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April 17, 2018

The Honorable Edmund G. Brown, Governor California State Capitol Sacramento, CA 95814

Re: <u>CEC's Proposed Investment Plan for Alternative Fuels Does Not</u>

<u>Comply with Statutory Requirements and State's Climate Policies.</u>

Dear Governor Brown:

We are writing on behalf of the state's biofuels producers and users to urge the Administration to revise the Draft Investment Plan for the Alternative and Renewable Fuels and Vehicle Technology Program (ARFVTP). The Draft Investment Plan¹ fails to include any funding for biofuels, which can provide the lowest carbon fuels of any kind and are a critical part of the state's strategy to meet its 2030 climate targets. The Draft Investment Plan also fails to include funding for near-zero emission vehicles that can provide the greatest reductions in toxic air contaminants and black carbon emissions, which are also required by state law.

¹ California Energy Commission, Second Revised Staff Report: 2018-2019 Investment Plan Update for the Alternative and Renewable Fuel and Vehicle Technology Program, released March 2018. CEC-600-2017-010-SD-REV2.

Adopting the Draft Investment Plan without including any ARFVTP funding for these two categories would be arbitrary and capricious given the statutory program requirements and the state's policies on climate change, short-lived climate pollutants, and sustainable freight. We urge the Administration, therefore, to revise the Draft Investment Plan to include funding for low carbon biofuels and near-zero emission heavy duty vehicles that can run on those fuels.

1. Statutory Requirements of the ARFVTP

The ARFVTP was created by AB 118 (Nunez, 2008) and amended by AB 8 (Perea, 2013). According to AB 118, the "emphasis of this program shall be to develop and deploy technology and alternative and renewable fuels in the marketplace, <u>without adopting any one preferred fuel or technology</u>."² (emphasis added)

In addition, the ARFVTP must maximize achievement of the following:

- "(1) The project's ability to provide a measurable transition from the nearly exclusive use of petroleum fuels to a diverse portfolio of viable alternative fuels that meet petroleum reduction and alternative fuel use goals.
- (2) The project's consistency with existing and future state climate change policy and low-carbon fuel standards.
- (3) The project's ability to reduce criteria air pollutants and air toxics and reduce or avoid multimedia environmental impacts."

By failing to maximize any of these goals, adoption of the Draft Investment Plan would violate state law and be arbitrary and capricious.

2. The Draft Investment Plan Fails to Adopt a Diverse Portfolio of Alternative Fuels.

AB 118 requires the CEC to fund a diverse portfolio of viable alternative fuels.⁴ Yet the Draft Investment Plan would zero out all ARFVTP funding for low carbon fuel production. It would also zero out all funding for natural gas vehicles and fueling infrastructure.⁵ As proposed, the Draft Investment Plan does not constitute a "diverse portfolio" as required by state law. The Draft Investment Plan would promote only two vehicle technologies, electric and fuel cell vehicles, and would not promote any alternative fuels. It would fail to promote cleaner vehicles and fuels in the most polluting vehicle category, which is heavy duty trucks, and it would fail to promote fuels like biomethane that can reduce the emissions of short-lived climate pollutants.

² Health and Safety Code § 44272(a).

³ Health and Safety Code § 44272(c).

⁴ Health and Safety Code § 44272(c)(1).

⁵ Table ES-3, page 7.

AB 118 includes numerous references to the importance of funding a diverse portfolio and not limiting investments to a single technology or fuel.⁶ It also refers to the need to address light-, medium, and heavy-duty vehicles and specifically mentions biomethane, ethanol and biodiesel as eligible fuels.⁷

While the Draft Investment Plan proposes allocating \$25 million from the Greenhouse Gas Reduction Fund (GGRF) to low carbon fuel production, the California Energy Commission cannot control the allocation of GGRF funds, which may or may not happen in the future. Even if the Legislature agrees to allocate GGRF funding to alternative fuels, that does not meet the statutory requirements of AB 118 and AB 8 to invest ARFVTP funding in a diverse portfolio of technologies and fuels.

