SENATE COMMITTEE ON ENVIRONMENTAL QUALITY
Senator Blakespear, Chair
2025 - 2026 Regular

Bill No:	AB 531		
Author:	Rogers		
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Urgency:	No	**Fiscal:**	Yes
Consultant:	Brynn Cook		

SUBJECT: Geothermal powerplants and projects: certification and environmental review

DIGEST: This bill authorizes small (less than 50 megawatt) geothermal power plants to be eligible for the "AB 205 opt-in" process which provides streamlined environmental review for clean energy projects at the California Energy Commission (CEC) in lieu of permitting by local agencies.

ANALYSIS:

Existing law:

1) Establishes a state goal that renewable energy and zero-carbon resources supply 90% of all retail sales of electricity by the end of 2025, 95% by the end of 2040, and 100% by end of 2045 (SB 1020, Laird, 2022). Existing law requires state agencies, including California Public Utilities Commission (CPUC), California Energy Commission (CEC), and the California Air Resources Board (CARB), to take certain actions to support the state's clean energy goals. (Public Utilities Code (PUC) § 454.53)

2) Requires, pursuant to California Environmental Quality Act (CEQA), 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 (CEQA includes various statutory exemptions, as well as categorical exemptions in the CEQA guidelines). (Public Resources Code (PRC) § 21000 et seq.)

3) Establishes CEQA judicial streamlining provisions for a broad swath of energy, transportation, water, and semiconductor projects eligible for expedited judicial review under CEQA in SB 149 (Caballero, Chapter 60, Statutes of 2023). Projects must meet certain environmental and labor criteria to be eligible for this certification. The streamlining certification ends January 1, 2033.

4) Grants CEC, under the Warren-Alquist Act (Chapter 276, Statutes of 1974), the exclusive authority to license thermal powerplants 50 megawatts (MW) and larger (including related facilities such as fuel supply lines, water pipelines, and electric transmission lines that tie the plant to the bulk transmission grid). The CEC process is a certified regulatory program (i.e., the functional equivalent of CEQA), so the CEC is exempt from having to prepare an EIR. (Public Resources Code (PRC) § 25500 *et seq*.).

5) Establishes an "opt-in" framework for specified clean energy projects meeting certain criteria to seek consolidated permitting and at the CEC (AB 205 opt-in process) with the goal of expediting the permitting process to 270 days. Eligible clean energy projects for the AB 205 opt-in process include:
   a) A solar or terrestrial wind facility with a generating capacity of 50 MW or more and associated facilities;
   b) An energy storage system capable of storing 200 MW or more of energy, as specified;
   c) A stationary thermal electrical generating power plant, with a generating capacity of 50 MW or more that does not use or rely on fossil or nuclear fuels; and
   d) Certain renewable energy component manufacturing facilities and transmission lines to certain renewable energy facilities. (Public Resources Code § 25545)

This bill:

1) Expands the types of facilities eligible to be certified as environmental leadership development projects and eligible for the CEC's "AB 205 opt-in process" to include geothermal powerplants, of any size, and geothermal field development projects.

2) Makes additional minor clean-up of the code section to remove outdated references to legislation.

Background

1) *Geothermal Energy*. 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.[1]

[1] Pg. 16; SB 423 Report "Emerging Renewable and Firm Zero-Carbon Resources"; December 2024

2) *Geothermal energy in California.* California contains one of the largest amounts of geothermal electric generation capacity in the United States due to its location on the Pacific Ocean's "ring of fire," where the state encompasses some of the edges of the tectonic plates. Currently, there are roughly 40 operating geothermal power plants in California with an installed capacity of 2,700 megawatts (MW). In 2023, geothermal energy produced 11,000 gigawatt-hours (GWh) of the state's electricity, which has remained relatively steady for over a decade, and represents roughly five percent of the state's total system power. The largest concentration of geothermal plants are located north of San Francisco in the Geysers Geothermal Resources Area in Lake and Sonoma Counties.

