

Date of Hearing: July 7, 2025

ASSEMBLY COMMITTEE ON TRANSPORTATION

Lori D. Wilson, Chair

SB 298 (Caballero) – As Amended April 10, 2025

SENATE VOTE: 34-0

SUBJECT: State Energy Resources Conservation and Development Commission: seaports:
plan: alternative fuels

SUMMARY: Requires the State Energy Resources Conservation and Development Commission (CEC) in coordination with the State Lands Commission, the Transportation Agency (CalSTA), and the California Air Resources Board (CARB) to develop a plan alternative fuel needs for oceangoing vessels at California's public seaports to meet emissions goals. Specifically, **this bill:**

- 1) Requires CEC, in coordination with the State Lands Commission, CalSTA, and CARB to develop a plan on or before December 31, 2030 to assess the fuel needs of oceangoing vessels at California's public seaports that will enable the public seaports to meet their emissions reduction goals.
- 2) The required plan will:
 - a) Identify significant alternative fuel infrastructure and equipment trends, needs, and issues;
 - b) Identify barriers to permitting alternative fuel facilities at seaports and opportunities to address those barriers;
 - c) Describe seaport facilities that are available and feasible for the development or redevelopment of infrastructure and operations to support the deployment of alternative fuels to oceangoing vessels and related support purposes; and,
 - d) Provide a forecast of the estimated demand and supply of alternative fuels needed to transition oceangoing vessels to lower emissions fuels and, to the extent feasible, provide estimated costs and timelines for transition.
- 3) Requires CEC to convene working group to advise on the development of the information.
 - a) The working group is required to consist of representatives of seaports, marine terminal operators, ocean carriers, waterfront labor, cargo owners, environmental and community advocacy groups, fuel providers, fuel suppliers, fuel producers, barge operators, storage terminal operators, CalSTA, CARB, the Public Utilities Commission, the State Lands Commission, and air quality management and air pollution control districts.
- 4) Requires CARB to provide CEC with information regarding fuels for oceangoing vessels to comply with CARB regulations for those vessels.

EXISTING LAW:

- 1) Establishes the CEC as a five-member body appointed by the Governor and specifies the duties of the CEC, which include, but are not limited to assessing trends in energy consumption and forecasting the demand and supply for certain fuels in the states. (Public Resources Code (PRC) 25200)
- 2) Establishes the Clean Transportation Program (CTP), which CEC administers to provide incentives for the development and deployment of innovative fuel and vehicle technologies that support California's climate change policies. Existing law specifies the types of projects eligible for CTP funding and sets prioritization criteria for receiving incentives from the CTP. Existing law requires the CEC to allocate no less than 15% of the CTP's annual funding to deploy hydrogen refueling stations. (Health and Safety Code (HSC) 44272 and 43018.9)
- 3) Establishes CARB as the air pollution control agency in California and requires CARB, among other things, to control emissions from a wide array of mobile sources and coordinate with local air districts to control emission from stationary sources in order to implement the Federal Clean Air Act. (HSC 39602; HSC 39602.5)
- 4) Regulates emissions from oceangoing vessels while in California waters and specifies allowable fuels for vessels. (17 California Code of Regulations 93118.2).
- 5) Requires CARB, in consultation with other agencies, to update the mobile source strategy every five years for the purpose of meeting air quality standards and reducing greenhouse gas emissions. (HSC 43024.2)
- 6) Requires CARB, pursuant to California Global Warming Solutions Act of 2006 (AB 32 (Núñez), Chapter 488, Statutes of 2006) to adopt a statewide greenhouse gas (GHG) emissions limit equivalent to 1990 levels by 2020 and to develop a scoping plan for achieving the maximum technologically feasible and cost effective reductions in GHGs. (HSC 38500)
- 7) Requires, pursuant to SB 32 (Pavley), Chapter 249, Statutes of 2016 that CARB ensure that statewide GHG emissions are reduced to at least 40% below 1990 levels by 2030. (HSC 38566)
- 8) Provides, pursuant to the California Climate Crisis Act (AB 1279 (Muratsuchi), Chapter 337, Statutes of 2022) that it is the policy of the state to do both of the following:
 - a) Achieve net zero GHG emissions as soon as possible but no later than 2045; and, ensure that by 2045, GHG emissions are reduced to at least 85% below 1990 levels.
- 9) Establishes the State Lands Commission to manage sovereign and public trust lands, including, but not limited to, waterfront lands, coastal waters and the land underlying the state's major ports. (PRC 6101)

FISCAL EFFECT: According to the Senate Appropriations Committee, “The CEC estimates costs of at least \$636,000 per year over the next five years (Alternative and Renewable Fuel and Vehicle Technology Fund [ARFVTF]) to convene a working group as well as research, develop, and draft the plan.”

