CALIFORNIA AIRPORTS COUNCIL

February 19, 2019

California Air Resources Board
1001 I Street
Sacramento, CA 95814

RE: California Airports Council Comments on Proposed Zero-Emission Airport Shuttle Bus Regulation

On behalf of the California Airports Council (CAC), an association of the 32 commercial service airports in the state, I write to express our concerns and recommended changes for the proposed Zero-Emission Airport Shuttle Bus Regulation (ZEASR). California airports support the goals of the California Air Resources Board (CARB) to reduce emissions by pursuing zero-emission technologies for airport shuttle buses and have worked collaboratively with CARB staff throughout the process.

Airports are committed environmental stewards and have long pursued emission reduction policies and practices. Activities include electrification of aircraft gates through installation of 400hz power and preconditioned air, investment in charging stations for electric ground support equipment and light-duty vehicles, and alternative fuel policies for airport-owned equipment and permitted operators. In addition, airports have also made significant investment in consolidating parking garages and rental car centers to link with local transit via rail as demonstrated by the $14 billion Land Access Modernization Plan at Los Angeles International Airport (LAX) and the $200 million Air Train extension program at San Francisco International Airport (SFO). Airports have success in implementing these strategies as the projects were built into their capital infrastructure programs, allowing airports to fully utilize available funding mechanisms including aviation-specific grant programs.

The CAC has worked with CARB staff over the last three years to facilitate roundtable discussions between airports. CAC staff engaged proactively at all CARB ZEASR regulation hearings and always acted as a resource to provide as much available information as possible regarding shuttle operations and costs for bus and infrastructure expenses. This engagement has helped bring CAC and CARB policies closer, however, the January 4th draft of the ZEASR shows CARB staff needed additional information on airport bus operations and language required to ensure safe and clean transportation options are available to all California citizens traveling by air.

If it is CARB's intention to expedite the transition to zero-emission shuttle bus operations, it is vital that CARB modifies the current proposal to address operational issues raised by airport operators.

Below is a list of amendments to the regulation by the CAC and all its members.

1. *Reserve Airport Shuttle Exemptions*

The reserve airport shuttle exemption's mileage cap in proposed Section 95690.6(a)(1) must be increased for reserve shuttles to meet the needs of large airports. California has three of the largest airports in the nation, operating on a 24-hour basis and facing unique operational challenges. CARB has allowed an exemption for low-use operations of less than 3,000 miles. Unfortunately, this does not provide enough flexibility for larger airports to respond to planned maintenance of full-time fleet shuttles, CPUC inspections and fleet readiness requirements. CARB created the 3,000-mileage allowance based on multiplying 10% times the average annual mileage of all airport- owned fleets – around 30,000 miles. Larger airports, such as San Francisco International (SFO), San Diego International (SAN) and Oakland International (OAK), can have a much higher annual mileage average. For example, SFO's per bus annual mileage is almost 49,000. By the CARB standard of 10% to the average per bus mileage – the airport needs 5,000 miles per bus for its low-use fleet.

As stated previously, the additional mileage is needed for maintenance and response needs. To maintain readiness for operation, airports must actually start up and drive the buses for a certain amount of time every 7-10 days. Larger airports, like SFO, SAN and OAK, will not be able to stay under 3,000 miles without risking sound maintenance practice. Airports understand CARB's concern about raising the mileage for low-use vehicles and have committed to using only alternative fueled vehicles such as compressed natural gas, renewable natural gas, and liquified propane gas for low-use fleets that operate more than 3,000 miles but less than 5,000 miles annually. In addition, this flexibility is not needed for everyone and should only apply to airport-owned fleets at SFO, SAN and OAK, which is 35 buses in total. **This is only 3% of the entire state's operation of 950 buses.**

Airports recommend that the language of proposed Section 95690.6(a)(1) be amended as follows:

"(1) The reserve airport shuttle is in use either: (i) less than 3,000 miles per calendar year if operating on conventional fuels; or (ii) less than 5,000 miles per calendar year if an airport-owned low-use fleet operating at San Francisco International Airport, San Diego International Airport or Oakland International Airport. These fleets must operate on any fuel which is commonly or commercially known or sold as biodiesel, renewable diesel, liquified propane gas, or compressed natural gas";

2. *Irregular Operations Exemptions*

As currently proposed, the ZEASR does not consider emergency operations at airports. Emergency situations include: incidents that pose immediate threat to safety; security breaches; unplanned airport closures or terminal evacuations; extreme weather incidents; natural disasters; grid outages or restrictions; manufacturing defects of zero-emission buses; and unplanned disruptions of on-airport rail service.

