

Date of Hearing: June 26, 2023

ASSEMBLY COMMITTEE ON TRANSPORTATION

Laura Friedman, Chair

SB 720 (Stern) – As Amended June 19, 2023

SENATE VOTE: 30-8

SUBJECT: Aviation: airports: report: emissions

SUMMARY: Requires airports in disadvantaged communities to submit a net-zero greenhouse gas (GHG) report to the State Air Resources Board (CARB) for approval, and requires the Governor's Office of Business and Economic Development (GO-Biz) to provide technical assistance to airports in their pursuit of net-zero GHG emissions. Specifically, **this bill:**

- 1) Requires public and private airports, with more than 50,000 annual takeoffs, located in a disadvantaged community to submit a report to CARB, for review and approval, on the regulations, incentives or other measures that the airport is deploying to achieve net-zero GHG emissions (net-zero report).
- 2) Requires airports to resubmit the net-zero report within 120 days if CARB deems the original report to be insufficient.
- 3) Requires CARB to coordinate with the relevant air quality management district to create a public process with the objective of creating a net-zero report that can be approved, if a report has not been approved.
- 4) Requires CARB to inform GO-Biz upon approval of the report.
- 5) Requires GO-Biz to provide technical assistance to support airports in their pursuit of net-zero GHG emissions, including but not limited to sustainable aviation projects and infrastructure.
- 6) Requires GO-Biz to identify industries and companies that are developing sustainable aviation projects and technologies, and incentivize the production and expansion of those industries and companies in the state.

EXISTING LAW:

- 1) Establishes CARB's responsibility to review efforts to control emissions from a wide array of motor sources, as they affect air quality. (Health and Safety Code (HSC) 39500)
- 2) Requires that CARB reduce GHG emissions to at least 40% below 1990 levels, no later than December 31, 2030 and to develop a scoping plan for achieving the maximum technologically feasible and cost effective reductions in GHGs. (HSC 38500)
- 3) 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)

- 4) 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,
 - b) Ensure that by 2045, GHG emissions are reduced to at least 85% below 1990 levels.
- 5) Recognizes that the federal government regulates the operation of aircraft and controls the use of airways (Public Utilities Code (PUC) 21240, 2010)
- 6) Finds and declares that local and regional authorities have the primary responsibility for control of air pollution from all sources, other than emissions from motor vehicles. (HSC 40000)
- 7) Establishes GO-Biz to serve the Governor as the lead entity for economic strategy and the marketing of California on issues relating to business development, private sector investment, and economic growth. (Government Code 12096.2)
- 8) Defines disadvantaged communities as areas disproportionately affected by environmental pollution that can lead to negative public health effects, exposure, or environmental degradation. (HSC 39711)

FISCAL EFFECT: According to the Senate Appropriations Committee:

- CARB estimates ongoing costs of about \$260,000 annually (Cost of Implementation Account [COIA]) to assess community impacts of aircraft emissions, coordinate with state agencies and local air districts, evaluate mitigation programs, and acquire private aircraft activity data, among other things.
- Since this fiscal assessment, substantial provisions have been added to the bill which would likely increase costs.

COMMENTS:

California airports are a source of air and noise pollution. Aircraft jet engines emit a mix of CO₂, water vapor, oxides of nitrogen (NO_x), particulate matter (PM), carbon monoxide, and other pollutants. 90% of emissions from a flight happen at altitudes above 3,000 feet, with only 10% being released during taxiing, takeoff, and landing. These emissions can damage the human respiratory tract and increase a person's susceptibility to respiratory infections and asthma. In addition, property values can decrease due to air and noise pollution, which can directly affect those looking to move elsewhere.

Concerns about air pollution emissions from airports tend to be greatest when the airports are used frequently and are located in residential areas. This can be the case with smaller airports that provide public and private, but not commercial service. For example, residents who live near the Van Nuys Airport recently have voiced concerns about noise and claim the airport is causing pollution in the area. This airport is one of the busiest of its kind in the nation.

Intrastate flights (flights who have their origin and destination in California) account for approximately 1.1% of the statewide covered GHG emissions, according to CARB's GHG emission inventory. In CARB's 2022 scoping plan update, keeping in mind the state's 2045

carbon neutrality goal, the plan called for the state's aviation fuel demand to be met by 20% zero emission technologies, and the majority of the remainder by lower-emission sustainable aviation fuel (SAF). The plan did not list strategies for how the ambitious goals could be achieved.

