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AB-1172 Integrated energy policy report: fusion energy. (2023-2024)



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# Assembly Bill No. 1172

## CHAPTER 360

An act to add and repeal Section 25302.4 of the Public Resources Code, relating to energy.

Approved by Governor October 07, 2023. Filed with Secretary of State October 07, 2023.

### LEGISLATIVE COUNSEL'S DIGEST

AB 1172, Calderon. Integrated energy policy report: fusion energy.

Existing law requires the State Energy Resources Conservation and Development Commission to undertake various actions in furtherance of meeting the state's clean energy and pollution reduction objectives. Existing law prohibits the commission from certifying a nuclear fission thermal powerplant, except for specified powerplants, and provides that a nuclear fission thermal powerplant, except for those specified powerplants, is not a permitted land use in California, unless certain conditions are met regarding, among other things, the existence of technology for the construction and operation of nuclear fuel rod reprocessing plants and of demonstrated technology or means for the disposal of high-level nuclear waste, as specified.

Existing law requires the commission, beginning November 1, 2003, and biennially thereafter, to adopt an integrated energy policy report that contains an overview of major energy trends and issues facing the state, presents policy recommendations based on an in-depth and integrated analysis of the most current and pressing energy issues facing the state, and includes an assessment and forecast of system reliability and the need for resource additions, efficiency, and conservation, as specified. Existing law also requires the commission, beginning November 1, 2004, and biennially thereafter, to prepare an energy policy review to update analyses from the integrated energy policy report or to raise energy issues that have emerged since the release of the integrated energy policy report, as specified.

This bill would require the commission, as part of the 2027 edition of the integrated energy policy report, to include an assessment of the potential for fusion energy to contribute to California's power supply, as specified.

Vote: majority Appropriation: no Fiscal Committee: yes Local Program: no

#### THE PEOPLE OF THE STATE OF CALIFORNIA DO ENACT AS FOLLOWS:

**SECTION 1.** The Legislature finds and declares all of the following:

(a) According to the 2021 SB 100 Joint Agency Report published by the State Energy Resources Conservation and Development Commission pursuant to the 100 Percent Clean Energy Act of 2018 (Chapter 312 of the Statutes of 2018), to reach the target of requiring renewable energy and zero-carbon resources to supply 100 percent of electric retail sales to end-use customers by 2045 while electrifying other sectors to meet the state's economywide climate goals, California may need to roughly triple its current electrical grid capacity.

- (b) In March 2022, the administration of President Joseph Biden hosted the first ever summit on fusion energy and the United States Department of Energy launched an agencywide initiative to accelerate the viability of commercial fusion energy in coordination with the private sector.
- (c) The United States Department of Energy will distribute \$50,000,000 through two funding opportunities that will support foundational science and technology research.
- (d) Fusion energy can advance California's progress towards its statutory renewable energy and climate mandates.
- (e) Fusion energy development presents an opportunity to further promote California's workforce development within the renewable energy sector.
- (f) In order to further current federal regulatory activity around fusion energy, it is important to define fusion energy in state law and distinguish the technology from nuclear fission.
- (g) Substantial technical progress and private investment is being made in multiple fusion energy pathways and with diverse fuels, including, but not limited to, deuterium-tritium, hydrogen-boron, and deuterium-helium-3.
- SEC. 2. Section 25302.4 is added to the Public Resources Code, to read:

#### **25302.4.** (a) For purposes of this section, the following definitions apply:

- (1) "Fusion" means a reaction in which at least one heavier, more stable nucleus is produced from at least one lighter, less stable nucleus, typically through high temperatures and pressures, and emitting energy as a result.
- (2) "Fusion energy" means the product of fusion reactions inside a fusion device and used to generate electricity or other commercially usable forms of energy.
- (b) As part of the 2027 edition of the integrated energy policy report, the commission shall include an assessment of the potential for fusion energy to contribute to California's power supply, including both of the following:
  - (1) Identification of the necessary regulatory and policy actions required to deploy fusion energy, including aneutronic fusion and deuterium and tritium reactions, within California's energy system.
  - (2) Identification of state and federal investments available for fusion energy development and deployment.
- (c) For purposes of the assessment described in subdivision (b), the commission shall define aneutronic fusion.
- (d) This section shall remain in effect only until January 1, 2029, and as of that date is repealed.