Irregular operations should be exempt from zero-emission requirements as it is the priority of the airport to respond to such situations quickly and efficiently. If an irregular operation occurs, airports commit to providing a statement of circumstances within their annual reporting documentation.

Airports request the following exemption for emergency situations be added to proposed Section 95690.6:

"Irregular Operations Exemption. The requirements of section 95690.5 do not apply during irregular operation situations that require exceptional action and/or capabilities beyond those considered unusual by aviation service providers. Irregular operation situations that fall within this exemption include:

(1) Incidents that pose immediate threat to safety;
(2) Security breaches;
(3) Unplanned airport closures or terminal evacuations;
(4) Extreme weather incidents;
(5) Natural disasters;
(6) Grid outages or restrictions;
(7) Manufacturing defects of zero-emission buses; and
(8) Unplanned disruptions of on-airport rail service."

3. *Temporary Operations Exemption*

As currently proposed, the ZEASR does not consider temporary operations at airports. Temporary operations include one-time events such as the Super Bowl, the Olympics, NASCAR, etc. During these periods of short-term, high-demand operations, airports and permitted operators may lease additional buses to manage passenger movement. The proposed language would require the contracted operators to meet requirements of the ZEASR, which is burdensome considering their partnership with the airport is short-term. If contracted operators foresee onerous requirements to assist airports during high-demand, they may not work with airports in the future. This only hurts the efficiency and safe movement of passengers as airports and permitted operators will not be able to meet demand.

Airports request the following exemption for temporary operations be added to proposed Section 95690.6:

"Temporary Operations Exemption. The requirements of section 95690.5 do not apply during the following temporary operations:

(1)Leased shuttle buses operating on-airport as an interim asset to be in use for less than 18 calendar months after 2027. The airport fleet owner shall notify the Executive Officer 30 days prior to acquisition with documentation of reasoning. The airport fleet owner shall submit the lease termination agreement to the Executive Officer to verify end of contract.

(2) Special events. A special event is a large-scale occasion that requires the airport, or permitted tenants, to temporarily expand fleet volume to accommodate significant increases in shuttle bus activity such as conventions, sporting events and other one-time special events."

4. <u>Availability and Reliability of Light- and Medium-Duty Shuttle Technology</u>

To meet requirements of the proposed regulation, airport shuttle operators must invest in vehicles that are not yet proven, do not currently exist in the market or are not commercially available through trusted dealers. As electrified transit buses become more common, so will understanding around the new challenges airports and their ground transportation operators face in transitioning to electric fleets and providing the required electrical infrastructure. Light- and medium-duty shuttles are not positioned as well since there are few manufacturers in the space, no trusted brand names, and many other unknown barriers that may arise.

Airports strongly recommend CARB add language to the regulation requiring manufacturers to guarantee vehicle batteries for 150,000 miles as done for electric batteries in cars under California Code of Regulations Title 13, Section 1962. This would force manufacturers to provide a minimum guaranteed battery life, taking the onus off of airports to create the requirement. In addition, airports request similar language as included in the Innovative Clean Transit Rule under 2023.4 (c)(4) which provides an exemption for when "a required zero-emission bus type for the applicable weight class based on gross vehicle weight rating (GVWR) is unavailable for purchase".

Airports request the following exemption for technology unavailability be added to proposed Section 95690.6:

"Technology Unavailability. A fleet operator may request an exemption from an immediate zero emission bus purchase requirement as set forth in section 95690.5 if zero-emission buses are unavailable as described below.

(A) A zero-emission bus type is considered unavailable for purchase if any of the following circumstances exists:

1. The zero-emission bus cannot be configured to meet applicable requirements of the Americans with Disabilities Act; or

2. The physical characteristics of the zero-emission bus would result in a fleet operator violating any federal, state, or local laws, regulations, or ordinances; or

3. The manufacturer cannot guarantee vehicle batteries for 10 years/150,000 miles; or
4. The model has been on the market less than two years; or
5. The manufacturer has been in the market for less than five years in the United States."

