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

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| **Bill No:** | SB 925 | | |
| **Author:** | McNerney | | |
| **Version:** | 3/12/2026 | **Hearing Date:** | 4/22/2026 |
| **Urgency:** | No | **Fiscal:** | Yes |
| **Consultant:** | Alyssa Poletti | | |

**SUBJECT:** Fusion energy: State Energy Resources Conservation and Development Commission: strategic plan: certification and environmental review

**DIGEST:** This bill makes nuclear fusion energy projects eligible for California Environmental Quality Act (CEQA) judicial streamlining and to be certified as Environmental Leadership Development Projects (ELDPs). This bill requires the California Energy Commission (CEC) to develop strategic plans and a regulatory framework for the nuclear fusion industry.

**ANALYSIS:**

Existing law:

1) CEQA requires lead agencies with the principal responsibility for carrying out or approving a project to prepare a negative declaration (ND), mitigated negative declaration (MND), or environmental impact report (EIR) for the project, unless the project is exempt from CEQA. (Public Resources Code (PRC) §21000 et seq.). If a project may have a significant effect on the environment, the lead agency must prepare a draft EIR. (CEQA Guidelines §15064(a)(1), (f)(1))

2) Established the Jobs and Economic Improvement Through Environmental Leadership Act of 2011 (AB 900, Buchanan, Chapter 354, Statutes of 2011), which established CEQA administrative and judicial review procedures for an "environmental leadership" project. The Act was later extended and modified in 2021 (SB 7, Atkins, Chapter 19, Statutes of 2021). (PRC § 21178 et seq.)

3) Establishes 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).
   a) Projects must meet certain environmental and labor criteria to be eligible for this certification.
   b) Power plants burning, using, or relying on fossil or nuclear fuels are not eligible.

c) The streamlining certification ends January 1, 2033. (PRC § 25545 et seq.)

4) Establishes the Radiation Control Law (SB 1360, Health and Human Services Committee, 1995) which
   a) Defines high-level nuclear waste as highly radioactive material from the reprocessing of spent nuclear fuel;
   b) Defines low-level nuclear waste as radioactive material which is not high-level nuclear waste, a uranium compound, or spent nuclear fuel;
   c) Regulates the proper use, record-keeping, and inspections of radiation and nuclear waste generators; and
   d) Requires nuclear waste generators to minimize the creation of low-level nuclear waste. (HSC § 114960 et seq.)

This bill:

1) Allows CEQA judicial streamlining for nuclear fusion energy generation projects, research facilities, and manufacturing components necessary for nuclear fusion.

2) Makes nuclear fusion energy generation, research, and manufacturing projects eligible to be environmental leadership development projects (ELDPs).

3) Precludes powerplants using nuclear fission fuels from eligibility for CEQA streamlining and ELDP.

4) Requires the California Energy Commission (CEC), in coordination with any relevant federal, state, or local agency, to:
   a) Develop a strategic plan for fusion energy including:
      i) Proposed actions to address the needs of fusion energy identified in the 2027 edition of the Integrated Energy Policy Report;
      ii) Emphasis and priority placed on near-term actions to expand research and development on the California fusion ecosystem and supply chain;
      iii) Identification or suitable locations or criteria for suitable locations for:
         a) New fusion research; and
         b) New fusion demonstration and powerplants;
      iv) Occupational safety requirements; and
      v) A regulatory framework for licensing and permitting.
   b) The strategic plan must:
      i) Serve an advisory function;
      ii) Be available for public comment;

iii) Be submitted to the Legislature;
iv) Be aligned with state energy goals; and
v) Includes the findings and declarations listed in the bill.

c) Develop a strategy for the expansion and development of fusion research and development, including:
   i) Opportunities for expanding small, medium, and large fusion research and development facilities;
   ii) Options for siting a national integrated facility;
   iii) Criteria for suitable locations with consideration of:
      a) Capabilities that best serve the US fusion industry;
      b) Opportunities for developing or expanding research on public and private land, including University of California campuses, other colleges, and vocational schools; and
      c) Opportunities for siting a large integrated fusion research and development facilities in partnership with government and industry.

d) Develop a strategy for supporting the commercialization of fusion energy in California, including:
   i) Identifying suitable locations or criteria for suitable locations, considering existing data on fusion energy commercial viability, transmission infrastructure, and the protection of cultural and biological resources;
   ii) Recommendations on potential significant adverse environmental impacts consistent with California's long-term renewable energy; greenhouse gas emissions reduction, and biodiversity goals
   iii) Solicited interest from local governments, economic development organizations, nongovernmental organizations, and the fusion energy industry to:
      a) Identify locations with existing fusion assets; and
      b) Understand incentives and proposed cost-sharing opportunities.