The Clean Air Act of 1970 directs the federal Environmental Protection Agency (EPA) to establish air pollution standards for aircraft exhaust. States are preempted from adopting or enforcing any standard respecting aircraft or aircraft engine emissions unless such standard is identical to the EPA's standards. Because of this federal pre-emption in regulating aircraft emissions, CARB has focused its efforts on reducing GHG emissions from airport ground support equipment by requiring electrification and reducing emissions from transit vehicles, such as shuttle buses. CARB also works closely with local agencies and airport operators to develop actions to reduce pollution in and around airports. To mitigate and decrease aviation-activity related emissions, CARB's 2020 Mobile Source Strategy suggests 1) developing strict criteria and GHG standards for aircraft engines, and 2) establishing clean visit, clean fuel, and zero-emission on-ground operation requirements for aircrafts.

Air districts regulate stationary source air pollutant emissions. There are 35 local Air Pollution Control Districts (APCD) and Air Quality Management Districts that regulate stationary sources of air pollution in California. Air districts are responsible for regional air quality planning, monitoring, and stationary source and facility permitting. CARB and air districts in the state have expressed concern about the NO_x emissions associated with aircraft, and other primarily federally regulated sources—sources that the state is federally pre-empted from regulating. The South Coast Air Quality Management District estimates that roughly half the region's NO_x emissions come from a source that the state does not have jurisdiction over. South Coast has entered into voluntary memorandums of understanding with five airports in its jurisdiction to help meet federal air quality standards by implementing facility-based mobile source measures at airports, targeting ground aviation sources that are not federally pre-empted.

GO-Biz leads the state's efforts in job growth and economic development and extends grant programs and tax reliefs to different industries in the state, including: film and television, agriculture, clean energy and biomass production, tourism, zero emission vehicles, among others. At this time, GO-Biz does not have a role assisting economic development of the airports targeted in this bill.

Sustainable aviation projects and infrastructure. Sustainable aviation projects may include SAF and related production, distribution, fueling, storage infrastructure, renewable electricity, renewable hydrogen, battery storage, as well as airport operations and equipment upgrades that facilitate emissions reductions. SAF is aircraft biofuel that has similar properties to conventional jet fuel. It can be produced from renewable carbon-rich materials such as biomass, municipal solid waste, agricultural residues, forestry residues, oils, fats, greases, sugars, and alcohol. SAF, however, is roughly five times more expensive than conventional jet fuel, even after state and federal policy credits. Nevertheless, on a life cycle basis, SAF has roughly 80% lower emissions than conventional fuel, which could result in lower local emissions of harmful compounds around airports during take-off and landing.

The U.S Department of Energy is working with the U.S Department of Agriculture, Department of Transportation, and other federal government agencies to develop a strategy to scale up new technologies to produce SAF on a commercial scale, reaching 35 billion gallons per year by 2050, with a near-term goal of 3 gallons per year by 2030.

Airports covered by this bill. The public or private airports that have more than 50,000 annual takeoffs in a disadvantaged community, as defined in the bill, would include: Van Nuys Airport (VNY), Oakland International Airport (OAK), Hayward Executive Airport (HWD), San Jose Mineta International Airport (SJC), Gillespie Field (SEE), and Fresno Yosemite International Airport (FAT).

Staff comments:

Airports in residential areas with a high number of take-offs and landings are more likely to have negative impacts on nearby residents, than airports in rural areas or those surrounded by other commercial businesses. While, this bill has merit in trying to reduce the amount of local criteria pollutants and climate forcing GHGs produced by airport-related activity from public or private airports that have more than 50,000 annual takeoffs in a disadvantaged community, this bill's strategies to address the problem are unlikely to result in the desired outcomes.

CARB's role is inconsistent with federal pre-emption. This bill requires public or private airports that have more than 50,000 annual takeoffs in a disadvantaged community to submit a report to CARB for approval of the efforts the airport is undertaking to achieve net-zero GHG emissions. It is unclear what findings would lead CARB to not approve an airport's net-zero report and what authority CARB would have to effect change from an insufficient report.

Air quality management districts not appropriate entity to work with CARB. This bill gives air districts a role in helping airports achieve a net-zero emissions report. Specifically, if CARB determines that a net-zero report is insufficient CARB must coordinate with the relevant air quality management district to initiate a public process to discuss options for achieving an approvable report. However, under current law, air districts do not play a role in regulating GHG emissions from mobile sources, so it does not make sense to have them assist CARB in identifying options for airports to achieve net-zero compliance.