3. The Draft Investment Plan is Not Consistent with the State's Climate Change Policies.

State law requires the ARFVTP funding plan to be consistent with the state's current and future climate policies.⁸ The Draft Investment Plan is not consistent with the 2030 Climate Change Scoping Plan, Senate Bill 1383, or the Short-Lived Climate Pollutant Strategy. The 2030 Scoping Plan calls specifically for the production of more clean, renewable biofuels, cleaner freight and goods movement, and slashing "superpollutants" from dairies and landfills,⁹ which can be done by converting the methane from those sources to low carbon biogas for vehicle fuel use. The Scoping Plan also calls for a "balanced mix of strategies" to provide California with "the greatest level of certainty in meeting the [climate] target at a low cost while also improving public health, investing in disadvantaged and low-income communities, protecting consumers, and supporting economic growth, jobs and energy diversity." ¹⁰

The 2030 Scoping Plan calls specifically to increase the instate production of renewable gas to reduce Short-Lived Climate Pollutant emissions. The Scoping Plan proposes:

"using more renewable gas – a valuable in-state resource made from waste products – especially in the transportation sector. Replacing fossil fuels with renewable gas can reduce potent short-lived climate pollutants, and state policies

⁶ Health and Safety Code §§ 44272(a), 44272(c) and 44272(e).

⁷ Health and Safety Code § 44272(e)(1).

⁸ Health and Safety Code § 44272(c)(2).

⁹ California's 2017 Climate Change Scoping Plan, released by the California Air Resources Board, November 2017, at page ES4.

¹⁰ Id.

should support this effort. Reducing demand for natural gas, and moving toward renewable gas, will help California achieve its 2030 climate target."¹¹

The 2030 Scoping Plan goes on to say that meeting our climate goals while growing the economy depends on transitioning the state's transportation system to one powered by ZEV's <u>and low carbon fuels</u> and calls for the "research, development and deployment of low carbon fuels such as renewable gas." The need to include both zero tailpipe emission and low carbon fuels is demonstrated clearly by the fact that biofuels currently provide 94 percent of the state's Low Carbon Fuels by volume and 89 percent of the LCFS credits. 13

We cannot overstate the importance of biofuels to meet the state's climate change goals. The 2030 Scoping Plan estimates that more than half of the state's climate pollution reductions will come from three sources: 1) reduction of Short-Lived Climate Pollutants, 2) greenhouse gas reductions from the freight sector, and 3) biofuels production.¹⁴ In other words, without a significant focus on SLCP reduction, freight sector emissions and biofuels, California will not meet the requirements of SB 32 (Pavley, 2016) and SB 1383 (Lara, 2016).

Biofuels can also provide the very lowest carbon fuels and the only ones that can significantly reduce short-lived climate pollutant emissions. Biogas from dairy waste and from diverted organic waste (that would otherwise be landfilled) are the only two fuels that are certified as carbon negative by the California Air Resources Board. Dairy biogas has a lifecycle-based carbon intensity of -276 grams CO₂e/MJ. Biogas from diverted organic waste has a lifecycle- based carbon intensity of -31 grams CO₂e/MJ. Biodiesel and renewable diesel can also have lower carbon intensities than electric vehicles running on the California power grid.¹⁵

To ignore the state's climate analysis and strategy, as adopted by the California Air Resources Board, is arbitrary and capricious and should be corrected before the adoption of the ARFVTP Investment Plan. Failing to allocate any ARFVTP funding to biofuels hardly constitutes the "balanced mix of strategies" called for in the state's climate change plan. To include no ARFVTP funding for the lowest carbon fuels does not meet the most minimal standard of reasonableness given the state policies that ARFVTP funding is intended to help achieve.

¹¹ Id. at page ES11.

¹² Id. at pages 73 and 77.

¹³ ARB staff update on the LCFS, presented to the California Air Resources Board, June 22, 2017.

¹⁴ Id. at page 28.

¹⁵ https://www.arb.ca.gov/fuels/lcfs/fuelpathways/fuelpathways.htm.

4. The Draft Investment Plan Fails to Maximize Reduction of Criteria Air Pollutants and Air Toxics.

The ARFVTP must also maximize the reduction of criteria air pollutants and air toxics, ¹⁶ which it cannot do if it fails to provide any funding to replace the most polluting vehicles on the road. Heavy duty, diesel powered trucks are the largest source of smog-forming pollutants and toxic air contaminants in both the South Coast and the San Joaquin Valley Air Districts, which are the two most polluted air districts in California and are both in extreme non-attainment for federal air quality standards. In the San Joaquin Valley, heavy duty diesel trucks cause almost half of all smog-forming pollution. ¹⁷ Diesel powered trucks are also the largest source of particulate matter and toxic air contaminants.

