

Geothermal / Hydrogen Permitting Jurisdiction

Pathway	Capacity trigger	Siting / land use authority	CEQA lead	Statute
Exploratory project (≤6 wells, evaluating the resource, ≥½ mile from commercial production wells)	No MW threshold	CalGEM well permit + County Major Use permit	CalGEM, or the County if the applicant requests it. Mandatory since AB 1359 (2024); 135-day clock. If CalGEM is the lead, County uses the CEQA for its discretionary approvals	PRC 3715.5, 21065.5
Under 50 MW	<50 MW gross	County — use permit / conditional use permit under zoning	County	PRC 25120 (CEC jurisdiction starts at 50 MW)
50–100 MW with a Small Power Plant Exemption	50–100 MW	CEC grants the exemption, then County permits construction and operation	CEC prepares the CEQA document (MND or EIR); County uses it for its discretionary approvals	PRC 25541
50 MW and above (Application for Certification)	≥50 MW	CEC - exclusive for the powerplant, site and “related facilities” (PRC 25120, 25500; 20 CCR 1201(q)). The certificate is in lieu of every state, local and regional permit, and federal permits to the extent federal law allows. Per CEC guidance to the County in the Bottle Rock proceeding (79-AFC-04C), “related facilities” include the gen-tie from the powerplant to the first point of interconnection, the thermal resource conveyance pipelines running between the generating facility and the first or nearest production and injection wells,	CEC: certified regulatory program, functionally equivalent to an EIR	PRC 25500 et seq.

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		and water pipelines serving the project. The production and injection wells themselves, and the pipelines between those wells, are not “related facilities” — they remain County (Major Use Permit) and CalGEM jurisdiction. CEQA still requires the CEC, as lead, to consider the whole of the action.		
CEC Opt-in certification (developer’s election)	No MW floor for geothermal	CEC, if the developer chooses it — supersedes County permits entirely. Same facility type as the AFC row above: PRC 25545(b)(7) reaches a geothermal powerplant, or a project comprising multiple geothermal powerplants on a single site, together with the site and related facilities as defined at PRC 25545.1. What changes is the trigger, not the facility.	CEC — full EIR, 270-day clock	PRC 25545–25545.13

Zoning Ordinance section 21-27.11.1 establishes a Geothermal Setback Area. Within that area the Ordinance prohibits the surface location of geothermal research wells (27.13(m)(8)), geothermal exploratory wells (27.13(n)(2)) and geothermal field development wells (27.13(o)(2)), and bars siting of any electrical generation facility with a generating capacity over 3 MW (27.13(x)(2)).

The 49.9 MW convention is no longer protective for the County to be lead. **AB 531 (Rogers, Ch. 372, Stats. 2025)** ended that as the default\ assumption. It added “a geothermal powerplant or a project that comprises multiple geothermal powerplants on a single site” to the AB 205 opt-in list at PRC 25545(b)(7) with no megawatt threshold, unlike the solar/wind (50 MW) and storage (200 MWh) categories in the same subdivision. So far, no geothermal project has elected to utilize the AB 531 pathway. Practical effect: a developer of a 20 MW or 40 MW project in Lake County may now elect CEC certification and bypass the County’s permit entirely.

The CEC cannot certify an opt-in project without finding:

- Overall net positive economic benefit to the local government that would otherwise have permitting authority — employment, housing, infrastructure, local tax revenue.
- The applicant has signed at least one legally binding community benefits agreement with a local community-based organization.
- Prevailing wage and a skilled-and-trained workforce (or equivalent) for all construction.
- Compliance with all applicable laws, ordinances, regulations and standards (LORS), or a finding that the project is required for public convenience and necessity and there is no more prudent and feasible alternative. *This stipulation may provide some legal space to site a project within the geothermal setback, but it would be a difficult argument to make regarding public convenience and necessity.*

The LORS finding is where the County has leverage and the Geothermal Setback Area is the strongest LORS the County holds. To certify, the CEC must find the project complies with all applicable LORS, or make the alternative finding, under PRC 25525 and the parallel opt-in provisions, that the project is required for public convenience and necessity and that there are no more prudent and feasible means of achieving it. But a project proposed inside the Setback Area would force the CEC into an express written finding that it approves a facility Lake County has prohibited by ordinance. In the Bottle Rock proceeding the CEC has actively solicited County input on land use and zoning consistency, which suggests the LORS record the County builds early is likely to be read.