Bill may unintentionally target some low-emitting airports and misses larger airports with greater emissions. Earlier versions of this bill were clearly intended to address the disruptive, and environmentally harmful, activity of private jets in residential communities. For example, the Van Nuys airport is a general aviation airport that has no commercial service, but is the busiest aviation unit in the nation with more than 300,000 take-offs and landings in 2021. The airport faced a backlash late last year with celebrities racking up trips of less than 50 miles.

However, the bill also would apply to some airports that may not have much to report on regarding their emissions. This would unintentionally create extra workload for that airport. (See opposition comments below). For example, one of the covered airports, FAT, is a joint military-public airport that is home to several military, law enforcement, firefighting, and medical air units, and may require special consideration of its operations during emergencies. In addition, this bill does not address the largest airports in the state which have the greatest emissions.

GO-Biz likely not best entity to help advance sustainable aviation projects. Recent amendments to this bill require GO-Biz to identify industries and companies that are developing sustainable aviation projects and technologies and develop a program to incentivize the production and expansion of those industries and companies in the state. This would be a new task for GO-Biz, and it is uncertain whether GO-Biz is the appropriate entity to perform these activities. Other lead, or coordinating, entities could include the Department of Transportation through its Division of Aeronautics, CARB through its role of administering the Low Carbon Fuel Standard,

or even the California Energy Commission if sustainable aviation projects is to include electrification.

According to the author, “Though aviation only accounts for approximately 1% of the state’s GHG emissions, California has very little information on the subject of aviation and private aviation and little evidence that steps are being taken to prevent its negative air pollution and GHG emission impacts, particularly in disadvantaged communities. By requiring the largest airports in disadvantaged communities to report on their scope 1, 2, and 3 emissions and plans to decrease them, we give CARB the necessary tools to better understand the long term plans that airports have to do their part in achieving our statewide goal of net zero emissions by 2045. . The bill simultaneously lays the groundwork to make California a hub for industries and companies that are innovating in the space of sustainable aviation. Bringing GO-Biz into the fold, [this bill] requires the identification of these types of businesses and the creation of incentives for their development and growth in California. The bill also extends Go-Biz’s support to airports and their affiliates in their pursuit of net zero greenhouse gas emissions.”

In support of an earlier version of this bill the Coalition for Clean Air writes, “By collecting data on the efforts that all public and private airports are making toward carbon neutrality, we can better understand the limitations and barriers that exist in the pursuit of sustainable air travel. [This bill] would also give our agencies key information to identify systems and programs that are successfully reducing the negative environmental impacts of flying. The bill also acknowledges the disparate impacts of private air travel on environmental justice communities by requiring enhanced reporting on air quality protections and precautions being taken to safeguard our states most vulnerable communities.”

In opposition the California Airports Council writes, “The bill creates a new reporting requirement for airports to report to CARB on topics that have been addressed in recent years. This bill does not move the needle for airports at all. The new June 19th language that applies the reporting requirements to airports with 50,000 private takeoffs annually in a disadvantaged community is poorly thought out. It is unclear just how many airports this will capture. It will likely be about 15 to 25. Many of these airports do not have shuttle operations and some have only a handful of airfield ground service equipment. Those with larger numbers of ground service equipment are already electric, such as the Long Beach Airport and the Sonoma County Airport. This leaves these airports with little to no report regarding efforts to reach net zero operations.”

Double referral: This bill is double referred to the Assembly Natural Resources Committee and will be heard by that Committee as it relates to issues under its jurisdiction.

Related and previous legislation: SB 800 (Caballero) of this Session requires Caltrans to establish the Advanced Air Mobility and Aviation Electrification Committee (committee), in coordination with the Office of Planning and Research and CARB, and requires the committee to assess, among other things, pathways for feasible implementation of electrification goes for the aviation industry. SB 800 is pending in this committee.

AB 1322 (Rivas of 2022) would have required CARB to develop a plan to incentivize sustainable aviation fuel. AB 1322 was vetoed by Governor Newsom on the grounds that there are already opportunities for credit generation from sustainable aviation fuel production under the state’s low carbon fuel standard. AB 1322 was vetoed by Governor Newsom.

REGISTERED SUPPORT / OPPOSITION:

Support

Center for Biological Diversity
Coalition for Clean Air

Opposition

Association of California Airports
California Airports Council

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