3) *More appetite for geothermal.* Geothermal energy can be an important piece of the clean energy pie that California will need to meet it's 100% clean electricity by 2045. Geothermal energy is particularly valuable because it can be available when intermittent resources – such as solar and wind – are offline (such as at night or on cloudy days). Recognizing the importance of geothermal energy, California has taken several step to procure more geothermal energy, including:
   - In February 2024, the CPUC adopted the 2023 Preferred System Plan which estimated that at least 2 GW of geothermal energy is needed to meet the GHG reduction target of 25 million metric tons (MMT) by 2035.[2]
   - In June 2021, the CPUC issued a major procurement order –the Mid-Term Reliability (MTR) which requires utilities to procure about 1,000 MW of geothermal energy[3]
   - In 2023, the legislature adopted AB 1373 which authorized the CPUC to work with the Department of Water Resources (DWR) to procure offshore wind, geothermal, and long lead time resources aiming to facilitate the development of clean energy resources and meet the state's 100% clean energy goals.[4] The decision identified four types of long lead time resources for DWR to seek procurement solicitations; the total solicitation cap was 10.6 GW, with about 1 GW for geothermal energy.[5]

4) *Environmental review for geothermal projects.* In California, projects are subject to environmental review. The primary environmental law is CEQA,

[2] Pg. 68; CPUC ; Decision 24-02-047; February 15, 2024
[3] https://fervoenergy.com/fervo-energy-announces-320-mw-power-purchase-agreements-with-southern-california-edison/, June 25, 2024
[4] https://legiscan.com/CA/text/AB1373/id/2815509, Bill text CA AB1373, 2023-2024, LegiScan
[5] Bernier P. et al, CPUC Authorizes Procurement of 10.6 GW of Clean Energy Resources Under AB 1373, https://www.mayerbrown.com/en/insights/publications/2024/08/cpuc-authorizes-procurement-of-106-gw-of-clean-energy-resources-under-ab-1373

which is designed to (a) make public agencies and the public aware of the environmental impacts of a proposed project, (b) ensure the public can take part in the review process, and (c) identify and implement measures to mitigate or eliminate any negative impact the project may have on the environment. CEQA is enforced by civil lawsuits that can challenge any project's environmental review.

Under CEQA, projects (unless they have a specific exemption) must undergo environmental analysis. This process starts with an initial study which determines what level of further environmental review is needed for a given project. If a project has no significant effects on the environment, or if those effects can be fully mitigated, the project can move forward with a negative declaration (ND) or mitigated negative declaration (MND). If the initial study finds that the project has potentially significant effects on the environment, then the lead agency must conduct an EIR. An EIR provides a thorough environmental review of a proposed project and proposes environmental mitigation impacts. Except for in unusual circumstances, EIRs must be completed in one year.

Small geothermal energy projects (less than 50MW) are permitted by the appropriate county and reviewed under normal CEQA procedures.

5) *AB 205 opt-in certification/permitting program.* AB 205 (Committee on Budget, Chapter 61, Statutes of 2022) expanded the CEC's authority to oversee the streamlined permitting of certain clean and renewable energy facilities through an opt-in certification program until June 30, 2029. The certification from the CEC under AB 205 serves in lieu of most other state, local, or regional permits, streamlining the approval process and consolidating it to just 270 days, with certain exceptions. Only some projects are eligible for the expedited review process under AB 205, including:

- Solar photovoltaic or terrestrial wind power plants with a generating capacity of 50 MW or more.
- Energy storage systems capable of storing 200 MW hours or more of electrical energy.
- Any stationary power plant using any source of thermal energy, excluding fossil or nuclear fuels, 50 MW or greater (includes geothermal energy).
- Specified facilities that cost at least $250 million and are for the manufacturing, production, or assembly of an energy storage system.
- Electric transmission lines carrying electric power from a facility described the above generating and storage facilities.

- Hydrogen production facilities (not derived from fossil fuel feedstock) and associated onsite storage and processing facilities.

Under the AB 205 opt-in permitting program, the CEC conducts a comprehensive environmental assessment equivalent to an EIR. As part of this certification process, the CEC is required to carry out ongoing public participation and tribal consultation efforts. In addition, to obtain certification, applicants must demonstrate that the project will provide a net positive economic benefit to the local community. This includes entering into a community benefits agreement, ensuring payment of prevailing wages, and using a skilled and trained workforce for construction.

