



Airlines for America[®]

We Connect the World

July 6, 2016

submitted electronically to: www.casustainablefreight.org

Re: Comments on Draft California Sustainable Freight Action Plan

To Whom It May Concern:

On behalf of our members, Airlines for America[®] (“A4A”)¹ thanks the California State Transportation Agency (“CalTrans”), California Environmental Protection Agency, Natural Resources Agency, California Air Resources Board (“CARB”) and Governor’s Office of Business and Economic Development (collectively the “State Agencies”) for providing this opportunity to comment on the Draft California Sustainable Freight Action Plan (“Draft Action Plan”). As we read it, the Draft Action Plan proposes a comprehensive effort to improve the state’s freight transportation system in a way that simultaneously achieves two co-equal imperatives: improving and protecting public health while preserving and enhancing a “major economic engine” that is a “key to the continuing prosperity of California.”

We fully support that vision. The importance of our industry to the California economy and its freight sector in particular cannot be overstated. *Commercial aviation accounts for over 850,000 jobs and over \$112 billion of economic activity in California, with fully one-third of California trade transported by air.* At the same time, we recognize and support the need to protect public health and the environment by addressing greenhouse gas (“GHG”) and air toxics emissions and meeting the State’s obligation to achieve National Ambient Air Quality Standards (“NAAQS”), particularly for fine particulate matter (“PM2.5”) and ground-level ozone (requiring reductions in emissions of precursor oxides of nitrogen (“NOx”)). Even as our industry’s economic contributions have grown, we have aggressively driven ever-improving environmental performance. We have relentlessly pursued and implemented technology, operational and infrastructure measures to minimize our environmental impacts. For example, we have avidly pursued development and deployment of innovative technologies like winglets, advanced air traffic control technologies and, as a founding member of the Commercial Aviation Alternative Fuels Initiative[®] (“CAAFI”) in 2006, sustainable alternative jet fuels. A4A and our members also have committed the time and resources needed to support the development of economically reasonable, technologically feasible international standards for aircraft engines and aircraft governing noise, NOx, PM, and CO2 (carbon dioxide), through the International Civil Aviation Organization / Committee on Aviation Environmental Protection (“ICAO/CAEP”).

¹ A4A is the principal trade and service organization of the U.S. airline industry. A4A’s members are: Alaska Airlines, Inc.; American Airlines Group; Atlas Air, Inc.; Federal Express Corporation; Hawaiian Airlines; JetBlue Airways Corp.; Southwest Airlines Co.; United Continental Holdings, Inc.; and United Parcel Service Co.; Air Canada, Inc. is an associate member.

As a result, commercial aviation has a strong environmental record. For example, Bureau of Transportation Statistics (“BTS”) data, confirms that on a system-wide² basis U.S. airlines burned 6 percent less jet fuel in 2015 than in 2000, even though they carried 24 percent more passengers and cargo on a revenue-ton-mile basis. Further, low-carbon alternative jet fuel already is being produced in California and fueling flights from Los Angeles International Airport (“LAX”). We also maintain an unparalleled safety record, with extremely low fatality and injury rates that are orders of magnitude lower than other sectors.

We are not stopping there. A4A is part of a global aviation coalition that has set specific, ambitious goals for reducing CO2 emissions from international aviation, including achieving carbon-neutral growth from 2020 onward. At the same time, we continue to demand more efficient aircraft and improved airport ground support equipment (“GSE”) while supporting deployment of efficiency-enhancing technologies, for example through implementation of the various technologies comprising the Next Generation Air Transportation System (“NextGen”) and the Federal Aviation Administration (“FAA”) Continuous Lower Energy, Emissions and Noise (“CLEEN”) Program. In addition, we continue to support policies and programs designed to facilitate the deployment of sustainable alternative jet fuels.

In short, the commercial airline industry takes its environmental responsibilities very seriously and we have a long history of and continuing commitment to reducing our environmental footprint while increasing our contributions to the economy. As such, we believe that the twin imperatives of the Draft Action Plan are interlinked with ensuring the continued vitality of the commercial airline industry in California. It is in this spirit that we offer both general comments and comments focused on specific proposals below.

Further Background

This section provides more details regarding our industry’s environmental record and economic contributions and highlights some unique aspects of the industry the State should take into account when considering approaches for addressing emissions from commercial aircraft and airport ground support equipment (“GSE”).

Commercial Airlines Have a Very Strong Record of Continually Improving Environmental Performance While Increasing Our Contributions to the National and California Economies

Contrary to commonly held misconceptions, emissions from the commercial aviation sector constitute less than two percent of domestic GHG emissions in the U.S. and exhibit much lower growth from 1990 levels (5%) compared to the transportation sector (17%) and on-road sources in particular (24%).³ The State’s inventory of criteria pollutants shows that in 2012 NOx emissions from GSE had declined 50% from 2000 levels in both the South Coast Air Quality Management District (“SCAQMD”) and statewide, while emissions of PM2.5 from GSE declined nearly 25% in both these regions. NOx and PM emissions from aircraft engines have been subject to increasingly stringent international emissions standards and emissions have been reduced as newer, more efficient and cleaner engines achieve greater penetration into the domestic and international fleets. We also have reduced the number of people affected by

² “System-wide” includes both international and domestic operations.

³ See Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2014 (April 2016), Table A-115. Moreover, this lower rate of growth is from a much smaller base.

significant levels of aircraft noise by 95% on a nationwide basis since 1975, while maintaining a safety record second to none.⁴

At the same time, our industry drives the national and State economies and our economic contributions are only expected to grow. The FAA reports that aviation drives nearly 5% of the state's gross domestic product, with commercial aviation accounting for the vast majority of this activity, providing 856,000 jobs and over \$112 billion in economic activity.⁵ The outsized economic contribution of commercial airlines to the freight sector is particularly relevant in this context. CalTrans reports that in 2012 fully *one-third of California's trade – \$144.5 billion worth – was conducted by air.*⁶ Los Angeles International Airport alone accounted for \$92.4 billion in trade shipments in 2014, over 5% of the nation's total, making it the ninth largest international trade gateway in the nation.⁷ CalTrans only expects the economic importance of air transportation to the freight sector to increase, finding that by 2040 more than \$610 billion in trade – or *\$1.67 billion per day* – will be conducted by air. By then, CalTrans predicts that well over one-third of California's imports (38.5%) and almost one-half of its exports (48.8%) will be transported by air. Notably, while air transportation accounts for a huge portion of freight transported by value, it accounts for a very small portion of freight transported by weight. As a result, in 2012 the freight transported by air accounted for more than *one-third of the value* but *less than 1% of weight* of goods imported and exported to California. This is because value of goods transported by air is orders of magnitude higher than that transported by other modes.⁸

Our success in simultaneously improving our environmental performance is reflected in BTS data pointed out above, which confirms that on a system-wide basis U.S. airlines burned 6 percent less jet fuel in 2015 than in 2000, even though they carried 24 percent more passengers and cargo on a revenue-ton-mile basis. Expressing our progress in different terms, between 1978 and 2015, the U.S. airline industry improved its fuel efficiency by over 120 percent, resulting in 4 billion metric tons of CO2 savings – the equivalent of taking over 23 million cars off the road in each of those years.