COMMENTS: Mobile sources of air pollution are vehicles or equipment that can be moved from place to place and emit pollutants as they operate. These sources include on-road vehicles like cars, trucks, and buses, as well as non-road vehicles such as aircraft, construction equipment, and marine vessels. Mobile sources and the fossil fuels that power them are the largest contributors to the formation of ozone, GHG emissions, fine particulate matter (PM_{2.5}), and toxic diesel particulate matter. Statewide, more than 21 million out of over 39 million Californians live in areas that exceed the federal ozone standards; within these areas, there are many low-income and disadvantaged communities that are exposed to not only ozone, but also particulate and toxic, pollutant levels significantly higher than the federal standards which have immediate and detrimental health effects.

In California, mobile sources are responsible for approximately 80% of smog-forming nitrogen oxide (NO_x) emissions. They also represent about 50% of GHG emissions when including emissions from fuel production, and more than 95% of toxic diesel particulate matter emissions.

Vessels make up a relatively small portion of the transportation sector’s GHG emissions, about 3%. A 2021 CARB emissions inventory of ocean-going vessels found that they were responsible for about 20% of statewide NO_x emissions and that this would grow to 30% by 2037, unless regulatory action was taken to improve emissions.

The National Ambient Air Quality Standard (NAAQS). The Clean Air Act of 1970 instructs the U.S. Environmental Protection Agency (US EPA) to set primary NAAQS to protect public health, and secondary NAAQS to protect plants, forests, crops and materials from damage due to exposure to six criteria air pollutants. These pollutants include: particulate matter, ozone, nitrogen oxides, sulfur oxides, carbon monoxide, and lead.

Federal law (42 United States Code 7409 and 7410) requires that all states attain the NAAQS and develop State Implementation Plans (SIP) for nonattainment areas to attain the NAAQS, and attainment areas to maintain attainment. Failure of a state to reach attainment of the NAAQS by the target date can trigger penalties, including withholding of federal highway funds.

State law (Health and Safety Code (HSC) 39602), requires CARB to develop SIP emission reduction strategies for cars, trucks, and other mobile sources to meet the requirements in the Clean Air Act. Local air districts are primarily responsible for controlling emissions from stationary sources such as factories and power plants. CARB coordinates closely with local air districts in the development of attainment plans which are then incorporated into the SIP.

GHG reduction goals. The Legislature has set a number of goals to reduce GHG emissions and address climate change. The Global Warming Solutions Act of 2006, AB 32 (Nuñez), Chapter 488, Statutes of 2006 and subsequent companion legislation SB 32 (Pavley), Chapter 249, Statutes of 2016, requires California to reduce statewide GHG emissions to 40% below the 1990 level by 2030. AB 1279 (Muratsuchi), Chapter 337, Statutes of 2022 establishes the policy of the state to achieve carbon neutrality as soon as possible, but no later than 2045. CARB is responsible for developing a Scoping Plan to detail how the state will achieve its GHG emissions reduction targets mandated by law.

Regulation and alternative shipping fuels. The International Maritime Organization (IMO) is the United Nations specialized agency with responsibility for the safety and security of shipping and the prevention of marine and atmospheric pollution by ships. As such, the IMO adopted the International Convention for the Prevention of Pollution from Ships, known as MARPOL. The MARPOL Convention addresses pollution from ships through adopted regulations, guidelines, emissions standards, and protocols and applies to 99% of the world's merchant tonnage. In 2023, the IMO released a Strategy on Reduction of GHG Emissions from Ships which represents a framework for member states (including the US), setting out a future vision for international shipping. The strategy identifies barriers and supportive measures including capacity building, technical cooperation and research and development. This document signals that the international shipping industry is moving towards alternative fuels to decarbonize shipping operations.