In theory the CEC opt-in timeline: pre-filing meeting (30 days before filing) → completeness determination (30 days) → Day 3 NOP → Day 5 tribal consultation letters → Day 30 scoping meeting → Day 150 Draft EIR → Day 240 Final EIR → Day 270 CEC decision → Day 360 remaining agency permits. In actuality, the CEC opt-in timeline has extended well past 270 days for several projects it has certified.

Section 27.13(x)(1) separately bars a facility over 3 MW within a half mile of a populated area or a recorded major subdivision absent the written consent of 75 percent of the affected property owners. A populated area is “defined as ten or more dwelling units established within a one-quarter (1/4) mile diameter area,” or a recorded major subdivision, “defined as five or more lots less than twenty acres in size.”

PRC 25120 expressly provides that exploratory, development and production wells, resource transmission lines (steam gathering), and other related facilities used in connection with a geothermal exploratory project or a geothermal field development project are not appurtenant facilities to the thermal power plant.

- Even for a 200 MW plant under exclusive CEC jurisdiction, the steam field remains County + CalGEM. The CEC licenses the plant; the County permits the wells, pads, access roads and the pipelines between wells under its zoning ordinance; CalGEM permits

the well bores. The line the CEC draws sits at the last production well and the first injection well: the conveyance pipeline from the last production well to the plant, and from the plant to the first injection well, is a related facility inside the certificate. The thermal analogue of the “first point of interconnection” concept on the electrical side. Everything upfield and downfield of those two points is County.

- Field development work is County jurisdiction regardless of eventual plant size.
- The line-drawing above comes from the AFC chapter (PRC 25120, 25500; 20 CCR 1201(q)). An opt-in certification under PRC 25545 et seq. likewise covers “the site and related facility” as certified, and the CEC has so far read the two chapters consistently, but the opt-in chapter carries its own definitions at PRC 25545.1 and its own regulations at 20 CCR 1875–1882, and no decided opt-in geothermal case has yet tested how far “related facility” reaches into field infrastructure.

CEQA roles by scenario — lead, responsible, trustee

Lead agency (PRC 21067): the public agency with principal responsibility for carrying out or approving the project. Prepares the environmental document; conducts AB 52 tribal consultation; files the Notice of Determination (NOD).

Responsible agency (PRC 21069; Guidelines 15096): a public agency other than the lead that has *discretionary approval power over the same project*. It may not prepare its own document, it must use the lead’s, but it makes its own findings on the impacts within its expertise, may impose its own mitigation within its authority, and files its own NOD.

Trustee agency (Guidelines 15386): a state agency with jurisdiction over natural resources held in trust for the people of the state. Comments and supplies expertise; is not necessarily issuing a permit in that capacity. CDFW is always a trustee agency for fish and wildlife; State Lands for state-owned minerals and lands; the State Water Board for water quality.

Scenario	CEQA lead	Responsible agencies	Trustee agencies	Document
Exploratory project — CalGEM lead (default)	CalGEM, by statute (PRC 3715.5), 135 days from complete application	County (use permit for pad, road, grading), Central Valley RWQCB, CDFW, LCAQMD if a permit is triggered	CDFW; State Lands where state minerals; State Water Board	ND, MND or EIR under CalGEM’s CEQA procedures (14 CCR 1682 et seq.)
Exploratory project — County lead on applicant request (AB 1359)	County — mandatory on request, geothermal element or not	CalGEM (Notice of Intention / well permit), RWQCB, CDFW Note: PRC 3715.5(c) requires the County and CalGEM to confer, once	Same	County-prepared; the 135-day completion