U.S. Airlines are Committed to Further Environmental Progress

The U.S. airlines have achieved this level of simultaneous economic and environment performance by focusing on new technology, sustainable alternative aviation fuels, air traffic management and infrastructure improvements, and supporting practically achievable regulatory measures. Far from waning, our commitment to continued progress is intensifying.

⁴ It is worth highlighting that making progress on all of these fronts is complicated as noise, CO2, NOx, PM and other emissions are interdependent and sometimes progress on one front can impede progress on another. Reducing NOx emissions for example can compromise fuel efficiency (CO2 emissions) and increasing fuel efficiency can compromise efforts to reduce noise.

⁵ *The Economic Impact of Civil Aviation on the U.S. Economy – Economic Impact of Civil Aviation by State* (January 2015) at 23.

⁶ See *California Freight Mobility Plan* (December 2014) at 151-55. CalTrans reports that, measured by value, more than 26% of California's imports (\$68 billion) and 44% of its exports (\$76 billion) were transported by air in 2012. Data from the U.S. Commerce Department shows that in 2015 one-third of California's trade, \$190 billion worth, was transported by air (47% of exports and 28% of imports).

⁷ See *2016 Pocket Guide to Transportation* (U.S. Department of Transportation, Bureau of Transportation Statistics), Table 3-8.

⁸ Comparison to other modes provides a stark contrast. In 2012, the goods imported and exported into California by rail weighed 2.6 times more but were less than 1/50th of the value of the goods delivered by air; trucks carried 12 times more freight by weight, but the value of those goods was less than half the value of those carried by air; while the value of goods carried by water was about 50% higher, those goods weighed 105 times more than those carried by air.

Aircraft, Aircraft Engine and GSE Technologies

The development and successful implementation of new technologies has been a constant feature throughout our industry's history. Commercial airlines have supported innovation by demanding it from the marketplace. Airlines have invested hundreds of billions of dollars in fuel-saving, cleaner aircraft and engines and innovative technologies that save weight, improve aerodynamics or help improve operations like cutting-edge route optimization software. With respect to GSE, airlines have invested hundreds of millions of dollars in California alone to acquire zero-emission electric and very low emission gasoline-powered GSE. Indeed, the U.S. airlines' level of investment is such that penetration levels of electrified equipment in categories where it has been proven operationally viable are nearing maximum levels practical.

Critically, airlines could never have invested in such technologies unless they became available in the marketplace. This requires a sustained, substantial commitment of financial resources to research and development. This is particularly true with respect to aircraft and aircraft engine technologies, which can take decades from initial research to actual deployment, which can only occur once the technology has attained readiness levels that ensure flight safety is maintained. Consequently, A4A and its member airlines have recognized the need for and supported government funding of basic research and development for aircraft, aircraft engines and other innovative technologies, including, for example, the FAA's CLEEN Program. GSE faces different challenges, including the fact that GSE represents only a small portion of the marketplace for off-road equipment, with smaller subcategories representing even smaller niche markets. As such, it can be difficult to garner sufficient interest from engine manufacturers to invest in developing GSE engines. Accordingly, A4A has supported efforts to develop engines designed specifically for GSE, which today focus on applications in which long duty cycles and/or very high load requirements have proven difficult obstacles to the development of viable alternatives to diesel.

We will continue to support funding of basic research and development for such technologies as well as positive financial incentives designed to facilitate their rapid penetration into the marketplace.

Sustainable Alternative Jet Fuels

A4A and our members have been working extremely hard for many years to lay the groundwork for the establishment of a sustainable alternative aviation fuels industry. As mentioned above, A4A is a founding member of and active leader within CAAFI, a public-private partnership with FAA and other stakeholders that is working to hasten the development and deployment of such fuels. Among other accomplishments, CAAFI has helped lead the effort for specifications certifying five alternative jet fuel pathways. In addition, A4A actively participates in and supports the Center of Excellence for Alternative Jet Fuels and Environment (also known as the "Aviation Sustainability Center" or "ASCENT"), a cooperative aviation research organization co-led by Washington State University and the Massachusetts Institute of Technology and funded by the FAA, NASA, the Department of Defense, and Transport Canada, with matching funds and resources from private industry for key projects. ASCENT oversees a suite of research projects designed to overcome technical obstacles to production of alternative aviation fuels and provide sound scientific research regarding environmental benefits.⁹

⁹ ASCENT also oversees research focused on fuel efficiency, aircraft noise and local air quality. For example, research conducted under the auspices of ASCENT (and its predecessor PARTNER) was critical to informing ICAO/CAEP's development of the recently-agreed CO₂ aircraft standard and has been essential to the development

Our work is beginning to bear fruit, as A4A members have already begun to use sustainable alternative jet fuel on commercial flights. In California, United Airlines has begun using renewable jet fuel at LAX and has an agreement with AltAir Fuels for the purchase of up to 15 million gallons over a three-year period. In addition, FedEx and Southwest Airlines have also each signed agreements with Red Rock Biofuels to purchase 3 million gallons per year of renewable jet fuel for use in California beginning in 2017. Just last month Alaska Airlines operated two commercial flights from Seattle – one to San Francisco, the other to Washington, DC – fueled by a 20% blend of alcohol-to jet (“ATJ”) produced by GEVO, Inc.

We continue to believe the availability of sustainable alternative jet fuels in significant quantities will be indispensable to meeting our environmental goals, in particular achieving carbon neutral growth from 2020. In addition, these fuels provide significant reductions in PM emissions and as such will also help in efforts to attain the NAAQS for PM and enhance public health. As such, we will continue to work through CAAFI and other organizations to further develop this burgeoning industry and welcome positive financial incentives designed to facilitate the rapid penetration of sustainable alternative jet fuels into the marketplace.