e) Develop a regulatory framework for fusion energy and a roadmap for licensing and permitting which:
   i) Aligns with the Nuclear Regulatory Commission;
   ii) Recommends deadlines for state agencies;
   iii) Includes clearly defined roles, responsibilities, and decision-making authority under CEQA;
   iv) Identifies staffing or funding needs at the Radiologic Health Branch of the State Department of Public Health; and

v) Provides an opportunity for stakeholder input.

f) Assess the level at which fusion energy at scale would best support California's long-term renewable energy and greenhouse gas emissions reduction goals.

g) Ensure policy tools are available to fusion developers.

5) Allows the CEC to:
   a) Refer to the Fusion Energy Science Advisory Committee (FESAC) and US Department of Energy (DOE) materials;
   b) Engage with the DOE;
   c) Solicit interest from local governments, colleges, universities, the fusion industry, and other organizations to identify existing fusion assets; and
   d) Recommend establishing designated geographic areas to accelerate the development of fusion technologies.

6) Makes findings and declarations.

**Background**

1) *The A, B, C's of CEQA*. CEQA is designed to (a) make government 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. Nonprofits, private individuals, public agencies, advocacy groups, and other organizations can all file lawsuits under CEQA.

   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 potential significant effects on the environment, then a full EIR is conducted. An EIR provides thorough environmental review of a proposed project, analyzing the significant direct and indirect environmental impacts of a proposed project on water quality, transportation, air quality and greenhouse gas emissions, terrestrial and aquatic biological resources, surface and subsurface hydrology, land use and agricultural resources, aesthetics,

geology and soils, recreation, public services and utilities such as water supply and wastewater disposal, and cultural resources, among other factors. The EIR also includes proposed mitigation measures for any significant effects that it identifies and considers alternatives to the proposed project.

2) *CEQA streamlining.* The Legislature has developed streamlining measures to speed CEQA lawsuits against specified projects through the courts. In current law, CEQA streamlining entails both judicial and administrative streamlining. Judicial streamlining requires that a CEQA lawsuit be heard in 270 days, including all appeals, as feasible. Administrative streamlining requires projects to prepare the administrative record, the comprehensive document at the heart of a CEQA case, at the same time as the environmental review documents are prepared. Preparing these documents concurrently, instead of sequentially, saves time if there is a lawsuit. These streamlining measures shorten what is potentially the lengthiest portion of the CEQA process while retaining the full environmental review and public engagement offered under CEQA.

   In 2011, the Legislature passed the first CEQA streamlining certification program with the Jobs and Economic Improvement Through Environmental Leadership Act (Leadership Act), which created CEQA streamlining for residential, retail, commercial, sports, and recreational use projects that were certified as Environmental Leadership Development Projects (ELDP) by the Governor (AB 900, Buchanan, Chapter 354, Statutes of 2011). The ELDP program was further extended and modified in 2021 with (SB 7, Atkins, Chapter 19, Statutes of 2021).

   In 2023, The Legislature expanded these same streamlining provisions for certain energy, transportation, and water infrastructure projects (SB 149, Caballero, Chapter 60, Statutes of 2023).

   The specific criteria that projects must meet to be eligible for CEQA streamlining varies by project and process, but all are intended to ensure that projects meet high environmental and labor standards. In current law environmental criteria for streamlining includes requirements such as achieving Leadership in Energy and Environmental Design (LEED) Gold certification and being greenhouse gas neutral. SB 149 (Caballero, Chapter 60, Statutes of 2023) also includes a specific equity provision which requires that projects both minimize significant environmental impacts in disadvantaged communities and take mitigation measures that directly benefit the affected community. In offering CEQA streamlining for projects that meet these high standards, California has been able to promote projects that align with the State's environmental, climate, and labor goals.

3) *What is fusion?* Fusion energy sounds both simple and daunting in concept. The energy is formed through the combination of two hydrogen atoms to form a helium atom. The resulting helium atom has a lower mass than the two hydrogen atoms; the excess mass is converted into energy. While a simple reaction, fusion energy harnesses the very reaction which powers the sun.