Comments

1) *Purpose of Bill.* According to the author, "Assembly District 2 is proudly home to a portion of "The Geysers," the largest geothermal field in the world. It contains a complex of 18 geothermal power plants, drawing steam from more than 350 wells, and is poised through the use of emerging new technologies to play an even larger role in California's clean energy mix. The expansion of geothermal energy production is an important component of our efforts to diversify and increase California's energy supply portfolio so we can reach our climate goals. This bill supports more efficient development of geothermal energy production, which will help enhance energy reliability and create more green energy jobs at the Geysers and beyond."

2) *Is 270 days achievable?* Under AB 205, the CEC has just 270 days to finish environmental review. The one project that CEC has approved through the new AB 205 opt-in process, (the Darden Clean Energy Project), took longer than 270 days to complete. The Darden Clean Energy is a 1,150 MW solar photovoltaic facility with up to 4,600 megawatt-hour battery energy storage system located on approximately 9,500 acres in western Fresno County. The project filed its application for the AB 205 process on November 9th, 2023. The application was deemed complete September 19th, 2024, and the Notice of preparation of Draft EIR was announced Sept 23, 2024—the project got final approval on June 11, 2025.

   While this process is likely expedited compared to other such large-scale energy projects, it is worth considering that thorough environmental review, which can require supplemental information and iterative discourse with the public and stakeholders, is difficult to constrain to set timelines.

   In addition, increasing the number of projects that go through the AB 205 opt-in process may put additional strain (or require more staffing resources) for the

CEC in order to ensure that adding more projects does not slow down processing times for existing projects. On the other hand, the smaller thermal powerplants allowed under this bill will likely have fewer environmental impacts and require less intensive environmental review compared to projects that generate 25 times their energy, like the Darden project.

3) *ELDP expansion*? The list of clean energy projects that are eligible for the AB 205 opt-in process is the same list of clean energy projects that are eligible for the ELDP judicial streamlining process. In order to receive certification as an ELDP project, eligible clean energy projects must meet numerous other criteria, established as part of the ELDP program. This includes a requirement that any project proposed by a private entity can only get ELDP certification if it does not result in any net additional emission of greenhouse gases, including greenhouse gas emissions from employee transportation. In other words, while changing the definition of clean energy projects in this code section to include smaller thermal power plants does make those projects eligible for ELDP certification as well as the AB 205 opt-in process, it is not sufficient to make them eligible for ELDP certification.

4) *Local control vs. CEC*. In current law, small geothermal powerplants (like all other small powerplants under 50MW) are permitted by the local jurisdiction and reviewed under normal CEQA procedures. This bill permits those under small geothermal projects to opt for CEQA review by CEC under AB 205, with the promise of a short 270-day environmental review.

   Choosing to leave environmental review and siting and permitting decisions with local jurisdictions or with the CEC come with different tradeoffs. Local jurisdictions may be better suited to address local needs and concerns. On the other hand, state agencies may have more dedicated staff and technical expertise on energy projects and environmental review procedures.

Related/Prior Legislation

SB 254 (Becker, 2025) would, among its many provisions, made changes to further streamline the administration of the AB 205 "Opt-in" permitting program. The bill is pending in the Assembly Utilities and Energy Committee.

SB 1420 (Caballero, Chapter 608, Statutes of 2024) added hydrogen production facilities and onsite storage and processing facilities, as specified, to the types of facilities that existing law makes eligible for the CEC's AB 205 permitting process and expedited review under CEQA.

AB 205 (Committee on Budget, Chapter 61, Statutes of 2022) among its many provisions, establishes a new certification process at the CEC, known as the "AB 205 Opt-in Permitting," for 50 MW or more solar photovoltaic, terrestrial wind electrical generation powerplant, or thermal powerplant that does not use fossil or nuclear fuels, or energy storage system of 200 MW hours or more.

SOURCE: Author

SUPPORT:

Advanced Energy United
Associated General Contractors, California Chapters
California Community Choice Association
California State Association of Electrical Workers
California State Pipe Trades Council
City of San Jose
Climate Center; the
Fervo Energy
Geothermal Rising
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Western States Council Sheet Metal, Air, Rail and Transportation

OPPOSITION:

County of Siskiyou
Rural County Representatives of California (RCRC)

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