Air Traffic Management and Infrastructure Improvements

We also have long supported improvements to airport infrastructure and modernization of the country’s air traffic management system on a business-case basis. For example, electrification of aircraft gates and installation of ground power units (“GPUs”) and pre-conditioned air (“PCA”) units provide access to a clean central heating and cooling system for aircraft while at parking positions. This allows airlines to run aircraft systems on electricity provided to the airport rather than relying jet fuel-powered aircraft auxiliary power units (“APUs”). In addition, airports may install charging stations that serve electric-powered GSE. Improvements to airport power grids ensure the reliability of electric power needed to take advantage of these systems. An important source of funding for such improvements is the FAA’s Voluntary Aviation Low Emissions (“VALE”) Program, which makes funds generated by the aviation industry available to airports to support projects that achieve reductions of regulated air pollutants.¹⁰ In addition, when necessary to improve efficiency of their operations, airlines also support major infrastructure projects such as upgrades to or reconfigurations of terminals and runway and taxiway systems.

We also have been supportive for many years of the federal government’s effort to upgrade the nation’s air traffic management system, known as NextGen, which is comprised of a suite of technologies and procedures to improve efficiencies in managing air traffic and reducing emissions. A4A and its members continue to work cooperatively with the FAA to implement elements of the plan that are supported by a sound business case.

Support of Economically Reasonable, Technologically Feasible Regulatory Standards

U.S. airlines also have a long history of supporting development and implementation of economically reasonable, technologically feasible standards when necessary and appropriate.

of cutting-edge technology enabling measurement of aircraft PM emissions sufficiently accurate to support a viable international PM standard for aircraft engines.

¹⁰ Funds come from two airport assistance programs, the FAA Airport Improvement Program (“AIP”) and the Passenger Facility Charges (“PFC”) program – AIP funds come from the Aviation Trust Fund, which is largely funded by taxes on airlines and airline passengers; PFCs are federally-approved taxes imposed on airline passengers by airports (airlines are required to collect the taxes and remit them to the airports).

Aviation is a global industry and as such, it is critical that aircraft and aircraft engine emissions standards be agreed to at the international level and not imposed unilaterally by one country or set of countries (or individual localities within those countries). Accordingly, such standards are appropriately developed at the international level by the Member States of ICAO – with the full participation of EPA and FAA and ultimately incorporated into U.S. law consistent with our nation’s treaty obligations¹¹ and in harmony with the international community. A4A and its members have devoted countless hours working in the ICAO/CAEP process over the decades to support development of standards applicable to aircraft and aircraft engines.¹²

Long-standing ICAO standards for emissions certification of aircraft engines cover hydrocarbons, carbon monoxide, NOx and smoke. ICAO/CAEP has focused a great deal of effort on NOx and we have strongly supported this effort – as a result of successive, increasingly stringent NOx standards aircraft engines produced today must be about 50% cleaner than under the initial standard adopted in 1997.¹³ Noise has also been a central focus at the international level resulting in standards that ensure aircraft produced today are about six times quieter than those produced 40 years ago.

A4A and our members also strongly supported efforts which culminated in CAEP’s agreement in February of this year to adopt a new CO2 emissions standard that will apply to newly designed aircraft beginning in 2020 and newly manufactured “in-production” aircraft (aircraft produced according to previously-certified designs) beginning in 2023. At the same meeting, CAEP also approved and recommended adoption of a new non-volatile PM (“nvPM”) standard for aircraft engines – this standard effectively translates the existing smoke standard into a nvPM standard. Specifically, the nvPM standard is set at a regulatory level that matches the current smoke number visibility standard and all new and in-production engines must certify to that standard beginning in 2020. CAEP is now working to establish a new stringency level for this standard by February 2019.

With respect to GSE, even despite our view (detailed below) that the State lacks the authority to regulate in this area we nonetheless cooperated with the State as it developed a suite of emissions regulations applicable to GSE (as well as other engine types), including its In-Use Off-Road Diesel (“ORD”) regulation, the Airborne Toxic Control Measure for Diesel Particulate Matter (“DPM”) from Portable Engines (“PE-ATCM”) and related Statewide Portable Equipment Registration Program (“PERP”) rule, and Off-Road Large-Spark Ignition (“LSI”) regulation. While we are open to similarly cooperating in future efforts to amend regulations applicable to GSE, we have various serious concerns regarding such efforts as discussed below.

U.S. Airlines’ Future Goals and Continuing Efforts

The U.S. airlines are intent on building on their remarkable environmental record and their commitment to environmental progress will continue.

¹¹ Convention on International Civil Aviation, commonly referred to as the “Chicago Convention,” to which 191 countries, including the United States, are parties, or “Contracting States.”

¹² A4A and its members participate in ICAO/CAEP as members of the International Air Transport Association (“IATA”) delegation.

¹³ The SCAQMD provides a useful synopsis of the development of these standards in its *Preliminary Draft of the 2016 AQMP SCAQMD Mobile Source Measures* (April 14, 2016).

Perhaps most representative of that commitment is the adoption of ambitious goals for reducing GHG emissions from aircraft. As participants in the Air Transport Action Group¹⁴ we have committed to an annual average fuel-efficiency improvement of 1.5 percent through 2020, carbon-neutral growth from 2020 (subject to critical government infrastructure and technology investments such as air traffic control modernization) and an aspirational goal of a 50 percent reduction in CO₂ by 2050 relative to 2005 levels. Again, we intend to meet these targets primarily through the types of initiatives discussed above. Also worthy of highlight is that A4A is playing a central role as ICAO works to develop a Global Market-Based Measure (“GMBM”) that would establish an internationally-recognized mechanism for off-setting aircraft CO₂ emissions. This effort is designed to put our industry in position to “fill the gap” in the event it is not able to achieve its goal of carbon neutral growth from 2020 through adoption of new technologies, sustainable aviation fuels, modernized air traffic control, improved infrastructure and other measures.