Scenario	CEQA lead	Responsible agencies	Trustee agencies	Document
		the County assumes lead, on the information the environmental review needs to contain so CalGEM can exercise its responsible agency authority. The applicant must direct the request to both the County and the Division.		obligation follows the lead role
Under 50 MW plant	County	CalGEM (wells, injection), RWQCB (waste discharge requirements, 401, stormwater), CDFW (1602, 2081), LCAQMD (ATC/PTO), State Lands (lease actions), Caltrans (encroachment)	CDFW; State Lands; State Water Board	County EIR or MND
50–100 MW with Small Power Plant Exemption	CEC — prepares the document even though it will not issue the permit	County (its own use permit), plus CalGEM, RWQCB, CDFW, LCAQMD	CDFW; State Lands; State Water Board	CEC-prepared MND or EIR; County and other agencies must consider it for their discretionary approvals
≥50 MW Application for Certification	CEC, under its certified regulatory program (PRC 21080.5)	The certificate is in lieu of state and local permits for the certified site and related facilities. The County remains a responsible agency for everything outside that boundary. Production and injection wells, well pads, inter-well pipelines, groundwater and water supply wells, access roads and other field infrastructure, each of which still requires a County use permit. Agencies retaining federally delegated authority (RWQCB for NPDES/401; LCAQMD and US EPA for Title V/NSR)	CDFW; State Lands; State Water Board — consulted, and the CEC must address their comments	Functional-equivalent document, not an EIR

Scenario	CEQA lead	Responsible agencies	Trustee agencies	Document
		act under federal law, not as CEQA responsible agencies.		
Opt-in certification (any geothermal size)	CEC and here the statute requires a full EIR, not the certified-program equivalent; 270-day clock	RWQCB (expressly retained; must act within 90 days of the CEC decision); DTSC and the local air district for manufacturing facilities; Coastal Commission / BCDC where applicable	CDFW — though the CEC may issue Fish and Game Code authorizations in lieu after consultation; State Lands; State Water Board	CEC EIR

1. Under a SPPE the County permits but does not control the analysis. The CEC writes the CEQA document and the County then issues the use permit as a responsible agency. The exemption removes the CEC certification requirement, not the County's use permit, building, grading and air district authority are all intact. What the County gives up is control of the environmental document. Under Guidelines 15096(b), a responsible agency that does not raise its concerns during the lead agency's review is generally deemed to have waived them. If a 50–100 MW SPPE lands in Lake County, the County's leverage is spent almost entirely during the CEC's scoping and draft-document comment periods, not at its own hearing afterward. Staff should treat CEC scoping as the substantive hearing.

2. Split lead agencies create segmentation exposure. PRC 25120 hands the plant to the CEC and the wellfield to the County. Where field development and generation are functionally one project, two lead agencies preparing two documents invites a piecemeal challenge

3. In an opt-in proceeding the County is not a responsible agency for the certified facility. With its permits over the site and related facilities superseded, the County has no discretionary approval there to hang findings on. As to the plant, its role is consulted agency, commenting party, mandatory pre-filing participant, and subject of the net-benefit and LORS findings. Where the same project includes wells, pads, inter-well pipelines or water supply wells that still require a County use permit, the County holds a discretionary approval over those components and is a responsible agency as to them. Using the CEC's EIR as its document. Building and grading permits are ministerial and outside CEQA in either case, and LCAQMD's federally delegated Title V/NSR authority is unaffected by the certificate.