   Fusion was first achieved in 1934 but was not energy-positive (output energy greater than the input energy) until 2022.[1] The most common method to achieve fusion is to heat the atoms to temperature hotter than the sun, which requires substantial energy input. Newer methods are less energy intensive, depending on strong lasers or magnets to start the reaction.[2] When the Department of Energy's Lawrence Livermore National Lab (LLNL) created a sustained energy positive fusion reaction in 2022, it was a breakthrough.[3] As of 2025, LLNL created a fusion reaction which netted 1.74 megajoules (MJ), approximately enough energy to power a house for 30 minutes or drive an electric sedan for 1.5 miles.[4] Fusion labs internationally have sustained a fusion reaction for over 15 minutes, longer than LLNL. [3]

4) *Fusion in California*. California leads the fusion industry. One third of all US-based fusion companies are in the state. SB 80 (Caballero, Chapter 334, Statutes of 2025) dedicated $5 million to fusion research and development. The sector currently employes 4,700 people.[5]

5) *The Perpetual Energy of the Future.* Fusion energy researchers joke that fusion is always 15, 30, or 50 years away. A headline from 2018 reads "Nuclear Fusion is 15 years from reality, say MIT engineers."[6] Eight years later, a research physicist at LLNL said that a viable fusion power plant is 15 to 30 years away.[3]

   However, several companies are making million-dollar bets that fusion will reach utility scale in the next two to ten years. Commonwealth Fusion Systems, backed by Bill Gates, plans to open a 400-megawatts (MW; 100 megawatt-

[1] EuroFusion, History of Fusion. https://euro-fusion.org/fusion/history-of-fusion/
[2] Lemonick, S. (2021) Fusion experiments broke records this year, raising hopes for fusion power, Chemical and Engineering News. https://cen.acs.org/energy/nuclear-power/Fusion-experiments-broke-records-year/99/i44
[3] Martucci, B (2025) Is nuclear fusion for real this time? These utilities think so, Utility Drive. https://www.utilitydive.com/news/is-nuclear-fusion-for-real-this-time-these-utilities-think-so/761079/
[4] LLNL National Ignition Facility & Photon Science (2025) Achieving Fusion Ignition, https://lasers.llnl.gov/science/achieving-fusion-ignition
[5] Governor Newsom (2025) California continues to lead the nation in fusion energy, investing in technology of the future, https://www.gov.ca.gov/2025/12/15/california-continues-to-lead-the-nation-in-fusion-energy-investing-in-technology-of-the-future/
[6] Duckett, A. (2018) Nuclear fusion is 15 years away from reality, says MIT engineers, The Chemical Engineer. https://www.thechemicalengineer.com/news/nuclear-fusion-is-15-years-away-from-reality-say-mit-engineers/

hours (MWh) over 15 minutes of operation) plant, enough to power 300,000 homes, in the early 2030s.[7] Helion, backed by OpenAI's Sam Altman, plans to bring a 50-MW (approximately 12 MWh over 15 minutes) fusion power plan online by 2028.[3] The International Thermonuclear Experimental Reactor, located in France and intended to demonstrate the feasibility of fusion power, is $5 billion over budget and 9 years delayed (with an opening date of 2034).[8]

Presently, fusion energy can generate 1.74 megajoules (MJ) for 15 minutes (approximately 500 Wh), a far cry from reliable, utility scale energy. The fusion power plants currently planned are 24,000 to 200,000 larger and must function consistently for hours, if not days, at a time.

6) *The Problem of Nuclear Waste*. Existing nuclear power plants generate 9% of California's electricity and use nuclear fission, a process which generates around-the-clock, fossil-free energy and significant nuclear waste. Nuclear waste is classified in tiers depending on radioactivity: low-, intermediate-, and high-level. Low-tier nuclear waste consists of lightly contaminated items such as tools or work clothing. High-level waste consists of highly radiative fuel byproducts. 90% of nuclear waste is low-level waste, but the 3% of high-level nuclear waste is difficult to properly dispose of.[9] Presently, California has a moratorium on new nuclear fission power plants until the federal government identifies and approves technology for the permanent disposal of high-level nuclear waste.[10] There are currently limited intermediate-level disposal sites in the US and no high-level disposal sites.

Nuclear fusion generates lower quantities of waste that is less hazardous; however, it is still hazardous, nuclear waste. Nuclear fusion generates low-level and intermediate-level waste.[11] Fusion waste contains tritium (an isotope of hydrogen) with a half-life of 12 years, far shorter than nuclear fission waste but still a substantial amount of time. Tritium easily contaminates steel and concrete and has a propensity to migrate, increasing the likelihood of environmental releases.[11]

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[7] Blum, J. (2025) Nuclear fusion, the 'holy grail' of power, was always 30 years away – now it's a matter of when, not if, fusion comes online to power AI, Fortune. https://fortune.com/2025/10/02/nuclear-fusion-online-commercial-ai-power/