The State Must Recognize its Authority to Regulate in the Aviation Sector is Strictly Limited

As noted above, we strongly support the twin imperatives at the core of the Draft Action Plan and have a proven record of enhancing prosperity by both reducing environmental impacts while providing jobs and broadening economic opportunities. At the same time, it is absolutely essential that the State respect that it lacks authority to regulate aircraft, aircraft engines and aviation fuels and faces strict limitations on its authority to regulate the aviation sector generally. The U.S. Congress has long recognized that commercial aviation safety and the efficiency of the National Airspace System depends on the application of a consistent set of regulatory requirements by a primary federal agency – the FAA – with the necessary expertise and capability to develop and administer those requirements. As such, courts have long held that the Federal Aviation Administration Authorization Act and its implementing regulations create a “uniform and exclusive system of federal regulation” of aviation safety that preempts state and local regulation. *Burbank v. Lockheed Air Terminal, Inc.*, 411 U.S. 624, 639 (1973).¹⁵ In addition, the Airline Deregulation Act expressly prohibits states from enacting or enforcing any law “related to a price, route, or service of an air carrier.” 49 U.S.C. § 41713(b)(1). The U.S. Supreme Court has interpreted the term “related to” broadly to preempt all state laws that have “a connection with or reference to” airline prices, routes, or services; a state law need not expressly address the airline industry or be specifically designed to affect it – as long as the law has a connection with airline prices, routes or services, preemption of the law is mandated under the ADA. *Morales v. Trans World Airlines, Inc.*, 504 U.S. 374, 384 (1992).¹⁶ In addition, Section 233 of the Clean Air Act (“CAA”) explicitly preempts any state or its political subdivision from “adopt[ing] or attempt[ing] to enforce any standard respecting emissions of any air pollution from any aircraft or engine thereof unless such standard is identical to a standard” established by the U.S. Environmental Protection Agency.¹⁷

¹⁴ ATAG is an independent global coalition comprising the entire aviation industry (including airlines, airports, airframe and engine manufacturers, air navigation service providers, and airline pilot and air traffic control unions, among others).

¹⁵ See also *Abdullah v. American Airlines, Inc.*, 181 F.3d 363, 370 n.10 (3d Cir. 1999)(aviation regulation is an area where “[f]ederal control is intensive and exclusive.”)(quoting *Northwest Airlines, Inc. v. Minnesota*, 322 U.S. 292, 303 (1944)).

¹⁶ See also *Rowe v. N.H. Motor Transp. Ass’n*, 128 S. Ct. 989 (U.S. 2008) (reaffirming *Morales* and its broad interpretation of ADA preemption).

¹⁷ See 42 U.S.C. § 7573.

We have commented many times regarding the State's lack of authority to regulate aircraft and aircraft engines, GSE, and jet fuel.¹⁸ Indeed, CARB itself has acknowledged limits on the State's authority in its original Climate Change Scoping Plan, determining that "emissions from the fuel used in planes is an important consideration, however, the State does not have regulatory authority over aviation."¹⁹

Again, we recognize that continued progress towards greater and greater efficiency from all sectors is needed to meet the State's concurrent imperatives to reduce emissions and to preserve the vitality of its economy. At the same time, we ask the State to respect the limits of its authority.

Scope and Effect of the Comments Presented Here

Before presenting them in more detail below we wish to clarify that the comments on the Draft Action Plan presented here are intended to assist the Agencies as they work to refine the document and are not intended to constitute a comprehensive or final response to any specific policy, project, action or measure identified in the Draft Action Plan or to the plan itself. As we understand it, the Agencies will not take any formal action to adopt the Draft Action Plan, but rather will be provide a revised draft (reflecting "comments and new information received" during this comment period) to the Secretaries for Transportation, Environmental Protection, and Natural Resources for their "consideration and submittal to the Governor." (Draft Action Plan at 21). The plan itself acknowledges that concepts presented "may change, be adjusted or new concepts may be added" and that no concept will be implemented unless and until "applicable public processes, necessary financing approvals, technical analysis and economic and environmental reviews" are successfully completed. *Id.* We understand this to mean that any action or measure identified in the plan ultimately may or may not be formally proposed and could not be finalized without further formal notice and opportunity to comment consistent with the State's Administrative Procedures Act. Accordingly, A4A and our members expressly reserve any and all rights to comment on any regulatory measure identified in the document before it is formally adopted.

For example, CARB recently formally proposed amendments to its LSI Regulation which applies to GSE operated by our members. The proposed amendments would, if adopted, impose certain reporting, labeling and recordkeeping requirements. CARB asserts that this regulation is intended, in part, to facilitate data gathering that "would be used to inform the development of future measures that accelerate the deployment of zero emission technology in LSI and other off-road equipment, such as the Zero Emission Off-Road Measure described in the Pathways Document [*Sustainable Freight: Pathways to Zero and Near-Zero Emissions, Discussion Draft*], to be proposed for future Board consideration."²⁰ A4A will comment not only on the currently pending proposed amendments to the LSI regulation, but if and when CARB takes action to formally propose any further amendments to the LSI regulation designed to "accelerate" deployment of "zero and near-zero emission technology" in a manner that affects GSE, A4A also will comment on that proposal. Again, A4A and our members expressly reserve any and all rights to comment on any such pending or future regulatory proposals.

¹⁸ See, e.g., A4A Comments on Preliminary Draft Regulation for a California Cap and Trade Program (January 11, 2010); Comments of the Air Transport Association [former name of Airlines For America] on the California Air Resources Board's Adoption of a Proposed Regulation for In-Use Off-Road Vehicles (July 25, 2007).

¹⁹ *Climate Change Scoping Plan Appendices* at C-56.

²⁰ See Public Hearing to Consider the Proposed Amendments to the Large Spark-Ignition Engine Fleet Requirements Regulation – Staff Report: Initial Statement of Reasons at p. iii.

In this context, it is worth noting that the Draft Action Plan is one of several documents that propose similar policies and/or identify similar specific regulatory actions for future consideration. As reflected above, the “Pathways Document” identifies a “Zero-Emission Off-Road Measure” that is very similar to and/or overlaps significantly with the Airport Ground Support Equipment measure described in Appendix C of the Draft Action Plan, which also is described in almost identical terms in the Mobile Source Strategy very recently finalized by CARB Staff (see Mobile Source Strategy at p. 138). We note that these documents also include concepts for addressing aircraft emissions that are very similar.²¹ In addition, the CARB Board already has endorsed certain policies presented in this Draft Action Plan, for example, in “April 2015, the Board affirmed its vision of a zero and near-zero emission freight system through Resolution 15-22.”²² The Governor’s Executive Order B-32-15 which directed the Agencies to develop this Draft Action Plan orders that the plan “be informed by existing state agency strategies, including . . . [the Pathways Document].” As such, we understand that many foundational policies informing this plan already have been discussed and, in some cases, endorsed and, in effect, the decision to at least pursue development of some of the actions identified in the Draft Action Plan has effectively been taken. These circumstances underscore the need to fully respect the rights to comment on any pending or future formal regulatory proposals.

