

DOCKETED	
Docket Number:	26-IEPR-04
Project Title:	Geothermal
TN #:	271324
Document Title:	XGS Energy
Description:	Presentation by Caity Smith at the July 9, 2026, IEPR Commissioner Workshop on California's Geothermal Energy Resources
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Organization:	Caity Smith
Submitter Role:	Other Interested Person
Submission Date:	7/8/2026 2:50:16 PM
Docketed Date:	7/8/2026

XGS Energy

Clean. Low Cost. Round-the-Clock
Energy. Everywhere. Forever.

CEC IEPR Geothermal Workshop — Permitting Panel

July 9, 2026



Who We Are: A Next-Generation Geothermal Technology & Project Developer

- **Headquartered in Palo Alto, CA, with offices in Houston, TX** — 30+ FTEs and growing, with a team behind 10+ GW of U.S. renewables development experience
- **A proprietary, water-independent next-generation geothermal system** — zero consumptive water use and no hydraulic stimulation, deployable anywhere there is hot rock
- **Proven at commercial scale** — 3,000+ hour demonstration of our system at commercial geothermal conditions at the Coso field near China Lake, California
- **Advancing a multi-GW project pipeline** — including a 115 MW Geothermal Exploration, Offtake, and Development Engagement (GEODE) Agreement with CC Power to develop this power in-state, for use by California ratepayers
- **Not just a technology company** — we permit, build, and operate geothermal projects directly

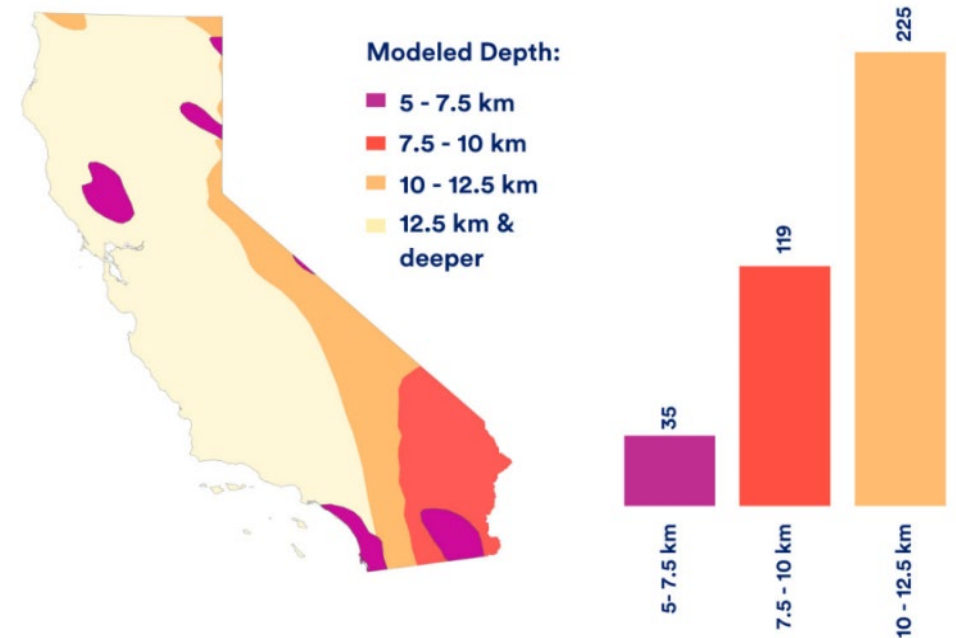


*XGS's water-independent system, proven at commercial scale — Coso field, California
Source: XGS Energy*

Why California Is Central to XGS's Strategy

- **35+ GW of geothermal opportunity** — when hot-rock resources are counted alongside California's legacy geothermal fields
- **Already permitted and demonstrated in-state** — XGS's system has cleared BLM permitting and EPA waste stream approval, and completed a commercial-scale demonstration at the Coso field
- **Building a multi-GW project pipeline sited in California** — to meet grid reliability needs, growing clean-firm demand from industry and data centers, and long-term decarbonization goals
- **No consumptive water use, no hydraulic stimulation** — aligning with environmental and community priorities relative to legacy geothermal development