The IMO established engine standards for vessels that categorize NOx emissions standards in three tiers. Tier I vessels release the most NOx and are older vessels, while Tier III vessels release significantly less NOx (80% reduction compared to Tier I) and were constructed after 2016. Less than 5% of California vessel visits meet Tier III standards.

CARB regulates emissions from oceangoing vessels within California waters i.e. within 24 nautical miles of the California baseline. CARB's Ocean-Going Vessel Regulation specifies allowable fuels and the sulfur content of those fuels. Currently, allowable alternative fuels include natural gas, propane, ethanol, methanol, hydrogen, electricity, or fuel cells. Data documenting the emissions profiles, including criteria pollutants, of alternative fuel use under real world conditions is sparse. Additionally, the well-to-wake lifecycle emissions are determined by the pathways with which the fuels are produced.

Committee comments. This bill develops a plan for the alternative fuel needs of oceangoing vessels at California seaports to meet emissions reductions goals. Given that California is federally mandated to meet the NAAQS, it would be important to understand the impacts of oceangoing vessels transitioning to alternative fuels in California. However, there is no requirement in this bill to assess the emissions benefits or drawbacks of oceangoing vessels at public seaports transitioning to alternative fuels. The author may wish to consider including requirements for an assessment of the changes in emissions that may result from the plan.

According to the author. "SB 298 will strengthen California's position as a global leader in environmental sustainability and support economic growth by ensuring the availability of alternative fuels for maritime vessels calling at California ports. The bill creates a plan to develop the infrastructure and support needed to facilitate the use of alternative fuels at the state's seaports by 2030. This collaborative effort will not only support California's ambitious climate goals and align with international efforts but will also ensure the state's ports remain competitive and do not lose the economic benefits (jobs, tax revenue, investment) of trade to locations with alternative fueling infrastructure. Transitioning ocean going vessels away from diesel products and towards alternative fuels will reduce harmful emissions and improve air quality along California's coastline, ensuring healthier communities and sustained economic growth."

Arguments in support. According to the California Council for Environmental & Economic Balance, "SB 298 would require the State Energy Resources Conservation and Development Commission ("CEC"), in coordination with the State Lands Commission, the Transportation Agency, and the California Air Resources Board ("CARB"), to develop a plan on or before

December 31, 2030, for the alternative fuel needs of oceangoing vessels at California's public seaports that will enable the seaports to meet their emissions reduction goals. SB 298 would require the plan to, among other things, identify barriers to permitting alternative fuel facilities at seaports and outline opportunities to address those barriers. SB 298 would, among other things, require the State Energy Resources Conservation and Development Commission to convene a working group to advise the CEC on the development of information required by the plan.

California Council for Environmental & Economic Balance (CCEEB) appreciates the maritime industry's strong commitment to maintaining pathways to vessel use of alternative fuels in order to reduce the carbon intensity of vessel emissions throughout the world. The maritime industry is actively exploring and testing these alternative fuels, developing infrastructure, and investing in technologies to facilitate their use."

Double Referral. This bill is double referred to the Assembly Committee on Natural Resources and will be heard in that committee on matters under its jurisdiction.

Related and previous legislation. SB 34 (Richardson) of the current legislative session would place specified requirements on any past or future action, beginning January 1, 2026, taken by the South Coast Air Management District. The bill is currently pending in the Assembly Natural Resources Committee.

AB 126 (Reyes), Chapter 319, Statutes of 2023 extended the operation and funding for the CTP and required the CEC to allocate at least 15% of annual CTP funding for hydrogen refueling infrastructure.

SB 44 (Skinner), Chapter 297, Statutes of 2019 required CARB, in consultation with other agencies, to update the mobile source strategy every five years for the purpose of meeting air quality standards and reducing greenhouse gas emissions.

AB 617 (Garcia), Chapter 136, Statutes of 2017 required CARB to develop a uniform statewide system to report emissions of air pollutants and prepare a monitoring plan for monitoring the emissions of air pollutants.

REGISTERED SUPPORT / OPPOSITION:

Support

Pacific Merchant Shipping Association (sponsor)
California Council for Environmental & Economic Balance
Cruise Lines International Association
Invenenergy
Los Angeles County Business Federation (BIZ-FED)
Port of Long Beach
San Francisco Bar Pilots
Supply Chain Federation

Opposition

None on file

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