General Comments

As discussed above, we fully support the Draft Action Plan insofar as it is intended to support the modernization of the State’s freight transportation system to achieve the coequal imperatives of improving public health and the environment while also ensuring the continued growth and vitality of the freight sector. Indeed, the State must regard commercial airlines and the aviation sector in general as essential to success in this effort. This means that as the State seeks to implement this Draft Action Plan it must ensure that any policies, programs and regulatory measures support the commercial aviation industry and also ensure its continued growth and vitality.

Comments on Policy Drivers

The identified policy drivers appear to be appropriate. We note, however, that one of the Governor’s “key climate change strategy pillars” appears to be stated too broadly. The Draft Action Plan indicates that the Governor called for “[r]educing petroleum use by up to 50 percent,” but in his January 2015 inaugural address, which is the apparent source of the strategy pillars, the Governor actually called for “reduc[ing] today’s petroleum use *in cars and trucks* by up to 50 percent.”²³

²¹ For example, the Pathways Document (at p. 42), the Mobile Source Strategy (at p. 126) and the Proposed 2016 State Strategy for the State Implementation Plan (the “Proposed SIP Strategy”) at p. 83) and the Draft Action Plan (at p. C-59) speak of “partnering with airports” to “incentivize cleaner aircrafts to come to California.”

²² See Public Hearing to Consider the Proposed Amendments to the [LSI Regulation], Staff Report: Initial Statement of Reasons at ii (May 31, 2016).

²³ A link to the text of the Governor’s 2015 address is here: <https://www.gov.ca.gov/news.php?id=18828> (emphasis added). CARB also has articulated the petroleum reduction goal in these terms: “In order to meet federal health-based air quality standards and our climate change goals, we must cut in half the amount of petroleum we use *in our cars and trucks* over the next 15 years.” See CARB news release at http://www.arb.ca.gov/newsrel/petroleum_reductions.pdf (emphasis added). It also is worth noting that the California Legislature considered legislation (SB 350) that described the Governor’s proposal in these terms and rejected a provision which would have codified it.

Comments on Vision Statement, Guiding Principles and Funding/Investment Proposals

We generally support the vision statement, the guiding principles and funding/investment proposals set out in the document. We note that it appears there is a focus on non-aviation modes and directing financial support and positive incentives to those modes. While, as pointed out above, overall volumes and weight of freight transported by other modes are high in comparison to freight transported by air, a very large portion of the value of freight (particularly in international trade) is transported by air. In addition, air transportation is an extremely safe mode of transportation, especially compared to on-road modes. At the same time, transportation by air is far faster than alternatives and provides a means of transporting perishable and other high-value goods to markets not assessable by other modes. The ability to deliver products rapidly enhances overall quality of life within the State by, for example, giving Californians access to products which they otherwise would not have access to. By the same token air transportation makes it possible for California farmers and industries to reach markets that otherwise would be closed to them and for people in those markets to enjoy California products. In addition, the speed of delivery only aircraft can provide also drives efficiencies and environmental benefits in the broader economy. For example, agricultural products can be produced where it is most efficient to produce them. So too, air transportation enables just-in-time delivery supply chains, allowing businesses to forego devoting building space to unproductive uses such as warehousing inventories and to become more productive, allowing them to serve more demand with fewer manufacturing facilities. In short, air transportation enables businesses to produce more using fewer capital and land resources and less power.

These attributes reinforce the need to ensure policies and programs designed to support the modernization and growth of the freight transport system, particularly positive financial and other incentives, are structured to make them available to aviation. We also suggest that the plan include a general principle affirming the need to better understand how the freight system drives economic and environmental efficiencies in the broader economy and include an associated action to undertake such an assessment and take the findings into account when considering taking regulatory or other actions.

The goal of transporting freight “by zero-emission equipment everywhere feasible, and near-zero emission equipment . . . everywhere else” is laudable and appropriate as a “vision” of an ideal outcome. We emphasize, however, that any proposals for action, particularly regulatory mandates, must be tempered to reflect real world conditions. CARB’s recent experience regarding its PE-ATCM, which applies to a subset of GSE, is instructive. CARB recently announced that it would amend and not enforce existing fleet emission standards because it had “determined that widespread compliance with the 2017 and 2020 fleet average standards for DPM may not be feasible.”²⁴ More specifically, CARB explained that it had “concluded the upcoming 2017 ATCM fleet average standards are not reasonably achievable for fleet owners because cleaner engine technologies did not become available as quickly as was anticipated when the Rule was adopted in 2004.”²⁵ This underscores the need to calibrate actions carefully to reflect real world conditions. We also note that, while there are many strategies and potential technologies that will improve fuel efficiency of commercial jet aircraft in the coming decades, these aircraft will operate on kerosene-type jet fuel or “drop-in” alternatives for the foreseeable future. Alternatives available to other modes and sectors – such as electricity, solar and hydrogen – are not likely to be available to aviation for the foreseeable future. This underscores

²⁴ See Portable Diesel Engine ATCM – PERP Regulatory Advisory No. 347, available here: <http://www.arb.ca.gov/enf/advs/advs347.pdf>.

²⁵ See Q&A for the Portable Diesel Engine ATCM – PERP Regulatory Advisory No. 347, available here: http://www.arb.ca.gov/enf/advs/q_a_advs347_121615.pdf

the need to provide support for the development of sustainable alternative jet fuel, a topic we address in more detail below.

In our view, the recent experience with the PE-ATCM also highlights the need to provide significant positive financial and other incentives designed to support technology development and deployment rather than relying on regulatory mandates to achieve progress. In short, the type of “transformation” of the freight system envisioned in the Draft Action Plan will not be possible unless such support is provided, particularly if proposed actions would require retirement of existing capital assets before the end of their useful lives.

It also is clear that the envisioned “transformation” of the freight sector will not be successful unless significant planning and financial resources are devoted to creating the infrastructure necessary to support it. While certain actions identified in the plan are focused on this need, the guiding principles do not appear to encompass it. In this context, we note that the “zero-emission equipment everywhere feasible” goal will necessitate a great reliance on electricity and a huge expansion of the capacity to generate and transmit electricity. We support the guiding principles (and associated actions) that recognize the need to plan for and devote the necessary resources to support development of infrastructure needed to support the envisioned transformation. In our view, the Agencies also should consider incorporating elements in the guiding principles that call for an ongoing assessment of both the feasibility of achieving this electricity-reliant vision and the potential unintended consequences of relying so heavily on one type of power. In this context we note that the challenges in providing electric infrastructure at airports sufficient to achieve these goals are significant. For example, it took 5 years from the time airlines intended to deploy electric GSE before electric GSE chargers became available at Terminal 1 in LAX – mainly because the airport had needed to upgrade their central utility plant to provide sufficient power for the chargers. Considering the large and varied footprint of airports, which include not only terminals, but also cargo facilities, hangars, maintenance facilities and utilities, similar investment in infrastructure will be necessary to enable deployment of additional electric GSE. Infrastructure, upgrades necessary to support conversion to zero-emission technologies such as electric equipment would require extensive study, planning and resources to implement.