[8] Matthews, D. (2024) ITER fusion project confirms more delays and €5B cost overrun, Science Business. https://sciencebusiness.net/news/iter-fusion-project-confirms-more-delays-and-eu5b-cost-overrun

[9] World Nuclear Association, What is nuclear waste, and what do we do with it? https://world-nuclear.org/nuclear-essentials/what-is-nuclear-waste-and-what-do-we-do-with-it

[10] LAO (2015) A.G. File No. 2015-001. https://lao.ca.gov/BallotAnalysis/Initiative/2015-001

[11] Gonzalez de Vincenta, S. M. (2022) Overview on the management of radioactive waste from fusion facilities: ITER, demonstration machines and power plants, Nuclear Fusion. https://iopscience.iop.org/article/10.1088/1741-4326/ac62f7

Nuclear fusion has the potential to be a clean source of energy. Fusion produces less radioactive waste than either fission or coal combustion.[12] However, care must be taken to ensure low- and intermediate-level waste is disposed of properly, that there are sufficient intermediate-level disposal sites, and environmental releases are minimized especially in pollution burdened communities.[13]

## Comments

1) *Purpose of Bill.* According to the author, "For decades, fusion energy was viewed as a distant promise of unlimited clean energy that might never be realized. But not anymore. Successful fusion ignition has already been achieved multiple times at the Lawrence Livermore National Laboratories in my Senate district — the only place in the world to do so. California now needs to build out its regulatory framework to keep fusion jobs and investment here in the state. SB 925 will require the California Energy Commission to create a strategic roadmap to advance fusion energy. This includes assisting research and development, locating sites for future power plants, and creating a licensing and permitting framework."

2) *Previously committed amendments incoming.* SB 925 was amended in the Senate Energy, Utilities, and Communications committee on April 13th, 2026. However, due to timing restraints, those amendments will be adopted in this committee. Those amendments include striking Section 25545(b)(8), therefore not expanding CEQA streamlining and EDLP to nuclear fusion energy generation projects.

3) *Considerations for the development of clean energy*. SB 925 aims to create a roadmap for the development of nuclear fusion facilities. Without that road map, it is premature to expand streamlining and ELDP streamlining to nuclear fusion power plants. Additionally, nuclear fusion generates hazardous nuclear waste which is not presently addressed in EDLP statute. If or when nuclear fusion energy generation is eligible for CEQA streamlining or ELDP, care should be taken to ensure such projects follow existing nuclear waste management statute (HSC § 114960 et seq.) and minimize nuclear waste wherever possible. Therefore, the amendments committed to in the previous

[12] Broden, K. (1998) Waste from fusion reactor: A comparison with other energy producing systems, Fusion Engineering and Design. https://www.sciencedirect.com/science/article/abs/pii/S0920379697001506
[13] Upholt, B. (2023) Spent nuclear fuel sits on a crumbling California coastline. So what to do? SeaGrant California. https://caseagrant.ucsd.edu/news/spent-nuclear-fuel-sits-crumbling-california-coastline-so-what-do

committee strike a balance between preparing for a future, transformative industry and maintaining environmental standards.

**Related/Prior Legislation**

SB 887 (Padilla, 2026) expands ELDP eligibility to data centers certified to meet specified environmental standards. This bill passed in the Senate Environmental Quality Committee and is referred to the Senate Energy, Utilities and Commutations Committee.

SB 80 (Caballero, Chapter 334, Statutes of 2025) establishes the Fusion Research and Development Innovation Initiative within the CEC.

SB 1172 (Calderon, Chapter 360, Statutes of 2023) requires the CEC to produce an assessment of the potential for fusion energy to contribute to California's power supply.

AB 525 (Chiu, Chapter 231, Statutes of 2021) requires the CEC in collaboration with relevant stakeholders to create a roadmap for the development of the offshore wind industry.

**DOUBLE REFERRAL:**

This measure was heard in Senate Energy, Utilities, and Communications Committee on April 13th, 2026, and passed out of committee with a vote of 17 to 0.

**SOURCE:** Author

**SUPPORT:**

B3k Prosperity
Blue Laser Fusion
City of Livermore
Clean Air Task Force
Ex-fusion America
Focused Energy
Fuse
General Atomics
Helicity Space
Inertia Enterprises
Innovation for Green Advanced Transportation Excellence Development Corporation (I-GATE)

Kyoto Fusioneering America
Longview Fusion Energy Systems
Mifti Fusion
Openstar Technologies
Pacific Fusion
San Diego Regional Chamber of Commerce
San Diego Regional Economic Development Corporation
San Diego State University
Tae Technologies

**OPPOSITION:**

None received

**-- END --**