Modeled Geothermal Resource Potential



Estimated GW potential grows with modeled resource depth — deeper hot-rock zones (10-12.5 km) represent the largest share of the opportunity

Source: CATF

California's Permitting Landscape Today

Local and state review stack sequentially for every project – utility interconnection runs as a separate, parallel track

12 permits

typically required for a 30 MW project across local, state, and utility agencies

Up to 24 months

for CEQA environmental review alone, depending on project complexity

2+ years

for exploratory drilling approval to clear all required California reviews

Local

- Use permit & site plan review (county planning department)
- CEQA lead agency role for exploratory drilling review, since AB 1359 (2024)
- Cultural and biological resource review; fire safety review

State

- CalGEM: notice of intention to drill, well bonding & operations oversight
- State Water Resources Control Board: water use & discharge permits
- Local air district: air quality permit
- CEC: streamlined certification ("Opt-In") pathway for qualifying projects

Interconnection

- Utility interconnection agreement, under CPUC oversight. Average wait time from submitting an IX request to reaching commercial operations is 4-7 years
- CPUC clean-firm procurement mandate is separately driving demand for these connections

California Has Started to Move

- **AB 1359 (2024)** — lets counties serve as CEQA lead agency for exploratory drilling, easing a longstanding CalGEM staffing bottleneck
- **AB 531 (2025)** — opens the CEC's streamlined "Opt-In" certification to geothermal projects of any size
- **CPUC's 1 GW geothermal procurement, under AB 1373** — D.24-08-064 (2024) reserves 1 GW for geothermal within DWR's long-lead-time procurement, with solicitations starting 2027
- **MTR requirement, D.21-06-035** — reserves 1 GW for firm, zero-emission resources (80%+ capacity factor); not geothermal-specific, but geothermal is called out as the leading eligible resource
- **CPUC's 2/26/26 IRP decision, D.26-02-057** — carves out 25% (1,500 MW) of the new 6 GW procurement for clean firm/long-duration resources; not geothermal-specific, but geothermal's ~87% marginal ELCC makes it the leading eligible resource
- **CEC cost-share, GFO-25-902** — through the Geothermal Grant & Loan Program, matches California awardees of DOE's \$171.5M Geothermal Power Accelerator opportunity dollar-for-dollar, up to \$2M per project

But growth has still stalled

~139 MW

added statewide since 2000 — just four new projects in a quarter century

357 MW

of proposed projects requested suspension in 2025

49.9 MW

approved in 2024, but construction has yet to begin

Practical Fixes That Would Speed Projects Up

Permitting

- Avoid duplication between surface and subsurface review, and between exploration and production stages
- Ensure CalGEM and the CEC have staff dedicated to geothermal – capacity, not just policy, is the real constraint
- Build on AB 1359 and AB 531 with a statewide permitting guidebook and clearer timelines

Grid & Interconnection

- Recognize the system value of always-on baseload power in interconnection queue prioritization
- Align transmission planning with priority geothermal zones, like the Sonoma-Mendocino GeoZone or GEODE agreement projects.
- Geothermal reduces curtailment and supports reliability – that value needs to show up in planning

Incentives

- State tax credits for geothermal, at parity with New Mexico and Colorado
- Keep CEC Geothermal Grant & Loan Program funding at parity with other clean-firm technologies
- Targeted policy alignment unlocks private capital that is already waiting to deploy

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Low Cost.
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Forever.

California has the geology, demand, workforce, and urgency to lead the next phase of geothermal development — XGS is excited to build here, and we're already doing it.

Thank you — Caity Smith, XGS Energy | csmith@xgsenergy.com

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