Agency	What it permits	Preempted by a CEC certificate?
CEC	Plant siting ≥ 50 MW (AFC); SPPE 50–100 MW; opt-in certification any size geothermal	
CalGEM (Dept. of Conservation)	Notice of Intention to drill / redrill / deepen / plug and abandon; UIC injection approval; well spacing and field rules; idle well and bonding; CEQA lead for exploratory projects	No. Well permitting is independent of plant siting
State Lands Commission	Geothermal prospecting permits and leases on state mineral interests (SLC holds 100% mineral interest in $\sim 7,249$ acres at The Geysers, plus a 1/16 interest in ~ 896 acres; all leased to Constellation subsidiaries)	Lease is a property interest, not a permit, not superseded
Central Valley RWQCB	WDRs, NPDES, 401 certification, construction stormwater	No, expressly retained under opt-in; must act within 90 days of CEC decision
CDFW	1602 Lake and Streambed Alteration Agreement; 2081 incidental take	CEC may issue Fish & Game Code authorizations in lieu of CDFW under opt-in, after consultation
CPUC	Not a siting agency for merchant generation; relevant only for IOU-owned facilities	—
CAISO	Interconnection (not a land use permit)	—

Local

Agency	What it permits
County	Use permit or CUP for plants < 50 MW; use permits for wells, pads, steam pipelines between wells, groundwater and water supply wells, access roads and field infrastructure at any project size; grading, building; General Plan and zoning consistency, including the Geothermal Setback Area (21-27.11.1, Map A); CEQA lead where the County is lead
Lake County AQMD	Authority to Construct / Permit to Operate; H ₂ S abatement; cooling tower emissions. Under an AFC the district issues a Determination of Compliance the CEC incorporates. Federally delegated Clean Air Act authority (Title V, NSR) is not superseded

Agency	What it permits
County Environmental Health / CUPA	Hazardous materials business plans, underground storage tanks, Unified Program elements
County Public Works	Encroachment, haul routes, road maintenance agreements
Fire (local district / CAL FIRE)	Fire safe standards, access, water supply

Federal (not superseded by any state certificate)

Agency	Trigger
BLM	Geothermal leases on federal minerals (substantial acreage at The Geysers), Geothermal Steam Act, geothermal drilling permits, NEPA
USFS	Surface management where leases underlie national forest
US EPA	Retained CAA and CWA authority

What the County retains regardless of who sites the plant

- **Wellfield and field infrastructure permitting** (PRC 25120 carve-out)
- **Property tax base** — assessment of plant and field improvements
- **Federal geothermal lease revenue share** flowing to the County
- **Development agreements** - a negotiated contract under Gov. Code 65864 is not a land use permit and is not preempted by a CEC certificate; it is a live tool even for projects the County cannot condition through zoning
- **General Plan and zoning designations** — these are the LORS (laws, ordinances, regulations and standards) the CEC must analyze. A well-drafted energy element raises the bar an applicant must clear even in a preempted proceeding The Geothermal Setback Area (Zoning Ordinance 21-27.11.1, Map A) is the most concrete of these. It bars the surface location of research, exploratory

and field development wells and any generation facility over 3 MW within the mapped area. It governs the County’s own permits directly, and it is a LORS the CEC must find compliance with, or expressly override, in an AFC, SPPE or opt-in proceeding alike.

Legislative watch list

Bill	What it does	Status
AB 531 (Rogers)	Added geothermal to CEC opt-in with no MW floor	Law — Ch. 372, Stats. 2025
AB 1359 (Papan, 2024)	County must assume CEQA lead for exploratory projects on applicant request, whether or not it has a geothermal element	Law — urgency statute, effective 9/27/2024
AB 527 (Papan)	CEQA exemption for qualifying exploratory projects and EGS wells	Vetoed Oct. 2025 (fee/administrative cost rationale)
AB 2234 (Papan)	Narrower revival — amends PRC 21065.5 to include interconnectivity equipment, roads, distribution lines within the exploratory project definition. Expands CalGEM lead CEQA default for horizontal EGS projects.	Pending — Senate Appropriations as of July 2026
AB 1016 (J. Gonzalez)	Would extend local permitting to geothermal plants up to 150 MW in counties with an approved geothermal element, until 2030	Stalled — hearing cancelled at author’s request June 2025; not enacted
AB 526 (Papan)	Statewide geothermal strategic plan and permitting roadmap	Died in committee
