

Date of Hearing: April 6, 2026

ASSEMBLY COMMITTEE ON NATURAL RESOURCES

Isaac G. Bryan, Chair

AB 2234 (Papan) – As Introduced February 19, 2026

SUBJECT: California Environmental Quality Act: geothermal exploratory projects

SUMMARY: Revises the California Environmental Quality Act (CEQA) definition of “geothermal exploratory project” to accommodate “enhanced” geothermal exploration techniques.

EXISTING LAW:

- 1) CEQA requires lead agencies with the principal responsibility for carrying out or approving a proposed project to prepare a negative declaration, mitigated negative declaration, or environmental impact report (EIR) for this action, unless the project is exempt from CEQA. (Public Resources Code (PRC) 21000 *et seq.*)
- 2) Provides that the Geologic Energy Management Division (CalGEM) shall be the CEQA lead agency for all geothermal exploratory projects. However, CalGEM is authorized to delegate its lead agency responsibility to a county that has adopted a geothermal element for its general plan (e.g., Sonoma County). Requires a county to assume lead agency responsibility upon the request of a geothermal exploratory project applicant to the county and CalGEM. Requires a county lead agency to confer with CalGEM regarding necessary information that should be included in the environmental review for the project to facilitate CalGEM’s exercise of its authority as a responsible agency. (PRC 3715.5)
- 3) Defines “geothermal exploratory project” as a project composed of not more than six wells and associated drilling and testing equipment, whose chief and original purpose is to evaluate the presence and characteristics of geothermal resources prior to commencement of a geothermal field development. Wells included within a geothermal exploratory project must be located at least one-half mile from geothermal development wells which are capable of producing geothermal resources in commercial quantities. (PRC 21065.5)
- 4) Defines “geothermal field development project” as a development project composed of geothermal wells, resource transportation lines, production equipment, roads, and other facilities which are necessary to supply geothermal energy to any particular heat utilization equipment for its productive life, all within an area delineated by the applicant. (Government Code 65928.5)

THIS BILL revises the definition of “geothermal exploratory project” to specifically include “equipment and activities necessary to establish interconnectivity between wells and reservoirs, temporary roads, electric distribution lines, and infrastructure to provide power for drilling and testing equipment” and adds exceptions to one-half mile limit for “wells connecting to geothermal reservoirs whose permeability or capacity to allow the flow of geothermal fluids, including water, has been increased from its natural or original state through stimulation, horizontal drilling, the use of closed-loop configurations, or other techniques.”

FISCAL EFFECT: Unknown

COMMENTS:

- 1) **Background.** Geothermal is a form of renewable energy defined as heat energy from the earth. Geothermal resources are reservoirs of hot water that are naturally occurring or are manufactured to operate at varying temperatures and depths below the earth's surface. Wells, ranging from a few feet to several miles deep, can be drilled into underground reservoirs to tap steam and hot water that can be brought to the surface for use in electricity generation, direct heating, and industrial processes. The United States is the world's largest producer of geothermal electricity and California has the highest geothermal capacity of all states. “The Geysers” geothermal steam field, located within Lake, Mendocino, and Sonoma Counties, contains 349 out of California's 563 high-temperature geothermal wells. Imperial County (including the Salton Sea) houses 194 wells, and the remaining 20 are located in Lassen, Modoc, and Mono Counties. California has installed 2,627 MW of geothermal nameplate capacity – accounting for 72% of the total geothermal plant capacity in the United States. Many of these geothermal resource areas are known to have been inhabited and visited by Native Americans for thousands of years prior to European settlement.

Under current law, a geothermal project is divided into two discrete components for purposes of CEQA. The “exploration” phase involves drilling one or more exploration wells at a given site to map out the subsurface environment and assess exactly where a new geothermal power plant should be located. The subsequent “geothermal field development” phase involves drilling the necessary injector and producer wells, building the power plant, grid connections, and associated infrastructure. This phase is much more complicated and expansive. Typically, a geothermal developer cannot move forward with geothermal field development until some level of exploration has taken place as they need to site the wells in precisely the right location to make sure they are getting enough heat to support power generation, and that information can only be ascertained through exploration.

This bill expands the definition of geothermal exploratory project, explicitly including temporary roads and power lines, while also relaxing the prohibition on exploratory wells within one-half mile of existing commercial wells. Though not explicit, these changes appear to be intended to accommodate more intensive exploration activities associated with “enhanced” geothermal systems, which may include hydraulic, thermal, chemical and/or explosive well stimulation techniques not previously used in California for geothermal production.

- 2) **Author’s statement:**

AB 2234 can expand clean energy generation head-on by modernizing the statutory definition of “geothermal exploratory projects” to reflect emerging geothermal technologies.

California has a massive underground network of untapped geothermal energy. While the industry has taken great strides toward unlocking this firm energy source and supplying it to end-users, state law has not kept pace with technological advancements. Innovations like closed-loop and enhanced geothermal systems (EGS) can potentially supply many gigawatts more energy than previous technologies. Traditional geothermal is limited in scope since developers rely on naturally occurring groundwater — but these location

restraints do not make sense for new technology that can harness heat from deep within the earth.

The new definition is modernized in two ways; first, by removing the half-mile restriction between exploratory and commercial wells for advanced systems, it acknowledges that newer tech has built-in safeguards to avoid disturbing neighboring wells. Second, the definition recognizes that all equipment and infrastructure necessary for modern development should be considered part of a project, not separate.

By aligning statute with innovation, AB 2234 can expand access to firm, clean energy and signals that California is open for exploration.

3) **Prior legislation.**

AB 527 (Papan, 2025) established a CEQA exemption for geothermal exploratory projects, and included the same definition revisions as this bill. AB 527 passed this committee on April 28, 2025, but was later vetoed by the Governor, who commented:

In addition to delaying much-needed regulations that are already in process, the Division would need to substantially increase fees on geothermal operators to implement the new requirements imposed by the bill. While I support the expansion of the geothermal energy industry in California as a much-needed source of baseload clean power, the increased fees caused by this bill could disincentivize geothermal development in California beyond any incentive provided by a CEQA exemption for one part of a project's permitting process.

Additionally, I signed Assembly Bill 1359 (Papan) last year, which made a series of targeted reforms to the review and approval of geothermal exploration projects. It is prudent that we understand the effects of these changes before granting wholesale CEQA exemptions with costly and complicated conditions.

AB 1359 (Papan), Chapter 678, Statutes of 2024, requires a county to assume lead agency responsibility upon the request of a geothermal exploratory project applicant to the county and CalGEM, and requires a county lead agency to confer with CalGEM regarding necessary information that should be included in the environmental review for the project to facilitate CalGEM's exercise of its authority as a responsible agency.

REGISTERED SUPPORT / OPPOSITION:

Support

Sonoma Clean Power (sponsor)

Opposition

None on file

Analysis Prepared by: Lawrence Lingbloom / NAT. RES. /