Finally, none of the guiding principles appear to express directly the need to ensure policies and regulatory programs identified in the plan are adopted in compliance with legal requirements. We suggest incorporation of a guiding principle that directly affirms the need to adhere to such legal requirements, including those protecting the right of the public to full opportunity for notice and comment before any specific action is approved or implemented and constraints on the State’s authority under federal or other applicable law.

Comments on Freight Targets

System Efficiency Target

The concept of using a ratio of gross domestic product (“GDP”) to emissions as a very rough, very high level measure of system efficiency could be appropriate if designed and used in appropriate ways. We highlight, however, that using only CO₂ in the denominator utterly fails to reflect a large number of various benefits to be derived under the Draft Action Plan – including, among others, fewer deaths and injuries, lower emissions of non-CO₂ GHGs, and lower emissions of local air pollutants like NO_x and PM_{2.5}. In addition, the Draft Action Plan does not provide enough clarity regarding precisely the economic benefits that would be reflected in the GDP value it proposes to use in the “system efficiency” target. For example, we

are not clear as to whether this value would reflect the economic value of goods exported from and imported into the State because, as articulated, it appears this GDP value is only intended to reflect “the value of goods and services produced from the sector” itself. Perhaps this is a semantic issue, but it is important to have clarity regarding what the GDP value is intended to reflect.

We are especially concerned that this “system efficiency target” may be used to compare subsectors within the freight system. The “system efficiency” ratio as proposed clearly is not suited to that purpose because it does not reflect the full spectrum of benefits and impacts targeted by the plan. As such, the proposed “system efficiency” ratio cannot capture the nuanced differences among modes (for example the much lower mortality and injury rates in air transportation versus road transportation or the benefits discussed above related to the speed of delivery air transportation enables). We also highlight that it appears the Agencies intend to exclude the GDP contribution and CO₂ emissions associated with ground transportation of passengers but to include those elements associated with air transportation of passengers.

To be clear, we acknowledge that these complexities likely need not be considered if the “system efficiency” ratio is simply intended to be a very rough, very high level indicator of progress. In fact, we would support that approach over attempting to equitably and adequately reflect such complexities, *provided that* the Agencies explicitly state that the “system efficiency” ratio is intended only as a very rough measure of system progress and that under no circumstance should the ratio be used to compare sectors.

Transition to Zero Emissions Technologies Target

As with the “system efficiency” ratio, the “100,000 freight vehicles and equipment” target may be appropriate as a rough measure of progress. It is clear, however, that not all vehicles and equipment are necessarily the same because, generally, on a per-vehicle basis the benefits of achieving zero emissions from larger vehicles and equipment will be larger than for smaller vehicles and equipment. It may be useful for the Agencies to consider a more refined approach that would reflect such differences. We also note that a more refined approach than simply using “vehicle counts” may be necessary. For example, the emissions benefits associated with using alternative jet fuels in large passenger jets will certainly be far larger “per vehicle” than deploying another electric fork lift. Similarly, under exacting certification standards for jet fuel (designed to ensure safety) alternative fuels must be blended with traditional jet fuel. A simple vehicle count would not reflect the substantial benefits associated with deployment of alternative jet fuels.

Economic Growth “Target”

We agree that economic growth should be targeted, but suggest a specific target should be established, rather than the vague “fostering” target. For example, perhaps a target to achieve economic growth x% higher than would have been expected in the absence of the modernization program would be useful.

Comments on Specific Actions

We limit our comments here to proposals that would directly affect commercial aircraft, GSE and/or commercial jet fuel.²⁶

Action 4.J.2. – Further Development of Cleaner Technologies Through Regulations, Partnerships and Incentives – Off-Road Federal and International Sources

We are supportive of the goal of this action as it applies to aviation: “to increase the penetration of cleaner . . . aircraft technologies, and to promote efficiency improvements at the equipment, sector and systems levels.” However, we strongly question the premises asserted for this action in the Proposed SIP Strategy as they relate to aviation: e.g., “emissions from these categories have not decreased at the same pace as those for other mobile sources” and “the development of cleaner technologies lags behind those for other sectors.”²⁷ As noted above, we have long supported and avidly pursued such technologies and improvements. Any action by the State or its political subdivisions, of course, must recognize the imperative that air safety can never be compromised and that the FAA has exclusive jurisdiction over the assessment and deployment of aircraft technologies in the U.S. and over the National Airspace System. Accordingly, any policy or action must be designed in recognition of the fact that the State and its political subdivisions lack any authority to directly or indirectly mandate implementation of technologies or “efficiency improvements” affecting aircraft.

As such, we support positive “incentive programs” as a tool to achieve the stated goals as long as they are structured to ensure that they do not circumvent the strict limits on the authority of the State and its political subdivisions. We thus support the “expansion and enhancement of existing incentive and innovative funding programs” and “seeking continued funding for and partnerships with federal agencies,” including USEPA and the FAA, to the extent these programs and partnerships comport with limitations on State and local authority. We note that “demonstration projects” tend to be very resource intensive for participating carriers and require careful consideration of safety and security concerns as well. Similarly, we support the concepts of “encourage[ing] production of cleaner, more efficient engines” through “partnerships with international engine manufacturers” and “encouraging efficiency improvements,” as long as these partnerships and actions to encourage improvements are appropriately structured. In particular, we would need far more detail and clarity regarding what is entailed by “industry based initiatives (like the San Pedro Bay Ports’ Supply Chain Optimization effort to increase seaport competitiveness), as well as other efficiency concepts being developed as part of this Action Plan” and how they may be applied to the aviation sector before we could comment definitively on them. However, we would not support “industry-based initiatives” or “efficiency concepts” to the degree they may be used as the basis for formulating mandatory regulatory programs or other actions that would not respect the limits on State authority.

