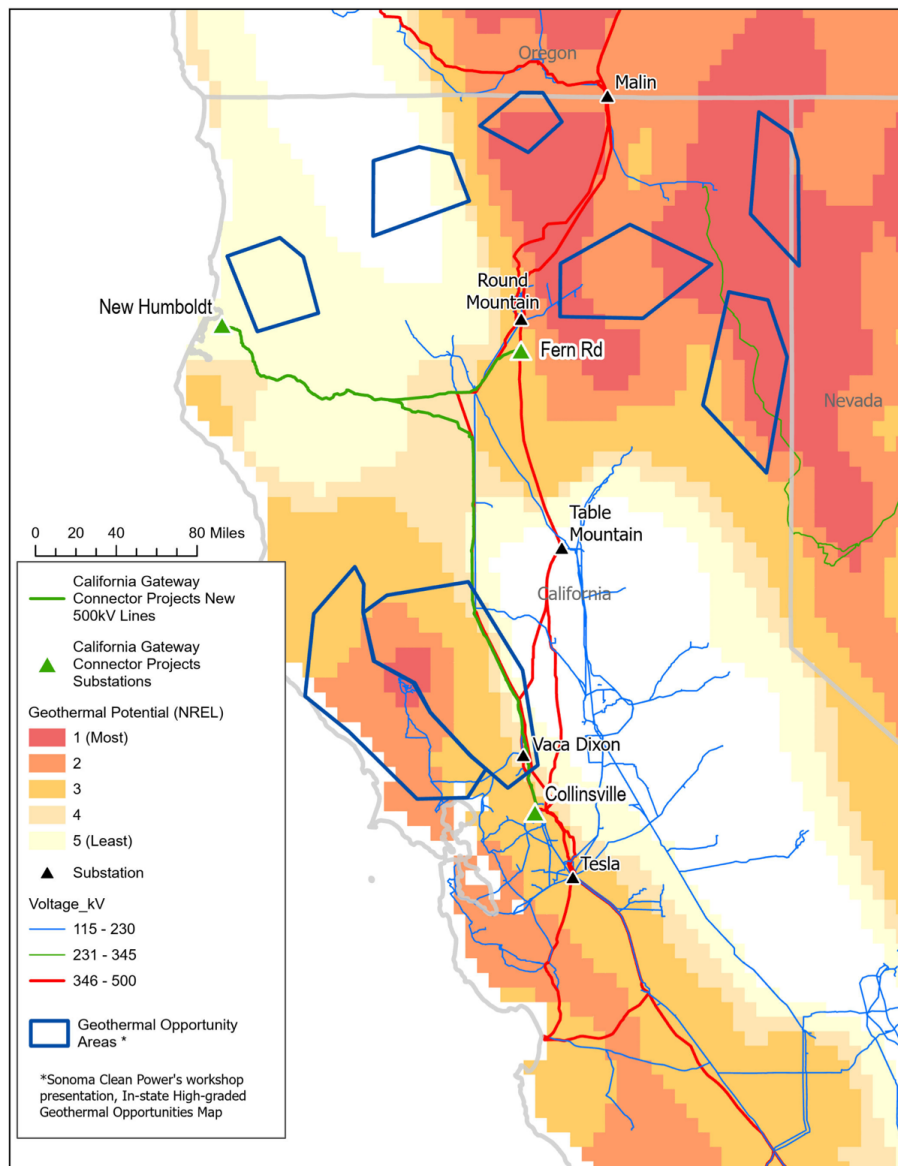
The geographic extent of these constraints highlights the importance of evaluating transmission solutions from a regional, system-wide perspective. As geothermal resources continue to mature, a coordinated backbone transmission strategy can reduce future costs, avoid piecemeal upgrades, and provide developers with greater certainty as projects advance.

The characteristics of these constraints also highlight the value of leveraging existing and approved backbone transmission investments wherever practical. CalGrid's preliminary analyses indicate that the Gateway Projects are well positioned to support future geothermal development.

By building upon an existing backbone transmission investment, this approach maximizes the long-term value of these transmission investments, reduces the potential for duplicative transmission infrastructure, and preserves flexibility as the location, timing, and scale of geothermal development continue to evolve.

Figure 1 illustrates the geographic relationship between the Gateway Projects and several of Northern California's most promising geothermal opportunity areas, demonstrating how the approved transmission corridor is strategically positioned to support development of these geothermal resources.

Figure 1. Gateway Projects and Northern California Geothermal Opportunity Areas



III. Conclusion

California's geothermal opportunity continues to expand as technologies mature, industry investment accelerates, and new regions in the state emerge as viable areas for development. Realizing this opportunity will require transmission planning that evolves alongside geothermal development and anticipates long-term resource needs. Leveraging existing and approved backbone transmission investments, wherever possible, provides a practical least-regrets pathway to support California's long-term reliability and clean energy objectives. CalGrid appreciates the opportunity to provide these comments and looks forward to continuing to engage with the CEC, CPUC, CAISO, geothermal developers, and other stakeholders to support the coordinated development of the state's geothermal and transmission infrastructure.

Dated: July 23, 2026

Respectfully submitted,

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