Date of Hearing: April 6, 2022

ASSEMBLY COMMITTEE ON UTILITIES AND ENERGY
Eduardo Garcia, Chair
AB 2578 (Cunningham) – As Amended March 17, 2022

**SUBJECT**: State Energy Resources Conservation and Development Commission: integrated energy policy report: carbon capture, utilization, and sequestration

**SUMMARY**: This bill specifies that carbon capture, utilization, and sequestration (CCUS) technologies are air emission pollution control technologies and shall be included in the evaluation of the environmental performance of California's electric generation facilities in the biennial integrated energy policy report (IEPR) prepared by the California Energy Commission (CEC).

**EXISTING LAW**:

1) Requires the CEC to conduct assessments and forecasts of all aspects of energy industry supply, production, transportation, delivery and distribution, demand, and prices and use these assessments and forecasts to develop and evaluate energy policies and programs that conserve resources, protect the environment, ensure energy reliability, enhance the state's economy, and protect public health and safety. (Public Resources Code § 25301)

2) Requires the CEC to adopt the IEPR every two years, which must contain an overview of major energy trends and issues facing the state, including, but not limited to, supply, demand, pricing, reliability, efficiency, and impacts on public health and safety, the economy, resources, and the environment. (Public Resources Code § 25302)

3) Establishes various contents that must be included in the IEPR and requires the CEC to make the IEPR publicly accessible. (Public Resources Code § 25302)

4) Requires the CEC to conduct eletricity and natural gas forecasting and assessment activities as part of the IEPR. (Public Resources Code § 25303)

5) Requires the CEC to assess the environmental performance of the state's electric generation facilities including specified characteristics as part of the IEPR. (Public Resources Code § 25303)

**FISCAL EFFECT**: This bill is keyed fiscal and will be referred to the Appropriations Committee for its review.

**BACKGROUND**:

*Carbon capture, utilization, and sequestration.* CCUS refers to a suite of technologies that involve capturing carbon dioxide ($CO_2$), usually from large point sources, including power generation or industrial facilities that use either fossil fuels or biomass for fuel. The most widespread technologies involve either chemical absorption of $CO_2$ into a solvent or the physical separation $CO_2$ from other gasses. In some cases, this captured $CO_2$ is used on-site in commercial applications such as water treatment or chemical production. If not being used on-site, the captured $CO_2$ is compressed and transported by pipeline, ship, rail, or truck to be used in off-site

commercial applications, or injected into deep geological formations (including depleted oil and gas reservoirs or saline formations) which trap the $CO_2$ for permanent storage.

*What is the IEPR?* Through the IEPR, the CEC forecasts all aspects of energy industry supply, production, transportation, delivery, distribution, demand, and pricing. The CEC is then required to use these assessments and forecasts to develop energy policies that conserve resources, protect the environment, ensure energy reliability, enhance the state's economy, and protect public health and safety. The CEC adopts an IEPR every two years with updates every other year. The information generated from the IEPR's demand forecast also informs the integrated resource plan at the California Public Utilities Commission and the transmission planning process at the California Independent System Operator. In the 2021 IEPR, investigation of the feasibility and opportunity for carbon capture, utilization, and sequestration was included as a recommendation in the context of building decarbonization and reducing greenhouse gas emissions from the industrial sector. However, these recommendations were not accompanied by discussions of implementation strategies for the different applications, projections of how much $CO_2$ may be offset, or other, specific analyses.

**COMMENTS**:

1) *Author's Statement*. According to the author, "Carbon capture and sequestration (CCS) is the process of capturing carbon dioxide and storing it so that it is not emitted into the atmosphere. Successful CCS operations are able to capture over 90% of their emissions, yielding tremendous environmental and economic benefits. California has set ambitious climate goals to reduce GHG emissions and reach carbon neutrality. CCS will be a vital tool in reaching those goals. The implementation of CCS has been widely recognized by experts in the scientific community as being critical to a successful climate strategy. By embracing CCS technology in our statewide planning for energy, California will be able to move towards our climate goals with another tool. AB 2578 is the first step integrating CCS into our climate goals."

2) *What counts as an air emission pollution control technology?* CCUS may aide in achieving California's ambitious greenhouse gas emission goals. Therefore, as an aspect of energy industry production that impacts the environment and public health, CCUS is worthy of study in the IEPR. However, this bill presumes CCUS technologies to be air emission pollution control technologies for the purposes of evaluating the environmental performance of electric generation facilities. The role of CCUS as an air emission pollution control technology is a topic of ongoing debate. Should it pass this committee, this measure will next be referred to the Assembly Natural Resources Committee where CCUS's role as an air emission pollution control technology may thoroughly be considered.

3) *Related Legislation.*

   AB 2944 (Petrie-Norris, 2022) seeks to require the California Air Resources Board to include in an annual report to the Joint Legislative Budget Committee an evaluation of how CCUS technologies are contributing to California's greenhouse gas emission goals. Status: In Committee – Assembly Natural Resources Committee

   SB 1399 (Wieckowski, 2022) seeks to require the CEC to establish a pilot program to encourage and expedite use of carbon capture and storage at industrial facilities in the

state. Status: In Committee – Senate Committee on Energy, Utilities, and Communications

4) *Prior Legislation.*

AB 915 (Mayes, 2019) among other provisions, sought to require the California Air Resources Board to develop a methodology to determine whether an electrical generation facility is a zero-carbon resource, including a facility's use of direct air capture and CCUS. Status: Died – Assembly Committee on Utilities & Energy

AB 3232 (Friedman, Chapter 373, Statutes of 2018) required the CEC to assess the potential to reduce GHG emissions 40 percent below 1990 levels from residential and commercial buildings by 2030. Status: Chaptered – Chapter 373, Statues of 2018.

**REGISTERED SUPPORT / OPPOSITION**:

**Support**

AERA Energy LLC
California Business Roundtable
California Carbon Capture Coalition
California Manufacturers and Technology Association
Calpine Corporation
Chevron
Clean Energy Systems
Independent Energy Producers Association
Southern California Gas Company
State Building and Construction Trades Council of California
Western States Petroleum Association

**Opposition**

None on file.

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