5. *Regulated Airport Definition*

The CAC strongly urges CARB to remove small-hub airports from the "Regulated Airport" definition in proposed Section 95690.2. In 2017, CARB staff conducted surveys of both airport-owned and off-airport shuttle providers. **Survey results found that none of the small-hub airports in California owned or contracted shuttle buses for their facility.** As written in Table I-1 of CARB's staff report, "[s]mall-hub airports in California (Fresno Yosemite International, Long Beach, Palm Springs International and Santa Barbara) all have compact footprints with all of the facilities within walking distance, and hence do not currently provide airport shuttle service." Of the 686 off-airport shuttles tallied, only 14 operate at small-hub airports as hotel courtesy shuttles - this represents only 2% of the off-airport fleet population. This would coincide with the rationale for non-hub airports which were removed from the regulation entirely because they do not own or contract shuttle bus services.

The CAC recommends changing the Regulated Airport definition in proposed Section 95690.2 to**:**

"'Regulated Airport' means a large or medium airport as those terms are defined in section 40102 of title 49 of the United States Code. Regulated Airport does not include 'Small-hub Airport', 'Non-hub Airport', or 'General Aviation Airport' as defined in section 47102 of title 49 of the United States Code."

6. *Records Collection and Retention*

Under proposed Section 95690.4(h), airports would be required to keep certificates of compliance for all shuttles, including off-airport providers, for a minimum of 3 years. This is extremely burdensome for airports as larger airports can have more than one hundred operators. Requiring collection and storage of this information is redundant and onerous if the shuttle owners will already be required to keep this information for 3 years. Airports could ensure operators are in compliance prior to issuing permits by reviewing the TRUCRS database and verifying the certificate of compliance provided by the shuttle owner without the burden of storing additional paperwork. Airports already have a similar process in place for limousine operators as the California Public Utilities Commission (CPUC) allows airports to confirm compliance through the Transportation Carriers Lookup system prior to issuing permits. The Port of Oakland also uses CARB's Drayage Truck Regulation page to check the compliance status of trucks. Airports urge CARB to conform to similar processes for shuttle bus compliance checks that already work in practice.

7. *Fixed Destination Route Criteria*

As stated in previous comment letters, the ZEASR should not be applicable to shuttles conducting long-distance operations. CARB staff have also stated in previous workshops that it is not their intent to apply this measure to long-distance routes as they are targeting low-mileage, stop-and-go operations, and low average speed routes. However, proposed Section 95690.3(a)(3) states that the regulation would be applicable to: "Fleet owners, or operators, that operate an airport shuttle on a fixed destination route equal to or less than 30 miles from a regulated airport that includes stops at a regulated airport." Applicability should not be determined by the distance from an airport. Long-distance shuttles may be required to make multiple stops at neighboring communities, institutions and attractions which may significantly increase their predetermined route despite proximity to the airport.

We urge CARB to amend proposed Section 95690.3(a)(3) to make route-length, as opposed to location, the basis for the regulation's applicability. Our recommended language is as follows:

"Fleet owners, or operators, that operate an airport shuttle on a fixed destination route equal to or less than 30 miles in length."

8. *Additional Comments from California Airports*

From discussions with CARB staff and prepared materials, the primary objective of the ZEASR is to leverage airports as a market driver for zero-emission technologies. While the regulation will assist with emission reductions in the state, it is one of the smallest greenhouse gas (GHG) reduction measures in CARB's 2017 GHG Reduction Scoping Plan. The ZEASR is expected to reduce 25,000 tons of carbon dioxide (CO2) equivalent emissions annually between 2020-2040, totaling 500,000 CO2 emissions reduced by 2040. Airports are concerned that the costs associated with this measure could outweigh the benefits of having a regulation in place.

Underestimated Infrastructure Costs

Current electric buses cost approximately $700,000 per bus with individual chargers costing $40,000-$250,000 depending on the charger type. It is accurately assumed both buses and charger costs will decrease over time. However, the electrical infrastructure needed to connect electricity to the chargers is expensive and varies greatly per site based on land costs, electricity load, undergrounding expenses, engineering, interconnection costs to nearby electricity distribution lines, and other expenditures. Airports have been as collaborative as possible, providing information when available, but infrastructure estimates were not available when CARB collected airport data in 2017. CARB released the economic analysis in January 2019 for the ZEASR using best information available in 2017, but this significantly underestimates the expenses for electric bus charging infrastructure. Only San Jose International Airport (SJC) and Sacramento International Airport (SMF) were used to estimate expenses across all 13

impacted airports. SMF and SJC are medium sized airports that shouldn't be used to replicate data on large or small airports. In addition, CARB estimates do not include vehicle maintenance costs for electric buses, anticipated system capacity fees from utilities, or infrastructure maintenance costs.