Yet the Draft Investment Plan would provide zero funding to replace the dirtiest vehicles on the road with advanced vehicles that cut air pollution by 90 percent or more compared to diesel powered trucks. According to the Air Resources Board, near-zero emission natural gas trucks can cut smog forming and toxic air pollutants by at least 90 percent. According to UC Riverside, the onroad pollution reduction is closer to 99 percent. The Draft Investment Plan will not only fail to maximize reduction of air pollutants, it will utterly ignore the largest sources of air pollution and air toxics. Doing so clearly violates the statutory requirements of the ARFVTP.

Investing all of the ARFVTP funding in technologies that make up a small percentage of the market will make it harder to achieve state and federal air quality standards. Governor Brown's Executive Order on ZEV's sets a goal of 5 million ZEV's on the road in 2030. That leaves more than 25 million other vehicles that will not be ZEV's, yet the Proposed Investment Plan would provide zero ARFVTP funding to reduce the climate and air pollution from 83 percent of the vehicles on the road in 2030. This is simply not a reasonable allocation of funding given the urgency – and the legal requirements – to maximize reductions in criteria air pollutants and air toxics.

In addition, all fuels and vehicles should be subject to a full well-to-wheels impact analysis, including the impact of on-road emissions and not just chassis dynamometer studies. This should include criteria pollutants, GHG and air toxics. The is no such

¹⁶ Health and Safety Code § 44272(c)(3).

¹⁷ San Joaquin Valley Air Pollution Control District, presentation by Dave Warner to the Dairy Methane Working Group, Sacramento, May 23, 2017.

¹⁸ Air Resources Board Executive Order G-14-012 (issued Sept. 10, 2015), certifying that the Cummins Westport natural gas engine meets the optional low NOx standard of .02 grams per brakehorse hour and actually achieves .01 grams.

thing as a Zero Emission Vehicle. All vehicles have an impact and to say otherwise is misleading.

5. The Draft Investment Plan Ignores the Statutory Requirement to Consider the "Benefit-Cost Score" of Different Fuel and Vehicle Categories.

AB 8 requires the Commission to consider the cost of air pollution reductions per dollar of ARFVTP funding. Despite the statute's clear direction to consider the cost benefits of different investments, the Draft Investment Plan ignores this direction entirely when choosing the overall funding categories - which technologies and fuels to fund. Instead, the Draft Investment Plan states that it will apply the required benefit-cost score when choosing between different projects in the same funding category, whether or not the overall funding category can provide the highest benefit-cost score.

This interpretation contradicts the clear intention of the statute to prioritize projects with the greatest climate and air quality benefits per dollar of ARFVTP investment. To ignore that direction when choosing the overall funding categories and apply it only at the project specific level fails to meet statutory intent to maximize cost-effective investments.

6. The Draft Investment Plan Claims, Falsely, that It Aims to Expand Production of Waste-Based Biofuels.

The Draft Investment Plan asserts that one of its goals is to expand production of waste-based fuels in California, which are biomethane and biodiesel, yet the proposed funding plan includes no ARFVTP funding for these fuels. As the Draft Investment Plan states:

Biofuels, defined in this document as nonpetroleum diesel substitutes, gasoline substitutes, and biomethane, represent the largest existing stock of alternative fuel in the California transportation sector. In addition, production of and demand for renewable hydrogen are expected to increase in the coming years as more hydrogen fuel cell electric vehicles are sold. One goal of the ARFVTP is to expand the production of low-carbon, economically competitive fuels from waste-based and renewable feedstocks in California.¹⁹

The Draft Investment Plan is correct that one of the goals of the ARFVPT is to expand the production of lo-carbon, economically competitive fuels from waste-based and renewable feedstocks in California. Yet the Draft Investment Plan allocates no funding to these fuels. At best, this language is misleading since it is not possible for the ARFVTP to produce an increase in waste-based and renewable fuels if the ARFVTP provides zero funding for those fuels.

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¹⁹ Draft Investment Plan at page 62.

Conclusion

The Draft Investment Plan fails to meet the statutory requirements to fund a diverse portfolio, to be consistent with the state's climate policies, and to maximize air pollution reductions. Adoption of the Draft Investment Plan without including funding for low carbon biofuels or near-zero emission trucks that can run on those fuels would be arbitrary and capricious. We urge the Administration, therefore, to include funding from the ARFVTP for low carbon biofuels production and the trucks that can run on those fuels.

Sincerely,

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