

CONCURRENCE IN SENATE AMENDMENTS

AB 2234 (Papan)

As Amended August 27, 2026

Majority vote

SUMMARY

Revises the definition of "geothermal exploratory project" to specifically include equipment and activities necessary to establish interconnectivity between wells and reservoirs and specify that the one-half mile limit is measured from all points along the wellhead location and well course, including the bottom of the well.

Senate Amendments

- 1) Strike the addition of "temporary roads, electric distribution lines, and infrastructure to provide power for drilling and testing equipment."
- 2) Strike the exception 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."
- 3) Specify that the one-half mile limit is "measured from all points along the wellhead location and well course, including the bottom of the well."

COMMENTS

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 California Environmental Quality Act (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 equipment and activities necessary to establish interconnectivity between wells and reservoirs. 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.

According to the Author

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...

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.

Arguments in Support

According to sponsor Sonoma Clean Power, (AB 2234) will modernize the definition of geothermal exploration and help pave the way for a new renaissance of geothermal development in California...The technical clarifications and updates contained in AB 2234 are an important part of improving our legal framework around this exciting energy source and ensuring that California continues to lead the nation in geothermal energy production.

Arguments in Opposition

None received for current version.

FISCAL COMMENTS

According to the Assembly Appropriations Committee, ongoing staff workload costs of an unknown amount, likely in excess of \$150,000 (Oil, Gas, and Geothermal Administrative Fund), for the Geologic Energy Management Division (CalGEM) to implement this bill. By expanding the definition of "geothermal exploratory project" to include new technologies, this bill requires CalGEM to meet with potential project developers to understand how their technology works and may be deployed and what modifications to the wellbore or well pad may be needed to facilitate exploration. This work may involve site visits by CalGEM. Division staff must also evaluate potential impacts of the proposed geothermal exploratory project under CEQA and determine whether the proposed technology or project may require a permit for the well work.

VOTES:**ASM NATURAL RESOURCES: 14-0-0**

YES: Bryan, Ellis, Alanis, Connolly, Garcia, Haney, Hoover, Kalra, Macedo, Boerner, Pellerin, Schultz, Wicks, Zbur

ASM APPROPRIATIONS: 15-0-0

YES: Wicks, Hoover, Aguiar-Curry, Calderon, Caloza, Dixon, Fong, Mark González, Krell, Pacheco, Pellerin, Sharp-Collins, Solache, Ta, Tangipa

ASSEMBLY FLOOR: 79-0-1

YES: Addis, Aguiar-Curry, Ahrens, Alanis, Alvarez, Arambula, Ávila Farías, Bains, Bauer-Kahan, Bennett, Berman, Boerner, Bonta, Bryan, Calderon, Caloza, Carrillo, Castillo, Chen, Connolly, Davies, DeMaio, Dixon, Elhawary, Ellis, Flora, Fong, Gabriel, Gallagher, Garcia, Gipson, Jeff Gonzalez, Mark González, Hadwick, Haney, Harabedian, Hart, Hoover, Irwin, Jackson, Johnson, Kalra, Krell, Lackey, Lee, Lowenthal, Macedo, McKinnor, Muratsuchi, Nguyen, Ortega, Pacheco, Papan, Patel, Patterson, Pellerin, Petrie-Norris, Quirk-Silva, Ramos, Ransom, Michelle Rodriguez, Rogers, Blanca Rubio, Sanchez, Schiavo, Schultz, Sharp-Collins, Solache, Soria, Stefani, Ta, Tangipa, Valencia, Wallis, Ward, Wicks, Wilson, Zbur, Rivas

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UPDATED

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