Airports are concerned regarding how infrastructure will be financed for this regulation considering the costs have yet to be evaluated with current information. Infrastructure cost estimates have only become available in late 2018 with estimates showing expenses being much higher than previously determined. Since the ZEASR does not start until 2022, CARB should delay approval of the regulation and continue to work with airports and third-party providers to improve the regulation's economic analysis, ensure the regulation does not cause unintended financial consequences, and addresses airports' unique schedules and infrastructure challenges in implementing the regulation.

Airport Grant Eligibility for Electric Transition

California has been generous in providing funding for entities to transition to a clean small, medium and heavy-duty fleet. Unfortunately, many airports are not eligible or are significantly less competitive for many programs, and worse, the ZEASR actually reduces funding opportunities for California airports. Below is more information on some of the CACs concerns.

a. Federal Aviation Administration (FAA) Environmental Grant Programs
Congress created a program allowing the FAA to issue Airport Improvement Program (AIP) grants for airport-owned zero emission vehicles. The FAA's Airport Zero Emission Vehicle (ZEV) and Infrastructure Pilot Program and Voluntary Airport Low Emissions (VALE) Program allows airports that are eligible for AIP grants to purchase zero-emissions airport vehicles and the infrastructure required to operate them. The Airport ZEV Program provides grant funds for up to 50% of the cost of zero emissions vehicles and associated infrastructure. Grants are awarded through a competitive cycle and there is not a set amount approved for the program annually as it fluctuates with AIP fund availability.

To receive this grant, an airport must be operating above and beyond existing regulations. As an example, in 2022, an airport attempting to go 50% electric would have to show how they would transition 33% of their fleet with their own funds. Only then would the FAA consider providing a grant for the remaining 17% **as long as it is not needed for future requirements**. **Once the regulation is in place, no grant funding received can be used towards meeting the goals of CARB's regulation as the program is for voluntary initiatives only.**

Airports have argued for a voluntary process to maintain access to federal grant opportunities that support implementation of this measure. CARB has not been interested in considering this method even though it was listed as an option under the 2016 Mobile Source Strategy which states, "implementation of the measure was authorized to be passed as a regulation or a memorandum of understanding, or a

combination". **The CAC strongly urges CARB to consider a voluntary MOU as a pathway forward as it will provide airports additional funding to meet the goals of the measure.**

b. CPUC Utility Project Grants for Transportation Electrification

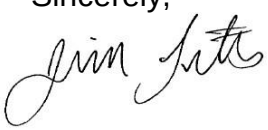
The CPUC approved $738 million in transportation electrification projects for the state's electric utilities. Of the $738 million, $236 million is available through PG&E for medium-and heavy-duty vehicles, as well as $343 million for Southern California Edison. The concern is that many airports operate under publicly-owned utilities and are not covered under the listed investor owned utilities. For example, Oakland International Airport is its own utility, SFO is under the San Francisco Public Utilities Commission, and John Wayne Airport generates its own power through an onsite central utility plant. In result, the majority of large and medium airports are ineligible for this funding.

c. VW Settlement Funding – Appendix D

Airports are eligible for Appendix D funding through the VW Settlement Beneficiary Mitigation Plan which allocates $130 million to Zero-Emission Transit, School, and Shuttle Buses. However, the maximum incentive amount is $160,000 for shuttle buses and only available for engine model years 2009 and older. Fifty-percent of this allocation is expected to benefit disadvantaged or low-income communities. Many of the impacted airports have already transitioned large portions of their shuttle fleet to newer alternative fueled buses. Therefore, the number of buses eligible will be significantly diminished. Also, most airports are not located in disadvantaged communities further limiting eligibility.

In conclusion, we appreciate the opportunity to provide written comment on the proposed regulation. Throughout this process, airports have gone above and beyond to partner with CARB staff by providing requested information and collaborating when possible in order to find a workable solution. To ignore the comments provided herein would be an unfortunate disregard of a willing partner and make this regulation more burdensome than necessary. The CAC strongly believes the requested changes provided can lead to a workable solution supporting a path to electrification. Please contact Jim Lites jlites@calairportscouncil.org and Sarah Johnson at sjohnson@calairportscouncil.org with any feedback on the provided comments.

Sincerely,



Jim Lites
Executive Director