We do question in the strongest possible terms the viability of “[p]artnering with airports to incentivize cleaner aircraft to come to California airports” and urge the State to abandon this tact. While we cannot comment definitively on any proposal to implement this concept unless

²⁶ We note that other items discussed in the Draft Action Plan may affect aviation, including, e.g., measures directed at on-road heavy-duty vehicles, freight hub data collection and low-emission renewable diesel fuel. We will monitor the development of such items, but reiterate that the general comments presented here are equally applicable to those items and that we will provide specific comments on any measures of interest to our industry if and when the State formally proposes such measures.

²⁷ See Proposed SIP Strategy at 27.

and until it is stated in specific terms, we note that EPA itself has determined that similar concepts, for example “congestion pricing” are “not reasonably available” to States, because, *inter alia*, a “State has no authority to control airline operations” and “State controls on pricing are expressly preempted by the Air Deregulation Act.”²⁸ Airports also have no authority to impose such fees or similar “incentives.” In any event, we can state definitively that we would oppose any attempt to restrict the operation of aircraft with certain emission profiles and/or impose fees or other “incentives” intended to discourage or favor the operation of certain aircraft in California.²⁹ Accordingly, we strongly urge the State to abandon this tact and instead focus on affirmative partnerships and positive incentives that would support the development of cleaner, more efficient aircraft and aircraft engines and their deployment into the fleet.

We note that the analysis of costs and benefits, particularly as they may relate to the aviation sector, is extremely vague and not sufficiently developed to understand, even at a preliminary level, what the potential effect of this action may be. With respect to estimated costs, the Agencies state that “[C]ARB will estimate cost from this action during the measure development process for the Proposed 2016 State Strategy for the State Implementation Plan.” Draft Action Plan at C-59. However, the Agencies acknowledge in the Proposed SIP Strategy that “[t]he Further Development of Cleaner Technologies measures are still in concept phase; staff is unable to identify any operating costs and/or savings at this point.” See Proposed SIP Strategy, Appendix A at 8, footnote 7. With respect to “benefits” the plan again indicates CARB will provide estimates of emissions reductions in the Mobile Source Strategy and the Proposed SIP Strategy. We note that while both the Proposed SIP Strategy and Mobile Source Strategy estimate NO_x savings of 40 tpd and 30 tpd in 2023 and 2040 respectively, there is no indication regarding the relative contributions from aircraft, marine vessels and locomotives; the effect on GHG emissions and PM_{2.5} emissions are “not yet quantified.” See Mobile Source Strategy, Table 4; Proposed SIP Strategy, Table 6. The Mobile Source Strategy (issued May 16, 2016) in fact baldly states “[a]s this measure concept is early in the development process the estimated benefits and costs are not yet determined . . .” (Mobile Source Strategy at A-24).

We also note that it is not clear how CARB is considering effects on the aviation sector. None of the “Vision model assumptions utilized for estimating emissions reductions” appear to relate to the aviation sector. Proposed SIP Strategy, Appendix A at 5. The Proposed SIP Strategy also indicates Vision 2.1 can be used to analyze “the future fleet of light-duty vehicles, heavy-duty vehicles, locomotives, ships and off-road vehicles” - - no mention is made of aircraft. *Id.* Further, the Mobile Source Strategy states the “estimated benefits and costs” related to this measure “are anticipated to be similar to those for Tier 5 New Locomotive and Tier 4 Vessel Standards measures,” apparently anticipating none related to measures that may affect aviation. Mobile Source Strategy at A-24. As a general matter, we do not have clarity regarding the basis for the emissions estimates (both historical and future) of criteria pollutants and GHGs or economic impacts that may be attributed to the aviation sector. In the event any action affecting the aviation sector is put forward these shortcomings in the assessment of related costs and benefits will need to be overcome and transparently presented.

²⁸ See, 66 Fed. Reg. 57160, 57189 (Nov. 11, 2001).

²⁹ Also of particular concern is the assertion in the Proposed SIP Strategy that achieving 2023 emission reduction goals in the SCAQMD goals “would require . . . all aircraft meeting today’s Tier 8 emission levels”, something that both contravenes international standards and is absolutely beyond the authority of State or local authorities.

Action 4.H.3. – Zero-Emission Freight Vehicle and Equipment Requirements and Incentives – Airport Ground Support Equipment; Action 4.J.3 - Further Development of Cleaner Technologies Through Regulations, Partnerships and Incentives – Off-Road Equipment

As noted above, we have supported CARB's development of a suite of regulations addressing various categories of off-road sources that include aviation GSE despite our view that the State lacks authority to regulate in this area. Our commitment to achieving continued environmental progress and recognition of the State's emission reduction goals have underpinned our support for CARB's efforts. We remain committed to improving our environmental performance and understand the State continues to pursue further emissions reductions, in particular to achieve NAAQS for local criteria pollutants. Accordingly, we look forward to working with CARB staff as they develop any new actions that could affect GSE, highlighting that the comments presented here are intended to help form the basis of future discussions and that, if and when the State formally proposes any new measures that target GSE, we will submit comments that address the specifics of those proposals at the appropriate time.

In this context we urge the State – particularly CARB staff – to consider the following as it works to develop potential approaches for implementing these actions:

- Airlines have spent millions to acquire new or modify existing GSE to comply with existing CARB regulations applicable to GSE. It would be both unfair and wasteful for the State to require airlines to replace such equipment before the end of their useful lives.
- It is critical for airlines to maintain the reliability and operability of GSE to ensure safety and efficiency of aircraft operations. Airlines have achieved great progress in introducing low-emission equipment into their GSE fleets, including electric equipment. This success has been achieved in applications where such technologies have proven safe, reliable and efficient. We thus welcome the State's emphasis on the need to ensure that any push for further penetration of zero-emission or near zero-emission technologies be focused on applications "well suited" to their use. In this context, it is worth noting that the projected emissions benefits from Action 4.H.3 are very, very low. The projected savings NO_x of <0.1 tpd, for example, represents less than 0.05% of the 206 tpd the State expects to generate through all SIP measures. (See Proposed SIP Strategy, Table 6). The projected reductions for PM_{2.5} and GHG also are pegged at <0.1 tpd. This reflects both the significant progress already made in reducing GSE emissions and seems to suggest that the further measures contemplated may be targeting areas on the margins of technical feasibility. In this context, we caution that where measures may affect or impinge on air transportation services concerns regarding the State's authority to regulate in this sphere are heightened and reinforced.
- Rationally-based emission targets, which preserve the ability of affected entities to adopt workable technologies, are far preferable to technology-specific mandates. In this context, we emphasize that GSE represents a small niche within the broader market for off-road equipment with specialized GSE applications representing even smaller niches. Consequently, it can be difficult to focus equipment manufacturers on GSE and the development of technology for this sector. We point to CARB's recent withdrawal of the emissions targets under the PE-ACTM because technology CARB predicted would become available has in

fact not become available, as an example that underscores this concern. We question the assertion that “[t]he added introduction of zero emission [GSE] will act as a catalyst further zero emission equipment penetration in the off-road equipment sector and other heavier duty cycle and longer-range applications.” Draft Action Plan at C-55. While we agree that success in the GSE market would spur success in other markets, our experience is that manufacturers are more likely to focus on equipment with larger markets first.

