

SENATE THIRD READING

SB 298 (Caballero)

As Amended June 27, 2025

Majority vote

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.

Major Provisions

- 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.

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."

Arguments in Opposition

No opposition on file.

FISCAL COMMENTS

According to the Assembly Appropriations Committee:

- 1) CEC's fuels and transportation division estimates annual costs of approximately \$337,000 to hire two air pollution specialists, as well as annual contracting costs of approximately \$300,000, until 2030 (Alternative and Renewable Fuel and Vehicle Technology Fund). Tasks include convening and facilitating the working group and conducting the necessary research and analysis to develop the required plan.
- 2) ARB estimates annual contracting costs of approximately \$100,000 from fiscal year (FY) 2026-27 to FY 2028-29 (Air Quality Improvement Fund) to assist CEC and research and analyze potential alternative fuels likely to be used in California ports, fuel availability, infrastructure needs, emissions profiles, feasibility, and expected timelines for adoption, among other relevant topics.
- 3) SLC estimates minor and absorbable costs.
- 4) Costs of an unknown, likely minor and absorbable, amount for CalSTA.

VOTES

SENATE FLOOR: 34-0-6

YES: Allen, Archuleta, Arreguín, Ashby, Becker, Blakespear, Cabaldon, Caballero, Cervantes, Cortese, Dahle, Durazo, Gonzalez, Grayson, Grove, Laird, Limón, McGuire, McNerney, Menjivar, Niello, Padilla, Pérez, Richardson, Rubio, Seyarto, Smallwood-Cuevas, Stern, Strickland, Umberg, Valladares, Wahab, Weber Pierson, Wiener

ABS, ABST OR NV: Alvarado-Gil, Choi, Hurtado, Jones, Ochoa Bogh, Reyes

ASM TRANSPORTATION: 16-0-0

YES: Wilson, Davies, Ahrens, Bennett, Caloza, Carrillo, Hart, Hoover, Jackson, Lackey, Lowenthal, Macedo, Papan, Ransom, Rogers, Ward

ASM NATURAL RESOURCES: 12-0-2

YES: Bryan, Alanis, Connolly, Ellis, Flora, Garcia, Haney, Hoover, Kalra, Pellerin, Schultz, Zbur

ABS, ABST OR NV: Muratsuchi, Wicks

ASM APPROPRIATIONS: 15-0-0

YES: Wicks, Sanchez, Arambula, Calderon, Caloza, Dixon, Elhawary, Fong, Mark González, Ahrens, Pacheco, Pellerin, Solache, Ta, Tangipa

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CONSULTANT: Aaron Kurz / TRANS. / (916) 319-2093

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