- To the degree adoption and deployment of certain technologies depend on the existence of supporting infrastructure, any measure that may require or effectively require the adoption of such technology must not be implemented unless and until that supporting infrastructure is in place. This is important, for example, with respect to electric GSE as its deployment is necessarily dependent not only on the existence of reliable, robust infrastructure at airports (charging stations, generators, etc.) but infrastructure off-airport (the broader electric utility system) as well.
- The analysis of “estimated costs” (put forth in the referenced Proposed SIP Strategy) is not sufficiently transparent and the preliminary conclusions presented appear wildly optimistic, in particular that the “annual O&M savings of \$5 million” will exceed the “\$4 million in capital expenditures” needed to electrify GSE and that this will “allow[] regulated entities to recoup up-front capital costs within the first year of operation” (Proposed SIP Strategy, Appendix A at 13) . On this analysis – which projects a \$40 million cost savings through 2031 – the market arguably would drive the adoption and deployment of electric GSE, making the expenditure of time and resources in developing and administering a regulation unnecessary. However, the estimates themselves appear flawed. It appears (though it is impossible to assess until the underlying cost analysis is made available) that “capital costs” here are limited to the estimated costs of acquiring new equipment (which also cannot be evaluated absent the underlying analysis). This is obviously underinclusive: for example, infrastructure costs also need to be included – we note that while such costs typically are incurred by airports in the first instance, they are almost always recovered in full from airlines through landing fees and other payments; to the degree they may be covered through incentive programs like VALE, airlines and their passengers are the ultimate source of the vast majority of the funds.³⁰ The cost estimates also do not appear to account for other potential increased costs, such as those associated with disposal of spent batteries. The cost savings also appear to be greatly overstated. It is particularly important to have a clear understanding of potential costs when, as noted above, the currently projected emissions benefits are very small.
- We will look forward to working with the State as it considers options for moving forward with these actions, particularly with respect to evaluating the projected costs and benefits. Given the information presented here, it appears to us that it would be more fruitful to pursue positive, incentive-based approaches to achieving further reductions in GSE emissions as opposed to mandatory regulatory actions.

³⁰ As noted above, VALE is funded through AIP grants (AIP is largely funded through taxes on airlines and their passengers) and PFCs (federally-approved local taxes on passengers that are collected by airlines and remitted to airports).

Actions 4.D.3 & 4 - Assess the Inclusion of Aviation . . . Fuels in the Post 2020 Cap-and-Trade Program [and the] Post 2020 Low Carbon Fuel Standard Program

A4A shares California's goal of incentivizing the development of alternative jet fuels as a means of reducing freight sector emissions. As discussed above, A4A and its members have worked extremely hard to lay the groundwork for the establishment of a sustainable alternative jet fuel industry capable of producing significant quantities of such fuel. This is a key pillar in the industry's continuing commitment to improving its environmental performance and, in particular, achieving its 2020 carbon neutral growth goal. Alternative jet fuel also has significant criteria pollutant co-benefits, including a greater than 50% reduction in PM emissions compared to conventional jet fuel.³¹ Again, our members have already entered off-take contracts for significant quantities of renewable jet fuel that will be produced in California and used for flights originating in California. These agreements demonstrate that the airline industry is uniquely situated to play a critical role in helping to obtain financing for facilities through dedicated offtake agreements or equity financing.

The current Cap and Trade and LCFS programs (correctly) include explicit exemptions for jet fuel in recognition of exclusive federal jurisdiction over regulation of jet fuel. As A4A emphasized above and in past comments on the Cap and Trade Program, both the Clean Air Act and federal aviation laws preclude California from regulating aircraft emissions or activities associated with the operation of aircraft.³² However, California should pursue voluntary cooperative efforts that will appropriately incentivize the use of low carbon, sustainable alternative jet fuel to enable California and the aviation industry to meet our shared emissions reduction goals. Indeed, A4A believes commercial airlines could have even more success in securing production of sustainable alternative jet fuel if producers were able to generate credits under the LCFS on an opt-in basis. Such an approach would significantly improve the economics of new and existing facilities by allowing them to generate credits from all transportation fuels produced, create additional compliance flexibility for regulated parties, and make California the undisputed hub of sustainable alternative jet fuel production and deployment. As a result, A4A has consistently urged CARB to amend the LCFS to include sustainable alternative jet fuel as an eligible credit-generating fuel on a voluntary opt-in basis, which would fully incentivize its production without impermissibly subjecting jet fuel to annual "carbon intensity" standards.³³

Action 3.1 – Aviation Efficiencies: National Satellite-Based Air Traffic Management System

A4A and our members have strongly supported implementation the Next Generation Air Transportation System and airlines have already invested hundreds of millions of dollars to deploy and use NextGen technologies. Our focus has been on implementing the elements for which a strong business case can be made. We welcome the State's support for NextGen, including provision of funding, to the extent such support is consistent with the FAA's role as the agency with exclusive authority and control over the National Airspace System and welcome the opportunity to confer with the State regarding this effort.

³¹ See <http://www.virent.com/news/virent-bio-jet-provides-more-than-50-reduction-in-particulate-matter-emissions/>

³² See A4A Comments on Preliminary Draft Regulation for a California Cap and Trade Program, January 11, 2010.

³³ See, e.g. A4A Comments on Proposed LCFS Readoption, February 17, 2015.

CONCLUSION

We appreciate the opportunity to comment on this Draft Action Plan. We continue to strive to improve our environmental performance and contribute to the prosperity of California and its residents and, in that spirit, look forward to conferring with the Agencies as they refine and finalize the Draft Action Plan.

Sincerely yours,

A handwritten signature in black ink, appearing to read 'Tim', with a large, stylized initial 'P' or 'R' above it.

Timothy A. Pohle
Senior Managing Director, Environmental Affairs